CURRENT TRENDS IN ORGANIZATIONAL PERFORMANCE AND FUTURE PERSPECTIVES

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Current trends in organizational performance and future perspectives

Guest editor: Dr. Chou of Xanadu Linjie

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FOREWORD

As we have entered into a new era of organizational performance research, the new innovative benchmark of management, optimization, technological advances and ergonomic factors are all changing its facets rapidly. Scholars and researchers in organizational performance research thus will encounter more and more challenges from both the practical and theoretical development.

Recently, the American Association of Management Survey asked 1,369 respondents about a comprehensive list of characteristics associated with superior performance results. It concluded that superior performers by inquiring about revenue growth, market share, profitability, and customer communication. The research team correlated results about market share with answers relating to strategy, leadership, customer communication.

The changes we are facing today can be summarised as the followings. Performance management is a pass way for structuring a shared understanding of what is to be accomplished at an organization level. The traditional structure of communication today is however being much replaced by the internet technology even the new social media, a update knowledge in managing these technologies is therefore very crucial for today's decision makers and managers. In today's globalized world, the structure of communication is very different from a decade ago, the organizational goal alignment also experiences new dimensions that would never been possible in the old days.

Secondly, Organizational performance also involves the alignment of organizational goals with the stakeholders agreed measures, competences. The focal point on performance improvement through learning and human capital is the corner stone. However, the measures, competences required for modern employees are also changing in it's core due to the political and technological shifts.

We are living in a rather complicated world today, in which what was once worked for us has no effective application for the new agendas anymore. Scholars and researchers must also switch their mind-sets and have the will to explore the frontier of organizational performance research.

Performance management is a systematic process which a manager can use to get the stakeholders to achieve the team's goals and targets, so to improve overall effectiveness and applicability, develop performance capabilities.

Last but not the least, both for profit and non profit organizations can benefit from reading these research findings across different sectors.

Guest editor:
Dr. Chou of Xanadu Linjie

ORIGINAL RESEARCH PAPER

EVALUATING THE PERFORMANCE OF ORGANIZATIONS BASED ON THE PERFORMANCE PRISM MODEL

(CASE STUDY: RELIEF COMMITTEE OF EAST AZARBAIJAN PROVINCE)

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Abstract:

In this study, it is paid to evaluate the performance of Relief Committee of East Azarbaijan province based on the Performance Prism. The population in this study were all employees of the Imam Khomeini Relief Committee of province and to test hypotheses, the valid test of Univariate t-test was used. The performance of Relief Committee in East Azarbaijan province based on the Performance Prism is average. The performance of Relief Committee of East Azarbaijan in the context of meeting the needs of stakeholders is higher than average. The performance of Relief Committee of East Azarbaijan in the field of strategies to meet the needs of stakeholders is average. The performance of Relief Committee of East Azarbaijan in the development of capabilities needed for the implementation of organizational processes is in average. The performance of Relief Committee of East Azarbaijan in the field of getting assistance expected from stakeholders show average level.

JEL *classification: D20, D29*

Keywords: *Performance evaluation - Relief Committee - East Azarbaijan*

1. INTRODUCTION:

In complex, prestigious and competitive world of present era cannot be run organizations with limited access to information and human resources, without tools and simple processes effective management of human resources, in this context, most organizations create a continuous process for managing the organization and evaluation of the organization's performance objectives (Neely, Adams, 2003). Dating back to the formation of a formal performance evaluation system goes back to three centuries ago and over time has become more perfect every day according to the needs of the organization, a proper performance evaluation system if competence is designed according to the organization, can be established by an organization and be effective in improving employee performance (Helene, Lusthaus, Anderson,2002). Today, a different approach is designed to evaluate organizational performance and has been working in these different needs of the various aspects to be looked, performance reviews could be a basis to identify weaknesses and development needs of the organization; this can be achieved only if there is a performance evaluation criterion, reliable and agreed. More complex administrative and economic relations and issues management on the one hand and failure related to the financial measure to evaluate performance on the other caused that expert's dependence management to evaluate the performance of their weak financial author and looking for new component for the evaluation of organizational performance, because the failure of financial measures and traditional evaluation methods more than ever before. In the era of knowledge-based economy activities creates value for organizations not rely only on tangible assets are the knowledge and capabilities of staff, relationships with customers and suppliers, quality products and services, information technology and corporate culture, assets are far more valuable than physical assets and the ability of organizations to use the original value of intangible assets marks them and componentbased financial measures do not have the ability to assess their impact on the success of an organization's intangible assets and reflection. Evaluations based on measures of financial performance too much weight to short-term gains and losses are organizations and the major factors affecting their profit figures. In this regard, all positive measures to reduce costs and increase revenue are evaluated. While for some organizations primarily financial factors

such as interest income increase is not defined. Imam Khomeini Relief Committee which is responsible for a specific task, based on the components of financial performance measures are not presented. Imam Khomeini Relief Committee, with the aim of helping poor communities, aid the needy and deprived the victims and self-sufficient has been completed.

2. PREVIOUS FINDINGS SURVEY (SCIENTIFIC RESEARCH)

Kourosh Parvizian - Nasser Ghasemkhani - Farzaneh Dehghan Nayeri in a study entitled: performance assessment methodology based on performance prism framework and Balanced Scorecard. Also, the strengths and attributes of the model code of practice for selection of performance indicators has been the subject of attention in this article and a model for evaluating the performance of the organization in SaipaYadak Company according to the model above is provided. Also, the methodology to implement this model, RUP approach based on the establishment of software systems and PMBOK in project management have been proposed (Parvizian, Ghasemkhani, Dehghan Nayeri, 2006). Karimi Dastjerdi, in a study entitled: Charter Performance Framework beyond the Balanced Scorecard to assess the performance of the organization writes as follows:

Although this article focuses on the areas of performance evaluation indicators through the prism of gas transmission operations performance but mathematical model "pseudo-cover multi-part" is also used in the evaluation, briefly introduced (Karimi Dastjerdi, 2009). Iranzadeh, Barghi (2009) in a study entitled: organizational performance evaluation model scored (BSC) in each of the indicators examined and compared them with the actual performance of the company's management has put an image of the organization to take appropriate measures to improve and create appropriate infrastructure to improve organizational performance, to secure their organization meet the challenges of globalization and increasing competitiveness in the global environment. To determine the performance of processes has attempted to identify key processes and then according to the organization's strategies to predict the performance of their status according to their performance and finally to determine the growth and development of the organization and the learner, the organization of questionnaires to determine the amount of learning in organizations is used (Iranzadeh, Barghi,2009). Moosakhani et al. in a study entitled: providing a conceptual framework for evaluating the performance of universities in Leadership and Educational Administration Quarterly, published writes: In this study, shown by indicators of organizational performance evaluation system can be prioritized in the context of 360-degree feedback can be used to evaluate universities (Moosakhani, 2009). Beigi and Fetri (2008), measuring the impact of human capital on organizational performance Iranian banking industry. Estimated final model represents an interpretation of the variance in organizational performance is our human capital in the banking industry is that bodes well for future research on other grounds (Beigi, Fetri, 2008). Baghbanian brave and investigate the relationship between intellectual capital and organizational performance in research as Iran's Banking Industry: A Case Study in Kurdistan province in Eghtesad Novin write: Estimated final version reflects the positive impact of each of the components of intellectual capital on organizational performance banking industry is to arrange human capital, structural capital and customer capital are the most effective (Shojaei, Baghbanian, 2009). Jahangiri et al. (2008) investigating the effects of social capital on the performance of women's rights NGOs from the perspective of social change has been accompanied by civil society with the establishment of non-governmental organizations. The results show that there is no significant relationship between marital status, ethnicity, education level members and their spouses and dependent variable (performance) but there is a relationship between structural and cognitive social capital indicators of performance in such a way that an increase in this type of variable and its performance increases (Jahangiri, Shokri, 2010). Abbas Pour, Baroutian (2009) paid to investigate the relationship between effective communication and organizational performance (based on the model consist) at the headquarters of the National Gas Company, this study was conducted to investigate the relationship between effective communication and organizational performance

(based on the model consist) descriptive - solidarity among the administrative units of National Iranian Gas Company employees in 2009. Finally, the results of this study showed that there is a significant relationship between effective communication and organizational performance in the study population (Abbas, Baroutian, 2009). Feghhi (2006) evaluate key performance factors services organizations scored one of the recommended strategies to implement the strategy across the organization, using balanced score or BSC2 method for evaluating performance. Finally, summarize the results showed that the key performance factors are population less conventional method of BSC and performance of BSC methodology in population does not have a unified position (Feghhi, (2006). Khaleghi et al. (2007) evaluate the performance of development organizations Ministry of Industry. Results are ranked based on evaluation criteria, was the most important activity for any organization in the areas of identification and its performance is evaluated based on two questionnaires. Activities included practical strategies to reduce the gap and increase the competitiveness of the private sector is considered (Khaleghi et al., 2007).

3. THEORETICAL FOUNDATIONS

Because the content of the performance is the measure of its wide scope and extent, on the other hand, according to the specific characteristics of the Imam Khomeini Relief Committee, the researcher to select the method of performance measurement in this study, the model code of practice used, this model has been developed by Indigo and Adams and comprehensive framework for linking different parts of the performance evaluation. Components of this model of performance evaluation include: ☐ Satisfaction of stakeholders

- Adopt strategies

- Processes for strategy implementation strategies

- Capabilities needed

- Assist stakeholders

In the first aspect, the key question that is raised is "Who are our stakeholders and what are their needs and desires?" The second model focuses on organizational strategies. Previously it was believed that the index must come from strategies. The question that is raised in this way is that "what strategies should be adopted to the needs of the stakeholders informed?" In the third aspect, it is necessary to answer the question "What processes are needed to implement the strategy?" In the fourth aspect of the organization's capabilities are examined. Capabilities include: business techniques, skills, technology and infrastructure that create value for stakeholders. The question that arises here is that "what capabilities are needed to run processes?" In the fourth aspect of the organization's capabilities are examined. Capabilities include: business techniques, skills, technology and infrastructure that create value for stakeholders. The question that arises here is that "what capabilities are needed to run processes?" The final aspect of the Charter is to aid the performance expectations of the beneficiaries. The question that must be answered is "to maintain and develop the capabilities, multi-stakeholder organization needs and what is expected? » (Neely, A, 2003).

Research objectives:

General Purpose: The purpose of this study was to determine and evaluate the performance of the Relief Committee of East Azarbaijan Province is based on performance charter that this goal can be divided into the following goals

Detailed objectives:

- Performance evaluation of the Relief Committee of East Azarbaijan Province in the context of meeting the needs of stakeholders.

- Performance evaluation of the Relief Committee of East Azarbaijan Province in the field of strategies to meet the needs of stakeholders.

- Performance evaluation committee for the implementation of the strategies of East Azarbaijan in the selection process.

- Performance evaluation committee of East Azarbaijan in the development of capabilities needed for the implementation of organizational processes.

- Performance evaluation committee of East Azarbaijan in the field of getting assistance expected from stakeholders.

- Performance evaluation of the Relief Committee of East Azarbaijan Province in the selection process for the implementation of the strategies.

- Performance evaluation of the Relief Committee of East Azarbaijan Province in the development of capabilities needed for the implementation of organizational processes.

- Performance evaluation of the Relief Committee of East Azarbaijan Province in the field of getting assistance expected from stakeholders.

Hypotheses:

Main hypothesis: Performance evaluation of the Relief Committee of East Azarbaijan Province on the basis of the performance charter is higher than average.

1. Performance evaluation of the Relief Committee of East Azarbaijan Province in terms of meeting the needs of stakeholders is higher than average.

2. Performance evaluation of the Relief Committee of East Azarbaijan Province on successful strategies to meet stakeholder needs.

3. Performance evaluation of the Relief Committee of East Azarbaijan Province in the selection processes for the implementation of strategies is higher than average.

4. Performance evaluation of the Relief Committee of East Azarbaijan Province in the development of capabilities needed for the implementation of organizational processes is higher than average.

5. Performance evaluation of the Relief Committee of East Azarbaijan Province in the field of getting assistance expected from stakeholders is higher than average.

The population, sample and sampling method:

The population of this study consists of all employees Imam Khomeini Relief Committee of province based on information and data obtained is equal to the number of 550 people. Based on a formula to determine the sample size to 228 people was considered. Given that staff in Relief Committee are employed in different sectors, so the choice of subjects, stratified sampling method was used so that the selected employees from each section is equal to the ratio of its employees in the population.

Data collection tool

Data collection tools in this study in the framework of the questionnaire survey method. Questionnaire made related to the performance of its components are listed below: Stakeholder needs - strategies to meet the needs of stakeholders - the procedures for implementation of the strategy - the development of capabilities required to implement processes - obtaining contributions from stakeholders. For each of the components mentioned several questions (4 questions) scheme has been made in the questionnaire and the resultant of

questions related to variables specifies the components of question can be calculated and organizational performance.

4. ANALYSIS METHOD OF STATISTICAL DATA

Data analysis and data required in the present study was conducted in two distinct parts.

A: Cross section: In this section, using descriptive statistics, the percentage of each of the questions on the questionnaire were discussed.

B: Inferential section: In this section analyzing data using validated tests, univariate t-test paid.

Research Methodology:

According to the study, plans to pay without altering the variables detailed description of the variables related to organizational performance Imam Khomeini Relief Committee, the descriptive method and the best methods are most commonly used. On the other hand, this research is to solve the problems and shortcomings of the Imam Khomeini Relief Committee also will be used and in applied research theories, laws, principles and techniques that are developed in basic research to solve the administrative problems and taken real work in this regard and therefore can be considered research applied research.

The findings are as follows:

The main hypothesis: Performance evaluation of the Relief Committee of East Azarbaijan Province based on performance charter is higher than average. The main hypothesis topic of this research in the performance evaluation of the Relief Committee of East Azarbaijan Province is set based on performance charter. As the results shown in the above table shows a significant amount of t and the level achieved is equal to $t = 0.828$ and $p = 0.409$ and with respect to the amount obtained significant level of value ($p = 0.05$) is larger, it can be concluded that the null hypothesis is confirmed and performance evaluation of the Relief Committee of East Azarbaijan Province based on the performance charter is average.

Table 1: The one-sample t test statistics regarding to performance evaluation of the Relief Committee of East Azarbaijan Province on the basis of the performance charter

Description	Comparison value = 50			
	Mean	**Standard Deviation**	**T value**	**Significance level**
Performance evaluation of the Relief Committee of East Azarbaijan Province based on the performance charter	50.7	13.6	0.828	0.409

Source: Author

Hypothesis 1: Performance evaluation of the Relief Committee of East Azarbaijan Province in terms of meeting the needs of stakeholders is higher than average.

Subject Hypothesis 1 of this research on performance evaluation of the Relief Committee of East Azarbaijan Province is set in the context of meeting the needs of stakeholders. Researcher to test this hypothesis, one-sample t test is used, the results of the tests referred to in the table given below, as the results shown in the above table shows a significant amount of t and the level achieved is equal to $t = 3.868$ and $p = 0.001$ and the fact that one - much smaller than the amount of credits given level ($p = 0.05$) 2 - The amount was higher than the mean average compared, it can be concluded that the main hypothesis of a hypothesis is confirmed,

in other words Performance evaluation of the Relief Committee of East Azarbaijan Province is higher than average in terms of meeting the needs of stakeholders.

Table 2: The one-sample t test statistics regarding to performance evaluation of the Relief Committee of East Azarbaijan Province in terms of meeting the needs of all stakeholders

Description	Comparison value = 50			
	Mean	**Standard Deviation**	**T value**	**Significance level**
Meet the needs of stakeholders	53.9	15.3	3.868	0.001

Source: Author

Hypothesis 2: Performance evaluation of the Relief Committee of East Azarbaijan Province of strategies to meet the needs of beneficiaries is higher than average.

Subject Hypothesis 2 of this research on the success of Performance evaluation of the Relief Committee of East Azarbaijan Province is set in the context of strategies to meet the needs of stakeholders. Researcher to test this hypothesis, one-sample t test is used, the results of the tests referred to in the table given below, as the results shown in the above table shows a significant amount of t and the level achieved is equal to t =

0.494 and p = 0.622. Given that a significant amount obtained is greater than the value (p = 0.05), it can conclude that the null hypothesis is borne and Performance evaluation of the Relief Committee of East Azarbaijan Province of strategies to meet the needs of stakeholders is average.

Table 3: The one-sample t test statistics regarding to performance evaluation of the Relief Committee of East Azarbaijan Province of strategies to meet the needs of stakeholders

Description	Comparison value = 50			
	Mean	**Standard Deviation**	**T value**	**Significance level**
Adopt strategies to meet the needs of stakeholders	50.5	16.2	0.494	0.622

Source: Author

Hypothesis 3: Performance of the Relief Committee of East Azarbaijan Province in the selection process to implement the strategies above average.

Subject Hypothesis 3 of this research on the performance evaluation of the Relief Committee of East Azarbaijan Province examines the selection process for the implementation of strategies, the researcher to test this hypothesis one-sample t-test is used, the results of the tests referred to in the table given below, as the results shown in the above table shows a significant amount of t and the level achieved is equal to t = 0.704 and p = 0.482 and with respect to the amount obtained is greater than the significance level (p = 0.05), it can be concluded that the null hypothesis is confirmed and Performance evaluation of the Relief Committee of East Azarbaijan Province in the selection process for the implementation of the strategies is average.

Table 4: The one-sample t test statistics for the Performance evaluation of the Relief Committee of East Azarbaijan Province in the selection processes for the implementation of strategies

Description	Comparison value = 50

	Mean	Standard Deviation	T value	Significance level
Selection procedures for the implementation of strategies	49.2	16.4	0.704	0.482

Source: Author

Hypothesis 4: Performance evaluation of the Relief Committee of East Azarbaijan Province in the development of capabilities needed for the implementation of organizational processes is higher than average.

Subject Hypothesis 4 of this research on the Performance evaluation of the Relief Committee of East Azarbaijan Province is set development capabilities required to implement organizational processes. The researcher to test this hypothesis one-sample t-test is used, the results of the tests referred to in the table given below, as the results shown in the above table shows a significant amount of t and the level achieved is equal to t = 0.634 and p = 0.527 and with respect to the amount obtained is greater than the significance level (p = 0.05), we can conclude that the null hypothesis is confirmed and Performance evaluation of the Relief Committee of East Azarbaijan Province in the development of capabilities needed for the implementation of organizational processes is average.

Hypothesis 5: Performance evaluation of the Relief Committee of East Azarbaijan Province in the field of getting contributions expected of beneficiaries is higher than average.

Subject Hypothesis 5 of this research on the Performance evaluation of the Relief Committee of East Azarbaijan Province is set in the field of getting assistance expected from stakeholders. The researcher to test this hypothesis one-sample t-test is used, the results of the tests referred to in the table given below, as the results shown in the above table shows a significant amount of t and the level achieved is equal to t = 0.645 and p = 0.514 and with respect to the amount obtained is greater than the significance level (p = 0.05), it can be concluded that the null hypothesis is confirmed and Performance evaluation of the Relief Committee of East Azarbaijan Province in the field of getting assistance expected from stakeholders is average.

Table 5: The one-sample t test statistics for the Performance evaluation of the Relief Committee of East Azarbaijan Province in the development of capabilities needed for the implementation of organizational processes

Description	Comparison value = 50			
	Mean	Standard Deviation	T value	Significance level
Development of capabilities required for the implementation of organizational processes	49.3	15.6	0.634	0.527

Source: Author

Table 6: The one-sample t test statistics for the Performance evaluation of the Relief Committee of East Azarbaijan Province in the field of getting the assistance expected from stakeholders

Description	Comparison value = 50			
	Mean	Standard Deviation	T value	Significance level

Getting the assistance expected from stakeholders	50.7	16.4	0.654	0.514

Source: Author

The results of the study are as follows:

Performance evaluation of the Relief Committee of East Azarbaijan Province on the basis of the Charter of performance is average.

Performance evaluation of the Relief Committee of East Azarbaijan Province in terms of meeting the needs of stakeholders is higher than average.

Performance evaluation of the Relief Committee of East Azarbaijan Province of strategies to meet the needs of beneficiaries is average.

Performance evaluation of the Relief Committee of East Azarbaijan Province in the selection process for the implementation of the strategies is average.

Performance evaluation of the Relief Committee of East Azarbaijan Province in the development of capabilities needed for the implementation of organizational processes is average. Performance evaluation of the Relief Committee of East Azarbaijan Province in the field of getting assistance is expected from stakeholders is average.

5. THE RESEARCH PROPOSAL:

1. Since Performance evaluation of the Relief Committee of East Azarbaijan Province in terms of meeting the needs of stakeholders is higher than average. Therefore, senior officials can provide managers with reliable performance plan for employees and customers of its activities within the framework of a report of this increase and upgrade.

2. Since the performance evaluation of the Relief Committee of East Azarbaijan Province and the proper context of strategies to meet the needs of stakeholders is in average. Therefore, it is suggested to be studied organizations formed a committee to review and discuss strategies to meet stakeholder needs to be addressed in the study.

3. It is suggested that one of the priority research topics in the year under review strategies to meet the needs of stakeholders be considered.

4. Since the performance evaluation of the Relief Committee of East Azarbaijan Province in the selection process for the implementation of the strategies is average. Therefore, it is suggested implementation strategies through the heads of branch processes to be reviewed.

5. It is suggested that the experts who provide recommendations relevant to the processes of implementation strategies be encouraged.

6. Since the performance evaluation of the Relief Committee of East Azarbaijan Province in the field of getting assistance is expected from stakeholder's average, therefore, it is suggested for each of the stakeholders to be open access database and the help of the database fields to be brought and timely available and recyclable.

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AN INVESTIGATION OF THE EFFECT OF GREEN MARKETING ON CONSUMER PURCHASE BEHAVIOR

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Abstract

In recent years, growing concerns over the environment have emerged among scientific experts and marketing researchers and the experts have also shared the same concern in such a way that this has led to the introduction of a new concept of marketing known as "green marketing". This research has been performed with the aim of investigating the effect of green marketing on the buying behavior of the consumers. The statistical population of this study consists of the consumers of disposable plant pots in the city of Isfahan who have been selected by convenient sampling methods among 400 people who were the buyers of disposable plant pots. The conceptual model of the research was created according to theoretical studies. On this basis, the questionnaire was designed and the desired data were collected. Finally, the structural equation modeling was used to examine the hypotheses and it was found that each of the dimensions of awareness, attitude, characteristics and green advertisements had a positive and significant effect on the buying behavior of consumers but the price of green products had a negative effect on the buying behavior of green products.

JEL *classification: D23, D49*

Keywords: *green marketing, customer buying behavior, green advertisements, environmental vision, green product features*

1. INTRODUCTION

Environmental issues such as the gradual global warming and climate changes depend a great deal on consumption which has been made possible by international trade. Environmental contaminations caused by human products and consumptions are among the issues that have been known by the involved organizations as a threat to human life and some industries have begun to take actions such as green or ecofriendly marketing to reduce the environmental contaminations. It should be noted that the question of environment has transformed into a vital and very important issue for all the classes of the society including both producers and consumers. Traditional marketing puts too much emphasis on the customers' demands and does not consider social welfare and environmental issues, while this issue has emerged in all aspects of the organization and has led to the emergence of the concept of "green marketing". Here, we define the concept of "green". To give the label of 'green' to any products or processes, they must cause the least harm for the environment and consumer's health. In this way, the company ought to take some actions in making its activities green through disseminating information and attracting the attention of the consumers and informing them of its green marketing practices.

2. THEORETICAL BACKGROUND

In 1970, a new movement to protect the earth's environment came into being for the first time and was active in educating the people on the dangers of pollution, but it was an overwhelming task because people were not interested in the preservation of the environment. In 1990, however, people began to care more about the environment all over the United States as articles were published in renowned journals and newspapers and this might be viewed as a stepping-stone for the environment activists.

Green marketing is mainly posed as a general concept. This concept was raised in 1990 in Europe when certain products were considered to be especially harmful to the earth's atmosphere such as the release of phosphate. The issues of recyclability, interchangeability, being friendly to the ozone layer and advocating environmentalism are often the ideas that most customers associate with green marketing. These reforms are demands for green marketing and green marketing is a very broad concept that can be applied in the consumer and industrial goods and even services. Salmon and Stuart have defined green marketing as a marketing strategy that can be recognized through the creation of environmental benefits based on what the customer expects and what protects the environment. In 1976, the American Marketing Association defined green marketing as the study of the positive and negative aspects of marketing on pollution and the reduction of energy sources and other sources. In other words, according to "Polanski", green marketing includes all the activities that are done to facilitate and create the transactions in satisfying the needs and demands of supplies in a way that this fulfillment of needs and demands have the least harmful effect on the environment. An important goal of ecological design is the integration of environmental considerations in all stages of the product development process. In order to control all environmental impacts of a product, its environmental effect must be considered during the lifecycle of the product from the manufacturing to the consumption and even the end of the product life.

RESEARCH PURPOSES

With respect to the issues discussed above, the objectives of the study are the following:

- Review and provide theoretical discussions on the research subject and the factors influencing them from different scientific perspectives.

- Determine the impact of environmental awareness on green product buying behavior.

- Determine the impact of the awareness of the green product features on green product purchasing behavior.

- Determine the level of impact of the green product price on green product purchasing behavior.

- Determine the effectiveness of green advertising on green product purchasing behavior.

- Determine the impact of the individuals' environmental attitude on green product purchasing behavior.

Research hypotheses

Over the course of studies, green marketing affects the behavior of consumers in different ways. In this research, five hypotheses are expressed as below and their details appear in the description of the research conceptual model.

The first hypothesis: environmental awareness has a positive impact on green product purchasing behavior

The second hypothesis: the green features have a positive impact on the green product purchasing behavior relationship.

The third hypothesis: the cost of the green product has a negative impact on green product purchasing behavior.

Fourth hypothesis: green commercials have a positive impact on green product purchasing behavior.

Fifth hypothesis: the environmental attitude of individuals has a positive impact on the green product purchasing behavior.

THE CONCEPTUAL MODEL OF THE STUDY

Juwaheer et al. have shown in a research entitled as the influence of green marketing strategies on customer buying patterns that many consumers expressed a keen interest in protecting the environment and were highly concerned about the environment and its destruction (Juwaheer et al., 2012).). In another study, Boztepe concluded that the knowledge of the environment, the features of the green product, green commercials and the costs are influenced by the green buying behavior of the consumers and the demographic characteristics have a moderating effect on their relation (Boztepe, 2012). The findings of the study conducted by Lee show that the social effects, environmental concerns, mental image concern and the understanding of environmental responsibilities would respectively have the greatest effects on the young consumers' buying behavior (Lee, 2008). Hamdi et al. showed in a research that green products are known considerably among the young consumers in Tehran and social effects, environmental concern, understanding the importance of environmental problems, the individuals' perception of social responsibility, understanding the effectiveness of environmental behavior and the individual concern about the personal impression would affect the bias towards buying green products among young people (Hamdi et al., 2011). The findings of the study conducted by Kim and Chung showed that health mindfulness has no effect on the attitude towards the organic protective products but being aware of the environment and appearance has a positive effect on the attitude towards these products. Moreover, the effects of attitudes, subjective norms, perceived behavioral control, and the previous experience of the use of products were also confirmed among consumers. In addition, the results showed that the perceived behavioral control and attitude lead to the moderating effect on buying the organic personal care products (Kim, Chung, 2011). The results of the study conducted by Magistris and Gracia showed that the attitude towards organic foods and especially towards features such as the healthiness and care for the environmental issues are the most crucial factors explaining the decision-making process of the consumer in relation to organic foods. In addition, the most important pre-stimulus in the purchase of the organic products is the attitude towards these products because it has a stronger effect on the purchase intentions of these products compared to environmental concerns. In particular, this study demonstrated that consumers hold the belief that organic products are healthier and have a better quality compared to ordinary products and they have stronger tendencies for purchasing organic foods. Furthermore, it was noted that consumers that have stronger environmental concerns and are engaged in more environmental activities tend to buy these products (Magistris, Gracia, 2008).

The conceptual model is a hybrid model extracted from that articles written by Boztepe (2012), Juwaheer et al. (2012), and Lee (2008) and it has five hypotheses. The independent variables include environmental knowledge, environmental attitude, the green product features, the price of green products and green commercials and the dependent variable is the consumer buying behavior (i.e. Green Purchase).

Environmental knowledge

The knowledge of environmental issues is among the important variables in predicting human behavior. In fact, knowledge is viewed as a necessity for the successful fulfillment of activities and it is an instrument in overcoming the psychological obstacles such as ignorance and false information (Ferdowsi et al. 2007).

Camp et al. (1994) quoted Domina (322 – 248) according to their study and indicated the knowledge of recycling as one of the most significant predictors in taking part in recycling programs.

The present study aims to investigate the relationship between environmental knowledge and attitudes and behaviors in environmental protection. Compared to those with less environmental knowledge, people who

know more about the natural environment behave consistently with the protection of the environment and show a higher rate of green products purchase (Ferdowsi et al. 2007)
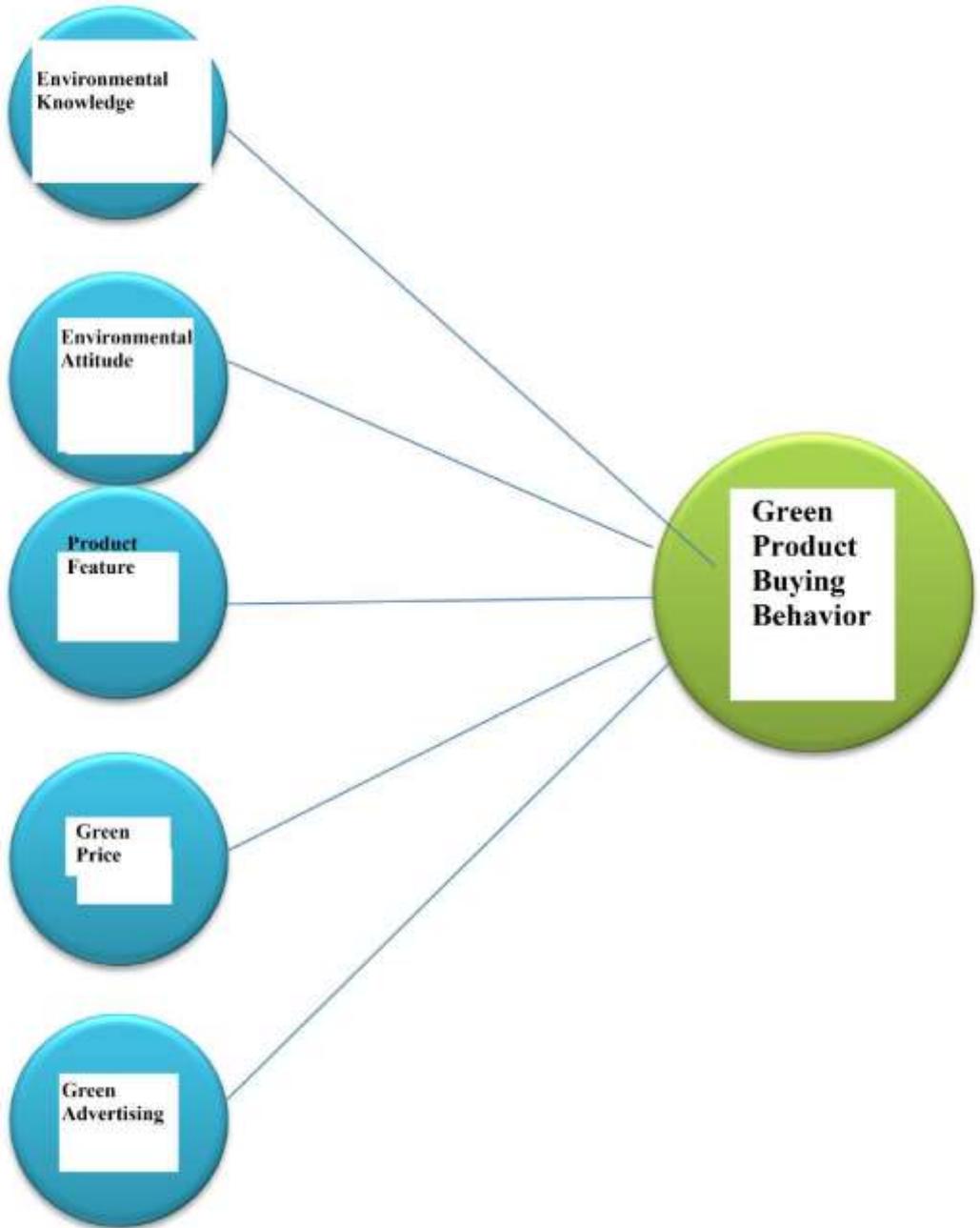
Environmental attitude

In addition to knowledge, one's attitude towards the environment and its importance in predicting the environmental behavior has long been of interest to researchers. For example, Eisen (1989) states that in

case individuals are not convinced that certain factors have a role in the destruction of the environment, they will not form a negative attitude towards them and one's knowledge of the environment affects one's attitude towards the environment. (Quoted from Keizer)

Figure 1: Research Model

The relationship between the natural attitude and the intention of green purchase has been extensively addressed and confirmed by marketing research. This shows that the environmental attitude affects the health and purchase of the green product. Paying attention to one's own health and the protection of the environment is one of the attitudes developed by consumers in purchasing goods. The consumer that protects one's health and the environment usually has a more positive attitude towards organic products and a stronger green incentive to buy such products (Newsom et al. 2005).

Green Product Features

The most important product of the marketing is the product promoted by ecological objectives that help to reduce the pollution. The characteristics of green products are broken into two general categories. The first category is associated with the social and environmental impacts of the product and the latter is related to the production process and the manufacturer (Kheiri, Ranjbar, 2011). Green products are defined as those products that are made of eco-friendly raw materials which are free of poisons and toxics and have been approved by an official organization. The ecological green labels are attached to green products and these labels can be seen on various products such as nutritional products, cosmetics, textiles, and so on. The term 'green' is associated with a product whose environmental and social performance in the manufacturing, consumption and disposal has been considerably enhanced compared to rival products. In other words, a green product is the one that is not harmful to the environment and also contains elements that are not potentially harmful to the environment (Borin et al., 2011).

The price of the green product

Chis and Gee have defined the green product as the adjustment of cost for the green products in such a way that the balance is maintained between the consumer's sensitivity to the cost and his tendency for more expenses in purchasing ecofriendly goods. Various studies indicate the importance of the prices in customer's purchase and his satisfaction. Therefore, the fairness of the price and the provision of good value for the expenses is particularly important (Kardashouli, Bozanjani, 2012).

Green Advertisement

The goal of green advertisement is to influence the consumer buying behavior by encouraging them to buy products that do not harm the environment. Moreover, to direct their attention to the positive impact of their buying behavior that benefits the consumers and the environment, green advertisers can promote a green lifestyle and explicitly clarify the relationship between their product and environmental factors (Kardashouli, Bozanjani, 2012)

3. RESEARCH METHOD

The current study is a causal research in nature and procedures because the researcher tries to examine the causal and effective relationship between the effects of green marketing on the buying behavior of consumers. In doing so, the statistical technique of structural equation has been used which is a way to investigate the causal relation between the variables. However, the method of this research is applied based

on the purpose of research as the results are achieved using the theories, behavioral sciences, management, and statistics from the population. The conclusions will be instrumental for those organizations and institutions that might be involved within the statistical population.

Research population and sample

The statistical population of the present study consists of all the consumers of disposable plant pots in Isfahan. We select a sample from the population as it is not possible to survey the entire statistical population on account of the widespread extent of the population. In fact, sampling is the process of selecting a part of the population as the representative sample. It is used as an alternative because the investigation of the entire sample members is time-consuming and costly. To perform the sampling, we consider the principles of determining the sample size in multivariate regression analysis in structural modeling. In the multivariate regression analysis, the relation of samples to independent variables should not be lower than 5, otherwise the results of the regression equation will not properly generalizable. The more conservative relation in this regard is 10 observations per each independent variable (Ashtiani, 2008).

According to the view described by James Stevens, even considering 15 observations per each predicting variable in the ordinary least squares method in multiple regression analysis with the ordinary method of the least standard squares is considered a good rule of thumb. In this study, the sample size has been calculated according to the following formula:

$$5q \le n \le 15q$$

As there are 27 items on the questionnaire, the minimum sample should be between 135 and 405. Given that the statistical population of the research consists of the consumers of disposable plant pots (i.e. Green Products) in the city of Isfahan, with the confirmation of the supervising professors and academic advisors, 400 questionnaires were prepared and the method of convenient sampling was used among the members of the population. In this way, the questionnaires were distributed and collected in four areas of Isfahan with the largest number of stores selling disposable plant pots and the customers who visited the shops to buy the products. Finally, 385 questionnaires were completed and used for the analysis.

Table 1: The sample frequency distribution of the buyers of disposable plant pots in four districts of the city of Isfahan

Sample Share n=400	Relative frequency	District population	Municipality district
81	%19	54853	District 1
103	%24	78214	District 2
92	%22	70596	District 3
124	%35	85796	District 4
400	%100	289459	Total

Source: Author

Table 2: The statistical description of the demographic characteristics

Frequency Percentage	Levels	Title of Demographic Variable
51/6 48/8	Male Female	Gender

21/0 18/8 47/3 12/9	High School Diploma Associate Degree BA MA and Higher Degrees	Level of Education
21/5 27/4 18/3 21/5 11/3	Younger than 24 Between 24 – 30 Between 31– 37 Between 38 – 44 45 and Older	Age

Source: Author

DATA COLLECTION INSTRUMENT

In this study, a questionnaire was used to collect data needed for the research. The questionnaire used in this study consists of 27 questions in relation to the effect of green marketing on the consumer buying behavior. The questionnaire of the present study has been extracted and designed based on the research performed by Boztepe (2012), Juwaheer et al. (2012) and Lee (2008). At the beginning of the questionnaire, a number of questions appear in order to develop the descriptive statistics and the demographic characteristics of the population. These components include gender, age and education. To measure the parameters in the questionnaires, the 5-point Likert scale has been used which is one of the most common scales of measurement. Below, the assignment of scores in the questionnaire has been explained.

The number and composition of research questions have been indicated based on the research variables.

Table 3: The composition of questions based on research variables

Number of Questions	Number of Questions	Variable
1-4	4	Environmental Knowledge
5-8	4	Attitude
9-13	5	Product Feature
14-18	5	Green product
19-23	5	Green Advertising
24-27	4	Consumer Buying Behavior

Source: Author

THE RELIABILITY AND VALIDITY OF THE QUESTIONNAIRE

Content validity is one of the methods used for determining the validity of a questionnaire. In this manner, the instruments or methods used in collecting the data have content validity if they include all the contents of the studied variable. The examination of variables in the present study has been conducted based on the research design from the studies conducted by Boztepe (2012), Juwaheer et al. (2012) and Lee (2008). The validity of the questionnaire has been confirmed and the Cronbach's Alpha has been used to examine the reliability of the questionnaire.

The formula of Cronbach's Alpha scale is as below:

$$r_a \; \square \; \underline{\qquad} N \; \square\square\square 1 \square \square S_i S_{2\,i}{}^2 \; \square\square\square\square$$

$$N \square 1\square$$

r_a : The reliability coefficient of the questionnaire

N: The number of questionnaire items

S_i^2 : The variance of responses to the "ith" question

S_{i^2} : The variance of all the responses to the questionnaire

Based on the opinions of the supervising and advising professors, 35 questionnaires were distributed to evaluate the reliability. Then, SPSS-13 software was used to determine the validity. As Cronbach's Alpha was 0797 and given that this value is above (0.7), it can be said that the questionnaire has adequate validity. Finally, Cronbach's alpha coefficient was calculated for the whole questionnaire as 0.832.

Table 4: The values of Cronbach's Alpha based on research variables

Cronbach's Alpha	Number of Questions	Variable
0/716	4	Environmental knowledge
0/871	4	Attitude
0/885	5	Product feature
Cronbach's Alpha	Number of Questions	Variable
0/789	5	Green price
0/907	5	Green advertising
0/949	4	Consumer buying behavior

Source: Author

Data analysis method

In this study, structural equation modeling was used to examine the relationship between the components of the model. Additionally, the researchers used the structural equation modeling to perform the confirmatory factor analysis. The hypotheses were analyzed by the LISREL software. In this process, a causal hierarchy is first introduced in which some variables can be the possible causes of other variables.

LISREL or the structural equation modeling is a powerful technique for the multivariate analysis of the multivariate regressions and is considered a development of "general linear model".

Chi-Square=351.96, df=137, P-value=0.00000, RMSEA=0.092
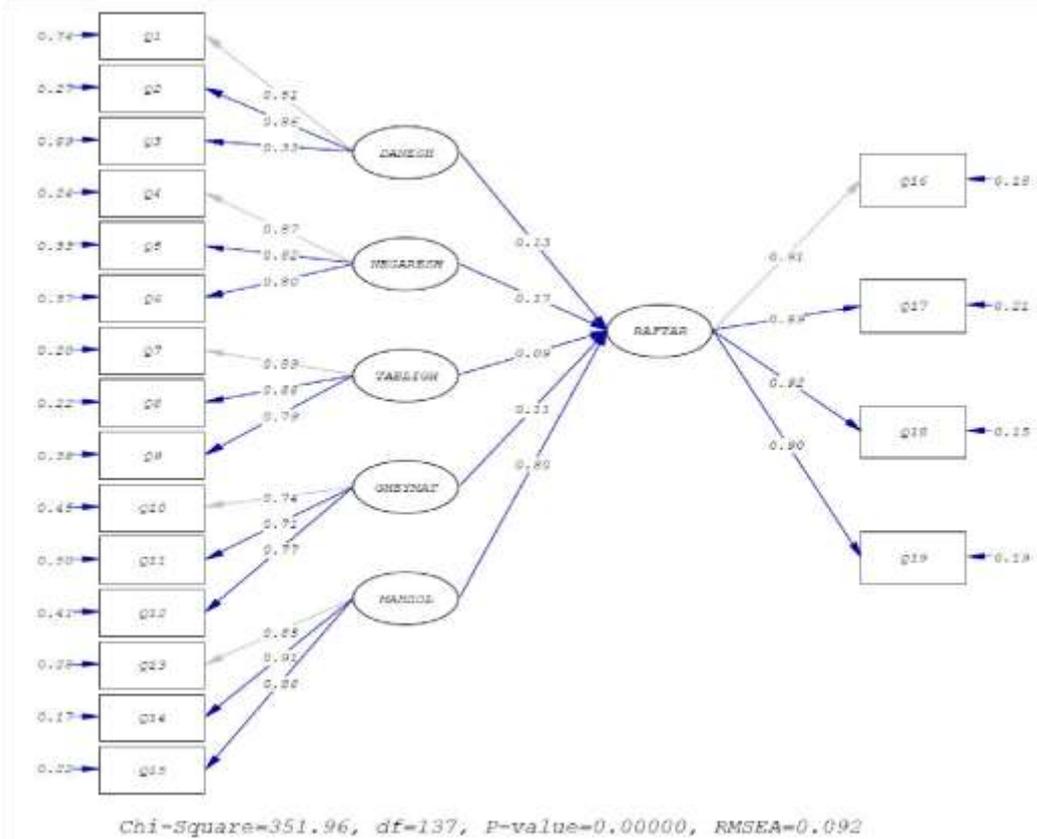
Figure 1: Standard coefficients of the structural model and the measurement of research hypotheses

In the structural equation modeling, a set of indicators should be considered to examine the fitness of the model. As can be seen in Table 6, the values of indexes (chi-square / degree of freedom, the non-normed fitness index, the comparative fitness index or the increasing fitness index) are at an appropriate level and present a good fitness. On the other hand, the indexes (root-mean-square error of approximation / rootmean-square error) are above average and close to the standard level. Therefore, these indexes show a suitable fitness.

Table 5: The fitness indexes of the research model

Index Measure	Standard Measure	Fitness Index	
137	---	Degrees of Freedom	Degree of freedom
351/96	---	Chi-Square	Chi-square
2/569	Below 3	$\chi^2 df$	Chi-Square/Degree of Freedom
0/092	Below 0.01	RMSEA	The Root-Mean-Square Error of approximation
0/077	Below 0.08	RMR	The Root-Mean-Square Error
0/95	Above 0.8	CFI	Comparative fitness index

| 0/95 | Above 0.8 | IFI | Increasing Fitness Index |

Source: Author

Table 6: Standard coefficients and the significant numbers of the model

Result	Standard Coefficient	Significant number	Hypotheses	Row
Confirmation	0/13	2/65	Environmental knowledge has a significant effect on the green product buying behavior (First Hypothesis)	1
Confirmation	0/17	2/05	Attitude has a significant effect on the green product buying behavior (Second Hypothesis)	2
Confirmation	0/08	8/53	The green product feature has a significant effect on the green product buying behavior (Third Hypothesis)	3
Rejection	0/11	1/09	Green price has a significant effect on the green product buying behavior (Fourth Hypothesis)	4
Rejection	0/09	1/00	Green advertising has a significant effect on the green product buying behavior (Fifth Hypothesis)	5

Source: Author

As seen in the results, the environmental awareness of the consumer green purchase behavior is (0.13) and given the fact that its significant number is (2.65) that is above (1.96), the first hypothesis is accepted. This shows the direct, significant, and positive effect of environmental knowledge on consumer buying behavior. As regards the second hypothesis, the effect environmental attitude on consumer buying behavior is (0.17) and given the fact that the significant figure with regard to this number is (2.05) which is greater than (1.96), the second hypothesis is also accepted. In the third hypothesis, the effect of the green product feature on consumer buying behavior is (0.08) and as the significant number is (8.53) which is above (1.96), this indicates a direct, positive and significant relationship between the green product attributes and the consumer buying behavior. In the case of the fourth hypothesis, the impact of price on the consumer buying behavior is (0.11) indicating a direct and positive relationship, but given that its significant number is (1.09) which is smaller than (1.96), then it is not significant and the fourth hypothesis is rejected. As for the fifth hypothesis, the impact of green advertisement on consumer buying behavior is (0.09) and as it is a positive figure, this indicates a direct relationship, but given that the significant number (1.00) is smaller than (1.96), then it is not significant and fifth hypothesis is rejected.

4. CONCLUSION

According to the analysis of data from each hypothesis, the derived findings and results are analyzed and presented separately. The first hypothesis is about the significant impact of environmental knowledge (awareness) on the buying behavior of green products. The research results show that this hypothesis has been confirmed. Therefore, it can be concluded that by increasing the environmental awareness of consumers, their buying behavior increases as regards the green products. Thus, in this regard, it is recommended that the consumers be encouraged to buy green products by raising the awareness and

knowledge of consumers about green products and the effects that the other green products can have on the environment. The second hypothesis is about the significant impact of environmental attitude on the buying behavior as regards the green product. The research results show that this hypothesis has been confirmed. Therefore, it can be concluded that with the increase in the environmental attitude of consumers, their buying behavior increases with respect to the green products. In this connection, it is recommended that the company should raise the consumer attitudes towards the environment and the use of these products by establishing seminars on environmental protection and supporting and participating in programs for protecting the environment, so that they would apply these issues in their buying behavior. The third hypothesis is about the significant impact of the features of green products on the green product buying behavior. The results show that this hypothesis has been confirmed. With respect to the results of this hypothesis, it is clear that the feature of green product has a positive effect on the green product buying behavior on the part of consumers of the products manufactured by Yves Rocher Company in the city of Arak and this hypothesis is accepted. Therefore, it can be concluded that with the promotion of the characteristics of green products, the buying behavior of consumers increases with respect to green products. Then, in this regard, it is recommended that the company buy raw material that do not harm the environment and can be recycled and generally produce less contamination in the environment. In this way, they promote the features of such products and leave a positive effect on the consumer buying behavior. The fourth hypothesis is about the significant impact of the price of the green products on the buying behavior of green products. The results show that this hypothesis is rejected.

Therefore, it can be concluded that by reducing the price of these products, the buying behavior of consumers in purchasing green products does not change. In this regard, it is suggested that the company adopt an appropriate process in prices and be aware of the prices of parallel products to determine a price for them. In this way, while competing with similar products, the company may get a considerable profit and create a special status for its products. The fifth hypothesis is about the significant effect of green product advertising on the consumer buying behavior. The results show that this hypothesis is also rejected. Therefore, it can be concluded that by creating appropriate advertisements for the products, the purchasing behavior of consumers in buying green products will not be promoted. The researcher believes that the reason why this hypothesis is rejected is the lack of trust among the members of the statistical population regarding the accuracy of the commercials. Moreover, given the fact that there is no scientific, accurate and consistent method in the area of advertisement, commercials do not play a major role in the consumers' choice.

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DESIGNING THE MODEL OF EFFECTIVENESS OF ELECTRONIC ADVERTISING ON CONSUMER BEHAVIOR

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Abstract

The aim of this study is to design the model of effectiveness of electronic advertising on consumer behavior. The Statistical population of this study is the customers and consumers of large stores supplying foodstuffs in the city of Shiraz who have used somehow the store's website. The sample size used in this study is 400 subjects. Cluster random sampling method has been used in this Statistical Society based on sighting the studied attributes with the highest estimated number of observed customers. To evaluate the reliability of the questionnaire Cronbach's alpha was used in this study. Coefficient of Cronbach's alpha was 0.92 for the whole questionnaire and fluctuates for its subscales between 0.76 and 0.98. Tests and statistical methods of factor analysis and structural equation modeling were used In order to analyze the data of the questionnaire and hypothesis test. The results show that by rejecting the first hypothesis and confirming the rest of the assumptions and other communications between the independent variables, the mediator and the whole dependent of the model is confirmed. That is to say that content and communication stimulants, by passing the process of influence, will reach to the behavioral response.

JEL classification: E1, M37
Keywords: *electronic advertising, advertising stimulants, the process of effectiveness, consumer's behavior.*

1. INTRODUCTION

Today, Internet is an important channel in marketing and advertising. The reason for this would be the Internet's ability to reduce costs and provide easy access to services. Advertisers can also easily access a multitude of users and communicate with them at low cost. In the meantime, however, the Internet, provides an efficient media for advertising but people are looking to maximize their investments in this category. Many studies and researches have been done on this basis and various advertising models were designed based on how people understand online advertising and what is their attitude toward it. Research results have shown that beliefs and attitudes of individuals toward Internet advertising are two important factors in evaluating Internet advertising. Many companies spend billions of dollars each year for advertising in various media. Despite the huge amount of money spent, there are some doubts about the ability of Internet advertising to attract customers through the sites and persuade them to buy (Lages, 2013). On the other hand, compared with traditional advertising, Internet advertising has significant advantages which the ability to create two-way communication with the audience, relatively low cost, universal and boarding access, improved notification, easy to update and accurate targeting of customers can be named (Dehdashti and NiakanLahichi, 2013).While the number of Internet users has risen in our country, the expansion of Internet users, market saturation, intensified competition, changes in customers' tastes and needs is why Iranian companies have faced several challenges in commercial and industrial activities (Bagheri and Ranjbari

2014).So, in such a situation, the importance of Internet advertising and the best use of the cost spent for it, is crucial. According to the new trend formed in the process of publishing advertisements as well as introducing new concepts such as web, real time, interaction, etc. it is essential for advertisers to gain the knowledge and understanding of the conditions and requirements of the new environment, how to publish advertisements in it and especially how to influence the consumer's behavior with recognizing the capabilities and the process of the influence of electronic advertising. With this background, the mission of this research is to search, review and analysis the capabilities and the process of advertising in new media (internet). Therefore, the explanation of the process of electronic advertising and how to influence consumer's behavior is considered.

2. THE IMPORTANCE AND NECESSITY OF THIS MATTER

Internet growth have prompted the formation of a cyber-culture, which has a particular form of procedure and for people who are involved in the process of production and web marketing, is a way to express their emotions. The importance of the Internet market has doubled with the increasing number of Internet users and results in the formation of a new philosophy in internet marketing in which the process of customer interaction is the most important aspect of it (Kord, 2013). So it can be said that, with the rapid growth of the Internet, a big impact took place that changed the traditional media. A large number of Institutes have used the Internet for marketing and sale of products, and now the Web has become an important advertising medium. Compared with traditional media, the Internet is associated with low cost and the global access ability (Asadi, 2012). Internet-based advertisingprovides a media forthe dissemination of information in the form of different scenarios of Interaction between customer and the Institute. It also helps to introduce the exact target markets and meet customers' needs precisely. In this way, advertisers can deal with market segmentation more accurately and closely targeting customer needs and this increases the brand value and creates a better brand image for the company as well as improving the interaction between customer and the Institute.

Studies suggest that, to increase the effectiveness and better use of this media, factors influencing the consumer's behavior (behavioral response) should be recognized in order to take advantage from electronic advertising based on consumer needs. In other words, companies need to advertise to conduct and realize their sales goals and profitability and in this regard, they spend a great deal of money. But for careful and effective planning, according to its functionality, understanding the process of consumer's behavioral response to electronic advertising in needed. Thus in this research, the factors of e-advertising and its process of effectiveness on consumers were investigated by relying on the influencing factors according to the proposed model.

Considering the importance of electronic advertising in recent years, identifying the factors of electronics advertising which can provide a desirable attitude for the consumer and also, recognizing the consumer's behavioral responses toward electronic advertising is one of the goals of this research. Therefore, designing the model form of effectiveness of electronic advertising on consumer's behavior is the main aim of this study.

3. RESEARCH METHODOLOGY

According to the analysis of different models and reviewing their strengths and weaknesses, in this study, the following model is recommended as a research model for studying the effectiveness of electronic advertising.

1.   Given that a systematic approach is used in this model, therefore, model inputs, as effective incentives, are in form of communicational and conceptual stimulants.

2. The above stimulants result in intellectual, cognitive and Sentimental-emotional reactions. In this process, beliefs, opinions and feelings (emotions) and finally, the consumer's attitudes are formed.

3 - Finally, based on the communicational and conceptual stimulants of electronic advertising and the process of the effectiveness of the model, we arrived to the consumer's behavioral response which shows the assessment of the effectiveness of the model or in other words, its validation.

3.3. 3.1. THE RESEARCH HYPOTHESES

1. Conceptual stimulants have a significant impact on consumer's behavioral response.

2. Conceptual stimulants have a significant impact on consumer's cognitive response.

3. Conceptual stimulants have a significant impact on consumer's emotional response.

4. Conceptual stimulants have a significant impact on consumer's attitude.

5. Communicational stimulants have a significant impact on consumer's behavioral response.

6. Communicational stimulants have a significant impact on consumer's cognitive response.

7. Communicational stimulants have a significant impact on consumer's emotional response.

8. Communicational stimulants have a significant impact on consumer's attitude.

9. Cognitive response has a significant impact on consumer's behavioral response.

10. Cognitive response has a significant impact on consumer's emotional response.

11. Emotional response has a significant impact on consumer's behavioral response.

12. Emotional response has a significant impact on consumer's attitudes.

13. Attitude has a significant impact on consumer's behavioral response.

14. Conceptual stimulants, through cognitive, emotional and attitudes, have a significant impact on the consumer's behavioral response.

15. Communicational stimulants, through cognitive response, emotional response and attitudes, have a significant impact on the consumer's behavioral response.

3.2. THE DEFINITION OF CONCEPTS AND THE KEY VARIABLES

Conceptual stimulants are stimulants which include the following seven dimensions: 1- Informing. 2- Entertaining. 3- Persuasiveness. 4- Providing credit. 5- Demographics. 6- Searching. 7- Updating.

Communication stimulants are stimulants which include the following seven dimensions: 1- being interactive. 2- Availability. 3- being universal. 4- Facilitate the purchase. 5- Customize. 6- cost effective. 7- Assessment and feedback.

Behavioral reaction: include the images and subjectivity, intention and desire to try, buy and use the product by the consumer (Rieti et al., 2014).

Attitude: an intuitive feeling that behavior is its exterior symbol (Venus et al, 2015).

Entertainment factor: is the ability to create entertainment and amusement for users (Doukaf, 2012).

The informing factor: is the ability to provide desired information for consumers about the goods and services such as price, quality, packaging, etc. (Zhang and Wang, 2012).

The persuasive factor: the ability to motivate and stimulate the consumers and make them satisfy (Rieti et al., 2014).

Giving credit: to what extent the advertising conducted through Internet is validated for audience, in other words, how it is believable and has validity and reliability for them (Zhang and Wang, 2012).

Being Interactive: is the relationship between the advertisers and the audience which is bilateral (Dokaf, 2012).

The demographic factor (Classification and separation of consumers): that is to say that this type of advertising, in terms of the Internet functionality, allows you to send messages and advertise based on the differentiation of consumers in terms of their age, gender and etc. Thus, advertisement specific for each of them will be prepared and sent (Wang et al., 2013).

The searching factor: is the possibility of exploring and searching for the audience beyond what is displayed to him (Riti et al., 2014).

Factor of facilitating the purchase: is preparing the possibility to purchase goods and services electronically (Razok et al., 2013).

Customization factor: Is providing specific ads to the consumers with regard to the characteristics of the site and communicate individually with consumers based on mutual interaction (Cal et al., 2014).

The availability factor: Is the capability caused by the possibility of consumer's access to the advertisement at any time that is using the Internet (Razok et al., 2013).

Factor of assessment and feedback: in the online advertising, unlike the traditional advertising, the advertiser can specify the number of people who will see the ads and even can record and receive the amount of time each user spends on watching ads. Therefore, this type of commerce has the ability to evaluate the customers and get immediate feedback from users and audience in dealing with the advertising (Nelson, 2012).

The updating factor: According to the Internet's capabilities, this type of ad can be updated at a short period of time and low cost (Nelson, 2012).

Factors of being universal: Due to the extensive use of web pages on the Internet, Internet advertising, unlike the traditional form of advertising, has a worldwide rang and is available for all the audience around the world to obtain and compare (Nelson, 2012).

The factor of being cost effective: Internet advertising results in saving and benefit not only for the advertiser and seller but also for the audience and consumers. Because the consumer is able to gain information and do the necessary comparisons to purchase at a minimum price as well as saving time (Hawkins et al., 2014).

3.3. RESEARCH METHODS

In terms of the purpose, this study is an applicable research. However, in terms of providing a new conceptual model in the research, it expands and develops the existed comments based on the process of forming the consumer's opinions and feelings which influence on his behavioral response. In terms of activities and methods (manner of data collection), this is a descriptive and survey method of research (non-experimental). Because a descriptive research includes a set of methods whose purpose is to describe the desired conditions or phenomena. Conducting the descriptive research can only be used to understand the existing conditions or help the decision making process. In terms of the relationship between variables, the research implies to a causal relationship. Given that the correlation research is one of the types of descriptive research methods (non-experimental), in this type of research, the relationship between variables can be analyzed based on the aim of the research. ☐ **Community and the statistical sample**

The Statistical population of this study is the customers and consumers of large stores supplying foodstuffs in the city of Shiraz that their behavioral response towards online advertising and the influence of these advertisements on them has been taken into consideration. The statistical sample is a sub-collection of a statistical population that the researcher can generalize the results to the whole population. Or in other words, a sample is defined as the limited number of individuals in the statistical population which express the main characteristics of the community (Sarmad et al., 2014). The sampling method in this study, to obtain the desired sample, is the cluster random sampling method which is based on the proportion of sighting desired attributes among the customers of mention stores in the geographical areas of the city of Shiraz. It should be noted that the number of subjects in this study were 400 persons, because in conducting the statistical test of factor analysis, the response of at least 5 participants is required for each item of the questionnaire.

□   **The variable of the research**

In a study based on the answers to research questions or hypotheses testing, diagnosing the variables is essential. In this study, three types of variables were considered:

A) Independent variable: is a characteristic of the physical or social environment that after being elected, accepts the interference or manipulation by the researcher until its effect on another variable (dependent variable) be observed (Nabavi, 2014).

B) The dependent variable: is a variable that changes under the influence of independent variables.

C) The modifying variable: is a qualitative or quantitative variable which affects the direction or the relationship between independent and dependent variables (Habibi, 2013).

In this study, the independent variable is the E-commerce stimulants (conceptual and communicational), the dependent variable is the consumer's behavioral response and the moderating variable is the procedure of the consumer's influence (cognitive response, emotional response and attitude).

3.4. METHODS OF DATA COLLECTION

Considering that in this study, the communicational effects of electronic advertising on consumer's behavior will be investigated and evaluated, therefore, a questionnaire was used to collect the main part of the data.

Table 1. The overall composition of the questionnaire

Variables	Number of questions
Conceptual variables	25
Communicational variables	21
Cognitive response	5
Emotional response	4
Attitude (Mindset)	5
Behavioral response	5

Source: Author

3.4.1.   Evaluating the validity of the questionnaire

The validity of the content   The opinion of specialists and elites

The validity of the structure	Confirmatory factor analysis

In the present study, the validity of the instruments of the research was confirmed in two ways as described above.

3.4.2.   The reliability of the research's questionnaire

In this study, the method of Cronbach's alpha was used to assess the reliability of the questionnaire which the results are presented on Table 2. The coefficient of Cronbach's alpha is 0.92 for the whole questionnaire, and fluctuates between 0.76 and 0.98 for its sub-scales which this shows the high reliability of the research's questionnaire.

Table 2. The calculated validity related to the whole questionnaire and its subscales

Variables	Cronbach's alpha
Conceptual variables	0.98
Communicational variables	0.93
Cognitive response	0.76
Emotional response	0.94
Attitude (Mindset)	0.85
Behavioral response	0.86
Variables	**Cronbach's alpha**
Total	0.92

Source: Author

3.4.3.   The test of research hypotheses using structural equation modeling

In Behavioral Sciences Research, multivariate analysis is considered as one of the most powerful methods of analysis. Because the nature of most topics in the Behavioral Sciences Research is multivariate and they cannot be evaluated like the way used for bivariate cases (that each time, only one independent variable is considered with each of the dependent variable). Hence, in the present study, the structural equation model was also used to examine the hypothesis. Figures 1 and 2 show the structural equation model used in this study in both moods of standard estimation and significant coefficients. As can be seen in listed figures, relationships between all variables were positive and significant, except the impact of conceptual stimulations on the behavioral response. The summary of obtained relationships between research variables, by using structural equation model, is presented in Table 3. Goodness-of-fit indicators of the model are shown in Table 4, which shows the relative suitability of the indicators and relatively high fitness of the model.

Table 3. Summaries of the relationships between research variables

Two by two Relationship between variables		Impact factor	Coefficient of significance	Result
Conceptual stimulants	Cognitive response	0.5	8.14	+
Conceptual stimulants	Emotional response	0.31	4.30	+
Conceptual stimulants	Attitude	0.26	4.10	+
Conceptual stimulants	Behavioral response	0.04	0.88	-
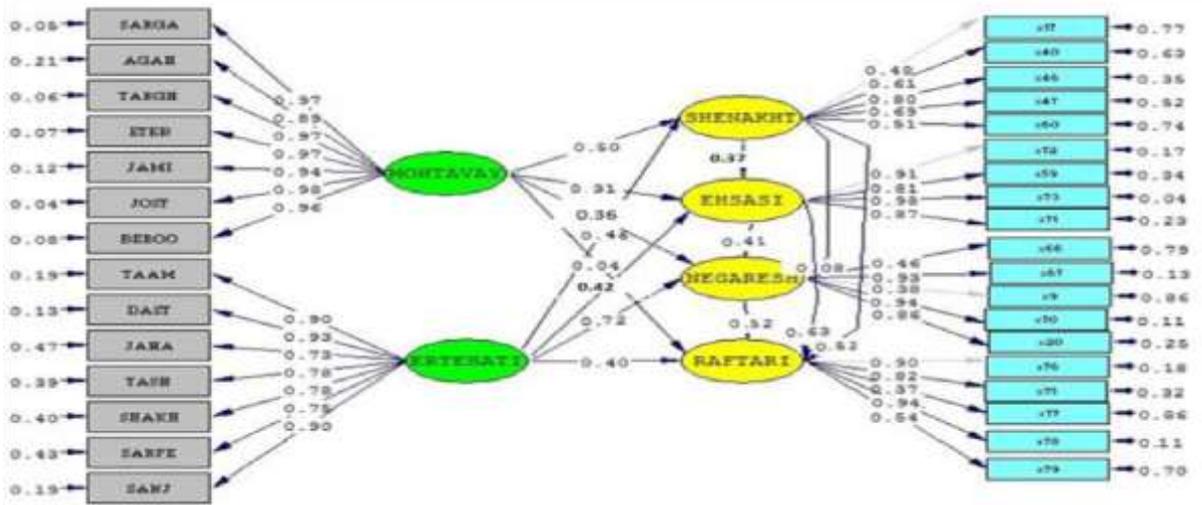
Communication stimulants	Cognitive response	0.46	7.89	+
Communication stimulants	Emotional response	0.42	7.35	+
Communication stimulants	Attitude	0.72	9.85	+
Communication stimulants	Behavioral response	0.40	7.81	+
Cognitive response	Emotional response	0.27	4.06	+
Cognitive response	Behavioral response	0.52	8.29	+
Emotional response	Attitude	0.41	7.82	+
Emotional response	Behavioral response	0.63	8.74	+
Attitude	Behavioral response	0.52	8.30	+

Source: Author

Table 4. Fitting Indicators of structural equation model

Indicators	Amount
RMSEA	0.05
X^2/df	2.29
AGFI	0.91
GFI	0.93
NFI	0.94

Source: Author

Figure 1. Structural equation models in the case of standard estimation
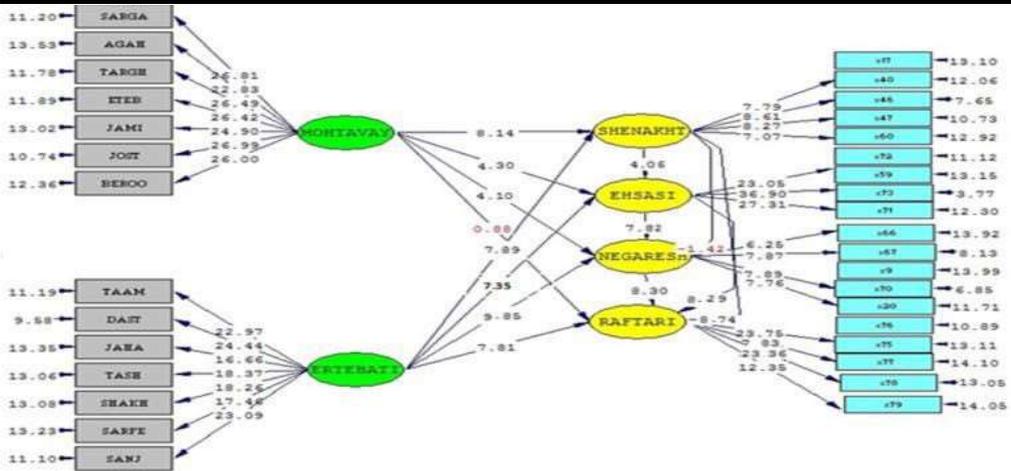
Source: Author

Figure 2. Structural equation models in the case of significant factors

Source: Author

4. CONCLUSION

The results obtained from the hypothesis testing and examining the quality of the studied variables in the statistical population made some facts clear which here, conducting necessary analysis about it seems appropriate. Because one of the stages of every research, after gathering opinions, subject records, data collection, data analysis and statistical tests and finally, the hypotheses testing and then the model testing is that the results and findings be analyzed in order to benefit from these findings in different directions.

1.   The results of analyzing the situation of the research factors showed that, based on the responses of customers who used the site of the store, it is necessary to make many changes in this site, to use the view point of customers in order to move into a better and more acceptable position in all areas.

2.   Research findings and the suggested model identify two categories of affecting stimulates in the Internet space. Accordingly, if they be used in a complete and desirable manner, it means that they can be very effective and fruitful in the process of electronic advertising. Therefore, as time goes on, in addition to the 14 listed stimulants, other new and innovative stimulants increase in the form of content and communication, this results in a rise in the strength and quality of the work.

3.   The mediator variables which are cognitive response, emotional response and attitudes and also the dependent variable (behavioral responses), indicate that employing this process during the effectiveness of electronic advertising can perfectly specify the process and the way of consumer's influence in order to eventually achieve the behavioral reaction by passing through this specified path, because in most cases, the immediate and short-term expectations of advertising on customer or consumer is futile. The effectiveness needs to be done over time and through the right process. So using this process in the model and their significance as intervening and intermediates variables can be used properly in various goods and services based on the level of involvement.

4 Based on the confirmatory factor analysis about the independent variables (Conceptual and communicational stimulants), it indicates that each of the seven stimulates in each conceptual and communicational category have a desirable load factor in explaining the variance of the relevant variable. According to the indicators of model fitting that show the suitability of the measurement model, it should

be acknowledged that if all stimulants be used well, it will have beneficial effects on the process of the effectiveness of electronic advertising.

5.   In analyzing the obtained results and considering the indirect impact of conceptual stimulants on behavioral responses, it can be said that the consumer, after obtaining the information and awareness and other conceptual perceptions from Internet advertising, will not reach to the behavior stage, but should also pass through the process of effectiveness (recognizing, feelings and attitudes) in order to reach to the behavioral response. In better words, online advertising is not instantly effective in many products which need a higher level of involvement and thinking. Therefore, its effective steps must be taken according to the proposed model.

6.   In analyzing the obtained results, it can be stated that conceptual and communicational stimulants, by passing the process of effectiveness (recognizing, feelings and attitudes), will reach the stage of behavioral response. Taking advantage form this model can help the companies in managing their electronic advertising and enhance Internet sites especially in terms of conceptual and communicational stimulants.

7.   This model can be used in the hierarchy of decision-making with high intellectual engagement. In this case, consumers increase their problem solving activities and are desperately looking for information about the product. As a result, very different beliefs about the products could be formed. An emotional burden is tied to any belief and the sum of these beliefs will make attitudes. Ultimately, behavior emerges after the formation of beliefs and attitudes.

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INVESTIGATING THE MEDIATOR ROLE OF BRAND LOYALTY IN THE RELATIONSHIP BETWEEN BRAND LOVE, PURCHASE INTENTION AND WORD OF MOUTH (CASE STUDY CUSTOMERS OF MOBILE PHONE INDUSTRY OF SAMSUNG AND THE IPHONE BRAND IN TEHRAN)

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Abstract

The aim of this study is to investigate the mediating role of brand loyalty in the relationship between brand love, purchase intention and word of mouth. Statistical population included two airline customers Mahan and Qeshm Air and a sample in size of 384 people were randomly selected. Data collection was taken by questionnaire which its validity was affirmed according to the experts, and its reliability was affirmed by Cronbach's alpha for data analysis and hypothesis testing, SPSS statistical software was used to analyze descriptive indicators of Research (Descriptive statistics) and Software Smart PlS has been used for inferential statistics. This research is applied type of descriptive survey. Also collection tool of information is questionnaire and multi-stage cluster sampling has been used. According to the test results of hypotheses was observed examine mediation role of brand love was confirmed on brand loyalty and word of mouth of brand and also purchase intention. As well as brand loyalty was confirmed on word of mouth and purchase intention.

JEL classification: M30, M39

Keywords: *brand love, purchase intent, brand loyalty, word of mouth*

1. INTRODUCTION

After the industrial revolution, businesses have become very important and its role has been added in people's lives. In today's competitive environment it is essential that Managers of institutions develop their abilities in determining important factor of product selection for parts of market that tend to attract and serve with it, Managers of institutions must recognize that What is important for its customers in their target market and how to examine the strengths and weaknesses of their competitors. The main purpose of a marketer is behind the sale and usually ultimate goal is to creating a sustainable commitment between a specific brand and a specific customer group. That this is create commitment of a process comprising the steps of Introduction, familiarity, preference and ultimately if the product be successful, is Creating loyalty. Love to Brands is considered a basic concept about the relation between the customer and the brand. Brand managers are looking to make more lovely brands. However, the importance of this concept is often not discussed in the field of marketing. In addition, the impact of brand love on brand loyalty and purchase intention and word of mouth have not been studied to the extent that the researcher has examined in empirical research. This study has been developed aimed to investigate this research gap about Love to brand. In recent years researches have moved to the side that many of these researches have focused on level of customer enthusiasm and in other words Customers love to brand (Batra, et al., 2012). Love to brand was explained and developed in end of the decade 80's and early 90's and twentieth century with theoretical proposals of Shimp & Madden (1988) and Ahuvia (1993) and by doing field research, indicator was more investigated

as Ahuvia (2005), Caroll, Ahuvia (2006) and Albert, et al. (2008). Among the objects that people frequently use in their everyday lives from that, Mobile phone is one of the products that consumers are faced with a binary decision. Some of them constantly change their brand consumption and without any reason and some others strangely are loyal to their chosen brand. Therefore, producing companies of mobile phones are the most important component of group that want to know why are done this customer behavior (Venus, Zohory, 2011). It is expected that customers be satisfied who bought product or brand in the market today. However, customer satisfaction is not the only condition for continuous association with a brand.to maintain customer loyalty, creating emotional bond is necessary for his satisfaction (Unal, Aydin, 2012). Because this link is created, "separation of zero" and "one hundred percent commitment" to the brand must be provided (Arnold et al., 2005). Numerous foreign companies in Iran due to facilitate activities of these companies by the government, began to supply products that this issue has been caused competition between these companies. On the other hand, supplier companies of mobile phone also offer new services that needs to smartphones. Finally, competition in these companies be more to take advantage of this growing demand, and this issue is faced with Ever-increasing demand of people. New ways to maintain the current share of the market as well as market development is one of the major concern of participants in this industry. Effect of Love to brand in none of the empirical research has not been studied on purchase intention and word of mouth through brand loyalty. This plan has been developed to investigate this research gap about Love to brand and in terms of causality model was provided by Marc Fetscherin 2014 Including Love to brand, brand loyalty, purchase intention and word of mouth, pay to examine the relationship between these elements. Considering the presented Contents, the main question arises in this way: How is the impact of brand love by mediated brand loyalty on purchase intention and WOM in Mobile phone industry?

2. RESEARCH LITERATURE

Love brand is considered a fundamental concept in the field of customer relationship and brand (Unal, Aydin, 2012). Brand managers are looking to make more lovely brands. An example of this can be McDonald and his famous slogan "I'm lovin it!" However, the importance of this concept is often not discussed in the field of marketing studies (Unal, Aydin, 2012). In the information age, it is natural that telecommunications industry has one of the highest indicators of growth in among other industries, among various industries of communications is one of the fastest growth rates belongs to mobile industry that its share in everyday communication, people extraordinary and growing and is on the verge of overtaking fixed line (Keramati et al., 2010). The volume of decisions that must be taken every day. As technology changes, number of competitive choices and great variety and confusing messages advertising sales, means that Consumers are looking for short and sure ways to choose a product. While reduce obtained risk from their purchase that can enjoy best interest from that. Brand is intangible assets of each company that is source of the highest values and including a set of assets and liabilities (Meyer, 2003). Brand, enables consumers to coding Functional and principles values of products among themselves, image that is created in this way in the mind of the consumer, helps to him to identify any differences between brands of competitor (Ali, Yazdi, 2013). Also in mobile phones, In addition to brand loyalty and variables that before has been investigated in this industry, check feedback love to brand can help to develop marketing industry in this case, in line with this growth, and prevent permanent change brand customers. In today's market not only are seeing more intense competition but competes have been harder and subtler. Win law and success in this market requires wit and intelligence of managers. Smart managers begin their every morning with this question and concern "Why customer through all the options, should purchase goods or services of our organization?" In such circumstances, the best strategy is to focus on strengths. Smart managers know that Password win in this market is to focus on differentiation and therefore strongly avoid falling into the trap of everything for everyone and efforts to maintain distinction and stronger build every day. Nowadays maintain a high share of the competitive market, requires customers that not only is loyal but is fans that in all circumstances to supporting the brand and with his positive statements improve brand image in the minds of other people

(Allawi and Najafi Siahroudi, 2014). One of factors influencing on this loyalty and partisanship, is sensory based on Love to brand (Ibid). Due to this, in the present study, investigate effect of brand love on purchase intention and word of mouth of customers through brand loyalty. Continue pay to done researches related to topics.

1.   In a research entitled "Identifying factors affecting on purchase intention products with foreign branded in Iran (Case Study: Household appliances, brand Bush and Samsung) "that was done in 2013 by Shahrukh, Haghighat and Atofi, factors affecting on purchase intention was investigated with aim of this study is to provide a comprehensive model of the major factors influencing on consumers purchase intention foreign goods. For this reason, cluster sampling was used and from 400 consumers available in two areas of Tehran, questionnaires were collected and completed. The analyzes results showed that factors associated with a product, means brand familiarity, brand trust, perceived value of the product and the perceived risk of product is effective on consumers purchase intention.

2.   Rezaneia has paid in 2012 to Investigate the relationship between brand equity and decision-making process and consumer choice (Case Study Sony and Samsung Laptop) This research in term of goal is applied and In terms of data collection is descriptive – survey and most important data collection tool is questionnaire. The results show that about Samsung brand only brand awareness has significant relationship with brand equity and Brand loyalty and Perceived quality and Brand associations have significant relationship with brand equity. In Sony brand, brand awareness and perceived quality hadn't significant relationship between with brand equity. Brand loyalty and associated factors had significant and direct relationship.

3.   Heidarzadeh et al. (2011) have paid to examine the impact of brand credibility on customer loyalty in banking industry of Iran; the results of this research showed that brand credibility has a direct impact on commitment to loyalty, continued commitment and satisfaction. Satisfaction has direct impact on commitment to loyalty and word of mouth recommendations to buy.

4.   Albertomeronka (2013) in a study have investigated Love to brand in relations between the brand and consumers. Their results indicate that brand identity has a significant positive impact on love to brand and brand commitment, brand trust has positive and significant impact on brand commitment and love to brand, Love to brand has significant and positive impact on brand commitment, Love to brand has significant and positive impact on word of mouth and willing to pay higher prices, Brand commitment has significant and positive impact on word of mouth and willing to pay higher prices.

5.   Yassin, Shamim (2013) in a study have investigated mediating role of Love to brand in the relationship between purchase intention and word of mouth. The results of this study indicate that name and brand experience, Brand trust and brand emotional commitment have Positive and significant impact on consumer's purchase intention, Purchase intentions has Positive and significant impact on Love to brand and word of mouth, In addition brand love has Positive and significant impact on word of mouth.

6.   Asmaylospinly (2012) in his study has paid to investigate effects of Love to brand, brand personality and brand image on word of mouth. Results of their research showed that love to brand and brand image have Positive and significant impact on word of mouth, Brand image has positive and significant impact on Love to brand, brand Passion (a brand personality dimensions) has significant and positive impact on word of mouth and brand image, brand Passion hasn't significant and positive impact on Love to brand.

7.   Shahin et al. (2011) have paid to investigate the role of brand experience, brand trust and brand Satisfaction in creating brand loyalty. The results show that brand experiences has Positive and significant impact on brand trust, brand Satisfaction and brand loyalty, brand Satisfaction and brand trust have Positive and significant effect on brand loyalty.

8.   Karolohaya (2006) in a study has paid to investigate some of antecedences and consequences of Love to brand. Their results showed that Love to brand has Positive and significant impact on brand loyalty and word of mouth. This research pays to investigate the impact of love to brand with the mediation of brand loyalty on word of mouth and purchase intention in mobile phone industry.

The following figure shows framework of research.
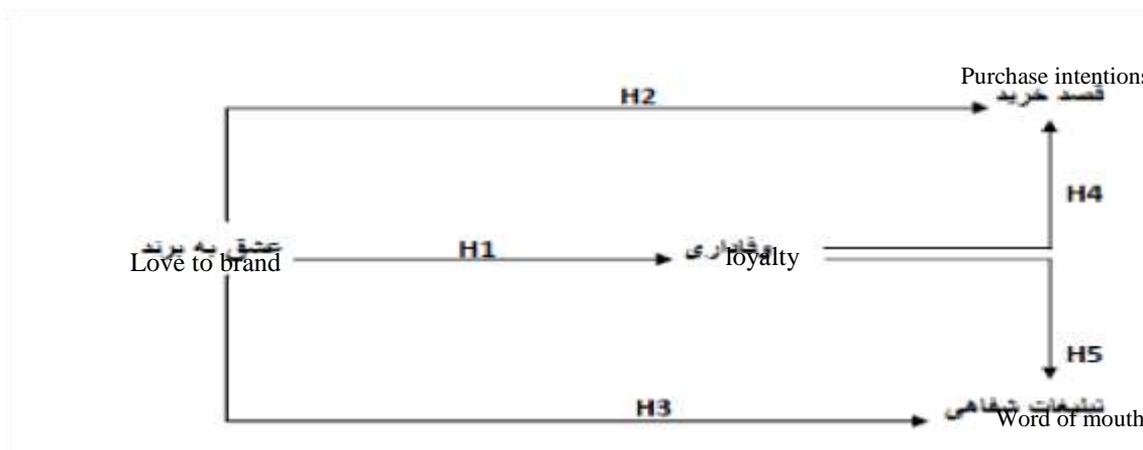
Figure 1: Conceptual model of Research

3. RESEARCH METHODOLOGY

In this study used model for this research were selected by using secondary sources, including books, articles and thesis and use of Internet resources and doing library research and consultation with professors. In this regard, a questionnaire was extracted; In order to design the questionnaire, the study of literature and conducted research and with guidance and the opinions of respected professors and supervisors and advisors, questionnaire was designed in the form of Likert scale where dimensions of mentioned model measured based on the spectrum 5 degrees and besides that by using the results of pilot study have paid to adapt and localization of questionnaire and final questionnaire was set in accordance with the aforementioned industry conditions. The statistical population is all users of the Samsung and the iPhone brand mobile phones in Tehran. According to received information, the number of buyers in the country has been unlimited. Statistical sample number of this research has been done through sample size table, by Krejcie, Morgan (attached). According to this table for unlimited N, the sample size is equal n = 384. Sampling method, is multi-stage cluster sampling and customers were randomly selected which type of sampling is also available sampling. Finally, from 780 questionnaires, 392 number correctly and completely filled according to inappropriate questionnaire and has been used in analysis. With precise definition each of the structures of research, Measures of each structure and scale of composite from these criteria, Make sure from content validity questionnaire. In order to measure construct validity of questionnaire, a pre-test was conducted

consisted of 30 samples, after statistical analysis, modifications were carried out and then the final questionnaire was distributed among all participants. The method (Cronbach's alpha) has been used in order to estimate reliability based on Cronbach's alpha coefficient that its amount is higher than 0/7 and within acceptable limits, also Cronbach's alpha coefficient was estimated for each of different variables of questionnaire that has been presented in detail (below table):

Table 1: Cronbach's alpha coefficients

Cronbach's alpha	Number of questions	Related questions	Variable
943/0	15	1-15	1. Love to name and brand
870/0	4	16-19	2. purchase intention
950/0	5	20-24	3. Loyalty to Name and Brand
898/0	4	25-28	4. word of mouth

Source: Author

In the present study by using two software SPSS and PLS, two types of descriptive and inferential statistics have been used to analyze the data. In descriptive by using statistical characteristics such as frequency and percentage has paid to draw diagrams and data analysis and in inferential level, Cronbach's alpha has been used for reliability of questionnaire and structural equation modeling has been used to test the hypotheses. As well as to evaluate the explainable of each variable, Confirmatory factor analysis has been used by relevant questions in the questionnaire. In the present study, structural equation modeling has been used to approve or reject hypotheses.

4. FINDINGS

To test the hypothesis of this Research, Structural equation modeling has been used for hypotheses 1 to 5. Then structural model will be discussed in a state standard estimate and significant coefficients. Figures 25.4 and 26.4 show the effect of independent variables on dependent variable. The results of confirm or reject hypotheses can be seen in the table below.
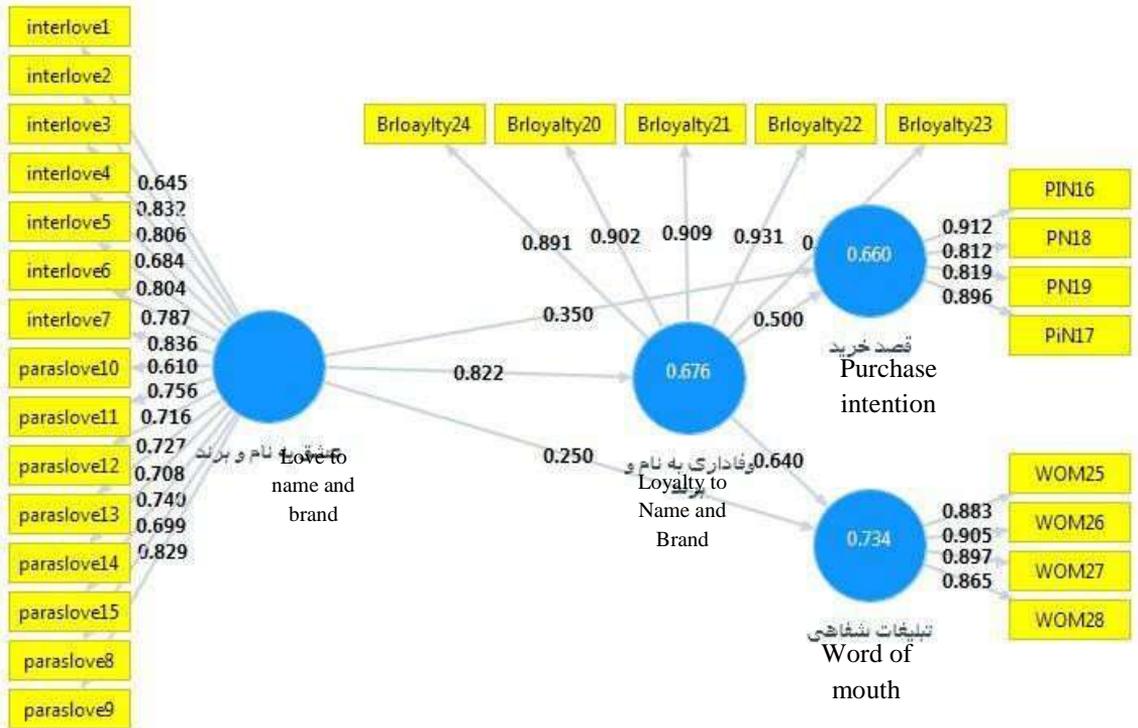
Figure 2: Model in a state estimate Standard coefficient
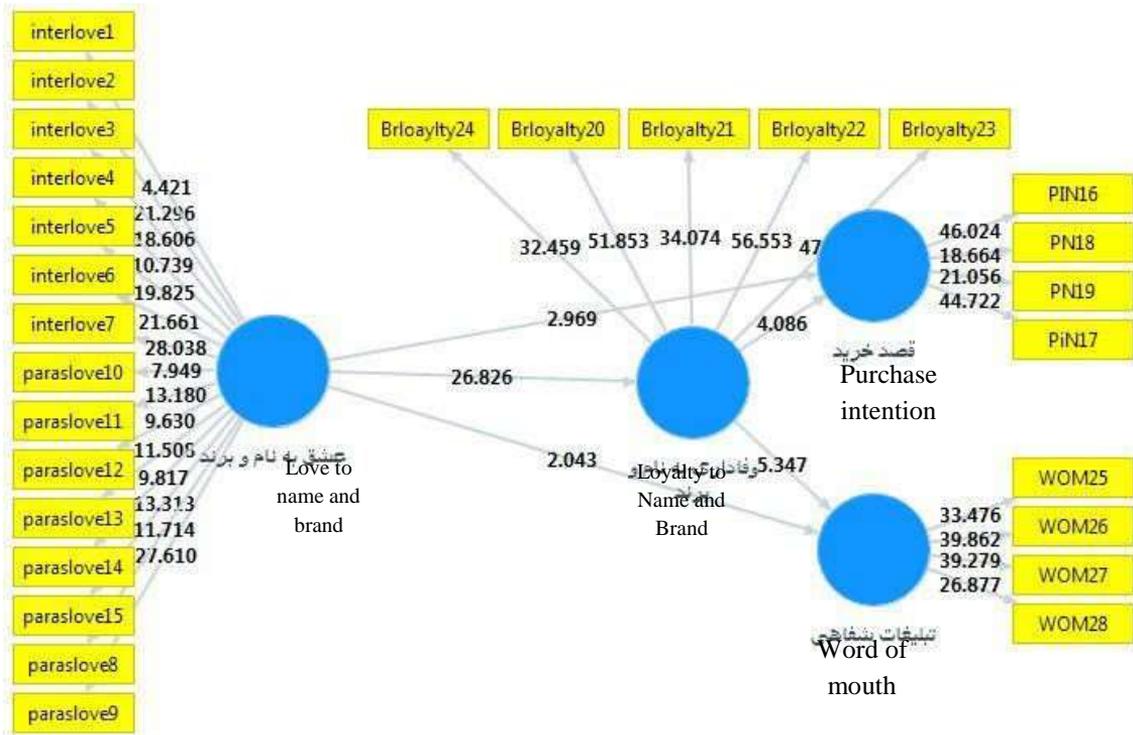
Figure 3: Model in a state significant coefficients T-Value **Table**

2: Examine confirm or reject the hypothesis of research

Result	t-Value	R²	Path coefficient	Research Hypotheses		
Confirmation	362/17	0.60	776/0	Love to brand has significant and positive impact on Word of mouth.	1	Main hypotheses
Confirmation	826/26	0.67	822/0	Love to brand has significant and positive impact on loyalty to brand.	2	
Confirmation	852/15	0.57	761/0	Love to brand has significant and positive impact on purchase intention of customers.	3	
Confirmation	347/5	0.40	640/0	Brand loyalty has significant and positive impact on Word of mouth.	4	
Confirmation	086/4	0.25	500/0	Brand loyalty has significant and positive impact on purchase intention.	5	

Source: Author

This indicator shows compromise between quality of structural model and Measurement model and is equal to:

$$GOF = \sqrt{\overline{AVE} \times \overline{R^2}}$$

(Azar et al., 2012, 179)

This indicator takes into account both structural and measurement model and use as a measure to predict overall performance of model and about this indicator is between zero and one. Value of GOF absolute more than 0/36 and amount of GOF relative, internal models and external models equal to or greater than 0.9 show desirability of model (Asfidany et al., 2014). In other words, the observed data to a large extent is based on the conceptual model.

Table 3: indicators of model fitting of research

Variable	AVE	R₂
Love to brand	560/0	independent variable
Brand loyalty	834/0	676/0
purchase intention	741/0	660/0

Word of mouth	788/0	734/0

Source: Author

5. CONCLUSION

According to the test results of hypotheses was observed examine mediation role of Love to brand was confirmed on Brand loyalty and brand word of mouth and also decided on purchase intention as well as brand loyalty was confirmed on purchase intention and word of mouth. Study of Festcherin Mark and Daniel Heinrich (2015) was used for provide Conceptual model of this research, in following results of these two research were compared together.

Result current study 2015	Result Marc Fetscherin, Daniel Heinrich 2015	Research Hypotheses		
Confirmation	Confirmation	Love to brand has significant and positive impact on Word of mouth.	1	Main hypotheses
Confirmation	Confirmation	Love to brand has significant and positive impact on purchase intention.	2	
Confirmation	Confirmation	Love to brand has significant and positive impact on loyalty to name and brand.	3	
Confirmation	Confirmation	Brand loyalty has significant and positive impact on Word of mouth.	4	
Confirmation	Confirmation	Brand loyalty has significant and positive impact on purchase intention.	5	

Source: Author

SUGGESTIONS

Findings suggest that love to brand has significant and positive impact on Word of mouth and purchase intention. A skillful way to make sense of love in consumers is by using the concept of word of love in advertising. Use of logo or word love in advertising slogans such as McDonald by using sign or the word love in logo or brand. Brand managers must Identify and empower components of brand creating love that Lead to romantic relationships between customers and brand. As the search for variety, brand image and brand socialization. To increase Love to brand according to research findings which its impact on brand loyalty and word of mouth is effective. Therefore, recommend to marketing managers to increase creating stimulus enthusiasm in customers, try to employ efficient designers for variation in packaging and advertising company that this requires financial investment and time for distinguish the brand to kind that brand able meet needs and keen sense of inner and social. Considering that Creating several inner sense of positive in customers can be much more effective than a superficial interest, Therefore, it is recommended to marketing managers to strengthen these needs pay to some affect aspects of life Such as personal values such as happiness, individual creativity, simplicity and savings. Creating positive emotional connection with the brand is much broader than positive emotions of brand, to create this sense of stability should be noted that all aspects of a brand that these dimensions include the date and origin brand, brand vision of its founders, its corporate culture, So that the buyer will feel a kinship with the brand, Managers of mobile phone brands Samsung and Apple, should gain by knowing the distance between their brand identity and a identify that customers want by purchasing a mobile phone brand, reducing distance of this two identities from each other and Show their honesty in relation to consumers. On the other hand, Samsung and Apple's

mobile phone brand managers must continue to develop their brands and Think about increased sales of other products and services sales and then selling the same products (in Areas that could be creating value in brand for different interest groups) and improve brand performance. Considering that the brand commitment has Moderating effect on the relationship between Value dimensions of Relationship marketing and loyalty. To mobile phone manufacturers and sellers is recommended to consider programs that increase customer commitment so that can increase their loyalty to their brand. Since the value based on pleasure has always been considered as one of the most important variables influencing on love to brand and loyalty and has very close relationship with interest rates and perceived importance for product, therefore, marketers should increase the power of their brand in this dimension by knowing more sentimental and emotional needs and based on pleasure of consumer and use every opportunity for innovation in this field. It seems that use of attractive promotions (based on features of pleasant and building relationships Interests with brand) In order to stimulate feelings and emotions in addition to strengthening the loyalty of current consumers can also be effective in Informing and attract emerging consumers that their age is decreasing day by day. According to Cutler the best advertising program is that strengthen preference in loyal consumers and at the same time impact on consumers who exist possibility of changing consumer brand in them and in emerging markets also creating awareness. Consumers towards the brand which have more match with their personal image and values and social status, express more love to that brand Thus, marketing managers must try to adapt their brand image with consumer's personal image by doing more research On the symbolic value of goods and efforts in order to more recognition of personal image of target consumers, and give strong personality to their brands. Use of these components in determining the amount of Love to brand can be very effective.

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THE RELATIONSHIP BETWEEN GUERILLA MARKETING AND MAKING DECISION TO PURCHASE MAX COMPANY'S ADVERTISING-MEDIA SERVICES

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Abstract

This study aimed to analyze the relationship between different aspects of guerilla marketing (buzz marketing, contextual marketing, ambush marketing and viral marketing) and a customer decision making process in the population studied (Max Company's media advertising services customers). In this regard, after reviewing the literature, the Hoffman's Guerilla Marketing model was used to choose and design the research conceptual model in order to analyze the relationship between different dimensions of guerilla marketing and customers' purchase decision making process. Research indicators were gathered and the questionnaire was designed and finally data was collected based on variables related to the conceptual model. The research database was formed in the spss statistical package based on data collected through questionnaires and then Pearson correlation test was used to examine the hypotheses. In addition, to test the conceptual model, confirmatory factor analysis was performed. To select the sample size, simple random sampling method was used. Results obtained from Pearson correlation test showed that there is a significant and positive relationship between all dimensions of guerilla marketing and customers' purchase decision making in the studied population. The results of confirmatory factor analysis also approved the validity of the research conceptual model.

JEL classification: M30, M37

Keywords: *guerilla marketing, purchase decision making, services, advertising, media, Max Company*

1. INTRODUCTION

Today, business various markets are largely focused on improving the efficiency and effectiveness of marketing efforts. Companies are looking for new ways to perform this critical task optimally in order to reduce costs and add value to their products and services. Even in markets where there are no pressure and issue on revenue and expenditure of different stages of final product lifecycle, rapid changes in technology, business problems and actions and economic conditions demand for finding new ways to express old problems. Meanwhile, considering the developments mentioned now the traditional marketing approach cannot meet current changing conditions in various business fields thus it is essential to identify new approaches to dealing with these developments. Many organizations and companies are faced with a lot of budgetary constraints in business so they need to find a way to be able to gain the maximum profit necessary using a minimum of resources and investments in order to survive and achieve long-term stability. In this area, there are so many models representing decision making, purchase behavior and understandable procedures by consumers. The following models are a summary of the origins of the present study which is a combination of consumer's purchase decisions and marketing. Hoffman Conceptual Model for Guerrilla Marketing and Purchase Decision Making: this model is composed of four parts including guerilla marketing

methods, guerilla marketing principles, positive and negative effects of guerilla marketing and consumer's behavior. In this study, this model is used to investigate guerilla marketing and its effect on customers' purchase decision making.

Cutler's purchase behavior mode: this model is comprised of four parts including marketing stimuli, macro stimuli, buyer's black box and buyer's reactions. The buyer's black box consists of two parts. The first part includes buyer's individual characteristics which affect his perception and response to stimuli and the second part is the buyer's decision making process which affects his behavior.

Howard-Sheth mode of buyer behavior: this model explains how through learning some specific data turns into stimulants such as purchasing or other behavioral responses in response to marketing stimuli. And it is the edited form of a systematic effort to build a deep theory and attitude of consumers' decision making process.

The Engel-Kollat-Blackwell model for purchase behavior: essentially, this model is applied as a plan to organize the structure of knowledge related to the consumer's behavior which is composed of several editing channels. The aim of this edition is to optimize the relations between the major and minor components and make them more transparent. Before any messages is used, the consumer should: 1) become aware of it, 2) allocate information processing capacity to the messages received, 3) interpret the incentive and stimulus, 4) be encouraged by these incentives, 5) maintain the messages through conversion and transfer of inputs and data to the long-term memory (Ardestani, 2002).

Guerilla marketing as described by Jay Conrad Levinson in his book, "Guerilla Marketing" in 1982 is an irregular and unusual way to do promotional activities based on a very low budget. Such promotions and advances are sometimes designed in a way that the target customer is even unaware that they exist and this promotion is a kind of hidden or secret marketing which is also called undercover marketing (Mendenhall, 1999).

Guerilla marketing

According to Jay Conrad Levinson, guerilla marketing can be described as "a series of short, simple, quick, direct and targeted methods which help economic agents to reach their goals using the least resources and expenses in a short period of time". In other words, as a warfare is regular, time-consuming, costly and requires strategic planning and analyzing the threats, but in an irregular warfare (guerilla warfare) we inflict enormous damage to the enemy in the shortest time and leave the area so quickly. Similarly, in guerilla advertising we also use the minimum equipment and facilities to reach the goal in minimum time. Some examples of guerilla advertising are as follows:

- Word of mouth advertising (WOM) ☐   Ads by text message (SMS)
- Point of purchase advertising (POP)
- Outdoor advertising in decision making points
- Writing articles on topics related to the product or manufacturer signature ☐   Sending messages on websites
- To participate in exhibitions actively and facilitate the examination and observation of the product and so on.

The basic principles of guerilla advertising

- Focus your resources (time, location, thoughts) to achieve temporary excellence.

- Instead of selling the product alone, try to sell the ideology along with it as well. ☐   Identify and analyze the established patterns and then overcome them. ☐   Seek cooperation and synergies.
- Try to pass through all awareness and perception filters located in your target group and communicate the concepts.
- Do not move through the direct path and try to find diversion routs which provide alternative solutions.
- Try to be flexible and agile and nimble instead of building stronghold and bastion (Levinson, 2009).

Regarding these principles, we can find various aspects not so far away from the strategies of standard marketing. However, some aspects have completely different approaches. For instance, being in search of temporary excellence means failure to overcome customer's attention through a specific marketing activity at all times, on the contrary, ideology-based effort means not to try to sell the product directly (Baltes, Leibing, 2008).

2. RESEARCH HYPOTHESES

In this study, a set of hypotheses were designed to be tested according to the conceptual model as well as the set of goals and questions proposed which are divided into two parts including the main hypothesis and sub-hypotheses.

THE MAIN HYPOTHESIS

There is a relationship between guerilla marketing and purchase decision making of the customers of Max Company's advertising-media services.

Sub-hypotheses

The first sub-hypothesis: there is a relationship between guerilla marketing and buzz marketing in purchasing decisions of customers of Max Company's advertising-media services.

The second sub-hypothesis: there is a relationship between guerilla marketing and contextual marketing in purchasing decisions of customers of Max Company's advertising-media services.

The third sub-hypothesis: there is a relationship between guerilla marketing and ambush marketing in purchasing decisions of customers of Max Company's advertising-media services.

The fourth sub-hypothesis: there is a relationship between guerilla marketing and viral marketing in purchasing decisions of customers of Max Company's advertising-media services.

The fifth sub-hypothesis: there is a relationship between buzz marketing and creativity in purchasing decisions of customers of Max Company's advertising-media services.

The sixth sub-hypothesis: there is a relationship between buzz marketing and credibility in purchasing decisions of customers of Max Company's advertising-media services.

The seventh sub-hypothesis: there is a relationship between contextual marketing and creativity in purchasing decisions of customers of Max Company's advertising-media services.

The eighth sub-hypothesis: there is a relationship between contextual marketing and credibility in purchasing decisions of customers of Max Company's advertising-media services.

The ninth sub-hypothesis: there is a relationship between ambush marketing and creativity in purchasing decisions of customers of Max Company's advertising-media services.

The tenth sub-hypothesis: there is a relationship between viral marketing and credibility in purchasing decisions of customers of Max Company's advertising-media services.

The eleventh sub-hypothesis: there is a relationship between creativity and surprise effect in purchasing decisions of customers of Max Company's advertising-media services.

The twelfth sub-hypothesis: there is a relationship between creativity and distribution effect in purchasing decisions of customers of Max Company's advertising-media services.

The thirteenth sub-hypothesis: there is a relationship between credibility and distribution effect in purchasing decisions of customers of Max Company's advertising-media services.

The fourteenth sub-hypothesis: there is a relationship between credibility and low cost effect in purchasing decisions of customers of Max Company's advertising-media services.

The fifteenth sub-hypothesis: there is a relationship between surprise effect and brand image in purchasing decisions of customers of Max Company's advertising-media services.

The sixteenth sub-hypothesis: there is a relationship between distribution effect and brand attitude in purchasing decisions of customers of Max Company's advertising-media services.

The seventeenth sub-hypothesis: there is a relationship between distribution effect and brand image in purchasing decisions of customers of Max Company's advertising-media services.

The eighteenth sub-hypothesis: there is a relationship between low cost effect and brand attitude in purchasing decisions of customers of Max Company's advertising-media services.

The nineteenth sub-hypothesis: there is a relationship between brand attitude and purchase decision in purchasing decisions of customers of Max Company's advertising-media services.

The twentieth sub-hypothesis: there is a relationship between brand image and purchase decision in purchasing decisions of customers of Max Company's advertising-media services.

The twenty-first sub-hypothesis: there is a relationship between creativity and purchase decision in purchasing decisions of customers of Max Company's advertising-media services.

The twenty-second sub-hypothesis: there is a relationship between credibility and purchase decision in purchasing decisions of customers of Max Company's advertising-media services.

3. RESEARCH CONCEPTUAL MODEL

METHODOLOGY

To test the hypotheses in the present study, a questionnaire containing 80 questions was used. The population studied consists of service consumers and advertising experts of Max advertising media company in 2013. According to the investigations conducted by researcher and also based on interviews with senior managers of Max Collection, the study population size was estimated to be 400 people. To determine the sample size, the Cochran formula was used upon which, 210 people were selected as the sample size.

$$n = \frac{Z^2 \, var(\square)}{\square^2}$$

$$0 \qquad\qquad 2$$

$$d$$

After collecting the questionnaires, data was examined using descriptive and inferential statistics as well as spss and LISREL software. The mean and standard deviation were used in descriptive statistics part. In addition, to assess the validity of the conceptual model in the inferential statistics part, the confirmatory factor analysis was applied. To perform the confirmatory factor analysis, LISREL software was used. Also, to conduct the Pearson correlation coefficient test, the spss software was used.

Cronbach's alpha coefficient was applied to assess the reliability of the research. For this purpose, spss software was run and the amount of 0.89 was obtained which represents the excellent reliability of the questionnaire. Furthermore, the validity and reliability of the questionnaire was confirmed through the results obtained and reputable articles around the world elites' opinions as well as customers and staff of Max advertising media company.

A. Guerilla marketing techniques

Viral marketing | Contextual marketing | Ambush marketing | Buzz marketing

⇩

B. principles and factors

Credibility | Creativity

⇩

C. Effects | Surprise effect | Distribution effect | Low cost effect

The basic effect of guerilla marketing high attention with low costs

⇩

D. negative guerilla effects

Anger | Hatred | Distraction

⇩

Consumer behavior or guerilla marketing results

Brand image | Brand attitude | Purchase decision

TESTING RESEARCH HYPOTHESES

The first hypothesis

The first hypothesis examines the relationship between guerilla marketing and buzz marketing in Max publishing company. To test this hypothesis, it is expressed as H_1 (representing the claim) and H_0 (representing the opposite claim).

H_0: there is no significant and positive relationship between guerilla marketing and buzz marketing in Max publishing company.

H_1: there is a significant and positive relationship between guerilla marketing and buzz marketing in Max publishing company.

Table 1: Results of Pearson correlation test for the first hypothesis

Variables		Pearson correlation coefficient (r)	Significance level	Number
Independent	Guerilla marketing	0.754	0.000	210
Dependent	Buzz marketing			

Source: Author

The results of Person test represented in table 1 show that the observed correlation coefficient (0.754) with a significance level of P=0/000</05 is significant. When the significance level of a variable is less than 0.05, the null hypothesis (H_0) indicating that there is no relationship between variables is rejected. This means that there is a significant relationship between variables thus the alternative hypothesis (H_1) is confirmed. So we can conclude that there is a significant and positive relationship between guerilla marketing and buzz marketing.

The second hypothesis

The second hypothesis examines the relationship between guerilla marketing and contextual marketing in Max publishing company. To test this hypothesis, it is expressed as H_1 (representing the claim) and H_0 (representing the opposite claim).

H_0: there is no significant and positive relationship between guerilla marketing and contextual marketing in Max publishing company.

H_1: there is a significant and positive relationship between guerilla marketing and contextual marketing in Max publishing company.

Table 2: Results of Pearson correlation test for the second hypothesis

Variables		Pearson correlation coefficient (r)	Significance level	Number
Independent	Guerilla marketing	0.507	0.000	210
Dependent	Contextual marketing			

Source: Author

The results of the table 2 show that the observed correlation coefficient (0.507) with a significance level of P=0/000</05 is significant. When the significance level of a variable is less than 0.05, the null hypothesis (H_0) indicating that there is no relationship between variables is rejected. This means that there is a significant relationship between variables thus the alternative hypothesis (H_1) is confirmed. So we can conclude that there is a significant and positive relationship between guerilla marketing and contextual marketing.

The third hypothesis

The third hypothesis examines the relationship between guerilla marketing and ambush marketing in Max publishing company. To test this hypothesis, it is expressed as H_1 (representing the claim) and H_0 (representing the opposite claim).

H_0: there is no significant and positive relationship between guerilla marketing and ambush marketing in Max publishing company.

H₁: there is a significant and positive relationship between guerilla marketing and ambush marketing in Max publishing company.

The results of the table 3 show that the observed correlation coefficient (0.528) with a significance level of P=0/000</05 is significant. When the significance level of a variable is less than 0.05, the null hypothesis (H_0) indicating that there is no relationship between variables is rejected. This means that there is a significant relationship between variables thus the alternative hypothesis (H_1) is confirmed. So we can conclude that there is a significant and positive relationship between guerilla marketing and ambush marketing.

Table 3: Results of Pearson correlation test for the third hypothesis

Variables		Pearson correlation coefficient (r)	Significance level	Number
Independent	Guerilla marketing	0.528	0.000	210
Dependent	Ambush marketing			

Source: Author

The fourth hypothesis

The fourth hypothesis examines the relationship between guerilla marketing and viral marketing in Max publishing company. To test this hypothesis, it is expressed as H_1 (representing the claim) and H_0 (representing the opposite claim).

H₀: there is no significant and positive relationship between guerilla marketing and viral marketing in Max publishing company.

H₁: there is a significant and positive relationship between guerilla marketing and viral marketing in Max publishing company.

Table 4: Results of Pearson correlation test for the fourth hypothesis

Variables		Pearson correlation coefficient (r)	Significance level	Number
Independent	Guerilla marketing	0.516	0.000	210
Dependent	Viral marketing			

Source: Author

The results of the table 4 show that the observed correlation coefficient (0.516) with a significance level of P=0/000</05 is significant. When the significance level of a variable is less than 0.05, the null hypothesis (H_0) indicating that there is no relationship between variables is rejected. This means that there is a significant relationship between variables thus the alternative hypothesis (H_1) is confirmed. So we can conclude that there is a significant and positive relationship between guerilla marketing and viral marketing.

The fifth hypothesis

The fifth hypothesis examines the relationship between buzz marketing and creativity in Max publishing company. To test this hypothesis, it is expressed as H_1 (representing the claim) and H_0 (representing the opposite claim).

H₀: there is no significant and positive relationship between buzz marketing and creativity in Max publishing company.

H₁: there is a significant and positive relationship between buzz marketing and creativity in Max publishing company.

Table 5: Results of Pearson correlation test for the fifth hypothesis

Variables		Pearson correlation coefficient (r)	Significance level	Number
Independent	Buzz marketing	0.429	0.000	210
Dependent	Creativity			

Source: Author

The results of the table 5 show that the observed correlation coefficient (0.429) with a significance level of P=0/000</05 is significant. When the significance level of a variable is less than 0.05, the null hypothesis (H_0) indicating that there is no relationship between variables is rejected. This means that there is a significant relationship between variables thus the alternative hypothesis (H_1) is confirmed. So we can conclude that there is a significant and positive relationship between buzz marketing and creativity in Max publishing company.

The sixth hypothesis

The sixth hypothesis examines the relationship between buzz marketing and credibility in Max publishing company. To test this hypothesis, it is expressed as H_1 (representing the claim) and H_0 (representing the opposite claim).

H_0: there is no significant and positive relationship between buzz marketing and credibility in Max publishing company.

H_1: there is a significant and positive relationship between buzz marketing and credibility in Max publishing company.

Table 6: Results of Pearson correlation test for the sixth hypothesis

Variables		Pearson correlation coefficient (r)	Significance level	Number
Independent	Buzz marketing	0.251	0.000	210
Dependent	Credibility			

Source: Author

The results of the table 6 show that the observed correlation coefficient (0.251) with a significance level of P=0/000</05 is significant. When the significance level of a variable is less than 0.05, the null hypothesis (H_0) indicating that there is no relationship between variables is rejected. This means that there is a significant relationship between variables thus the alternative hypothesis (H_1) is confirmed. So we can conclude that there is a significant and positive relationship between buzz marketing and credibility in Max publishing company.

The seventh hypothesis

The seventh hypothesis examines the relationship between contextual marketing and credibility in Max publishing company. To test this hypothesis, it is expressed as H_1 (representing the claim) and H_0 (representing the opposite claim).

H_0: there is no significant and positive relationship between contextual marketing and credibility in Max publishing company.

H_1: there is a significant and positive relationship between contextual marketing and credibility in Max publishing company.

Table 7: Results of Pearson correlation test for the seventh hypothesis

Variables	Pearson correlation coefficient (r)	Significance level	Number

| Independent | Contextual marketing | 0.657 | 0.002 | 210 |
| Dependent | Credibility | | | |

Source: Author

The results of the table 7 show that the observed correlation coefficient (0.657) with a significance level of P=0/002</05 is significant. When the significance level of a variable is less than 0.05, the null hypothesis (H_0) indicating that there is no relationship between variables is rejected. This means that there is a significant relationship between variables thus the alternative hypothesis (H_1) is confirmed. So we can conclude that there is a significant and positive relationship between contextual marketing and credibility in Max publishing company.

The eighth hypothesis

The eighth hypothesis examines the relationship between ambush marketing and creativity in Max publishing company. To test this hypothesis, it is expressed as H_1 (representing the claim) and H_0 (representing the opposite claim).

H_0: there is no significant and positive relationship between ambush marketing and creativity in Max publishing company.

H_1: there is a significant and positive relationship between ambush marketing and creativity in Max publishing company.

Table 8: Results of Pearson correlation test for the eighth hypothesis

Variables		Pearson correlation coefficient (r)	Significance level	Number
Independent	Ambush marketing	0.234	0.001	210
Dependent	Creativity			

Source: Author

The results of the table 8 show that the observed correlation coefficient (0.234) with a significance level of P=0/001</05 is significant. When the significance level of a variable is less than 0.05, the null hypothesis (H_0) indicating that there is no relationship between variables is rejected. This means that there is a significant relationship between variables thus the alternative hypothesis (H_1) is confirmed. So we can conclude that there is a significant and positive relationship between ambush marketing and creativity in Max publishing company.

The ninth hypothesis

The ninth hypothesis examines the relationship between viral marketing and credibility in Max publishing company. To test this hypothesis, it is expressed as H_1 (representing the claim) and H_0 (representing the opposite claim).

H_0: there is no significant and positive relationship between viral marketing and credibility in Max publishing company.

H_1: there is a significant and positive relationship between viral marketing and credibility in Max publishing company.

Table 9: Results of Pearson correlation test for the ninth hypothesis

Variables		Pearson correlation coefficient (r)	Significance level	Number
Independent	Viral marketing	0.745	0.007	210
Dependent	Credibility			

The results of the table 9 show that the observed correlation coefficient (0.745) with a significance level of P=0/007</05 is significant. When the significance level of a variable is less than 0.05, the null hypothesis (H_0) indicating that there is no relationship between variables is rejected. This means that there is a significant relationship between variables thus the alternative hypothesis (H_1) is confirmed. So we can conclude that there is a significant and positive relationship between viral marketing and credibility in Max publishing company.

The tenth hypothesis

The tenth hypothesis examines the relationship between creativity and surprise effect in customers of Max publishing company. To test this hypothesis, it is expressed as H_1 (representing the claim) and H_0 (representing the opposite claim).

H_0: there is no significant and positive relationship between creativity and surprise effect in customers of Max publishing company.

H_1: there is a significant and positive relationship between creativity and surprise effect in customers of Max publishing company.

The results of the table 10 show that the observed correlation coefficient (0.587) with a significance level of P=0/003</05 is significant.

Table 10: Results of Pearson correlation test for the tenth hypothesis

Variables		Pearson correlation coefficient (r)	Significance level	Number
Independent	Creativity	0.587	0.003	210
Dependent	Surprise effect			

When the significance level of a variable is less than 0.05, the null hypothesis (H_0) indicating that there is no relationship between variables is rejected. This means that there is a significant relationship between variables thus the alternative hypothesis (H_1) is confirmed. So we can conclude that there is a significant and positive relationship between creativity and surprise effect in customers of Max publishing company.

The eleventh hypothesis

The eleventh hypothesis examines the relationship between creativity and distribution effect in customers of Max publishing company. To test this hypothesis, it is expressed as H_1 (representing the claim) and H_0 (representing the opposite claim).

H_0: there is no significant and positive relationship between creativity and distribution effect in customers of Max publishing company.

H_1: there is a significant and positive relationship between creativity and distribution effect in customers of Max publishing company.

Table 11. Results of Pearson correlation test for the eleventh hypothesis

Variables		Pearson correlation coefficient (r)	Significance level	Number
Independent	Creativity	0.851	0.000	210
Dependent	Distribution effect			

The results of the table 11 show that the observed correlation coefficient (0.851) with a significance level of P=0/000</05 is significant. When the significance level of a variable is less than 0.05, the null hypothesis (H_0) indicating that there is no relationship between variables is rejected. This means that there is a significant relationship between variables thus the alternative hypothesis (H_1) is confirmed. So we can conclude that there is a significant and positive relationship between creativity and distribution effect in customers of Max publishing company.

The twelfth hypothesis

The twelfth hypothesis examines the relationship between credibility and distribution effect in customers of Max publishing company. To test this hypothesis, it is expressed as H_1 (representing the claim) and H_0 (representing the opposite claim).

H_0: there is no significant and positive relationship between credibility and distribution effect in customers of Max publishing company.

H_1: there is a significant and positive relationship between credibility and distribution effect in customers of Max publishing company.

Table 12. Results of Pearson correlation test for the twelfth hypothesis

Variables		Pearson correlation coefficient (r)	Significance level	Number
Independent	Credibility	0.724	0.000	210
Dependent	Distribution effect			

The results of the table 12 show that the observed correlation coefficient (0.724) with a significance level of P=0/000</05 is significant. When the significance level of a variable is less than 0.05, the null hypothesis (H_0) indicating that there is no relationship between variables is rejected. This means that there is a significant relationship between variables thus the alternative hypothesis (H_1) is confirmed. So we can conclude that there is a significant and positive relationship between credibility and distribution effect in customers of Max publishing company.

The thirteenth hypothesis

The thirteenth hypothesis examines the relationship between credibility and low cost effect in Max publishing company. To test this hypothesis, it is expressed as H_1 (representing the claim) and H_0 (representing the opposite claim).

H_0: there is no significant and positive relationship between credibility and low cost effect in Max publishing company.

H_1: there is a significant and positive relationship between credibility and low cost effect in Max publishing company.

Table 13. Results of Pearson correlation test for the thirteenth hypothesis

Variables		Pearson correlation coefficient (r)	Significance level	Number
Independent	Credibility	0.683	0.000	210
Dependent	Low cost effect			

The results of the table 13 show that the observed correlation coefficient (0.683) with a significance level of P=0/000</05 is significant. When the significance level of a variable is less than 0.05, the null hypothesis

(H_0) indicating that there is no relationship between variables is rejected. This means that there is a significant relationship between variables thus the alternative hypothesis (H_1) is confirmed. So we can conclude that there is a significant and positive relationship between credibility and low cost effect in Max publishing company.

The fourteenth hypothesis

The fourteenth hypothesis examines the relationship between surprise effect and brand image in Max publishing company. To test this hypothesis, it is expressed as H_1 (representing the claim) and H_0 (representing the opposite claim).

H_0: there is no significant and positive relationship between surprise effect and brand image in Max publishing company.

H_1: there is a significant and positive relationship between surprise effect and brand image in Max publishing company.

Table 14. Results of Pearson correlation test for the fourteenth hypothesis

Variables		Pearson correlation coefficient (r)	Significance level	Number
Independent	Surprise effect	0.832	0.000	210
Dependent	Brand image			

Source: Author

The results of the table 14 show that the observed correlation coefficient (0.832) with a significance level of P=0/000</05 is significant. When the significance level of a variable is less than 0.05, the null hypothesis (H_0) indicating that there is no relationship between variables is rejected. This means that there is a significant relationship between variables thus the alternative hypothesis (H_1) is confirmed. So we can conclude that there is a significant and positive relationship between surprise effect and brand image in Max publishing company.

The fifteenth hypothesis

The fifteenth hypothesis examines the relationship between distribution effect and brand attitude in customers of Max publishing company. To test this hypothesis, it is expressed as H_1 (representing the claim) and H_0 (representing the opposite claim).

H_0: there is no significant and positive relationship between distribution effect and brand attitude in customers of Max publishing company.

H_1: there is a significant and positive relationship between distribution effect and brand attitude in customers of Max publishing company.

Table 15. Results of Pearson correlation test for the fifteenth hypothesis

Variables		Pearson correlation coefficient (r)	Significance level	Number
Independent	Distribution effect	0.592	0.000	210
Dependent	Brand attitude			

Source: Author

The results of the table 15 show that the observed correlation coefficient (0.592) with a significance level of P=0/000</05 is significant. When the significance level of a variable is less than 0.05, the null hypothesis (H_0) indicating that there is no relationship between variables is rejected. This means that there is a significant relationship between variables thus the alternative hypothesis (H_1) is confirmed. So we can

conclude that there is a significant and positive relationship between distribution effect and brand attitude in customers of Max publishing company.

The sixteenth hypothesis

The sixteenth hypothesis examines the relationship between low cost effect and brand attitude in customers of Max publishing company. To test this hypothesis, it is expressed as H_1 (representing the claim) and H_0 (representing the opposite claim).

H_0: there is no significant and positive relationship between low cost effect and brand attitude in customers of Max publishing company.

H_1: there is a significant and positive relationship between low cost effect and brand attitude in customers of Max publishing company.

Table 16. Results of Pearson correlation test for the sixteenth hypothesis

Variables		Pearson correlation coefficient (r)	Significance level	Number
Independent	Low cost effect	0.487	0.000	210
Dependent	Brand attitude			

Source: Author

The results of the table 16 show that the observed correlation coefficient (0.487) with a significance level of P=0/000</05 is significant. When the significance level of a variable is less than 0.05, the null hypothesis (H_0) indicating that there is no relationship between variables is rejected. This means that there is a significant relationship between variables thus the alternative hypothesis (H_1) is confirmed. So we can conclude that there is a significant and positive relationship between low cost effect and brand attitude in customers of Max publishing company.

The seventeenth hypothesis

The seventeenth hypothesis examines the relationship between distribution effect and brand image in customers of Max publishing company. To test this hypothesis, it is expressed as H_1 (representing the claim) and H_0 (representing the opposite claim).

H_0: there is no significant and positive relationship between distribution effect and brand image in customers of Max publishing company.

H_1: there is a significant and positive relationship between distribution effect and brand image in customers of Max publishing company.

Table 17. Results of Pearson correlation test for the seventeenth hypothesis

Variables		Pearson correlation coefficient (r)	Significance level	Number
Independent	Distribution effect	0.574	0.000	210
Dependent	Brand image			

Source: Author

The results of the table 17 show that the observed correlation coefficient (0.574) with a significance level of P=0/000</05 is significant. When the significance level of a variable is less than 0.05, the null hypothesis (H_0) indicating that there is no relationship between variables is rejected. This means that there is a significant relationship between variables thus the alternative hypothesis (H_1) is confirmed. So we can conclude that there is a significant and positive relationship between distribution effect and brand image in customers of Max publishing company.

The eighteenth hypothesis

The eighteenth hypothesis examines the relationship between brand attitude and purchasing decision of the customers of Max publishing company. To test this hypothesis, it is expressed as H_1 (representing the claim) and H_0 (representing the opposite claim).

H_0: there is no significant and positive relationship between brand attitude and purchasing decision of the customers of Max publishing company.

H_1: there is a significant and positive relationship between brand attitude and purchasing decision of the customers of Max publishing company.

Table 18. Results of Pearson correlation test for the eighteenth hypothesis

Variables		Pearson correlation coefficient (r)	Significance level	Number
Independent	Brand attitude	0.842	0.000	210
Dependent	Purchasing decision			

Source: Author

The results of the table 18 show that the observed correlation coefficient (0.842) with a significance level of P=0/000</05 is significant. When the significance level of a variable is less than 0.05, the null hypothesis (H_0) indicating that there is no relationship between variables is rejected. This means that there is a significant relationship between variables thus the alternative hypothesis (H_1) is confirmed. So we can conclude that there is a significant and positive relationship between brand attitude and purchasing decision of the customers of Max publishing company.

The nineteenth hypothesis

The nineteenth hypothesis examines the relationship between brand image and purchasing decision of the customers of Max publishing company. To test this hypothesis, it is expressed as H_1 (representing the claim) and H_0 (representing the opposite claim).

H_0: there is no significant and positive relationship between brand image and purchasing decision of the customers of Max publishing company.

H_1: there is a significant and positive relationship between brand image and purchasing decision of the customers of Max publishing company.

The results of the table 19 show that the observed correlation coefficient (0.888) with a significance level of P=0/000</05 is significant. When the significance level of a variable is less than 0.05, the null hypothesis (H_0) indicating that there is no relationship between variables is rejected. This means that

there is a significant relationship between variables thus the alternative hypothesis (H_1) is confirmed.

Table 19. Results of Pearson correlation test for the nineteenth hypothesis

Variables		Pearson correlation coefficient (r)	Significance level	Number
Independent	Brand image	0.888	0.000	210
Dependent	Purchasing decision			

Source: Author

So we can conclude that there is a significant and positive relationship between brand image and purchasing decision of the customers of Max publishing company.

The twentieth hypothesis

The twentieth hypothesis examines the relationship between creativity and purchasing decision of the customers of Max publishing company. To test this hypothesis, it is expressed as H_1 (representing the claim) and H_0 (representing the opposite claim).

H_0: there is no significant and positive relationship between creativity and purchasing decision of the customers of Max publishing company.

H_1: there is a significant and positive relationship between creativity and purchasing decision of the customers of Max publishing company.

Table 20. Results of Pearson correlation test for the twentieth hypothesis

Variables		Pearson correlation coefficient (r)	Significance level	Number
Independent	Creativity	0.762	0.000	210
Dependent	Purchasing decision			

Source: Author

The results of the table 20 show that the observed correlation coefficient (0.762) with a significance level of P=0/000</05 is significant. When the significance level of a variable is less than 0.05, the null hypothesis (H_0) indicating that there is no relationship between variables is rejected. This means that there is a significant relationship between variables thus the alternative hypothesis (H_1) is confirmed. So we can conclude that there is a significant and positive relationship between creativity and purchasing decision of the customers of Max publishing company.

The twenty-first hypothesis

The twenty-first hypothesis examines the relationship between credibility and purchasing decision of the customers of Max publishing company. To test this hypothesis, it is expressed as H_1 (representing the claim) and H_0 (representing the opposite claim).

H_0: there is no significant and positive relationship between credibility and purchasing decision of the customers of Max publishing company.

H_1: there is a significant and positive relationship between credibility and purchasing decision of the customers of Max publishing company.

Table 21. Results of Pearson correlation test for the twenty-first hypothesis

Variables		Pearson correlation coefficient (r)	Significance level	Number
Independent	Credibility	0.851	0.000	210
Dependent	Purchasing decision			

Source: Author

The results of the table 21 show that the observed correlation coefficient (0.851) with a significance level of P=0/000</05 is significant. When the significance level of a variable is less than 0.05, the null hypothesis (H_0) indicating that there is no relationship between variables is rejected. This means that there is a significant relationship between variables thus the alternative hypothesis (H_1) is confirmed. So we can conclude that there is a significant and positive relationship between credibility and purchasing decision of the customers of Max publishing company.

4. CONCLUSION

The main hypothesis: there is a relationship between guerilla marketing and customers' purchasing decision.

The results of the statistical analysis of sample data indicate that there is a significant correlation between guerilla marketing and individuals' purchasing decision with a significance level of 0.005. According to the results obtained we can conclude that guerilla marketing is an activity that gives a customer's information to another one and this way it guides them. It also motivates people to the company's marketing message to others so companies and organizations' managers are recommended to be proactive in providing customers with information that would inform them about the quality of goods and services. Because this way, the positive advertising effect in the field of companies and organizations' activities will benefit them more than before.

The first sub-hypothesis: there is a relationship between guerilla marketing and buzz marketing in Max publishing company.

The results obtained from data analysis related to the relationship between guerilla marketing and buzz marketing (with a significance level less than 0.005) reflects a significant relationship between variables. Buzz marketing refers to the role of all mass media and social media such as Facebook, Twitter and MySpace etc as ways and means to increase companies and organizations' products sales. According to the results of this study, organizations' managers are recommended to use people's trust in other family members as a means to benefit from these social networks for advertising and using positive word of mouth marketing of their products. Thus, people' excitement about organizations' products and services will increase.

The second sub-hypothesis: there is a relationship between guerilla marketing and contextual marketing in Max publishing company.

P-values (significance level) less than 0.005 in the results of data analysis related to the relationship between guerilla marketing and contextual marketing represents a significant relation between dependent and independent variables. According to the results, managers are recommended to install advertising billboards and announcements in ordinary places such as highways and public places where there are a lot of people so they could advertise their products and services more and increase their sales.

The third sub-hypothesis: there is a relationship between guerilla marketing and ambush marketing in Max publishing company.

The results obtained from data analysis related to the relationship between guerilla marketing and ambush marketing with p-value less than 0.005 reflects a significant relationship between variables. Since ambush marketing is one of the conventional methods of marketing to promote and advertise the products, managers are recommended to use famous brands and celebrities to support their activities and consider powerful sponsors as the backbone of their business.

The fourth sub-hypothesis: there is a relationship between guerilla marketing and viral marketing in Max publishing company.

The results obtained from data analysis related to the relationship between guerilla marketing and viral marketing with p-value less than 0.005 reflects a significant relationship between these variables. Viral marketing man's encouraging people to transfer commercial messages to others and it also creates the possibility of promotion growth in message display and influence. Thus, to enhance the advertising of companies' products, managers who are trying to increase customers' satisfaction and products' sales must consider using this type of marketing.

The fifth sub-hypothesis: there is a relationship between buzz marketing and creativity in Max publishing company.

The results obtained from data analysis related to the relationship between buzz marketing and creativity with p-value less than 0.005 shows a significant relationship between these variables. The use of creative advertising strategy is one of the most important factors to successfully sell a company's products or services. Besides, creative advertising is of great importance in marketing and making balance between creative advertising and effective advertising is a difficult task. According to the results obtained here, managers are recommended to use ads relevant to their target market and take into account the audience because creative advertising makes customers to easily remember the positive feeling they have received before from the ads and this will make them keep buying. Creative advertising attracts more attention which leads to a better understanding of the company and the brand.

The sixth sub-hypothesis: there is a relationship between buzz marketing and credibility in Max publishing company.

With p-value less than 0.005, the results obtained from data analysis related to the relationship between buzz marketing and credibility shows a significant relationship between dependent and independent variables. Credibility or believability is one of the most important things that must be considered in advertising a brand and if consumers recognize the credibility of an advertisement, it'll be more likely to improve their positive attitude towards the product. Positive attitude towards an ad creates a positive attitude towards the company and its brand. According to the analysis results of the study, executives are recommended to pay more attention to this variable. Because believability of information on a product depends on the brand itself and its willingness to and ability to deliver what it has promised to the buyers.

The seventh sub-hypothesis: there is a relationship between contextual marketing and credibility in Max publishing company.

With p-value less than 0.005, the results obtained from the analysis of the data related to the relationship between contextual marketing and credibility indicates a significant relationship between dependent and independent variables. Managers are recommended to take into consideration this variable because credibility of information about a product depends on the brand itself and its willingness to and ability to deliver what it has promised to the buyers. Because credibility or believability is one of the most important things that must be considered in advertising a brand and if consumers recognize the credibility of an advertisement, it'll be more likely to be able to improve their positive attitude towards the product.

The eighth sub-hypothesis: there is a relationship between ambush marketing and creativity in Max publishing company.

The results obtained from data analysis related to the relationship between ambush marketing and creativity with p-value less than 0.005 reflects a significant relationship between these variables. Managers are recommended to use ads relevant to their target market and pay attention to the audience because creative advertising helps customers to easily remember the positive feeling they have received from the ads they've seen before and this will make them keep buying.

The ninth sub-hypothesis: there is a relationship between viral marketing and credibility in Max publishing company.

P-value less than 0.005 in the results obtained from the analysis of the data related to the relationship between viral marketing and credibility indicates a significant relationship between dependent and independent variables. What was explained on the viral marketing and credibility of advertising companies' products and services regarding the relationship between other variables examined in this study applies for these variable as well.

The tenth sub-hypothesis: there is a relationship between creativity and surprise effect in Max publishing company.

P-value less than 0.005 in the results obtained from the analysis of the data related to the relationship between creativity and surprise effect shows a significant relationship between dependent and independent variables. The positive effect of guerilla marketing is divided into three types of surprise effect, distribution effect and low cost effect. These effects combined would form the positive effect of guerilla marketing. Therefore, managers are recommended to perform marketing in unusual environments as well to advertise their products and services.

The eleventh sub-hypothesis: there is a relationship between creativity and distribution effect in Max publishing company.

With significance level less than 0.005, the results obtained from the analysis of the data related to the relationship between creativity and distribution effect shows a significant relationship between dependent and independent variables. The directors are recommended to use distribution effect which is a convenient way to increase the number of people who are exposed to company's ads without increasing advertising costs.

The twelfth sub-hypothesis: there is a relationship between credibility and distribution effect in Max publishing company.

With significance level less than 0.005, the results obtained from the analysis of the data related to the relationship between credibility and distribution effect shows a significant relationship between dependent and independent variables. All recommendations proposed to the managers in the field of advertisement creativity and distribution effect are also suggested in this part.

The thirteenth sub-hypothesis: there is a relationship between credibility and low cost effect in Max publishing company.

The significance level less than 0.005 of the results obtained from the analysis of the data related to the relationship between credibility and low coat effect shows a significant relationship between dependent and independent variables. Managers are recommended to keep the costs of advertising at minimum and use ambush marketing to spend the minimum expense for advertising purposes.

The fourteenth sub-hypothesis: there is a relationship between surprise effect and brand image among customers.

The significance level less than 0.005 of the results obtained from the analysis of the data related to the relationship between surprise effect and brand image shows a significant relationship between dependent and independent variables. Given that brand image is linked to the customers' perception of a specific brand, the importance of brand image created in customer's mind gets more weight and advertising is an important way to differentiate your own product from similar competitive products.

The fifteenth sub-hypothesis: there is a relationship between distribution effect and brand attitude of customers.

The significance level less than 0.005 of the results obtained from the analysis of the data related to the relationship between distribution effect and brand attitude shows a significant relationship between dependent and independent variables. The results of this relationship correspond with the study conducted by Liu in 2012. Brand attitude is a person's sustainable evaluation about a brand. Attitude depends on the individual's perception of a brand and affects his behavior. Brand attitude is one of the most basic preliminaries that affects consumer's behavior. This effect could lead to either buying from the company or avoid it.

The sixteenth sub-hypothesis: there is a relationship between low cost effect and brand attitude of customers.

The significance level less than 0.005 of the results obtained from the analysis of the data related to the relationship between low cost effect and brand attitude represents a significant relationship between dependent and independent variables. Recommendations proposed to managers in order to promote advertisement of products and services in relation to the last variables (distribution effect and brand attitude) also apply in this relationship.

The seventeenth sub-hypothesis: there is a relationship between distribution effect and brand image in customers.

The significance level less than 0.005 of the results obtained from the analysis of the data related to the relationship between distribution and brand image represents a significant relationship between dependent and independent variables. Brand image largely depends on the quality and advantages of the product as well as the extent to which the product can meet customers' needs. Given the fact that often there is a very small difference in the characteristics of similar products, the image made in customer's mind by brand is of great importance.

The eighteenth sub-hypothesis: there is a relationship between brand attitude and purchasing decision in customers.

The significance level less than 0.005 of the results obtained from the analysis of the data related to the relationship between brand attitude and purchasing decision represents a significant relationship between dependent and independent variables. The previous theories and research have shown that consumer's emotional behavior response can clearly affect the positive attitude towards product and brand and eventually lead to consumer's buying decision. So it is very important that a company's director focus on consumers' attitude and methods to strengthen it.

The nineteenth sub-hypothesis: there is a relationship between brand image and purchasing decision in customers.

The p-value less than 0.005 in the results obtained from the analysis of the data related to the relationship between brand image and purchasing decision represents a significant relationship between dependent and independent variables. Description provided for the eighteenth hypothesis is true for this relationship as well.

The twentieth sub-hypothesis: there is a relationship between creativity and purchasing decision in customers.

The p-value less than 0.005 in the results obtained from the analysis of the data related to the relationship between creativity and purchasing decision represents a significant relationship between dependent and independent variables.

The twenty-first sub-hypothesis: there is a relationship between credibility and purchasing decision in customers.

The significance level less than 0.005 in the results obtained from the analysis of the data related to the relationship between credibility and purchasing decision represents a significant relationship between dependent and independent variables. In support of this hypothesis we can say that adequate explanations on the credibility of advertising messages and consumers' purchasing decisions were provided in the relationships between previous variables.

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ORIGINAL RESEARCH PAPER

THE EFFECT OF THE BRAND FEATURES ON THE CUSTOMER DECISION MAKING RAFSANJAN PISTACHIO COOPERATIVE

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Abstract

This study aimed to investigate the effects of brand features such as brand awareness, brand image, brand satisfaction, brand trust and brand attachment on customer decision making has been done; So, in this study, tried to relationships between identified variables in the form of a structural equation model be presented to be able to discover relationships between variables. The population of this study, is 500 people of Pistachio buyers of Rafsanjan pistachio cooperative which then calculates the sample size the questionnaires were distributed in sample of 217. To analyze the collected data and to determine and determine the relationship among variables structural equation modeling techniques is used. Also, analysis of the founded data using SPSS statistical software and LISREL has been made. Cronbach's alpha test is used to calculate reliability. Cronbach's alpha coefficient in this study were 911/0. Finally, based on the results of the study showed that brand awareness, brand image, brand satisfaction, brand trust and brand attachment is effective in the purchasing decision.

JEL *classification: M37, M39*

Keywords: *Brand awareness, brand image, brand satisfaction, brand trust, attachment to the brand and consumer behavior.*

1 INTRODUCTION

In recent decades, branding and creating brand has been interest for many marketers and create strong brands, is one of the most important goals of brand management. Strong brands, makes high revenue streams in the short-term and long-term (Aaker, 1996; Kapferer, 2004); Therefore, the strategic goal of brand management is the brand creation that remain for decades and can have an influence on product classes and markets (Radlfash et al., 2006, p. 98). Brand managers and marketers, spend many time and costs to measuring the awareness of brand and subjective image of brand. Many studies, also, about affecting factors on the subjective image of the brand name and how the formation of mental images is conducted. Also, in the case of brand and branding, affecting factors on the brand relationships and branding concept to detailed research has been conducted and each study as separate to investigate a series of components such as subjective image of the brand or awareness of brand is discussed. For a long time, creating awareness of brand and as subjective image of the brand, has been a key goal of brand management. But recently, marketers have found that the mere brand recognition and subjective image of the brand could not making to purchase that product or that service. High costs that is speding on ads only making the awareness of the brand and can be effective in shaping the image of the brand, but advertising, does not guarantee customers buying and could not makes the loyalty to the brand. Researchers who have researched about the brand, have been reviewed the different concepts of the brand and how their affect on purchase decisions of consumers. Early models such as brand equity model also heavily depends on how to understand and assess

the customers of the brand by examination of the structure of specified knowledge such as awareness of the brand and subjective image of the brand and brand personality is focused (Krsmn et al., 2006, p. 954). Brand, is considered the part of the intangible assets of companies that can create high value for companies. In fact, for the success and competitiveness in today's world, creating brand should be considered as a long-term strategy of the companies. The manufacturing of products of the Company, Packaging, design, etc. of a company can change, but the brand is a constant. And using the fame of its name, can bring the new products to market and successfully sell it. Strong brand name will decrease the marketing expenses, thus creating strong brands is one of the most important goals of the managers. Strong brands, generate wealth and high incomes for companies. Of course, building and maintaining a strong brand cannot be achieved only through advertising. The strategic goal of brand management is createing a brand that remained for decades and could be leverage in different classes of goods and market (Radlfash et al., 2006, p. 98). Given that pistachio is a strategic commodity in the world and known as green gold and as well as Iran's pistachio is considered as Iran's major export commodities and that the majority of Iranian pistachios in Rafsanjan is product and exported. But, unfortunately, the majority of exports as well as domestic sales of pistachios takes places as bulk and traditionally that this issue, makes that less added value be created. Recently, the brand relationships such as trust and satisfaction from brand have been considered to marketers because in their view, the mere recognition of the brand cannot shape customer buying behavior; Therefore, in this study we try to find that the influence brand features such as brand awareness, brand image, brand satisfaction, brand trust and brand attachment on customer decision making pistachios, Rafsanjan Pistachio cooperative, in Rafsanjan city.

2 THE LITERATURE OF THE STUDY

Today, the main asset of many businesses is their brands. For decades, the value of a company in terms of real estate, tangible property, companies and its equipment was measured. But recently, has been concluded that the real value of a company is in the minds of potential buyers (Kapferer, 2008, p. 71). One of the goals of marketing science, was study of consumer behavior methods and the influencing factors on this behavior that it can influence on ways of consumer behavior. (Maleki, 2006, p. 89); So, in this study, an overview of these issues and their impact are discussed.

2.1 THE FEATURES OF THE BRAND

In this study, the brand features include things such as brand awareness, brand image, brand satisfaction, brand trust and brand attachment is considered That this item can be briefly defined as follows:

Brand awareness refers to the strength of the brand in memory; That is, how much it is easy for consumers remember the brand (Keller, 1993, p. 2). Brand awareness is an important component of brand equity that sometimes is not as it should pay attention to it. Awareness of the brand can effect on the customer perceptions and makes the transcendence of the brand in the minds of the customers (Aaker, 1996, p. 114). The subjective image of the brand, including all evokes that connect consumers with brands. These evokes, makes the uniquely and be strong the non-functional nature of the brand. Brand evokes, by the related experiences of brands and products, the brand status in promotional communication and images of the users is create and develop (Kvmaravl et al., 2012, p. 35). Satisfaction is an emotional response that on the product performance during use or after use in compared to some of the standards that we have before buying is emphasis (Haystd and others, 1994, p. 17). Customer satisfaction is defined in a range of perceived performance of any of the goods in opposite of adaptation with the expect of the buyer. The expect of assurance of validity and related plans to the brand, thus the concept of brand trust is reflected as two distinct that reflect different perspectives that in this manner relevant brand can be introduced reliable (Delgado et al., 2003, p. 4). Commitment or loyalty to the customer saves the cost of searching for a new relationship with other brands, in addition, attachment to the brand can be associated with brand commitment (Radlfash et al., 2006, p. 100).

2.2 CUSTOMERS' PURCHASE DECISIONS

Customers' purchase decisions directly and closely linked to consumer behavior. Consumer behavior, is included mental activity, emotional and physical that people during the buy, use and investment products and services to satisfy thier needs. In other words, consumer behavior is a series of mental and physical processes that is starting before buy, and continues after consumption (Maleki, 2004, p. 71).

Accordingly, users of the product, based on the power of commitment to the brand (from low to high) are divided into several categories of Variety-seeking customers, moderate customers, unchanging customers and inaccessible, relatively unavailable people, erratic and accessible people.

Kang et al (2014) conducted a study as "strengthening consumer relations with brand named on Facebook pages Restaurants - maximizing consumer benefits and active participation". 214 people of the students of pilot course from this University for the sample size of this study were studied. The method of analysis in this research using statistical techniques and the use of structural equation modeling. The results of the analysis and facilitate of data showed that when advocated members in terms of socio-psychological interests and theological are met in the pages of communications, they show more interest to visit restaurants Facebook pages. Since the members can participate in the advocated interpretations of restaurant facebook page and make the development of trust and a strong commitment to their brands that is why this study is to investigate Facebook as a basic marketing tool provides practical foundation for future research and also represents the brand management strategy in online communities today. Albert and Merovnka (2013) in a study have investigated the the role of love in the relationship between brand and consumer. The hypotheses of this research on a sample of 1505 people of consumers have been studied. To investigating of hypotheses of this research, statistical techniques is used. The results of the research indicate that brand identity has a significant and positive effect on love to brand and commitment to the brand(60/0), trust to the brand has a significant and positive effect on love to the brand and commitment to the brand (50/0), love to the brand has significant and positive effect on the word of mouth ads (62/0) and willingness to pay higher prices (36/0),), commitment to the brand has significant and positive effect on the word of mouth ads and willingness to pay higher prices (46/0).

Yassin and Shamim (2013) in a study have been investigated the role of mediator love to the brand in the relation between intentions of shopping and word of mouth advertising. Sampling in this study is Simple Random Sampling and collected data from 265 people of mobile clients in Islamabad (Pakistan)
Using correlation and regression in SPSS software were analyzed. The results of the statistical test for Hypothesis as purchase intentions and love to the brand (778/0), Love to the brand on the word of mouth advertising (795/0), purchase intentions on the word of mouth advertising (725/0), is purchase intentions on the love of brand and then word of mouth advertising (268/0).

Hidayat and ajeng (2013) in a study entitled " Affecting Factors on attitude and willingness to buy counterfeit luxury brand among consumers in Indonesia," examined this case. This research mainly is examined the effect of social factors and personality factors in order to create an approach to buy counterfeit product that is in the field of handbags. Nearly of 250 respondents in the age range 40-16 years participated in this regard collected by questionnaire. The Statistical analysis of this study showed that social and personality factors have a major impact on this attitude. The study showed the positive attitude of consumers about counterfeit product with strengthen the purchase will further. While does not affect in the situation of consumers.

Farmer et al (2015) in a study entitled "explain the relationship between product features, customer experience and brand equity with purchase decisions and loyalty to brand to cell phone in the city of Ahvaz" have been examained. The statistical population of the study, isa mobile phone users in the city of
Ahvaz. Given the impossibility of access to the entire of statistical population, using purposive sampling 400 people were selected for the sample. The data collection instrument was a questionnaire that using structural equation modeling and LISREL software data were analyzed. The results of hypothesis testing showed that three variables facil usage, usefulness and aesthetics had not a significant positive impact. on each of the variables and from the mobile phone product features, only entertainment features that has a

significant positive relationship with customer experience and brand equity. Also, there is a significant relationship among the variables of brand equity with purchase decision and brand loyalty of mobile product.

Zamani Moghadam and Jafari far (2014) in a study has been examined "the relationship of aspect between customer-based brand equity with a desire to buy customers (buyers Hyundai cars in Tehran)". The statistical population of the study consisted of cluster sampling among customers of Hyundai dealers in Tehran with samples of 384 people using a valid and reliable questionnaire has been collected and to test the hypothesis, one-sample t test, t-test and ANOVA is used. and data have been analyzed with LISREL software. After analyzing questionnaire data, it was found among the three variables of brand equity, willingness to pay a higher price and popularity of the brand, the popularity of the brand has the most relevant to customers' willingness to buy. And brand image with tend to customers' purchase, directly was not significant. And brand image indirectly through brand equity and brand popularity was linked with a desire to buy in customers.

3 THE MODEL AND HYPOTHESES OF THE RESEARCH

Theoretical models based on structures of brand awareness, positive subjective image, brand satisfaction, brand trust, attachment to the brand and purchase decisions, is shown in Figure 1:

Figure 1. The conceptual model

based on the hypotheses of this research and based on the theoretical framework and conceptual model is visible in below:

1. Brand awareness has a positive impact on customer decision making.
2. Positive mental image of the brand has a positive effect on customer decision making.
3. the satisfaction of the brand has a positive impact on customer decision making.
4. brand trust has a positive impact on customer decision making.
5. Attachment to the brand have a positive impact on customer decision making.

4 RESEARCH METHODOLOGY

This study, in terms of target is in the field of applied research and given that in this study, research, library and field methods such as questionnaires is used, can be stated that this study based on the nature and method, is a descriptive survey. In order to collect the necessary data in this research in the field of literature and theoretical foundations of the study and library information and for field data collection a questionnaire was used. The statiscal population in this study are Pistachio Buyers of Rafsanjan pistachio cooperative in Rafsanjan city. To determine the sample size in this research Cochran formula is used that Considering that the statiscal population is 500 people, the sample is obtained 217 people that the questionnaire distributed

among that number. In this study, a questionnaire was used to collect data. A questionnaire is being used in this study that related options to the brand awareness includes four options, the number of Options of positive mantal image of brand contains four options, the number of options of satisfaction are included from 7 options, related Options for brand trust is 4 option, variable options of attachment to the brand allocated 7 and related Options to customer decision making include 4 options. In this study, to investigate the validity of the questionnaire the face and content validity methods is used. In this way, tha the questionnaire given some experts and professors management and behavioral sciences and about the questiones and evaluated of the hypothesis had been survived that Unanimously approved the questionnaire. Also, for the verification of the questionnaire is used confirmatory factor analysis. Also, to test reliability Cronbach's alpha coefficient is used. In this study, Cronbach's alpha coefficient for brand awareness to is equal to 811/0, and for mental image of brand is equal to821/0, To the satisfaction of the brand is equal to 860/0 For trust in the brand is 794/0, For attachment to the brand is 841/0, To decide to buy is 751/0 and for all the questionnaire is calculated to 911/0. Therefore, the reliability of the questionnaire were very favorable. Statistical methods used in this study can be divided into two inferential statistics and statistical methods. Data analysis was performed using SPSS software and LISREL. Also, to investigate the status of validity of the questionnaire, confirmatory factor analysis and structural equation modeling hypotheses used.

5 ANALYZE THE INFORMATION

As was explained, in the descriptive methods, the attempt is to provide tables and descriptive statistics such as means, measures of central tendency and dispersion, to describe the research data to this issue, to help the transparency of the research. The following table includes descriptive statistics for all variables are used in research. In the first part, the central tendency and dispersion variable of the study is provided. Among the central index, mean and median and among rhe index of dispersion, standard deviation variable is used. The figures in this table, are calculated using software Spss.

Table 1. Descriptive statistics of variables

Elongation	Skewness	Variance	Standard deviation	Average	Variable
0/032	-0/147	0/315	0/562	3/62	Brand awareness
0/181	-0/427	0/453	0/673	3/62	Positive mental imagery of the brand
0/040	-0/074	0/380	0/616	3/54	Brand satisfaction
-0/500	-0/156	0/446	0/668	3/70	Brand trust
-0/110	-0/230	0/416	0/665	3/53	Attachment to the brand
0/210	-0/561	0/398	0/631	3/87	Customers' purchase decisions

Source: Author

Table 1 shows, the average of all component is higher than number 3 and as the whole 5-point average above 3 indicates that the selected variable in the population is in favor of its status. After descriptive analyzing of

data, to pay inferential statistics of data. In the inferential analysis, hypotheses of research are test and evaluated.

5.1 STRUCTURAL EQUATION MODELING

In this section, the measurement model of study is examining. As we know, the measurement model is a model based on pre-empirical information about the structure of data which can be in the form of a theory or hypothesis, a classification scheme for specified items or some of the tests in accordance with objective characteristics of form and content, Experimental given conditions and or be the gained knowledge from previous studies about the large.data. Among the different methods that there is to study the internal structure of a set of markers, confirmatory factor analysis method is most useful that is taking to the estimation of parameter and hypothesis testing with respect to the number of infrastructure deals with the relationship between markers (Homan, 1388). In this study, a questionnaire tool was used to collect the data. Therefore, using confirmatory factor analysis, the overall structure of survey questionnaires the content has been validated. For confirmatory factor analysis and structural equation modeling standard factor loading and the t-statistic is calculated. In general, the following rule prevails:

Power relationship between factors (latent variables) and visible variables, is shown by factor loading. factor Loading is a value between zero and one. If the factor loading be less than 3/0 relationship considered weak and is ignored. factor loading is acceptable between 3/0 to 6/0 and if be larger than 6/0 is highly desirable. When the correlation between variables were identified; meaningful test must be done. To investigate the significance of the relationship between the variables, t test or the t-value is used. Because that the significant in the level of 05/0error is investigated, therefore, if the rates of observed factors loading with t-value calculated of less than 96.1, the relationship is not significant and LISREL software will be displayed in red (Klein, 2014, 55).

5.2 TESTING THE HYPOTHESES OF THE RESEARCH

Structural equation modeling was used to assess the relationship between the main structures. The final model is presented in Figure 2. This model is drawn based on the outcome of LISREL.

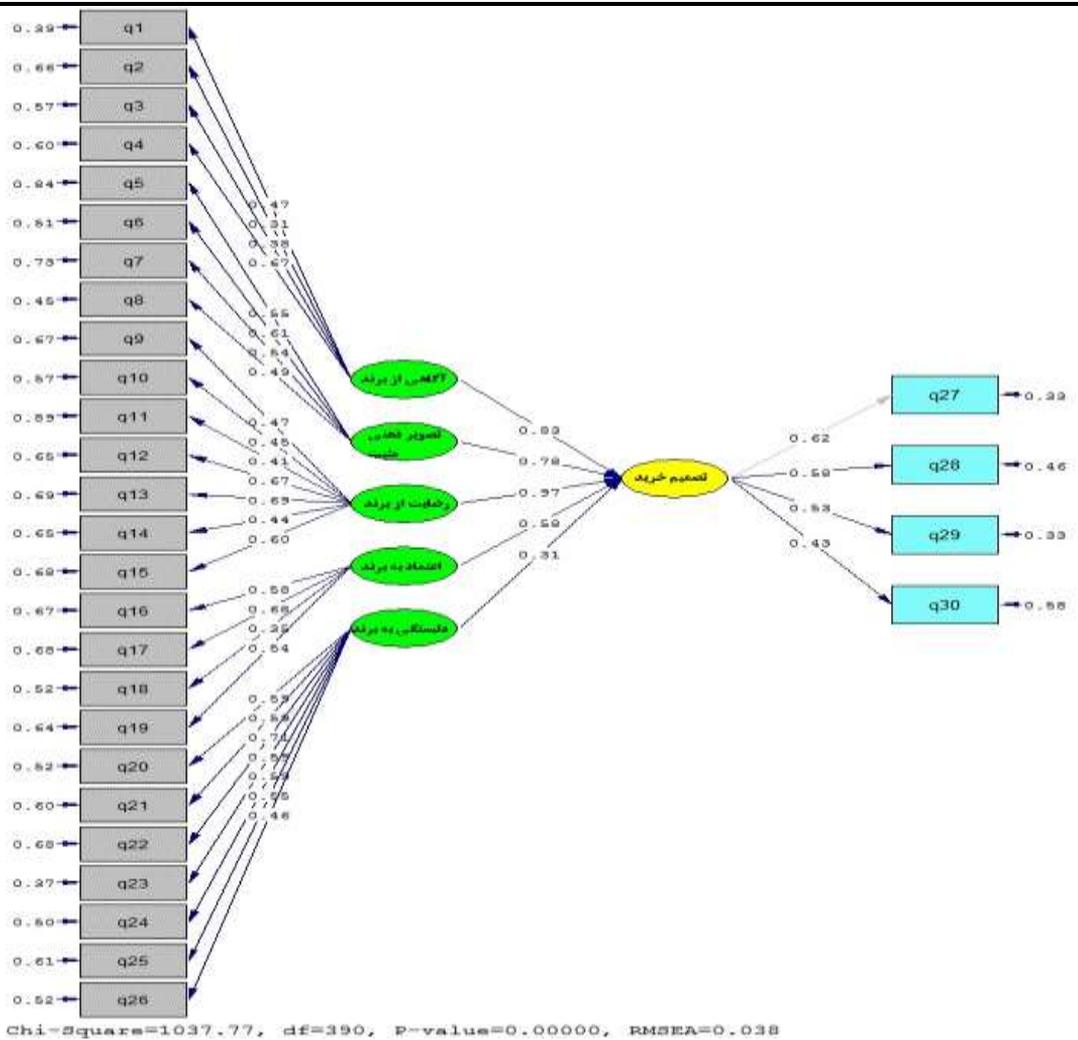Chi-Square=1037.77, df=390, P-value=0.00000, RMSEA=0.038

Figure 2. The results confirmed the relationship between the variables of the final model The

results from significant measurement data model is presented in Figure 3.

According to calculations carried out, the strength of the relationship between brand awareness and purchase decisions of customers is calculated 83/0. Shows that correlation is desirable. T test statistic is derived 13/8 that is greater than the critical value t at the error level of 5% was 96.1 and shows the observed correlation is significant; So, we can say that brand awareness has a positive impact on customer decision making. The strength of the relationship between positive image of the brand and purchase decisions of customers is equal to 78/0 and t-test is obtained 78/7; So, we can say that there is a positive effect between positive image of the brand and purchase decisions of customers. The strength of the relationship between satisfaction of the brand and purchase decisions of customers 97/0 and t-test is obtained 11/9; Thus, the satisfaction of the brand has a positive impact on the customer decision making. The strength of trust to the brand and purchase decisions of customers 58/0 and t-test is obtained64/5; Therefore, we can say that there is a significant positive effect between brand trust and customer decision making.

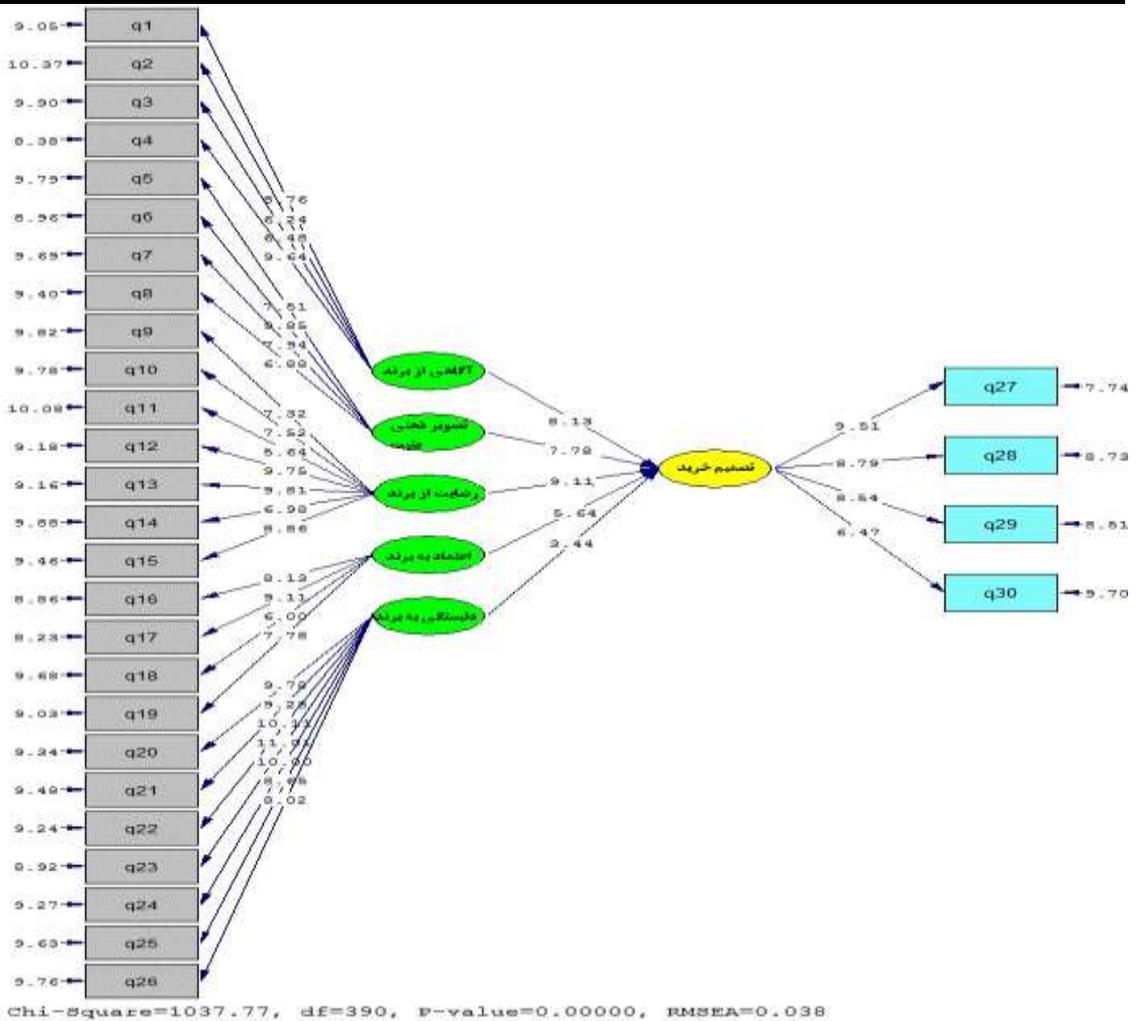Chi-Square=1037.77, df=390, P-value=0.00000, RMSEA=0.038

Figure 3: t-value test results confirmed the relationship between the variables of the final model

The strength of the relationship between attachment to the brand and purchase decisions of customers is calculated 31/0 Shows that correlation is desirable. t-test statistics also obtained 44/3 show that the observed correlation is significant; Therefore, the fifth research hypothesis is confirmed and Attachment brand has a positive impact on customer decision making. Consequently, all subsidiary assumptions of research and studies according to approved models has been confirmed.

6 CONCLUSION

This study aimed to investigate the the effect of the brand features on the customer decision making Rafsanjan Pistachio Cooperative has been done. This assessment, based on the buyer's perspective of Rafsanjan Pistachio with different educational levels and different ages have taken place. To with a nalytical perspective and compared to the results with more accuracy and reliability be obtained. In this regard, various inferential statistical tests to examine the relationship between the brand features on customer decision making Rafsanjan Pistachio Cooperative has been used. In the first hypothesis of the research standard factor loading between brand awareness and purchase decisions of customers is calculated83/0, Shows that correlation is desirable. T test statistic is derived 13/8 Indicating that the observed correlation is significant, so the first hypothesis is confirmed. In reviewing the standard factor loading of the second hypothesis about a positive mental image of the brand and purchase decisions of customers is calculated

78/0 Shows that correlation is desirable and T test statistic is derived 78/7 Indicating that the observed correlation is significant, so the second hypothesis is confirmed. In the third hypothesis of research standard factor loading of the relationship between the brand and purchase decisions and customer satisfaction to 97/0 calculated to show that correlation is desirable. T test statistic is derived 11/9 Indicating that the observed correlation is significant, so the third hypothesis is confirmed. In reviewing of fourth hypothes is the standard factor loading about brand trust and customer decision making power is calculated to 58/0 Shows that correlation is desirable. T test statistic is derived 64/5 Indicating that the observed correlation is significant, so the fourth hypothesis is confirmed.

In studying the fifth study of the relationship between attachment to the brand standard factor loading and the Customers' purchase decisions calculated to 31/0 show that corrletion is desirable. T test statistic is derived 44/3, Indicating that the observed correlation is significant, so the fifth research hypothesis is confirmed. According to the results of the analysis of the data, we can say that the results of this study with the results of other researchers including zamani moghadam and haffari far (2015), Amar and Zendehdel (2013), Albert and Mrvnka (2013), Yasin and Shamim (2013) with the is coordinate with the research hypothesis.

According to the first hypothesis, we have the brand awareness and purchase decisions of customers are positive and significant effect. Accordingly, we can say

• For Expanding the brand to increase consumer understanding of the brand and customer psychological communications

• For customers with appropriate design name, brand logo and sign evokes in the mind can be achieved

• Proper packaging, advertising activities and product promotion as well as public relations, support for social and cultural events and activities and ...

Based on the hypothesis we have that the positive image of the brand and purchase decisions of customers are positive and significant effect. Accordingly, we can say:

• Accepting suggestions and opinions of other stakeholders (for example, the supplier and the government).

• Considering to the slogan or resonance for brand positioning and create a positive brand image.

• Due to the convenience for the customer, their reliability, effectiveness and attractive appearance of the final product or service that can deliver them successfully and be supported by the company's marketing programs.

Base on the third hypothesis to the satisfaction of the brand and purchase decisions of customers are positive and significant effect. Accordingly, we can say:

• Employing staff with interests beyond the minimum necessary to carry out certain aspects of business operations.

• Increase and improve product quality and review of customer complaints.

• Appropriate Treatment with internal customer and supplier interactions with staff and process for their order.

The fourth hypothesis we have that between brand trust and customer decision making there is a significant positive effect. Accordingly, we can say:

• Further understanding of Marketers of the emotional needs of consumers.

• Using attractive promotions to stimulate emotions and innovation.

• Client confidentiality, oral propaganda and insufficient information.

Base on the fifth hypothesis we have that the attachment to the brand and purchase decisions of customers are positive and significant effect. Accordingly, we can say:

• Favorite language Advertising, active participation in brand committees and ignore their mistakes.

• Consider to the strong brand connection, over time and with the development of objective and subjective experiences, memories, personal meaning and creates trust.

In future research, brand awareness, positive mental image, satisfaction, trust and attachment to the brand in organizations with closely structure must be studied that the obtained results have more strength to perform. Also, the subject mentioned in other companies were investigated and the results were compared with each other. Can by using with various models that incorporate the theme of this study are available and tested these models to valuable findings on customer-based brand equity achieved. In this study, efforts have been made to different variables that influence customers' purchasing decisions, be analyzed but since few studies have been conducted in the scientific community Therefore, future researchers can act by increasing the range of their studies to improve Designed scale by identifying and adjusting items.

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AN INVESTIGATION ON STRATEGIES OF DEVELOPING LIFE INSURANCE IN IRAN (CASE STUDY: SAMAN INSURANCE COMPANY, QAZVIN PROVINCE)

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Abstract

This study aimed to investigate strategies of developing life insurance in Iran (Case Study: Saman insurance company in Qazvin Province). The population of the study included 135 employees in Saman insurance agencies. In this study, the conceptual model proposed by Mirtabar (2013) was used. According to Morgan table, the sample size was 100 employees. The measurement instrument in the study was a questionnaire consisting of 18 questions. The reliability value of the questionnaire was 0.86, reflecting an acceptable value. In this study, five hypotheses at the 0.95 significance level were examined and confirmed. The results indicated that all the independent variable in case of the realization can develop sales of life insurance.

1. INTRODUCTION

Insurance is one of the most valuable inventions created for social life, the need to compensate for economic losses caused by accidents, and providing comfort and confidence, and has completed the evolution process. Nowadays, the insurance industry is one of the most important economic and financial institutions. The insurance industry plays a key role in strengthening economic and socialbasis and expanding manufacturing and service activities by ensuring the security and providing national savings (Bet, 1982).

Undoubtedly, insurance is one of the creative achievements of human society to cope with the occurrence of unfortunate events. Natural disasters such as fires, earthquakes, floods, storms, and stressful life events such as death, illness, aging, disability is considered as long-time events threatening all mankind (Rajabi, 2005).

Life insurance status in the national economy according to its specific characteristics can play a pivotal role in the activation of the capital market. Mathematical reserves of life insurance companies may provide profitable economic activities. The growth effect of the life insurance on the economy is rapidly enough that many studies show a one-to-one relationship, and development and economic growth for itbased on high significance coefficients. Tax deductions for capital of life insurance in contrast to the relatively high taxes on inheritance can be a good incentive for households to allocate a portion of their income to life insurance demand and provide the significant capital for their family members. Life insurance provides social peace, economic security, and improvement for financial markets. According to life insurance, the insurer promises to pay a designated beneficiary a sum of money (the benefit) in exchange for a premium. Insurance companies, holding a significant source of their mathematical reserves, can invest in different parts leading

to economic dynamics. These parts include development projects and financial markets. Global insurance industry with the growth rate of almost 10% has continued to develop since 1950, reflecting a significant increase in average economic growth rate of all countries in the world (Mahmoud Salehi, 2009).

According to the importance of life insurance to increase safety and peace of all mankind, this study aims to investigate strategies of developing life insurance.

2. THEORETICAL FOUNDATIONS

Since in life insurance there is often a significant time interval between the receipt of premiums by life insurance companies and the payment of compensation, considerable mathematical reserves are formed for any contract and the insurance company can activate the capital market to enable through the optimal use of the reserves and play a more serious role in investment activities, resulting in an increase in employment and economic growth (Goudarzi, 2008).

According to a study conducted by Spazak (2004) entitled "Barriers to marketing and selling life insurance", one of the most important insurance coverage in the insurance industry is life insurance and the importance of this type of insurance lies in direct contact with people. In non-life insurance such as property, the probability of the risk is covered. In life insurance such as death, there is no possibility and it is completely definite, but the time of occurrence is unknown (Farshbafand Maherian, 2009). The main advantage of insurance is giving confidence to the people in order to deal with possible risks. In addition to creating a safe environment for economic activities, insurance provides trust for work and investment in production. Life insurance provides social peace, economic security, and improvement for financial markets. According to life insurance, the insurer promises to pay a designated beneficiary a sum of money (the benefit) in exchange for a premium.

Rastgo (2011) conducted a study entitled "Life Insurance Marketing". According to this study, people's interactions with millions of others throughout his life include the risks and potential damages which compensating for them is sometimes outside the financial power of individuals. Thus, life insurance has been proposed as a mechanism for regulating social relations and its recognition and expansion has a significant contribution in reducing the harmful consequences of adverse events.

Although, the insurance industry in Iran dates back more than seven decades and many attempts have been made to develop it, wide supply of life insurance is faced with many obstacles and there are some problems with enhancing and improving the level of social welfare according to extensive capacity and capabilities in Iran.

Saman Insurance Company is also not an exception. According to the economic downturn in Iran, the sale of insurance policies, such as life insurance, is low in this company. Hence, the researcher tries to investigate strategies of developing life insurance in Saman Insurance Company (Molazadeh, 2013).

The underdevelopment of the life insurance and removing barriers are not considered as a onedimensional problem. Many factors involved in the development of life insurance are rootedin many external factors outside the insurance industry, and planning and policy-making is only possible within the insurance industry. Thus, identifying various aspects of this problem is the necessity of conducting this study on Saman Insurance Company (Karimi, 2009).

2.1. STRUCTURAL FACTORS

1- One of the structural problems of third world countries such as Iran is that there is a class difference between social classes and the majority of people has low earnings or is rather poor. Thus, a very small percentage of people are rich and prosperous and a small percentage isat the middle level. The reason for this is undesirable distribution and the rich people who constitute a small percentage of society have a high

percentage of resources and wealth of society. Because of inflation and people's low income as the persistent problems of Iran, many people have difficulty to provide the basic needs of life and cannot save part of their income for buying life insurance. Rich people trying to increasetheir profits prefer short-term investment projects because of the continuous decline of inflation and the value of money.

2.   The existence of social security insurance is not economic for employees and workers and may have an unfavorable impact on the development of life insurance in our country. Although social security insurance is necessary and considered as part of the duty of the government, the structure of the wholly state-owned social security and pension insurance in the world as the traditional systems has createdsome barriers. In the governmental system of social security and civil servants pension organizations in Iran, civilservants are awarded arelatively good fund in addition to their pension. Even In many cases, their pension is more than the salary received by employees. This procedure is common in Iran; thus, most people do not buy life insurance.

3.   One of the main obstacles to the growth of insurance industry in Iran, especially life insurance,is that the insurance market in Iran is a state monopoly because the High Council of Insurance Central Insurance of Iran determines the tariff of premium and companies have to follow the government for premium rates, and the government is the main shareholder of several companies having the major share in the insurance market (such as Iran, Asia, Alborz, Dana) and other private companies are responsible for a small percentage (about 25%) of the Insurance activities. Therefore, there is no competition between insurance companies in terms of premium rate and the extent of activity, growth, and development of the companies and attracting customers because they have divided the market between themselves; in such a market, there is no competition between the companies in terms of attracting customers and providing better services (RajabiEslami, 2005).

2.2. ECONOMIC FACTORS

1- Inflation: stable inflation in the Iranian economy devalues insurance capital and reduces the purchasing power. Therefore, long-term contracts make life insurance unstable.

2- Unemployment and poverty: Unemployment is one of the problems in Iranian society. In addition, some factors such as poverty resulting from the combination of two factors, including the low level of per capita income and a significant imbalance in income distribution, adversely affect the development of life insurance in Iran.

3- Low level of income:it is also another factor that is associated with the previous factor. There is a direct relationship between income level and demand for life insurance. Reduced purchasing power and income restrictions prevents buying insurance. In the first place, people fulfill their necessary needs and allocate their additional funds to other costs and savings. A study showed that income elasticity of life insuranceto per capita income is 1.57. According to income elasticity of life insurance, life insurance is a luxury item and an increase in income can sharply increase the rate of life insurance premium. Thus, life insurance depends on per capita income and an increase in income will increase the purchase amount of insurance.

4- High dependency ratio: is a direct relationship between dependency ratio and the demand for life insurance in normal circumstances. However, this relationship is reverse in Iran. In developed countries, when the number of dependents increases, head of the family feels the need to buy more insurance in order to insure the future of the family members against negative consequences. In Iran, it is difficult to meet the need of all family members because of the lack of sufficient awareness of life insurance; thus, people do not feel necessary to buy life insurance. According to an increase in the number of children, heads of household think more about meeting their daily needs and consider life insurance as a luxury item.

5- Lack of competitiveness of traditional life insurance with other investment activities

Other economic form in relation to life insurance is that the interest paid by insurance companiesfor traditional life insurance contractsis less than bank interest rates because the areas which insurance companies have to select based on the government orders do not have the appropriate efficiency. Therefore, banking system is more reliable in society than insurance companies. According to the higher bank interest rate compared to interest paid by insurance companies, people are willing to invest in banks.

6 - Cultural, educational, and social factors

1.   Since, the cultural context considers insurance against decree and destiny and considers future events definitive and unchangeable, fatalism keeps people away from any action.

2.   Governance of short-term view on investment, low risk aversion, lack of caution and care, lack of planning for the future, and the culture of short-term thinking are cultural factors contributing to low demand for life insurance in Iran.These groups are extremely unfamiliarwith investment based on longterm benefits, such as life insurance.

3.   One of the cultural problems that most experts consider the cause of the underdevelopment of the life insurance is failure to understand the real concept ofinsurance and lack of knowledge of the benefits of life insurance. Another issue is the low level of insurance knowledge. The number of people with advanced academic degrees in the field of insurance is low. In Iran, life insurance infrastructure studies have not been carried out so far. For example, there is not only a mortality table that is essential for life insurance calculations, but also there are no accurate statistics of the number of dead in Iran.After years of emergence of life insurance in Iran, this country uses mortality tables of other countries, such as France, in spite of differences in culture and health facilities (RajabiEslami, 2005).

7 - Factors related to insurance companies

1.   The lack of an extensive specialized network for sales by agents of insurance companies and the inadequate supply of insurance products by insurers are considered as one of the obstacles to the development of life insurance. In other words, insurance agents and brokers play an important role in the growth of insurance (The difference in the insurance market in terms of marketing).

2.   The lack of competition between insurance companies is considered as a structural problem. Unfortunately, in Iran, the High Council of Insurance Central Insurance determines the tariff of premium and there is no competition between insurance companies. Thus, insurance companies still do not understand insurance market and its potential needs.

3.   Absence of advertising and extensive marketingas factors of progress in the financial markets adversely affect the development of life insurance in Iran.

4.   Another factor for non-development of life insurance in Iran is insurers' poor marketing and lack of using modern methods for attracting customers (Tadbiri, 2006).

8 - Factors relating to government and policy makers

One of the important problems in Iran's insurance industry is the existence of the entirely state-owned system of insurance in the context of planning, policy making, and administration. The laws to determine the tariff by center insurance as well as the way for investing accumulated reserves in insurance companies, such as investing in government bonds with low interest, can increase premiums andnondevelopment of life insurance (RajabiEslami, 2005).

Hence, this study aims to investigate factors affecting the development of life insurance in Iran and provide strategies for development of this type of insurance in Iran, especially in Saman Insurance Company.

For this purpose, the following hypotheses were proposed:

1- Structural factors can develop life insurance.

2- Economicfactors can develop life insurance.

3- Sociocultural factors can develop life insurance.

4- Factors related to insurance companies can develop life insurance.

5- Factors related to government and law can develop life insurance.

3. CONCEPTUAL FRAMEWORK OF RESEARCH

In this study, the conceptual model proposed by Mirtabar (2013) was used because it considered factors and various aspects of the issue.

This study is an applied research in terms of purpose and a descriptive survey in terms of method. The study was conducted on Saman Insurance Companies, including all affiliated companies and agents in 2015. The population of the study included 135 employees in 10 insurance agencies in Qazvin Province.According to Morgan table, the sample size was 100 employees. Data were collected using the library method. The main process of the research was based on the survey method. The measurement instrument in the study was a questionnaire. A questionnaire as one of the most common instruments for data collection in survey research uses various scale to measure respondent's perspectives and insights. The questionnaire used in the study was designed by Mirtabar (2013). The components and the number of questions in the questionnaire are shown in Table 1.

Figure 1: Conceptual model proposed by Mirtabar (2013)
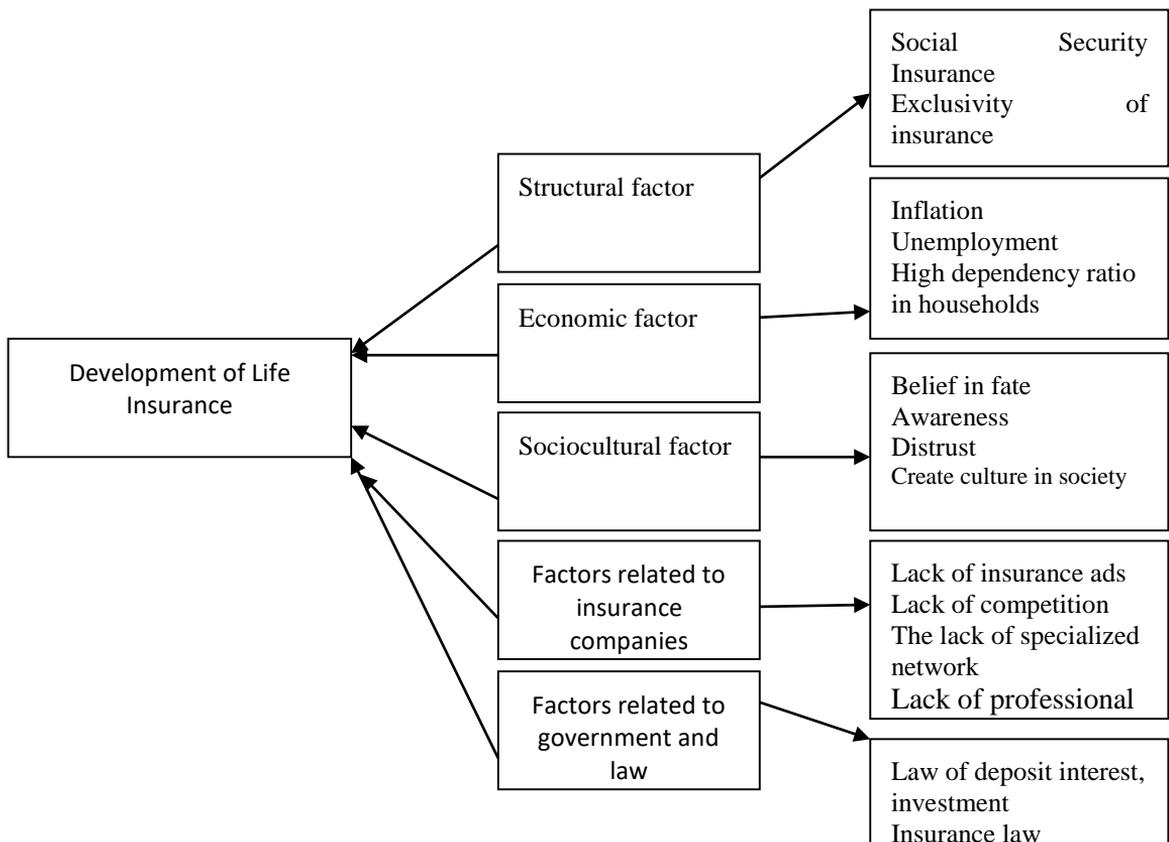
Table 1: Components and number of questions in the questionnaire

Component name	Number of questions
Structural factors	3
Factors related to insurance companies	4
Economic factors	3
Factors related to government and law	2
Sociocultural factor	6
Total	18

Source: Author The

data were analyzed using SPSS software.

4. ANALYSIS OF RESULTS

4.1 DESCRIPTIVE STATISTICS OF RESEARCH VARIABLES

Table 2: Descriptive statistics of research variables

Measures	Mean	Standard deviation	Minimum	Maximum
Structural factors	2.21	0.680	1.33	4.00
Factors related to insurance companies	4.37	0.385	3.25	4.75
Economic factors	1.93	0.250	1.67	2.33
Factors related to government and law	4.05	0.500	3.00	5.00
Sociocultural factor	3.83	0.248	3.17	4.17

Source: Author

As displayed in Table 2, factors related to insurance companies and sociocultural factor have the highest positive effect, and economic and structural factors have the highest negative effect.

4.2 NORMALITY TEST OF VARIABLES

The Kolmogorov–Smirnov test was used for the normality of variables. In this test, he null hypothesis and the alternative hypothesis are defined as follows:

H0: Data are normally distributed.

H1: Data arenot normally distributed.

Table 3: Testing normal distribution of variables

Measures	Structural factors	Factors related to insurance companies	Economic factors

Normal parameters	Mean	2.21	4.37	1.930
	Standard deviation	0.680	0.385	0.250
Kolmogorov-Smirnov Z		2.749	1.849	2.563
Significance level		0.103	0.118	0.097
Measures		Sociocultural factor	Factors related to government and law	
Normal parameters	Mean	3.83	4.050	
	Standard deviation	0.248	0.500	
Kolmogorov-Smirnov Z		2.000	3.898	
Significance level		0.091	0.058	

Source: Authors

As displayed in Table 3, the significance level is above 0.05; thus, the null hypothesis is confirmed. It can be concluded that allthe variables are normally distributed and all tests are parametric in this study.

- **First and Main Hypothesis Testing**

H0:Structural factors cannot develop life insurance.

H1: Structural factors can develop life insurance.

Table 4: t-Test

	t- Test=3					
	t-Statistic	**df**	**Significance level**	**Mean**	**Lower**	**Upper**
Structural factors	-11.509	99	0.000	-0.783	-0.918	-0.648

Source: Authors

The absolute value of the test statistic (-11.509) is largerthan the critical value (1.96); in other words, the significance level is lower than 0.01. The negative t-statistic shows the left-skewed distribution. Thus, the null hypothesis is rejected at the 1% error level and the alternative hypothesis is confirmed. Hence, it can be said that structural factors can develop life insurance.

- **Second sub-hypothesis testing**

H0: Economic factors cannot develop life insurance.

H1: Economic factors can develop life insurance.

Table 5: t-Test

	t- Test=3					
	t-Statistic	**df**	**Significance level**	**Mean**	**Lower**	**Upper**
Economic factors	-42.547	99	0.000	-1.066	-1.11	-1.01

Source: Authors

The absolute value of the test statistic (-42.547) is largerthan the critical value (1.96); in other words, the significance level is lower than 0.01. The negative t-statistic shows the left-skewed distribution. Thus, the null hypothesis is rejected at the 1% error level and the alternative hypothesis is confirmed. Hence, it can be said that economic factors can develop life insurance. ⬜ **Third sub-hypothesis testing**

H0: Sociocultural factors cannot develop life insurance.

H1: Sociocultural factors can develop life insurance. **Table 6: t-Test**

	t- test=3					
	t-Statistic	**df**	**Significance level**	**Mean**	**Lower**	**Upper**
Sociocultural factors	33.541	99	0.000	0.833	0.784	0.882

Source: Authors

The absolute value of the test statistic (33.541) is larger than the critical value (1.96); in other words, the significance level is lower than 0.01. The negative t-statistic shows the right-skewed distribution. Thus, the null hypothesis is rejected at the 1% error level and the alternative hypothesis is confirmed. Hence, it can be said thatsociocultural factors can develop life insurance. ⬜ **Fourth sub-hypothesis testing**

H0: Factors related to insurance companies cannot develop life insurance.

H1: Factors related to insurance companies can develop life insurance.

The absolute value of the test statistic (35.698) is larger than the critical value (1.96); in other words, the significance level is lower than 0.01. The negative t-statistic shows the right-skewed distribution. Thus, the null hypothesis is rejected at the 1% error level and the alternative hypothesis is confirmed. Hence, it can be said thatfactors related to insurance companies can develop life insurance. **Table 7: t-Test**

	t- Test=3					
	t-Statistic	**df**	**Significance level**	**Mean**	**Lower**	**Upper**
Factors related to	35.698	99	0.000	1.37	1.29	1.45

insurance companies						

Source: Authors

□ **Fifth sub-hypothesis testing**

H0: Factors related to government and law cannot develop life insurance.

H1: Factors related to government and law can develop life insurance. **Table 8: t-Test**

	t- test=3					
	t-Statistic	**df**	**Significance level**	**Mean**	**Lower**	**Upper**
Factors related to government and law	21	99	0.000	1.05	0.950	1.149

Source: Authors

The absolute value of the test statistic (21) is larger than the critical value (1.96); in other words, the significance level is lower than 0.01. The negative t-statistic shows the right-skewed distribution. Thus, the null hypothesis is rejected at the 1% error level and the alternative hypothesis is confirmed. Hence, it can be said that factors related to government and law can develop life insurance.

5. CONCLUSION

• **Analysis of the results of the first hypothesis**

H1: Structural factors can develop life insurance.

According to the statistical analysis, the first hypothesis was confirmed; in other words, structural factors can develop life insurance. Respondents believed that the better structural factors of insurance lead to attracting more life insurance customers.

• **Analysis of the results of the second hypothesis**

H1: Economic factors can develop life insurance.

According to the statistical analysis, the second hypothesis was confirmed; in other words, economic factors can develop life insurance. Respondents believed that the better income status leads to the development of life insurance. Thus, insurance companies need to know that inflation and deflation are important factors for the development of life insurance.

• **Analysis of the results of the third hypothesis**

H1: Sociocultural factors can develop life insurance.

According to the statistical analysis, the third hypothesis was confirmed; in other words, sociocultural factors can develop life insurance. Respondents believed that the sociocultural factors of insurance affect the

development of life insurance. Therefore, the better cultural factors increase the development of life insurance.

- **Analysis of the results of the fourth hypothesis**

H1: Factors related to insurance companies can develop life insurance.

According to the statistical analysis, the third hypothesis was confirmed; in other words, factors related to insurance companies can develop life insurance. Respondents believed that the factors related to insurance companies can develop life insurance. If processes forthe development of life insurance are well implemented by insurance companies and the appropriate marketing is done, the development of life insurance will increase.

- **Analysis of the results of the fifth hypothesis**

H1: Factors related to government and law can develop life insurance.

According to the statistical analysis, the third hypothesis was confirmed; in other words, factors related to government and law can develop life insurance. Respondents believed that if factors related to government and laws are well planned, the development of life insurance will increase.

Ranjbarian (2004) conducted a study entitled "an investigation on the effectiveness of promotional activities of the insurance industry in the field of life insurance in Tehran". According to the findings, among the elements of the marketing mix, the regulatory environment has the greatest impact on the development of life insurance. Molazadeh (2013) conducted a study entitled "marketing as a suitable model for life insurance". In the insurance industry, insurance companies promise to pay a sum of money for disability or death in exchange for a premium. Since the occurrence of events is likely and related to the future, there is a considerable time interval between the receipt of premiums and payment of compensation. This time interval provides insurance companies with the possibility for investing accumulated funds and generating income. Albracht (2003) conducted a study entitled "critical success factors for implementing knowledge management in small and medium enterprises". He proposed a model of online sales and marketing of life insurance as one of the basic strategies for developing this type of insurance. In this study, the data were collected using the library method. The obtained results were consistent with the existing statistics and information on the insurance.

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ORIGINAL RESEARCH PAPER

THE EFFECT OF MONETARY POLICY ON THE PROFITABILITY OF THE COMPANIES LISTED IN TEHRAN STOCK EXCHANGE

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Abstract

The increasing importance of capital market, as an important part of the economy of each country, necessitates the continuous investigation of these markets. Stock exchange is an important part of capital market. Since this market is in close relationship with the economic structure of Iran, economic macro-policies, especially monetary policy, affect the stock exchange. In addition, regarding the importance of profitability as a decision making basis for investors, stakeholders and managers for the improvement of performance in these markets, this study investigated the effect of monetary policy on the profitability of the companies listed in Tehran Stock Exchange from 2001 to 2012 using Econometric Panel Data Approach and Eviews-8 Software. The results showed that monetary policy indices used in this study have a significant effect on the profitability during the afore-mentioned interval. In addition, the results of applying the moderator variable (budget deficit) and the dummy variable (sanctions against Iran) indicated a negative significant effect of these two variables on the profitability of stock exchange companies. In general, it can be said that all the hypotheses of this study were confirmed; but, the hypothesis that investigated the significant relationship between the volume of money and the stock return was confirmed weakly.

1. INTRODUCTION

The economy of any country consists of different parts which determine the relationship between these sectors and the direction of its economy. One of the most important economic sectors is the capital market and the stock market is headed. Capital market is closely related to the country's economic structure and its strengths and weaknesses can be indicative of the economic situation (Butler, Malaikah, 1992).

Profitability has always attracted the attention of stakeholders in the company and corporate profit in the future and its predicting is very useful help in making decisions on buying and selling shares in the capital market and validate companies as well as alerts to managers to improve their performance and also is a way to forecast and evaluate decisions. Therefore, many researchers have tried to determine the factors affecting the profitability of companies to identify (Pourzamani et al., 2010). As determining Profitability is Return on assets and return on shareholder's equity (Dietrich, Wanzenried, 2011)

One of the issues raised on the capital markets is the engagement and influence of this pillar of other pillars of economic systems which commonly known as micro and macro-economic variables (Jhanshad et al., 2012). Monetary and fiscal policies are the most important forms of government intervention in the course

of macroeconomics. When the government does not know the economy status quo favorable then takes certain way to achieve a desirable state (Davig,Leeper, 2011).

Mainly, monetary policy objectives include the promotion of economic growth, achieve full employment, streamline business cycle, preventing financial crises and long-term stability in interest rates, and etc. (Roa, Somaiya 2006). However, at the best state, instruments of monetary policy have indirect effects on target variables, this policy have more basic and direct impact on financial markets like the stock market. Changes in financial asset prices and yields are as a result of monetary policy measures which could lead to changes in economic behavior. Therefore, understanding the impact of monetary policy on broader areas of the economy necessarily requires awareness of the effect of policy actions on financial markets and the changes Return on Assets in these markets (Ibrahim Shukri,1390).

According to the given the importance of above issues and the effects and affecting the stock market as part of the capital markets the issue of this study is to determine the effect of monetary policy on the profitability of the company stock. Therefore, the main purpose of this study was to determine the effect of monetary policy on corporate profitability and the stock and is based on the hypothesis of the study include:

The main hypothesis:

Monetary policy has a significant effect on the profitability of listed companies in Tehran Stock Exchange.

Sub-Hypotheses:

1. Liquidity has a significant effect on return on assets (ROA) of listed companies in the Tehran Stock Exchange.

2. Liquidity has a significant effect on return on shareholder's equity (ROE) of listed companies in the Tehran Stock Exchange.

3. Liquidity has a significant effect on stock return of listed in the companies Tehran Stock Exchange.

4. The bank's deposit interest rate has a significant effect on return on assets (ROA) of listed companies of the Tehran Stock Exchange.

5. Bank deposit interest rate has a significant effect on return on equity ROE of listed companies in Tehran Stock Exchange.

6. Bank deposit interest rate has a significant effect on stock returns of listed companies in Tehran Stock Exchange

This article is in six sections. After the introduction, the review in literature research methodology is presented in Section III. Part IV allocated to estimation and model analysis, the fifth section presents the results of the statistical analysis, Section VI summarizes and concludes and at the end the resources represented.

2. REVIEW IN LITERATURE

A number of studies over the past periods are as below.

Tunali (2010) investigate the relationship between economic variables (interest rate, exchange rate, the price of gold) and stock returns in Istanbul Stock Exchange during the period from 2008 to 2002 using regression vector. The results showed that there is a long-term relationship between the variables and stock returns, also in other research; Liu (2008) examines the relationship between macroeconomic variables such as exchange rate, inflation, industrial production, short-term and long-term interest rates and Shanghai stock index and Shenzhen stock index. The results indicate that there is positive correlation between stock prices

and money supply, industrial production and negative relationship between stock prices and exchange rates, inflation and short-term and long-term interest rates.

Medsen (2002) in a study titled "stock returns and Fisher hypothesis" using the template Fama investigate the relationship between stock returns and macroeconomic variables growth rate of national income, the difference between first order of interest rate, liquidity growth and inflation for companies which are member States the development of mutual economic cooperation. The results showed that inflation and interest rates has negative impact and liquidity growth rate and the growth rate of national income has positive impact on stock returns.

Karammostafa, Kucukkale (2002) examined the relation between stock market returns and macroeconomic variables from 1990 to 2001 in the Turkish economy by using its auto models and found that there is a direct long-term equilibrium relationship between stock returns and macroeconomic variables, including money supply, exchange rate, balance commercial and industrial production index.

In internal investigations, such as Al Imran and AlImran (2014) entitled "influence the stock market in erratic growth of liquidity," the 36 observation period third quarter 2000 to second quarter 2010 using the model GARCH and OLS technique achieved the following results: variable volume growth has positive impact cash flow volatility due to the growth of liquidity has negative effect on the stock price index at Tehran stock exchange. Also in the interest rate, the rate of profit on the stock market index represents the pointless and has no effect on the index. Also, Mohseni et al. (2012) in a study entitled "Evaluation of long-term interest rate convergence with stock market returns in Iran" in the period 1995-2011 using new test methods Bank and the stock price index and monthly data index short-term bank deposit cash benefit realized that there is no long-term relationship between short-term bank profits and stock returns cash return and the return resulting from price changes.

Rahnama et al. (2006) had done a study entitled "The impact of macroeconomic variables on stock returns and investment companies listed on the Tehran Stock Exchange" in the period from the third quarter of 1997 to the end of the third quarter of 2004 on capital companies' investments listed on Tehran stock exchange.

The results of this study showed that there is inverse relationship between the consumer price index and stock returns and between imports and stock returns and there is a direct relationship between two variables, liquidity and stock returns and eventually the non-oil exports and of stock returns.

The most important features and innovations of this paper are as follows:

- Using Return on shareholder's equity and return on assets variables as accounting performance standards in this study.

- Assessing the effect of sanctions against Iran as a dummy variable on the dependent variables.

- Using panel data model to analyze the model.

3. METHODOLOGY

This research method is based on the purpose and conditions of its implementation are correlation. The following method is correlation because investors and investment companies, etc. can use the results in practice

The method is correlation because looking to learn of the existence or non-existence of the relationship between the dependent and independent variables.

The population in this study is all companies listed on the Tehran Stock Exchange. For non-random sample of companies listed on the Tehran Stock Exchange for the period 2002 to 2012 is obtained that has the following features.

1. The end of the financial period ended 29 March in each year.

2. The data in this study should be for the available company.

3. during the years 2002 to 2012 companies have not stop working and have not changed their fiscal period during this period.

4. Not involved in holding companies, financial intermediaries, banks and insurance companies.

The resulting sample includes 102 companies.

After collecting the data needed to test assumptions and calculations in Excel software Eviews was used to analyze the data. In this study, regression analysis, correlation and according to the type of data and statistical analysis methods available econometric panel data methods was used, In fact, using panel data measuring the impact on cross-sectional data and time series which is not identified simply will be possible.

This conceptual model is set out as follows:
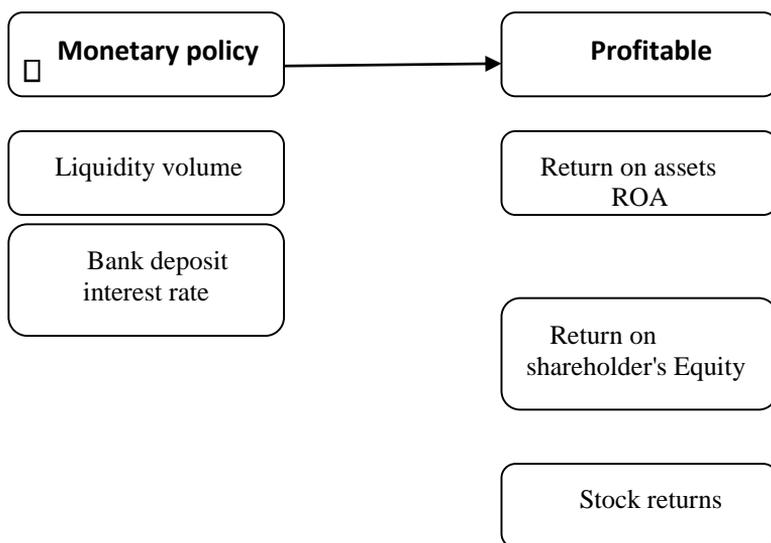
The dependent variables Independent variables

Figure 1: Conceptual Model Research

Source: Authors

3.1. VARIABLES

3.1.1. Dependent variables:

Profitability: Profitability refers to the ability of companies to earn profit and in fact is the result of all programs and financial decisions of the company. Mostly the following variables used to measure profitability (Ahmadpur, Ebrahimpour,2012).

Return on Assets (ROA): indicates the management efficiency in the use of available resources to earn profit and is one of the profitability ratios. This ratio is obtained by dividing the net profit) by tax total assets achieved (Vsvnn, 2003).

Return on assets is calculated by the following equation.

$$ROA = \frac{NI}{Asset} = \frac{NI}{Sale} \times \frac{Sale}{Asset}$$

Return on shareholder's equity (ROE): Return on Equity or "return on equity", indicate the net profit generated for every one Rial shareholder's equity (sources that have offered the company's shareholders) (Tehran, 2009). The formula for calculating return on shareholder's equity and ratios implicit in it is as follows (J H V H .de WET and E.dutoit, 60: 2007).

$$ROE = \frac{NI}{Equity} = \frac{NI}{Sale} \times \frac{Sale}{Asset} \times \frac{Asset}{Equity}$$

Stock Returns: return on equity in a given time period is changing common stock price plus all the benefits that have accrued in the period is assigned to the share. Benefits of the shares, including dividend payments, benefits of priority capital increase, the benefits resulting from bonus shares or dividend shares owned per share (Miaadi, 2012)

$$R_t = \frac{(P_t - P_{t-1}) + D_t}{P_{t-1}}$$

3.1.2. Independent variables:

Liquidity volume: one of the tools of monetary policy, macroeconomic volume of currency in circulation, which in this study is equivalent to the total volume of money and quasi-money sometimes it is also called liquidity of the private sector because it is not calculated on government deposits (Nazarie, 2009).

Bank deposit interest rates: interest rates determine earning the individual depositor according to the percentage of the deposit and time deposit. (Mohseni, et al.,2012).

3.1.3 Moderating variable

The term moderator variables used to describe a particular type of independent variable and in fact is the second independent variable and would like to consider effect in relation to the primary independent variable and the dependent variable, the moderator variable is selected to be clarified whether these variables influence the relationship between the independent variable (primary) and dependent or not. (Khaki, 2009).

Deficit: occurs when the government (or any other entity) will spend more than their budget. The budget deficit is in budget surplus. The accumulated deficit over several years is called government debt. In fact, the cost of the deficit budget is calculated as the difference between government revenues and government spending.

3.1.4. Dummy variable

In the econometric study qualitative variables (virtual) often are important. These variables are used to show momentum and economic shocks in a time series study, political events affect the general data related to the national economy. (Hashemi, 2011). In this study dummy variable are sanctions against Iran.

3.2. HYPOTHESIS TEST

To test the hypothesis, first and fourth of the model (1) is used as follows:

$$ROA_{it} \square \square_1 \square \square_2 M2_{it} \square \square_3 RR_{it} \square \square_4 BD_{it} \square \square_5 DUM89_{it} \square \square_{it}$$

ROA: Return on assets;

M2: the rate of growth of Liquidity volume;

RR: bank deposit interest rate, in this study the model once the nominal interest rate and real interest rate is estimated time. The real interest rate is the nominal interest rate minus the inflation rate according to economic theory, real interest rates than the nominal interest rate has a greater impact on investment in Iran.

BD: deficit;

DUM89: dummy variable

$\square$: Model disturbing elements;

To test the second hypothesis and fifth of the model (2) is used:

$$ROE_{it} \square \square_1 \square \square_2 M2_{it} \square \square_3 RR_{it} \square \square_4 BD_{it} \square \square_5 DUM89_{it} \square \square_{it}$$

ROE: return on shareholder's equity;

And finally for the third and fourth hypothesis of the model (3) is used:

$$DS_{it} \square \square_1 \square \square_2 M2_{it} \square \square_3 RR_{it} \square \square_4 BD_{it} \square \square_5 DUM89_{it} \square \square_{it}$$

Where, DS: return on shareholder's equity;

3.2.1. Model estimation and analyzing

In Table 1 Results of descriptive statistics are presented.

Table 1: Descriptive statistics.

Variable	Average	Max	Min	Standard deviation
Liquidity growth rate - the percentage	7.27	4.39	9.15	8.5
The nominal one-year bank deposit interest rate - the percentage	15	20	13	5.2
True one-year bank deposit interest rate - the percentage	60.-1	1.4	5.-10	7.4
Return on Equity	1.43	664	-530	2.54
Return on assets	2.14	3.64	-34	9.12
Stock returns	1.33	500	-78	53
The budget deficit - billion	356.-13	454.755	767.-209	240.239

Source: research computing software Eviews

Table 2 shows correlation coefficient between monetary policy variables and dependent variables during the period 2002-2012. The results show that the correlation coefficient of monetary policy indices with lower stock returns correlation with ROA and ROE monetary policy.

Table 2. Correlation Test Results

Variable	ROA	ROE	DS	RR_real	RR_nominal	M2	BD
ROA	1	57.0	08.0	07.0	-0.25	12.0	09.-0
ROE	57.0	00.1	13.0	09.0	-0.20	16.0	-0.07
DS	080.	13.0	00.1	08.0	-0.11	020.	01.0
RR_real	07.0	0/09	0/08	1/00	-0/39	0/49	-0/51
RR_nominal	-0.25	-0.20	-0.11	-0.39	1.00	-0.19	0.54
Variable	ROA	ROE	DS	RR_real	RR_nominal	M2	BD
M2	0.12	0.12	0.02	0.49	-0.19	1.00	0.14
BD	-0.09	-0.07	0.01	-0.05	54.0	140.	00.1

Source: research computing software Eviews

Before presenting the results of testing hypothesis, we presented the results of three models in the form of image expression that follows.

Table 3. The results of the first model with fixed effects Data the dependent variable: return on assets - ROA

Variable	The first model - with a nominal interest rate		The second model - the real interest rate	
	Factor	T-statistic	Factor	T-statistic
Fixed	7.14	03.*13	8.5	33.*3
M2	04.0	33.**2	23.0	92.*3
RR	22.-0	55.*-4	26.-0	58.*-4
BD	-1.46E-6	78.*-6	-5.70E-6	37.*-4
DUM89	1.-1	60.*-5	98.-1	96.*-2
AR	56820.	7702.12 (000.0)	5478.0	5689.20 (000.0)
R$_2$	80.0		73.0	
D-W	94.1		93.1	

	The first model - with a nominal interest rate		The second model - the real interest rate	
F-stat	6.*40		15.*27	
Prob (F-stat)	00.0		00.0	
F-Leamer	65.2* (00.0)		40.4* (00.0)	
Hausman	4084.*)0.0025(		902.*3)0.0031(	

* Significant at 99% confidence level, ** significant at 95%.

Source: research computing software Eviews

To determine whether the model of the study is pooling data or panel data (constant effect, random effect) first, we do Limer test. The results of Table 3 show the first model probability value of less than 0.05, so the null hypothesis is rejected and statistics for the first model using panel data method is more appropriate. After F Limer to determine the estimation error caused by changes in levels or which have occurred over time (constant effects and random effects) Hausman test was used.

The results of Table 3 show the statistical probability value is less than 0.05, so the null hypothesis is rejected and constant effects is appropriate to estimate model After using AR since Durbin-Watson statistic was not in the acceptable range (1.5-2.5) and remove the correlation between the error components, Durbin-Watson statistic (DW) for nominal and real interest rates were 1.93 and 1.94 and is in the acceptable range. Determination coefficient (R^2) in estimated models equivalent to 80% which indicates 80% of change in return on assets is explained by variables. Results Table 3 shows that the impact of rate of growth of liquidity (M^2) is positive and significant on return assets test (t = 2.33) in the model with nominal interest rates and (t = 3.92) is in the model with the real interest rate. The impact of nominal and real interest rates (RR) on the return on assets is negative and highly significant. The impact of the budget deficit (BD) on the return on assets is negative and significant. There are also economic shocks in 2011 through dummy variable coefficient (DUM89) the return on assets is negative.

Table 4: The results of the second model using fixed effects data (dependent variable: Return On Equity)

Variable	The first model - with a nominal interest rate		The second model - the real interest rate	
	Factor	**T-statistic**	**Factor**	**T-statistic**
Fixed	8.33	31.*7	33.5	501.
M2	48.0	86.*5	13.1	26.*9
RR	-0/52	18.**-2	9.-0	19.*-7
BD	-9.64E-6	47.*-4	-2.53E-5	61.*-8

DUM89	36.-3	16.**-2	6.-1	25.1
AR	4292.0	713016. (0000.0)	4245.0	2077.17 (0000.0)
R2	68.0		69.0	
D-W	02.2		99.1	
F-stat	35.*20		003.*22	
Prob (F-stat)	000.0		000.0	
F-Leamer	69.2* (00.0)		94.*2)00.0(	
Variable	**The first model - with a nominal interest rate**		**The second model - the real interest rate**	
	Factor	**T-statistic**	**Factor**	**T-statistic**
Hausman	591.4* (002.0)		913.*4)002.0(	

* Significant at 99% confidence level, ** significant at 95%.

Source: research computing software Eviews

According to the table (4) the results of the test statistical probability for F Limer shows the amount is less than 0.05 results for model 2 using panel data is appropriate. Results of the Hausman test indicates probability statistics is less than 0.05 the result of using constant effects for model 2 is more appropriate. In this AR model is still used to eliminate autocorrelation of the first kind. Finally, the Durbin-Watson statistic (D-W) indicates the absence of autocorrelation between was close 2 and indicates the lack of autocorrelation between elements in the model. In this study, both real and nominal interest rate and interest rate index is used. Coefficient of determination (R^2) of models is equivalent to 69% which means 69 %of return on shareholder's equity is explained by monetary policy measures.

Results Table 4 shows that the growth rate variable liquidity (M^2) has a significant positive influence with statistic (t = 5.86) on the return on shareholder's equity, nominal variable of interest rate (RR) with statistic (t = -2.18) and rates real interest test (t = -7.19) has significant negative impact on the return on shareholder's equity in both estimated models the effect of the budget deficit (BD) on the return on equity is negative and significant. Coefficient of the dummy variable amounts related to 2011 (DUM89) is negative and significant, and indicates that shocks in 2011 due to sanctions against Iran and sudden jerk's prices and real exchange rates reduced the return on equity.

Table 5. The results of the third with Consolidated Data (Pool)
Dependent variable Stock returns - DS

Variable	The first model - with a nominal interest rate		The second model - the real interest rate	
	Factor	T-statistic	Factor	T-statistic
Constant	3.100	90.*6	103	40.*5
M2	01.-0	05.-0	10.-2	46.*-3
RR	16.-5	48.*-6	97.3	96.*4
BD	1.65e-5	05.**2	7.03e-5	06.*4
DUM89	2.16	393.*	4.-21	93.*-2
R_2	03.0		02.0	
Variable	The first model - with a nominal interest rate		The second model - the real interest rate	
	Factor	T-statistic	Factor	T-statistic
D-W	95.1		931.	
F-stat	74.*10		396.*	
Prob (F-stat)	00.0		00.0	
F-Leamer	103.1 (235.0)		64.0 (990.)	

* Significant at 99% confidence level, ** significant at 95%.

Source: research computing software Eviews

According to Table (5) Limer F test results indicate that the probability for the F statistic is 0.05, unlike the previous two models using data Pooling for this model is more appropriate and no longer is needed to use

the Hausman test. The Durbin-Watson statistic indicates the absence of autocorrelation in the model. Nominal and real interest rates impact on stock return is negative and significant. The rate of growth of liquidity on stock returns is low.

The budget deficit is negative and significant impact on stock returns. In general, it can be said that any change in monetary policy to changes in the consumption pattern of households and firms and investment projects leads to changes in real economic activity and ultimately the impact on inflation. Confronting strategy for inflation depends on the stock market and pre-determined time horizon it is very difficult, in other words it depends on shocks that affect the economy.

6. CONCLUSION

In this section each of the hypotheses examined individually and if any studies have been conducted in the past they have compared.

First and second hypothesis results show the impact of liquidity on return on assets and return on equity (ROE), (ROA) indicate a significant and positive impact of liquidity on each of these two variables Theoretically by increasing liquidity demand for investment and the subsequent demand for shares increases, resulting in increased net profit and increasing return on assets and return on equity.

Hypothesis 3 examined the impact of liquidity on stock returns finally, it was concluded that the impact of liquidity on stock returns is low and the hypothesis is proved poorly. This result has been proven in the results of previous research, including research External Medsen (2002) which indicates a significant and positive impact on stock returns, liquidity growth is also the result of the investigation Karam Mostafa (2002) based on the positive relationship between money supply and stock prices. The internal investigation of people like Rahnama and colleagues (2006) and Imran (2014) based on a significant and positive effect of liquidity on stock returns is proved.

In theory, increase liquidity, as described in the previous hypotheses stimulating demand and stock and ultimately lead to higher stock prices and stock returns. As well as increased liquidity, banks have increased ability to mobilize financial resources and thus to increase bank lending to stock companies,

firms' earnings and future cash flow increased and resulting it has a positive impact on stock prices and stock output.

The hypothesis 4 and 5 examined the effect of nominal and real interest rates on bank deposits Return on assets and return on equity. The results of both hypothesis suggests a significant negative impact of bank deposit interest rate (nominal and real) on return on assets and return on equity. Since any results have not achieved in researcher records it can be theoretically explained that if banks increase their deposits interest rates it leads to the flow of resources to the banks and reduce the demand for shares and reducing net income and eventually reduce the return on assets and equity.

In the last hypothesis examined the effect of bank deposit interest rate on stock returns. The results show that the impact of interest rate (nominal and real) on stock return is negative and significant. This result in previous studies of Madsen (2002), Liu (2008) and Tonalea (2010), which was mentioned in Chapter 2 is proved.

As mentioned before increasing banks deposits interest rates leads to the flow of resources to the banks and reduce the demand for shares and reducing net income and eventually reduce the return on assets and equity. And secondly, as an increase in deposits interest rates, interest rate from the facilities granted to investors increases so investment in the economy and stock prices will ultimately and resulting to reduce the stock returns.

With respect to explanation about the dummy and moderator variable used in this study the study examined once without moderator and dummy variable and then by using the deficit budget as a mediating variable and sanctions against Iran better results have presented.

The results of these two variables indicate a significant negative impact on the three variables return on equity, return on equity, and return on assets.

After reviewing the results of its sub-hypotheses we will reach the conclusion that the main hypothesis which investigates the effect of monetary policy on the profitability of companies listed on the stock exchange is proved.

In a general conclusion can be stated that the general factors affecting the stock market are classified in two categories: factors associated with the company's operations and decisions made in the company. Such as dividend per share, compared with income and price .... which is called micro factors.

On the other hand, factors beyond the control of management of the company and affect the entire stock market at large which is called the macro factors are divided into two parts: Political factors such as war, peace, sanctions and political and economic relations with other countries and economic factors, including the factors that are causing a boom and bust economy, including fiscal and monetary policies. In the present study the association between changes in monetary variables panel data model to estimate the changes in the stock market over the period 2001-2012 will be discussed. As well as dummy and moderating variable impact of fiscal policy and political factors on the stock market are evaluated. The survey was conducted with the software Eviews.

The results show there is a significant relationship between monetary policy indicators and fiscal policy indicator and sanctions against Iran and the stock market during the period in study. In general, it can be said that all hypotheses are proved and only the hypothesis that investigate the correlation between stock returns and the money supply is poorly proved.

To enthusiast following recommendations are offered as applied suggestions: Making appropriate decisions by investors and stakeholders in order to choose and buy stock using the results of this study, the results of this research will help to executives and decision-makers surveyed companies in the sample in the office

more efficient and effective decision making and the future company. The following suggestions are offered for future research:

1. Since the profitability is as criterion for evaluating the performance of the company and in this case-control study, as well as return on equity (ROE) and return on assets due to the reasons mentioned is considered as determinants of profitability it is recommended that in future studies other criteria such as performance and economic value… be used.

2. The study can be done by considering various industries.

3. In this study the data applied on an annual basis, seasonally data can be used in future research.

4. The survey should be examined on international markets, especially developing emerging markets and the results compared with the present study.

5. In the future, impact of the profitability on fiscal policy and other macro-economic variables can be examined.

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ORIGINAL RESEARCH PAPER

THE EFFECT OF LIQUIDITY SHOCK ON STOCK PRICE BUBBLE IN TERM OF MARKET SITUATIONS

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Abstract

Bubble content has entered economic literature since 17th century. However, price bubble topic hasn`t been investigated since end of 20th century. After introducing bubble idiom in Iran asset market in 1382, every fast increase of price has been considered bubble mistakenly, however, it isn`t correct because a bubble happens when an agiotage in financial instrument such as stock causes increase price and this event will cause more agiotage. In this situation price market seems irrational and bubble will encounter prices` decreases suddenly, which are called market fall. The research aim is investigating the effect of liquidity stock on price bubble in stock market of accepted corporations in Tehran Stock Exchange. The qualified corporations have been investigated during one quinquennial and all required data have been defined as statistic population. Among 636 corporations, 77 corporations have been chosen by systematic deletion as research sample from 1389 to 1393. In this research regression and correlation have been used to investigate its hypotheses and Eviews software has been used to analyze research hypotheses tests. After research design and hypotheses tests based on each hypothesis division, research conclusions indicate the effect on liquidity shock on stock price bubble, moreover, liquidity shock and price bubble shock in market downfall (downswing) and prosperity situations have found meaningful relationship.

1. INTRODUCTION

Liquidity indicators studies have begun since the beginning of 20th century and this topic has been considered by financial markets from its beginning. Assets are considered as liquidity which are transacted without causing any losses, liquidity means ease in slightly asset sale and buy and investment or asset exchange speed to cash money. One of the stock market liquidity factors is difference between suggesting prices of stock sale and buy which has been considered as the main important effective factor on liquidity. Liquidity means investment or asset exchange speed to cash money by at least cost and in the least time which has important role and effect on investment attention, investment decisions and sources correct assignments. In fact, lack of liquidity with mean of effect risk liquidity may have negative effect on stock value.

In markets, which corporation's operations information aren`t available or are available slowly on step by step, investment will encounter problems in choices of best situations and sources best assignments will be deviated from their main routes and equipment processes extremity. However, expectance of bubble happen in prices level may be in different markets because main reason of bubble distance from market price and lack of all information of price, (Khoramedin, 1387).

Bubble term has been appeared in stock markets repeatedly and most of researchers have been considered these two points: first mathematic economic definition which defines existence bubbles in assets prices and second is theoretical economic which investigates existence bubbles in stock market. Although there isn`t coherent definition in literature for bubble and its happening reasons. Bubble discover has been

encountered by problems because of its invisible market fundamental components. So, it can said that these definitions and descriptions have been mistaken interpretation of agiotage. Mathematic economic defines bubble as positive difference between real prices and assets` fundamental prices (Filardo, 2004), is amount and time duration the prices recede from their natural and fundamental prices before it has been suggested as bubble. There are experimental observations which show that bubbles are long term and consistent increase of asset prices which are followed by prices fast dewfall in short durations, it seems that these two definitions are different from each other, (Abasian et al., 1389).

2. RESEARCH THEORETICAL BASES

Liquidity Shock: when stock higher than liquidity transaction cost decreases and corporations that have, high liquidity indicates to have lower financial levers. New experimental findings based on new financial behaviors (behavior financial) indicated that investments prefer liquidity stock because of lower transactions` cost than other stock and are ready to pay more for that stock. However, there is a relationship between stock liquidity and transactions` costs and function asset cost is asset structure. Investors are sellers for transactions in markets are plausible for costs which are called transactions` costs. These costs are effected by liquidity. As Amihud and Mendelson (2008), indicated all paid costs by sellers and buyers are liquidity costs which happen in lack of total liquidity, so in low liquidity transactions` costs are increased and asset costs are increased, too. Transactions` costs in low liquidity can be categorized into 3 parts:

*A)   Direct Transactions` Costs (Dealers):* these costs are the main transactions` prices of costs such as: doers` wages (dealers) and costs of transactions` exchanges and taxes. However, it should have considered these costs which are plausible for sale keep of stock exchange are direct transactions` costs, (Amihud, Mendelson 2008).

B)   Pricing Effect Cost: is pricing point transaction processes which means spending amount in time of buying or abating amount in time of selling because of transactions` situations.

C)Research Worth and Delay in Transaction: this worth is used for lost opportunity cost for rejection of one transaction and effort amount to find higher price (Amihud and Mendelson 2008). Totally, transactors compare more searches and faster transaction by lower advantages and institutional investors exchange more mass of transaction and prefer more searching cost to instant sale by unsuitable price (Amihud, Mendelson 2008).

Liquidity Risk: risk and return have always been important contents in investigating and estimating investment situations. Investors escape from risk and want suitable return price with risk. Stocks transactions with low liquidity increase transactions` costs. Return adjustment of investors expectances should be bone because of liquidity risk. If liquidity ability of a share is lower, the share will be more attractive for investors despite that its owner will own more benefit return. So, investor expects liquidity share which means share liquidity risk. Experimental observations indicate lack of liquidity in decisions can play important trades. In otherwise, some investors may need investment financial sources rapidly, in these cases liquidity power can be important. Liquidity means investments or assets rates exchange to cash money. Stock exchanges considered by vast transactions in stock exchange, so this topic can clarify liquidity existence. In fact, lack of liquidity may have negative effect on stock value. Lack of liquidity ratio means sensibility amount of stock price in front of each unit exchanges in transactions mass in that day. Lack of liquidity happens when stock price has few changes in reaction to transactions mass, (Yahyazadeh et al., 1387).

EFFECTIVE FACTORS ON LIQUIDITY IN NEWFOUND MARKETS

New developments in assets markets increase liquidity importance, it is a threat which are followed by markets` universalities and they attend to small and lower developments markets, they are liquidity decreases in local markets and their transactions to region by markets.

The important point is negative effect of financial tensions such as Asia, Brazil and Russia. Financial tensions which happened one after another, happening of these tensions have caused noticeable adjustments in newfound markets. By important functions in past decades, commixture of newfound markets in world economic structure have increased some of the newfound markets which have passed by rapid acceptance of market complicated structures and supervising standards. This topic has caused investors insurances increase, continuous growth and more consistent in the markets. Clear and definite outcome of these functions are positive effects on liquidity in the mentioned markets.

Countries, which had been effected by tension from 1997 to 1998, experienced more liquidity pressure because this pressure had created serious questions about functions of financial systems in economic and institutional structure abilities of these systems. After that some functions had done to recognize and compensate weak points. The main aims of these functions were coming back of confidence to market and assurance from flexibility ability of market structure to omit effective negative factors on liquidity. One of the informative points of the mentioned tensions is immediately effects and some long-term factors of investor trust decrease to market. This trust decrease to market somehow is continued by rapid decrease of market liquidity and its negative effects on financial system and whole economic.

So, supervised officers are searching new findings actively in which long term development empower effective factors on markets. Accessibility to fixed factors liquidity degree in markets and increase of transactions` activities are considered by these officers, too. In otherwise, these officers are looking for insurance of negative effects of financial tensions. All have done about situating laws with protecting aim from development of structures warranty existence of powerful vast and deep market, (International Organization of Stock Exchange Commission, 13870).

THEORIES OF BUBBLE FORMING

One of the main theories in justification of bubble forming is asset market is herd theory. Totally, each share value in time of transaction is clarified by future behaviors of competitors in market, and every change in accumulation behavior of stock price will be effected. If most uninformative investors use ignored variables and signs, formed price in market with fundamental prices in stock market and wish higher increased price value every day, bubble will be formed until downfall through and suddenly decrease of stock price bubble will be disappeared. This sense and popular thought about increase or decrease situation of market in group mind idiom are called herd theory or grouping thought. Why this theory is formed among people behavior. For answer to this question of social psychology, we should use social contagion theory. Social contagion theory, except its group existence, persuades and forces people to same thoughts and actions.

When a group is created, emotional reactions from one person to another are expanded, then social contagion will be existed. Simply, bubble forming function in theory structure of herd behavior is indicated in this way; some people because of some reasons as fooled by laws of small numbers, assumption of bigger crazy, and use of different mind structure or other mentioned reasons will make mistakes in asset pricing. Then, herd behavior is formed based on social contagion theory, error thought method will be regained market and are stereotyped by other even elites, after that market flow price will be deviated from fundamental price and bubble will be formed in market. Aggregations which try to interpret forming reason of bubble prices in market. This phenomenon is one of the topic of number psychology which investigates price aggregation in special numbers or rouge amounts. If formed process of accidental price depends on rational expectations, transactions shouldn`t aggregated in special prices and market shouldn`t observe prices categories in special numbers, however, studies describe that prices would be aggregated in rouge numbers and this phenomenon is called syndrome of rouge numbers. In fact, people who justified toward rouge number can interfere with future profits in price determination which deviate price from fundamental value, (Samadi, 1389).

RELATIONSHIP BETWEEN LIQUIDITY SHOCK AND PRICE BUBBLE

Bubble simply is acute and continuous increase in price of one asset of collection of assets, totally, first increases in price of increase expectations has formed by new buyer of investigated stock exchange from asset transaction not its enjoyment use. This increase price in most factor is followed by reverse expectation and acute decrease of prices with financial tensions. Price bubble effectuates in every time market when price expecting change should be in future important factor of flow price determinations, bubble means correlation indicator phenomenon to foreign factors of markets (Gholizadeh, Kamyab, 1389).

Bubble is one of the complicated disorders which obsesses asset markets, when bubble shadow of market transparency is effected, prices will increase rapidly, and in this situation stock exchange market will lose its function for best appropriation of sources and price determination. Bubble will intensify price difference and weakness of exposition and demand powers in market. Finally, bubble will cause liquidity to exist from market and asset exist from country, when bubble is in stock market, dealers` and intermediators` activities will grow up in market and will loss economic infrequent sources (Haidari, 1390).

In Iran stock exchange downfall has happened since the end of 1389 after one noticeable duration, which existed many question among researchers and experts such as whether this price` increases are from bubble in Tehran Stock Exchange or not?

Rational bubble theory of Blanchard (1979), indicated that even with rational expectation of Mayes (1981), asset price deviation from fundamental value may be followed by market fundamental value. Rational bubble growth increases its expectations from asset price. These bubbles are market characteristics that buy assets from investors because of foresees that asset with higher price to another investigator can be resold.

3. RESEARCH BACKGROUND

Theoretical: the research investigates relationship between social responsibilities clearly and indicates financial information transparency by agencies managers with formed price bubble in market of Tehran Stock Exchange. At first, it was explained by unit root P/E, elongation, continuity, and Choolegi tests that were caused happening of bubble in Tehran Stock Exchange from 1382 to 1392 for 158 corporations. To anticipate bubble, information, transparency, financial lever, liquidity rate, booking value in ratio to stock market, P/E ratio, share floatage, institutional ownership, and corporation size variables were used. Based on theoretical conclusions, there was a negative meaningful relationship between transparency level of financial information and price bubbling of corporation's stocks.

Miri Fayez, Zare (1392): this research investigated bubble in the accepted corporations in Tehran Stock Exchange. At first, through continuing, choolegi, elongation, and correlation tests were clarified that bubble was happened in Tehran Stock Exchange from 1383 to 1388. Then with the use of price bubble tests, all corporations in the mentioned time duration will own growth and price decrease in stock exchange and would be divided into two groups: corporations with bubble and corporations without bubble. To anticipate bubble, inner corporation's variables such as corporation size, investment mixture, ratio of P/E, information transparency, and liquidity speed were used. Then a model of artificial neural channel for bubble anticipation was designed by Binary Logic Regression Method. For data analysis, data of six previous months before bubble happening were used. Research hypotheses tests were indicated that there were meaningful relationships between all chosen independent variables and price bubble and neural channel was recognized as more accurate model because of its lesser error in anticipation.

Nneji (2015): in his article, "liquidity shock and stock bubble", investigated market liquidity effects (easiness in stock business) and liquidity investment (easiness of market members for investment) on stock market bubble. In the research, it was clarified that market and liquidity shock created situation for bubble

existence in stock market and market liquidity had a positive effect on bubble in stock market. Finally, Liquidity shock would represent warning errors of bubble happening in stock market.

Grenwood, Nagel (2013): in their research investigated effect of manager old on forming of price bubble and concluded that younger managers (younger than 35 years old) would have better function in term of fund quantitative ratio which had begun but in climax time of prices or bubble their funds had increased to 4 times, this increase affected on stock prices increases. So, investors are inclined toward younger managers to help them for stock increase. The research conclusion represented that clarified amount of formal money were controlled approximately to market price. However, during stock price decrease, younger managers were experienced enough and acted weakly. It is clear that because of unexperienced managers, investment decisions could effect on short term and long term phenomenon of price bubble. Creation of bubble until bankrupt would continue many years, so younger managers can analyze stock return better than older managers.

RESEARCH HYPOTHESES

Main Hypothesis:

There is a meaningful relationship between liquidity shock and price bubble.

Subordinate Hypotheses:

1)   There is a meaningful relationship between liquidity shock and price bubble in market downfall situation.

2)   There is a meaningful relationship between liquidity shock and price bubble in market prosperity situation.

4. RESEARCH MODEL

Research Hypotheses Extension

Regression of First Main Hypothesis

$SB_{it} = a_0 + a_1 \, ILLIQ_{it} + \varepsilon_{it}$ (Quotation 1)

SB: price bubble (dependent variable)

ILLIQ: liquidity shock (independent variable)

To investigate second and third hypotheses, quotation 1 in two levels of downfall and prosperity markets based on divisions are investigate.

MEASURING METHODOLOGY OF RESEARCH VARIABLES

Independent Variable

Liquidity Shock: to measure every year liquidity shock "lack of liquidity" criterion was used by Amihud. This correlation has been interpreted as monthly reaction of stock price to translation mass and is calculated as Quotation 2:

$$ILLIQ_{im} = \frac{1}{D_{im}} \sum_{m=1}^{12} \frac{|R_{im}|}{P_{im} \ V_{im}}$$

Rim: i stock return in m month

Pim: i stock price in m month

Vim: transaction mass on i stock in m month

Dim: repeated numbers of i stock transaction in m month

Based on above quotation, cash stock is a stock which its nearly more mass has been transacted without its main effects. If this correlation is less, asset liquidity will be more.

Dependent Variable

Price Bubble: one way to test existence of bubble is correlation test of return serials. Serials correlations are related to continuous return during time. One of the recognizing instruments of correlation is continuity test.

CONTINUITY TEST

At first, average return for series return should be calculated. A higher return average is positive and a lower return average is negative. So, numbers of chains from positive and negative signs are counted, for example, if an average return in one chain is 12 percent, higher returns than 12 percent will be positive and lower returns than 12 percent will be negative. Numbers of chains in one accidental chain is calculated by the following formula:

Quotation 3:

$$E(R) = \frac{\tau(n_1)(n_2)}{n_1 + n_2} + 1$$

E (R): numbers of expected chains n1:

numbers of positive returns

n2: numbers of negative returns

Now standard deviations of chains should be calculated to know whether numbers of chains are different from numbers of expected returns chains or not by following formula:

Quotation 4:

$$\delta = \sqrt{\frac{n_1 n_2 [(n_1 n_2) - n_1 - n_2]}{(n_1 + n_2)^2 (n_1 + n_2 - 1)}}$$

While t statistic is between +1/96 and -1/96, it can be said that by 95 percent that H hypothesis (based on chains independences) affirms returns accidences. Moreover, if assurance distance is 99 percent, t statistic will be between +2/576 and -2/576.

If changes in stock price are correlated to another (when bubble stock is existed), longer chains with lower numbers that independent observations will be. In this research for continuous test at first time series overages of corporations` monthly returns will be estimated, each month lower return than average will get negative point and higher return than average will get positive point. So, many positive and negative points will be received for corporations` monthly returns. The numbers of all chains will be counted, then meaningful differences of counted chains` numbers with investigating chains numbers will be investigated. If t expected for accidental variables through statistic test, which means difference between counted chains numbers and expected chains numbers divided on chains standard deviations, is between +1/96 and -1/96 in a tension limitation, numbers of chains will not be meaningful different from numbers of expected chains. Chains` length with accidental independent continuous length aren`t different. So, there is no bubble. If t test isn`t in tension duration, which means numbers of counted chains are lower than numbers of expected chains, chains` length of series time will be so long that aren`t correlated with any independent and accidental data, so there is a bubble.

CORRELATED VARIABLE: COMMERCIAL CYCLES (DOWNFALL AND PROSPERITY MARKETS)

Downfall and Prosperity: based on market return, stock market will be determined, it means that in research durations from 1389 to 1393, if return owns most market return, it will be economic prosperity and if market owns the least market return, it will be economic downfall.

Quotation 5: return calculating

$$R_m = (IND_t - IND_{t-1}) / IND_{t-1}$$

R_m: return average of annual market, and stock market return

IND_t: market price indicator at the end of duration

IND_{t-1}: market price indicator at the beginning of duration

RESEARCH ANALYSIS MODEL

In the research, research model for research hypotheses specifications have been designed as follow: this model is followed by effect factors determination on corporations` stock price bubble.

Fig. 1. Research content model

Source: (Nneji, 2015)

Data Analysis Methodology

In this research mixture, linear regression model is used to analyze hypothesis. Statistic method of the research is paneling data. Investigating relationship between dependent and independent variables are done by two different aspects. One aspect is that these variables are tested among different corporations and other aspect is that they are tested in in one-time duration from 1389 to 1393.

5. CONCLUSION OF THE FIRST MAIN HYPOTHESIS MODEL

Price bubble has been considered as dependent variable and liquidity shock as descriptive variable that is approximated by accidental effective method. In this model Prob is 0/00 and is lower than error amount (α), so this model is accepted statistically and high amount of Fisher statistic indicates that there is a powerful relationship among variables. As Adj, R^2 and R^2 indicate high power of model describing model. Based on Watson Doorbin amount, lack of correlation in the mentioned model is validated because of short time duration, it isn`t necessary to investigate statistics. Based on below table for each variable coefficient, standard error, statistic and P amount have been calculated. So, error amount or α and P amount should be

compared to investigate each variable meaningfulness. Based on below table liquidity shock variable has 31 amount of coefficient effect on price bubble. It means that one variable unity in the variable corporation can increase 31 percent price bubble in one investigating duration. So, for the first main hypothesis meaningful relationship can be affirmed.

Table 1: Approximation coefficients of the first main hypothesis

Probability	t statistic	Standard deviation	Coefficients	V riable	
0.0000	9.704343	0.028964	0.28107	C	Fixed coefficient
0.0000	21.13900	0.014134	0.309425	ILLIQ	Liquidity shock

Source: Author

$$F = 216.32 \quad R^2 = ./62 \quad \overline{R^2} = ./61 \quad D.W = 1.89$$

Regression quotation of the first main hypothesis:

$$SB_{it} = 0.281074 + 0.309425 \, ILLIQ_{it}$$

CONCLUSION OF THE FIRST SUBORDINATE HYPOTHESIS MODEL

Price bubble has been considered as dependent variable and liquidity shock as descriptive variable that is approximated by accidental effective method. In this model Prob is 0/00 and is lower than error amount (α), so this model is accepted statistically and high amount of Fisher statistic indicates that there is a powerful relationship among variables. As Adj, R^2 and R^2 indicate high power of model describing model. Based on Watson Doorbin amount, lack of correlation in the mentioned model is validated because of short time duration, it isn`t necessary to investigate statistics. Based on below table for each variable coefficient, standard error, statistic and P amount have been calculated. So, error amount or α and P amount should be compared to investigate each variable meaningfulness. Based on below table liquidity shock variable has 321 amount of coefficient effect on price bubble. It means that one variable unity in the variable corporation can increase 321percent price bubble in one investigating duration. So, for the first main hypothesis meaningful relationship can be affirmed.

Table 2: Approximation coefficients of the first subordinate hypothesis

Probability	t statistic	Standard deviation	Coefficients	V riable	
0.0000	7.414343	0.024578	0.185410	C	Fixed coefficient
0.0000	12.84124	0.054580	0.321548	ILLIQ	Liquidity shock

Source: Author

$$F = 65.32 \quad R^2 = ./75 \quad \overline{R^2} = ./73 \quad D.W = 1.86$$

Regression quotation of the first subordinate hypothesis:

$$SB_{it} = 0.185410 + 0321548 \, ILLIQ_{it}$$

CONCLUSION OF THE SECOND SUBORDINATE HYPOTHESIS MODEL

Price bubble has been considered as dependent variable and liquidity shock as descriptive variable that is approximated by accidental effective method. In this model Prob is 0/00 and is lower than error amount (α), so this model is accepted statistically and high amount of Fisher statistic indicates that there is a powerful relationship among variables. As Adj, R^2 and R^2 indicate high power of model describing model. Based on Watson Doorbin amount, lack of correlation in the mentioned model is validated because of short time duration, it isn`t necessary to investigate statistics. Based on below table for each variable coefficient, standard error, statistic and P amount have been calculated. So, error amount or α and P amount should be compared to investigate each variable meaningfulness. Based on below table liquidity shock variable has 21 amount of coefficient effect on price bubble. It means that one variable unity in the variable corporation can increase 21percent price bubble in one investigating duration. So, for the first main hypothesis meaningful relationship can be affirmed.

Table 3: Approximation coefficients of the second subordinate hypothesis

Probability	t statistic	Standard deviation	Coefficients	V riable	
0.0000	10.00434	0.021964	0.210074	C	Fixed coefficient
0.0011	2.341215	0.091245	0.213451	ILLIQ	Liquidity shock

Source: Author

$$F = 48.68 \quad R^2 = 0/84 \qquad \overline{R^2} = ./84 \quad D.W = 1.84$$

Regression quotation of the first subordinate hypothesis:

$$SB_{it} = 0.210074 + 0.213451 LLIQ_{it}$$ **Table**

4: Summary of hypotheses tests conclusions

Conclusion	Regression Model	The degree effect of independent variable on dependent variable	Hypothesis
H0 is rejected	$SB_{it} = 0.281074 + 0.309425 \, ILLIQ_{it}$	0/309425	First main hypothesis: there is a meaningful relationship between liquidity shock and price bubble
H0 is rejected	$SB_{it} = 0.185410 + 0321548 \, ILLIQ_{it}$	0/321548	First subordinate hypothesis: there is a meaningful relationship between liquidity shock and price bubble in market downfall situation
H0 is rejected	$SB_{it} = 0.210074 + 0.213451 LLIQ_{it}$	0/213451	second subordinate hypothesis: there is a meaningful relationship between liquidity shock and price bubble in market prosperity situation

Source: Author

As table 4 describes all 3 hypotheses are affirmed, however, degree of liquidity shock effect on price bubble shock in downfall market situation is more than prosperity market situation and the intended duration is for all corporations.

FIRST MAIN HYPOTHESIS CONCLUSION

There is a positive meaningful relationship between liquidity shock and price bubble shock. Based on meaningful level (Sig) that is less than 0.05 for liquidity shock, dependent variable, so, H0 is rejected and above hypothesis is accepted. As coefficient variable of liquidity shock is 0/309 and the mentioned coefficient is positive, so there is a positive meaningful relationship between liquidity shock and price bubble shock.

First subordinate hypothesis conclusions

There is a positive meaningful relationship between liquidity shock and price bubble shock in market downfall situation. Based on meaningful level (Sig) that is less than 0.05 for liquidity shock, dependent variable, so, H0 is rejected and above hypothesis is accepted. As coefficient variable of liquidity shock is 0/321and the mentioned coefficient is positive, so there is a positive meaningful relationship between liquidity shock and price bubble shock in market downfall situation.

Second subordinate hypothesis conclusions

There is a positive meaningful relationship between liquidity shock and price bubble shock in market prosperity situation. Based on meaningful level (Sig) that is less than 0.05 for liquidity shock, dependent variable, so, H0 is rejected and above hypothesis is accepted. As coefficient variable of liquidity shock is 0/313and the mentioned coefficient is positive, so there is a positive meaningful relationship between liquidity shock and price bubble shock in market prosperity situation.

6. CONCLUSION

Tis research aim is investigating the effect of liquidity shock and price bubble shock in downfall and prosperity situations in the accepted corporations in Tehran Stock Exchange. All research hypotheses are as follow:

1- There is a positive meaningful relationship between liquidity shock and price bubble shock.

2- There is a positive meaningful relationship between liquidity shock and price bubble shock in market downfall situation.

3- There is a positive meaningful relationship between liquidity shock and price bubble shock in market prosperity situation.

As said before the research has investigated the effects of the market liquidity shock buy and sell on stock market bubble, so happening of bubble in stock market is possible and market liquidity effects on bubble in stock market and liquidity stock indicate errors for bubble existence in stock market.

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Idioms and Keywords Definitions

Stock Liquidity: when stock is known as to be able to buy or sell it with price market in each time and by low cost, (The Essential Accounting Dictionary).

Liquidity Risk: is potential downfall of liquidity because sometimes are stock exchange can be transacted by high costs, however, in some respects the importance and everlasting existence of liquidity in market have been accepted, its simple content has been remained as before and lack of liquidity ration indicates sensibility degree of stock price in front of each unit exchanges in transaction mass of that day. Lack of liquidity happens when stock price in reaction to few transactions` mass has a lot of changes (Hasbrouck 2001).

Bubble: in literature stuff price deviation from its long-term balance price is called bubble. In fact, bubble is introduced when stuff or service price is different from its expected price in future. In otherwise, when stuff price is higher than its nature value amount, it is said that there is a rational bubble, (Alipoor, 1386). One way to test of returns serials, serials correlations are related to continuous return correction during time, one of the recognizing instrument for serial correlation is continuing test.

Downfall: is long term in which economic activities are lower than usual. Downfall can be clarified by rapid decrease of production, few investments, authorities, contractions, prices` downfalls, vast unemployment, short term employment and vast bankrupt, (Nazari, 1388).

Prosperity: is economic activity in which growth is increased and production and use are done optimistically. Prosperity terms are usually clarified by increase production, investment level in creation basis of new production capacities, authority's developments, prices increases, downfall unemployment, complete employment, and affluent constitution of economic agencies, (Nazari, 1388).

ORIGINAL RESEARCH PAPER

THE EFFECT OF CONSERVATISM ON THE INFORMATION ENVIRONMENT OF LISTED COMPANIES IN TEHRAN STOCK EXCHANGE Tooba Ghaderi

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Abstract

The aim of the present study to investigate the effect of accounting conservatism on the information environment of listed companies in Tehran Stock Exchange is. In this study, three variables, information asymmetry, volatility of stock returns and earnings forecast error as the financial reporting standards, were considered. The sample consisted of 155 companies listed on the stock is that they have over 6 years (2006 to 2011), were collected and analyzed. The results indicate that conservative accounting; dividend forecast error sample companies during the study period are reduced. However, according to our data, accounting conservatism has no effect on information asymmetry and variability of stock returns. Seems, the less conservative approach can make exponential profit motive and opportunity to manipulate performance measures that management does not and actual results and performance of the business unit reported earnings gap is smaller.

JEL *classification: G14*

Keywords: *Conservatism, Information asymmetry, Profit forecast error*

1. INTRODUCTION

Managers responsible for preparing the financial statements fully aware of the financial status of the company and benefit from more awareness than other users of financial statements potentially are trying to portray a favorable image of the business unit. Conservatism as a limiting principle of accounting is accounting for years despite frequent criticism that always retains its place among other accounting principles. Given the importance of conservatism, the need for accurate measurement in financial reporting standards is essential. Many previous studies have focused on the benefits of conservatism to the creditors. It seems that accounting conservatism reduces information asymmetry and reduces the uncertainty of future cash flows of the company and thus the desired effect on the financial forecasts and the interests of has shareholders. Conservative for three reasons accounting quality increases (Watts, 2003).

1) Restrict managers manipulate earnings

Conservatism, opportunities and incentives for managers to manipulate earnings, reduces. In this respect Guay, W. and R. Verrecchia (2006) found that conservatism, the deviation of actual profits for managers is extremely difficult and costly.

The Watts (2003) stress the important role of conservatism in reporting manager knows opportunistic behavior (García Lara, J.M., B. García Osma and F. Penalva, 2009).

2) Access to full disclosure Guay, W. and R. Verrecchia (2007) showed that the level of conservatism of

   information asymmetry and uncertainty information through full disclosure of information significantly

   reduced. More timely and higher quality of information disclosure reduces information risk capital

providers Also, analysts and the public in order to provide more accurate predictions increases (García
Lara, J.M., B. García Osma and F.

Penalva, 2009). Potential managers have incentives to disclose information in a manner that reflects the
positive outlook for the company. However, the conservative accounting practices, forcing managers to
identify the good news and bad news in the form of profits and losses in the notes to the financial statements.
Thus, uncertainty about future cash flows significantly reduced (Watts, 2003).

3) Improve the efficiency and reduce the cost of the investment policy entities financial statements are
   prepared based on conservative practices, supervision and corporate governance plays an important role
   in the discussion. For projects that will result in timely identification of bad and inefficient managers and
   companies in their early withdrawal, your investment improves efficiency with the improvement of the
   investment process and remove bad project manager reporting fewer incentives to be untrue (Garcia et
   al, 2009).

Theoretical and empirical evidence, the potential impact of accounting conservatism on companies and their
published data confirms. In the present study we tried to be conservative in the enterprise information system
are investigated comprehensively. Hence, the main research question is posed as follows.

• What is the effect of accounting conservatism on firm's information environment?

2. REVIEW OF LITERATURE

Hoy and colleagues (2009) found that conservatism makes the company able to close contracts with better
terms with vendors of raw materials this will result in high operating cash flow. Overall, the conditional
conservatism and unconditional conservatism, risk reduction will reduce operating cash flow. Gray et al
(2010) study the relation between accounting conservatism and bankruptcy risk is discussed. Conservatism,
unconditional conservatism and conditional conservatism in this study are divided. Results and analytical
models show that the role of information and increase the cash flow available to deal with the risk of
bankruptcy will help Conservatism. Research hypotheses using correlation analysis and regression modeling
have been tested. The results of this study indicate that an inverse relationship between unconditional
conservatism and bankruptcy risk is the relationship between conditional conservatism and bankruptcy risk
is also inversely these findings led to prepare for a behavioral role of conservatism is to help companies deal
with their obligations.

Lee's (2010) research on the role of accounting conservatism in financial decisions, the impact of more
conservative practices in financial reporting financial flexibility to pay. In this paper it is argued that if,
conservatism monitors and facilitates corporate governance, capital suppliers; these groups should be more
willing to invest and finance companies have a high degree of conservatism. The results show that firms
with a higher degree of conservatism in corporate cash management, financing decisions, investment
sensitivity to financial constraints and the policy is paid to shareholders have less financial flexibility.

Foroughi and Sadeghi (2011) investigated the relationship between conservatism and investment efficiency
of capital assets paid. Conservative criteria for this study were calculated using the model and Han Gyvly to
evaluate two different measures of investment firms (using time series models and cash flow) is used. The
results of the hypotheses of this study indicate the existence of a significant negative relationship between
conservatism and excessive investment in capital assets and the other showed a significant relationship,
conservatism is a positive relationship between efficiency and investment.

Nahandi et al (2012) in a study to examine the association between corporate governance mechanisms and
conservatism in financial reporting began. They argued that conservatism is potentially of corporate
governance is beneficial in several ways: firstly, it reduces your payments to management opportunism.

Second, the losses resulting from the sale of assets and reporting manager to be skipped, and finally director continued investment in projects to prevent negative net present value. Using multiple regression models, the results indicate a lack of relationship between corporate governance mechanisms and conservatism in financial reporting. However, in this study, the effects of the control variables are also considered.

Hypotheses

The first hypothesis

Impact of accounting conservatism on information asymmetry

The second hypothesis

Accounting conservatism has an effect on the variability of stock returns.

The third hypothesis

Accounting conservatism on earnings forecast error impact.

Community and the sample under study

The present study was designed to test hypotheses and audited financial data of classified manufacturing firms listed in Tehran Stock Exchange are used. In order to select an appropriate sample in this study was a systematic exclusion of sampling is used. Table 1 Selection of suitable research sample is extracted according to the methods of sampling, and concerns raised by the data and information contained in the stock show.

Table 1: Sample Selection and Extraction

342 Company	In the years 2006 to 2011 the number of companies that have participated continuously in stock
287 Company	The number of companies which are investment companies, banks and insurers did not.
224 Company	The number of companies that ended their fiscal year end is March
203 Company	The number of companies during the fiscal year change has not been studied
155 Company	The number of firms in any of the years of research has not Stop Trading Symbol.
155 Company	The number of companies that their data has been collected (final sample)

Source: Author

2.1. VARIABLES AND THEIR CALCULATION METHOD

1) Independent Variable (s)

Independent variables, is basic research, accounting conservatism. In the present study to measure the level of conservatism of a model proposed by Cullen and colleagues (2010) that accounting conservatism in the year - the calculation will be used. Conservative method of calculation model of the year by Cullen and colleagues (2010) is as follows.

$$CR = \eta_t / Ne_t \qquad\qquad\qquad \text{Model (1)}$$

CR: the level of conservatism for each year - the company is calculated separately. ηt

is the future unexpected earnings regression residuals from Model 2 is obtained.

Net:'s profit that is calculated by Model 3.

How to calculate unexpected earnings (ηt) are under way.

$ROE_t = \beta_1 R_{t-1} + \beta_2 ROE_{t-1} + \beta_3 BM_{t-1} + \eta_t$ Model (2)

In Model 2, the return on equity (ROE) as a proxy for the profitability of the company and assumed the company's profitability is a function of profitability and return on equity (ROE and R) the previous year and growth opportunities (BM) years ago is (Cullen et al, 2010).

Net: News Interest is to be calculated by the following equation.

$Ne_t = \Delta E_t (\rho (ROE_t - i_t))$ Model (3) Model 3, reflecting gains in the current period are news. In this model, the percentage change in reported earnings (ΔE) is the expected users of accounting information; calculated. In other words, some of the desired changes in accounting earnings that investors might profit are regarded as a novelty.

In the above equations

ROE: Return on equity (net income divided by book value of equity)

R: The total return on company stock (total stock returns of company's sample annually and are calculated through the application of innovative outcomes).

BM: ratio of market value to book value of equity (market value multiplied by the number of shares outstanding in the latest price per share is calculated). E: Profit (loss), net ρ: is the long-term bank deposit rate (the rate for the study period is extracted from the website of the Central Bank).

i: is the risk-free rate of return (risk-free rate, the interest rate of government bonds).

Variable (s) associated

The dependent variable models have been used to test hypotheses, indicators and elements of the sample companies have the financial information environment. In this study, three criteria for evaluating the financial information has been given, including information asymmetry, volatility of stock returns and earnings forecast error. Methods of estimating each of these variables are as follows.

 1) Methods for measuring information asymmetry

$ABSit \ \Box \ \underline{\hspace{3cm}} AP\Box\Box BPBP)/ \ 2\Box 100$ Model (4)
           $(AP$

In which

ABS: range offered price difference between buying and selling shares (reflecting the level of information asymmetry and the difference between the price range of an offer to buy or sell shares, the greater is the information asymmetry is greater than the target company).

AP: weighted average annual price offered to sell the shares to be calculated differently.

Price offer for sale

Buy the queue Shares

Number of lines of stock sales in a year

$$AP = \frac{\sum_{j=1}^{n}(Proposed\ sale\ price * Number\ of\ sale's\ queue\ shares)}{Number\ of\ sale's\ queue\ shares\ in\ a\ year}$$

Model (5)

BP: weighted average annual price offer to buy shares

$$BP = \frac{\sum_{j=1}^{n}(Proposed\ buy\ price * Number\ of\ buy's\ queue\ shares)}{Number\ of\ buy's\ queue\ shares\ in\ a\ year}$$

Model (6)

Price offer for sale

Buy the queue Shares

Number of lines of stock sales in a year

2) Method to calculate the variability of stock returns

In the present study, the standard deviation of annual returns of the company's shares over three years, to measure the variability of stock returns is used. Therefore, the following equation is used to calculate this variable.

Returns volatility $= \sum_{t-3}^{t} \delta\ RET$

Model (7)

3) The method of calculating earnings forecast error

$FE_{it} = \left| \frac{PEPS\ it - EPSit}{EPSit} \right.$

Model (8)

PEPS: Earnings per share forecast

EPS: Earnings per share genuine

Method of hypothesis testing

Hypotheses through regression models proposed by Garcia et al (2011) are tested. These patterns are as follows.

The first hypothesis test

$ABS_t = \beta_0 + \beta_1 Conservatism_{t-1} + \beta_2 Lev_t + \beta_3 Size_t + \beta_4 Beta_t + \beta_5\ ABS_{t-1} + \epsilon_t$

Model (9)

Where Conservatism: The level of accounting conservatism (CR)

Lev: financial leverage as a control variable (total debt divided by total assets)

Size: size as the control variable (the natural log of total assets)

Beta: systematic risk of the firm's stock as a control variable (beta coefficient is the variability of stock returns than the overall stock market index returns volatility).

The second hypothesis test

$RV_t = \beta_0 + \beta_1 Conservatism_{t-1} + \beta_2 Lev_t + \beta_3 Size_t + \beta_4 Beta_t + \beta_5\ RV_{t-1} + \epsilon_t$

Model (10)

RV: variability of stock returns

Other variables are used to explain

The third hypothesis test

$$FE_t = \beta_0 + \beta_1 Conservatism_{t-1} + \beta_2 Lev_t + \beta_3 Size_t + \beta_4 Beta_t + \beta_5 FE_{t-1} + \epsilon_t \qquad \text{Model (11)}$$

FE: EPS forecast error of the difference between expected profits and actual profits obtained.

2.2. THE FIRST HYPOTHESIS TEST RESULTS

The first hypothesis of the research has focused on the impact of conservatism on information asymmetry. The results of fitting the model to test the first hypothesis, stepwise in Table 2 are obtained.

Table 2: Results of statistical analysis to test the first hypothesis

Adjusted R^2	Dorbin-Watson Statistics	F Statistics	Significance level of F		
0.117	1.905	16.889	0.000		
Variable	coefficientβ	t Statsitics	Significance	Co-linearity tests	
Adjusted R^2	Dorbin-Watson Statistics	F Statistics	Significance level of F		
			level (P-value)	Tolerance	Variance amass factor
Beta	0.134	4.111	0.000	1	1

Source: Author

Factor determining the pattern of 0.117 shows the regression model has been 11.7 percent which accounting for changes in information asymmetry. Also, the results show that the Watson camera statistics between 1.5 up 2.5 and therefore, there is a strong correlation between the errors of the regression model. F-statistic for the model error level of less than significant level exam $(0.05 = \alpha)$, and the regression is therefore estimated to be statistically significant in terms of the relationships between variables, is linear.

The results show that the systematic risk variable stock (beta coefficient) of the variables in the regression model, stepwise regression has been recognized in the prestigious and other variables because of invalid or not significant have been omitted from the regression. The results show that the estimated coefficient for the variable systemic risk is positive and significant. In other words, with increased (decreased) equity systematic risk, asymmetric information, sample firms increase (decrease) is developed. This finding suggests that the information environment, companies that invest in high risk, compared to other companies, is asymmetric. In total, according to research by the independent variable (level of conservatism) has been removed due to regression was significant, the claim cannot be raised in the first hypothesis that information asymmetry affects accounting conservatism is accepted and the hypothesis is rejected.

The results of the tests of the second hypothesis

The second hypothesis investigated the effect of conservatism is due to the variability of stock returns. The results of fitting the model to test the second hypothesis, is stepwise in Table 3. **Table 3: Results of statistical analysis to test the hypothesis**

Adjusted R^2	Dorbin-Watson Statistics	F Statistics	Significance level of F	
0.23	1.968	15.447	0.000	
Variable	coefficientβ	t Statsitics		Co-linearity tests

			Significance level (P-value)	Tolerance	Variance amass factor
Beta	0.152	4.683	0.000	0.999	1.001
RV$_{t-1}$	0.093	2.887	0.004	0.999	1.001

Source: Author

The results show that the systematic risk of stock variables (beta coefficients) and the share of output variable in the previous period, in stepwise regression and other variables deemed valid or invalid due to a lack of significant regressions are omitted. The results show that the estimated coefficient for the variable systemic risk is positive and significant. In other words, with increased (decreased) equity systematic risk, asymmetric information, sample firms increase (decrease) is developed. Also, the coefficient is positive and significant variability in the period before suggests that the variability of stock returns has been a consistent pattern throughout the study period. In total, according to research by the independent variable (level of conservatism) has been removed due to significant regression, Claim cannot be raised in the second hypothesis that the variability of stock returns affect accounting conservatism is accepted and the hypothesis is rejected.

The results of testing the third hypothesis

The third hypothesis of the study predicted that conservative accounting earnings forecast error impact. The results of fitting the model to test the third hypothesis are stepwise in Table 4.

Table 4: Results of statistical analysis to test the third hypothesis

Adjusted R^2	Dorbin-Watson Statistics	F Statistics	Significance level of F		
0.386	1.865	22.743	0.000		
Variable	coefficientβ	t Statsitics	Significance level (P-value)	co-linearity tests	
				Tolerance	variance amass factor
Conservatism$_{t-1}$	-0.132	-4.176	0.000	0.992	1.008
Lev	0.148	4.641	0.000	0.963	1.039
Beta	0.08	2.544	0.011	0.996	1.004
FE$_{t-1}$	0.174	5.473	0.000	0.959	1.042

Source: Author

Statistical analysis showed that the independent variables, the estimated coefficient for the variable conservatism, sort -0.132 and a significance level of 0.000. These findings suggest an inverse association between accounting conservatism and earnings forecast error is. In other words, conservatism, earnings forecast error is reduced by the sample during the research period. The third hypothesis testing, research findings suggest a negative impact of accounting conservatism on earnings forecast error is. These findings are discussed in the theoretical research and the claim is consistent with this hypothesis. Accordingly, the third hypothesis of the study, 95 percent confidence level, is accepted.

3. CONCLUSION

Overall, research on the beneficial aspects of conservatism and its focus has been argued that accounting conservatism may result in financial reporting practices that will help to protect the interests of capital providers. According to the findings, conservatism has no impact on information asymmetry.   It may be argued that the confidential nature of the news of the sample firms, in such a way that the mechanism is not conservative, hidden motives and opportunities for managers to reduce. This news event that may be related to their work is not reflected in the financial statements. In such a case, one cannot expect conservatism to hide confidential news director prevented. As a result of this news, the company has used to his advantage in buying and selling shares information role of conservatism in this regard would not work. Also, the findings suggest that conservatism has no effect on the variability of stock returns. What is the theoretical basis of this study, the role of conservatism in reducing incentives and opportunities for managers to hide bad news? In this respect, it seems that accounting conservatism in sample companies, and will probably not play this role ideally have failed conservative policies, which influence the sample firms manage financial reporting is effective. The results indicate that conservative accounting; the earnings forecast error is significantly reduced. Generally, a lot of research and previous evidence, the desired effect of accounting conservatism in financial reporting environment in order to protect the interests of shareholders and creditors have been demonstrated (eg Boshmn et al, 2010; Lara et al, 2010). Findings from the current study are consistent with the results of these studies and show that there is a conservative procedure causes the information provided to the capital markets is more accurate and more reliable.

The following topics are suggested for research purposes of this study, conducted by researchers are:

1)   The effect of accounting conservatism on corporate disclosure quality of listed companies in Tehran Stock Exchange Market

2)   Examine the impact of accounting conservatism on the cost of equity and cost of debt for firms listed in Tehran stock market

3)   Examine the impact of accounting conservatism on credit risk and finance firms listed in Tehran stock market

Applied research proposals

1)   Short-term and long-term investors are recommended to stock market investment decisions, consider the financial reporting practices of companies and due to stock selection and investment income expected to long term. Based on conservative principles and results, it appears that firms with higher conservatism are more suitable for investors with a long term perspective.

2)   It is also recommended that shareholders and creditors, companies with corporate governance mechanisms applied in all situations, managers are forced to apply conservative approach to financial reporting, in this way, the probability distribution of losses and gains in the form of company resources without merit, quality decreases.

In this respect, according to the business cycle and intensify the monitoring of trade boom are necessary; because the results of the present study are probably conservative accounting from supplier's demand for the company's commercial boom periods of reduced and it benefits them in the company's current and future risk immobilizer.

3)   According to the results of the hypotheses are suggested to the managers of corporations the news related to the company and its consequences on the capital market, which is published from various sources; constantly followed and the reaction to the company's financial reporting. Thus, the relationship between

expected returns and expected returns based on public information, financial information, there is another side.

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INVESTIGATING RELATIONSHIP BETWEEN FINANCIAL LEVER AND FINANCIAL OPERATION OF MONEY INVESTMENT

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Abstract

Economic growth and development need financial sources` suitable transmission of investment savers. Existence of an efficient financial widespread market because of better financial situations for profit investment is necessary. However, most of the country transaction mass have been done by systematic method and desirable functions of country banking that can play important roles in improvement of economic activities. So, the research investigates relationship between financial lever and financial operation of money investment in Iran banks from 2010 to 2015 and 20 banks and financial institutes have been chosen. Data analysis have been done through descriptive and correlative methods by SPSS software. Shareholders` rights returns have been used for estimating financial operation and liability ratio to all assets that have been used. Research analysis indicates meaningful relationship between financial lever and financial operation. Moreover, the research analysis confirms meaningful relationship between financial lever and financial operation of money investment. Descriptive analysis shows that 0/087 of total banks` assets include customers` deposits.

JEL *classification: G20, G39*
Keywords: *financial lever, financial operation, banking deposit*

1. INTRODUCTION

Private banks have been the first banks in exhibition banking new services, so governmental banks have exhibited similar services as private banks, service qualities, and relationship managements with customers in these banks can have important effects on bank financial operation. However, investment infrastructure processes with customers` relationships and operation in the most experimental studies have not been determined. In this era, it is deduced that investment in customers` relationships can be bases for strategic development of customers` values and these basic strategies can empower competing vantage and resistant financial operation will be received. So, understanding of customers` loyalties contents indicate the need of the value increase for customers which have been expressed as financial operation indicators for offers financial services in private sections. Private studies have investigated customers` keeping in private banks but other dimensions have been ignored.

Many researches have been done on financial level and corporations` operations. However, these studies can`t be argued for practicable agreement in corporations in all situations, (Alshomaresh, 2013). There aren`t any complete theories of liability to shareholders` rights and there aren`t any reasons for expectance, (Mayrez, 2001). Moreover, Brealey and Mayrez (1999), accentuated on financial lever recognition as one

of the ten solvable problem in corporation financial matters. Based on experimental studies, there is a negative meaningful relationship between financial lever and financial operation. Many researches have indicated a negative relationship between lever and corporations` operations in their investigations, Al Taani (2013), Emeni, Rowoshegbe (2014), Chinamerem (2014), Antoni (2012), Majomadar, Chibber (1999), Ogebe and et.al (2013), Chaolapo, Kajola (2010). Although there were other researchers who found positive meaningful relationship between financial lever and financial operation, Akhtar, Maryam Saedia (2012), and Deypeti (2006).

So, study relationship between financial lever and financial operation needs more experimental studies. The main discussion is financial assurance which operation should constitutes about liability ratio and shareholders` rights of corporations` structures. Because of corporations` vast interests for making decision about financial sources, most researches have been done on financial lever in the advanced countries. This study wants to complete the gap in knowledge. So, the main problem part of this research is investing relationship between financial lever and financial operation of money deposit choice in Iran banks.

2. RESEARCH AIM

The main research aim is investing relationship between financial lever and financial operation of money deposit choice in Iran banks.

2.1. SPECIAL AIMS

Investigating relationship between liability ratio to shareholders` rights and financial operation of money deposit choice in Iran banks

Investigating relationship between liability ratio and financial operation of money deposit choice in Iran banks

2.2. RESEARCH HYPOTHESES

First Hypothesis: There is a meaningful relationship between financial operation and financial lever

Second Hypothesis: There is a meaningful relationship between financial lever and investment with financial operation

2.3. THEORETICAL BASES

Deposits: deposits usually constitute main pert of banks` liabilities. Customers` deposits indicate accepted fund degree of public such as savings, visual deposits, fixed deposits, previous announcement deposits and foreign exchanges deposits. Deposits consistencies and structures have the most importance and need double observations. Degree of usance time compression, resistance and type of exchange should be considered during their sources` uses.

Competition for the sources outfits can be a usual flow in banking market and investors such as families and corporations intend to optimize their funds efficiencies and returns.

So, banks should consider suitable policies to keep deposits and adjust analytic investing schemes based on order, resistance and clarified structure of deposit because of removal expectancy of sources, these analyses would be used efficiency. Deposit structure analyst should determine resistance and stability, core percentage, seasonal and fluctuation or insistence of deposits, (Groning, Betanivich, 2000).

Among banks` liabilities, debts of Central Bank may be existed. The main reason of borrowing from central bank is change in reservations mass of cash flow from deposits fluctuations. This change happens when banks haven`t anticipated their daily reservations correctly and to compensate their problem they should borrow from Central Bank. In this situation, Central Bank helps other banks to secure temporary sources.

However, long-term credibility from Central Bank may be followed by national differences or other banks` protests, (Groning, Betanivich, 2000).

2.4. BANK OPERATION

Operation content has been differed efficiency and effectiveness because effectiveness means access to aims and efficiency points to this topic of how sources have been used economically for access to aims.

So, efficiency and effectiveness can be existed for operation parts. So, operation is a function of done efficiency and effectiveness. Banks should use logging or leading indicators to access better operation. Logging indicators just define historical events while leading indicators can create situation to grow operation, (Gross, Lynch, 1991).

In Iran banking system based on Islamic Banking Rules equipment can be done by two following ways:

1-Through absorption of saving debts deposits which are called owner sources.

2- through absorption of short-term deposits which are called agency sources.

In the country because of competition existence among banks and financial institutes to absorb more sources, dominance of effective components on financial sources is main duty of banks. Moreover, this absorption has an important effect on money flow and creation of money credit system based on long term and short term programs in the country, (Hedayati, 2004). Banks` success and lack of success can`t be imagined without managers` operations.

Bank can be succeeded if it benefits from able managers, variety facilities and its existed potential for the variety of the collection. The factors which cause banks to be successful are use of information technology, marketing, keeping customers and preventing slogans. Banks` mangers should have situational recognition of market new situations and many professional experts and specialists who should work in the organization to gain abilities. Banks can keep their permanent relationship with market customers by use of able mangers and educated human sources and investigate society by creation of evaluation and changes.

2.5. OPERATION EVALUATION

Operation evaluation is introduced by its relationship with broad arguments but public views are corporations' coefficients managements. The word "evaluation" is defined as "systematic event for conclusion drawing". So, operation evaluation is process of efficient evaluation of different effective activities done by institutes.

2.6. FINANCIAL LEVER

Financial lever is a measuring indicator of how it uses share and financial securement liabilities of corporations. If liability increases, financial lever will increase. Management inclines to report asset more than liability because it will be endangered less, (Matt, 2000). Financial lever is form of loan liability, received income from it with the aim of market price that will be investigated again. Lever corporation is consisted of ownership shareholders` rights and liability, (Andy, Alison, 2002). Lever lets investors to access more potential returns but having a bigger potential return for investments will be useless because loan and loan benefit should be repaid (Andy et.al, 2002).

2.7. BACKGROUND

Ezadinia et.al (2013), investigated relationship between financial lever and real profit management of the accepted corporations in Tehran Stock Exchange. Reserch conclusions indicated a reversed meaningful relationship between financial lever and real management criterions.

Bagher Kord abd et.al (2010), investigated banks` efficiencies evaluations by data coverage analysis method. Research conclusions indicated that in the first and the second durations 0/052 of the units were efficient

and average amount of 0//064 of sample statistic was inefficient because of lack of correct human distribution and fund concentration have caused this inefficiency.

Adabi (2009), investigated relationship between financial lever and variety investments of the accepted corporations in Tehran Stock Exchange. He concluded that broad investments have indirect effect on profit management through financial lever and had effected on the relationship between financial levers of profit management.

Ahmad, Aboobakr (2010), investigated relationship between financial lever and financial operation of banks` deposits in Najera. Research data analysis indicated that there was a meaningful relationship between shareholders` rights and financial lever, however, there was no meaningful relationship between liability ratio and financial operation.

Mayana and Kendengo tried to theorize Moodiani, Miller (1963) in Kenya and they investigated liability ratio to asset of corporation's operations in Nairobi Stock Exchange from 2002 to 2011. Research conclusions indicated negative relationship between liability ratios to shareholders` rights. This conclusion confirms Miller`s Theory.

Aber (2005), in the research "Effect of asset structure on profitability" investigated relationship between profitability and structure of corporation in Ghana from 1998 to 2002. He concluded that there were meaningful relationships between short term liability to corporations` profitability and between total liability ratios to profitability assets. However, there was negative relationship between long term assets and corporations` profitability.

3. RESEARCH METHODOLOGY

In the research both correlative and descriptive methods have been used to analyze data. Financial lever is independent variable and financial operation is dependent variable. Applicational relationship between dependent and independent variables us introduces as follow:

FP= f (FL)

FP: financial operation

FL: financial lever

3.1. VARIABLES` MEASURING

-Liability ratio to asset

-Division of liabilities addition to shareholders` rights addition

-Liability ratio

-Division of liabilities addition to total asset

-Profit shareholders` rights returns of tax deduction division to shareholders` rights addition

3.2. DATA ANALYSIS

Descriptive Analysis

Table (1) indicates descriptive statistic conclusions of the research variables, research findings describe:

- Scores` average is 15/90 and standard deviation of answers is 0/38 about financial lever variable

- Scores` average is 15/23 and standard deviation of answers is 0/45 about different financial operation variable

- Scores` average is 15/54 and standard deviation of answers is 0/41 about banks` deposits variable

Table 1: Descriptive Statistics

Descriptive Statistics					
	Number	**The least**	**The most**	**Average**	**Standard deviation**
Financial lever	20	.683	95.900	15.90014	.383063
Financial operation	20	.494	95.900	15.23614	.452182

Descriptive Statistics					
	Number	**The least**	**The most**	**Average**	**Standard deviation**
Banks` deposits	20	.449	95.900	15.54914	.408022

Source: Author

3.3. HYPOTHESES TEST

Pearson correlation parametric test has been used to investigate hypotheses and relationships among variables.

First Hypothesis Test

There is a meaningful relationship between financial lever and financial operation.

H0: There is no meaningful relationship between financial lever and financial operation.

H1: There is a meaningful relationship between financial lever and financial operation.

Table 2: Pearson correlation test conclusion of the research first hypothesis

Financial operation	Financial lever		
- 0/ 68** 0/000 20	1 20	Correlation coefficients Meaningful level number	Financial lever
1 20	- 0/ 68** 0/000 20	Correlation coefficients Meaningful level number	Financial operation

Source: Author

Above table conclusions indicate that meaningful level is 0/000 and is less than 0/05. So, relationship between financial lever and financial operation is 99 percent level meaningful. Correlation coefficient is negative, so this relationship between these two variables is reversed. When one of the variable increases, the other one decreases and the relationship degree is -0/68. Thus, H0 is rejected and H1 is accepted.

Second Hypothesis Test

There is a meaningful relationship between financial lever and financial operation deposits.

H0: There is no meaningful relationship between financial lever and financial operation deposits.

H1: There is a meaningful relationship between financial lever and financial operation deposits.

Table 3: Pearson correlation test conclusion of the research second hypothesis

Financial operation	Deposits	Financial lever		
- 0/ 68** 0/000 20	0/ 87** 0/000 384	1 20	Coefficient correlation Meaningful level number	Financial lever
0/ 37** 0/000 20	1 20	0/ 87** 0/000 20	Coefficient correlation Meaningful level Number	Deposits
Financial operation	**Deposits**	**Financial lever**		
1 20	0/ 37** 0/000 20	- 0/ 68** 0/000 20	Coefficient correlation Meaningful level Number	Financial operation

Source: Author

 Above table conclusions indicate that meaningful level is 0/000 and is less than 0/05. Thus, H0 is rejected and H1 is accepted.

4. CONCLUSION

Customers` deposits indicate accepted funds degrees of public such as savings, visual deposits, preannounced deposits and deposits with foreign exchanges. Structures and consistency of deposits are very important and need double cares.

The topics which are considered during consuming time are time aggregation amount of usance, resistance and types of foreign exchanges.

Following findings have been get based on the research:

When you settle money, banks and financial institutes will be more powerful. Research data analysis indicates that there is a meaningful relationship between financial lever and financial operation deposits and customers` deposits constitute 0/087 of banks` total assets. Moreover, there is a negative meaningful relationship between financial lever and financial operation.

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COMPARISON OF TWO STRUCTURAL MODELS, MOODY'S KMV AND VALUE AT RISK IN PREDICTING CREDIT RISK

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Abstract

Up to now various models for prediction of probability of negligence by presented companies have been proposed. Most credit risk evaluation models have been dependent on past information and use of models based on up to date market data for prediction of probability of future negligence can increase relying on findings. The purpose of this research was evaluation of reliability of use of the KMV model in investigating prediction of credit risks and comparison of explaining power of results obtained using the value at risk model as one of the prevalent methods of measuring probability of negligence by companies. Research data is obtained from the companies accepted in the Tehran Stock Exchange that have taken advantage of short and long term banking financial facilities inside the country. The results of this applied and quantitative research showed that the model has predicting power for credit risk in the Samman Bank and is comparable with the value at risk model (VaR).

1. INTRODUCTION

Process of globalization and as a result exacerbation of competition between financial and economic institutes in regional and world markets increasingly show necessity of strengthening and revising systems in financial and capital agencies across the nations. Since profiting is considered one of the most important goals in activities of economic markets and has close relationship with level of various risks of financial and banking actions taken, risk management is counted as a priority in correction and improvement of banking mechanisms all across the world. High levels of back up and banking granted facilities that have been cancelled or suspended show lack of existence of appropriate models for measurement of credit risks and risk management systems in various banking branches.

In fact, one of the important problems of trading banks in Iran is the issue of customer ranking and risk reduction to minimum (Ghahremani & Abdoli, 2015).

Credit risk is considered the most important one. In general, establishment of logical correlation between risk and ran demon or efficiency is the main factor in determination of optimal allocation of resources and guarantee of profiting of companies (Fallah & Mahdavi, 2010). High worn out or undecided backups and granted facilities show lack of appropriate models for credit risk measurement and risk management systems in the banking network.

In fact, one of the important problems of trade banks in Iran is the issue of customer rank and minimization of risk. Various models and techniques have been introduced for modeling of credit risk and predicting probability of default by customers based on accounting data (Kealhofer, S. and Kurbat, M., 2009). In our country also most research has been about credit risk modeling. Since market information and new value of

company assets is important warning regarding present situation of the company and even expectations of its future situation. Use of a model that is not only dependent on accounting data and also uses up to date market information for prediction of credit risk appears a necessity.

A group of models known as structural ones that measure probability of default directly based on variables relevant to the company also use market information for prediction of customer credit. One of these models is the KMV model also known as the Kealhofer model introduced in the mid 90's decade (KMV, 1997).

The main purpose of this research was prediction of credit risk of companies using the KMV model. In this model transaction decisions are made based on the method and framework presented by Blake-Shultz (1973) and Merton (1974) regarding pricing. It will be endeavored with consideration of estimation of net value of assets of companies at any point of time to also estimate the distance to default point and probability of default (the point where net value of assets and amount of company debts are estimated). The problem of this research is whether using the Vesichek-Kilhaufer (Lee, 2011) model supplied by the kmv company and has been leveraged upon pricing principles for decision making by Blake-Shultz (1973). Thus credit risks can be predicted?

Additionally, comparison of this prediction model with the value at risk model is a new method for measurement and evaluation of probable risk existing in capital market and is from the family of unwanted risk criteria that has up to now had influence in many financial institutes and has completely changed their method of achieving their financial risk.

2. THEORETICAL BACKGROUND

Credit risk is lack of confidence in power of companies to withhold their commitments. Before financial crisis, there is no comparative method for identification of companies who will be able to withhold their commitments. In the best situation, probability of financial distress can be evaluated and estimated (2). Numerous instruments in the domains of mathematics, statistics, econometrics and operational research such as mathematical planning, proximal and exact simulation, neural networks, sustenance analysis, game theories, minute analysis and log it and Pro bit analysis have had share in progress of precise measurement of credit risk (Mirfeiz & Rahsno, 2009). Since market information and current value of company assets are important warnings of present situation of companies and even future expectations, use of a model that is not just dependent on accounting data and also includes up to day market information for prediction of credit risk appears necessary. Structured models for customer credit risk evaluation based on the preliminary framework model of Merton have been introduced in 1974. Based on this framework, the process of financial distress is estimated based on net market value of company assets. Financial distress happens when market value of company assets is less than debits (Evum &Colleagues, 2008).

Structural models are based on company capital construct and were first introduced in 1974 by Merton (1974) and are derived from the pricing theory for transactional discretions of Blake-Shultz. Based on the Merton model, the company experiences crisis when the value of its assets are less than debits. The amount of difference between value of assets and debits alongside with fluctuation of the value of assets determine probability of company distress (Kerahi et al, 2001). The following table shows the trend in evolution of structural models after the Merton model (Jones, 2010).

Table

1. Evolutionary trend of structural models

Structural model	Researchers	Year	Characteristics
			Standard model of

Merton (1974)	Merton	1974	pricing of transaction decisions- $\square\square$, $\square\square$ and T are constant.
External default limit	Blake & Caucus	1976	Capital as decision for limit of transactionnonrandom interest rate
External default limit	Longstaff & Shwartz	1995	Expansion of the model of Blake and Caucus (1976)
Structural model	**Researchers**	**Year**	**Characteristics**
			Random interest rate of Vesicheck (1977)
External default limit	Collins-DeFrance & Goldstein	2001	Leverage ratio for return to the mean-expansion of the Longstaff and Shwartz model (1995)
External default limit	Huang & Huang	2003	Leverage ratio for return to mean Negative correlation between risk alone and unexpected shocks in return of assets
External default limit	LeLand	1994	Time constancy of ratio of interest rate, ratio of divided interest and asset risk by itself
External default limit	Anderson et al	1996	Debit documents without receipts
Expansion of the Merton model	Vesicheck	1984	Random interest rate
Expansion of the Merton model	KMV		Experimental modelhistoric information
Expansion of the Merton model	Holgeist et al	2004	Risk model
Dynamic models	Goldstein et al	2001	Dynamicity of selection of capital structure and pricing company debit papers

Strategic models	Mella-Broil & Pradin	1997	Optimal capital structure
Expansion of the Merton model	Charita & Trigorgeous	2006	Discretional and forcible midterm default model
Expansion of the Merton-KMV model	Broth & Shemway	2005	Expansion of the Merton-KMV model without solving concurrent formulas

Source: Author

THE KMV MODEL

One of the most practical modulating model of the Blake-Shultz-Merton that in effect improves it is one proposed by the Moody company and is known as the KMV-Merton approach. This approach which exerts mediations on the base BSM model uses debit with different receipts for various groups. According to this approach, solution of concurrent equations if the market is very irregular can lead to incorrect estimations and probabilities of slant negligence. For this reason, KMV uses more complex repetitive approaches compared to the BSM model in estimation of company value and its upheavals.

The KMV-Merton approach in computation of probability of default in place of using riskless interest rate takes advantage of company expected return on assets and in place of boundary of default, the base (B) model uses a new default boundary which is equal to current debit added to half of long term debits. Additionally, the company asset value (E) is directly estimated from the market. Next, estimated values are entered into the concurrent BSM equation system and values for company value and fluctuations of company return are estimated so approximation to default is achieved.

For the purpose of resolving the issue of optimal default boundary in the KMV-Merton approach, Lee (2011) has with utilization of the genetic algorithm attempted to redefine an optimal boundary of default for this model. Lee's idea (2011) was that the default boundary can be different from one country to another and even from one industry to another. Therefore, the main purpose of Lee's research (2011) was providing a model than can more effectively and simply predict bankruptcy in the country of Taiwan. Lee (2011) named his own model GA-KMV and defined boundary of default as follows:

$$DPT_{GA\ KMV} \quad \quad *LD \quad * \ SD$$

LD and SD are long term and short term debits of a company respectively. The purpose of Lee (2011) was estimation of optimal coefficients for these variables using concurrent implementation of the genetic algorithm and concurrent equations system of Blake-Shultz-Merton. It should be noted that the KMVMerton approach equalizes coefficient of short term debit to 1 and coefficient of long term debit to 0/5.

VALUE AT RISK (VAR) AS A CRITERIA OF MEASURING RISK

As mentioned in the introduction, risk is a symbol of lack of confidence towards others expectations. When we talk about value at risk for its management, we are really referring to a new revolution in recent years that began with value at risk which became popular as a new method of risk computation for the market in response to the financial disaster of early 1990's decade.

At present, the VAR methodology has well extended in montage instruments and has created overall changes in the approach of institutes. With consideration of limitations existing in measurement of market risk, actively for control and management of risk, the latter approach is used. The VAR methodology is at present used for computation of credit and operational risk (Joverin, 2007). Value at risk is a statistical measure for

computation of unwanted risk based on current situation. The highest advantage of VAR is its ability to summarize risk in a comprehensible perimeter. There is no need for explanation why VAR has rapidly turned into a needed and fundamental instrument that shows business and market risk for senior directors, executive committee and owners of stock.

JP Morgan was one of the first banks that introduced VAR and made it applied. In the year 1994 and in its annual report, it announced that value at risk of banks for one day at a confidence level of 95% on average is 15 million dollars. Based on this information, stock holders can have opinion about level of risk at time of evaluation (IBID, 105). Value at risk is a method of risk evaluation that uses standardized statistical techniques. VAR is the highest harm in a time interval. Even though, the time interval may be short, the probability that real harm is large exists. This definition includes two quantitative factors: time horizon and confidence level C as level of confidence and L as a measure of harm (a positive number). In this research, we will use the value and level of real facilities available to the private sector or the level of real assets of each bank as criteria for evaluation of growth rate of banks.

MODEL AND CRITERIA FOR "VALUE AT RISK"

This statistical criterion expresses the maximum probable portfolio harm in one-time interval that has been specified with quantitative detailing and in the frame of numbers. In other words, value at risk is a sum of portfolio value that is expected to be lost in a specific time interval with a predefined level of probability

(confidence level of 1-▯%). Various methods of computation of value at risk are the parametric (variancecovariance), historical simulation and the Monte Carlo Method where the last two methods are more based on historical information and are computed based on heuristic and scenario modeling and do not have a particular formula. Since in this research, we seek to improve (minimize) risk we need a method based on risk that can be parametric. Therefore, to calculate value at risk the parametric variance-covariance method is used.

THE PARAMETRIC METHOD (VARIANCE-COVARIANCE) OF CALCULATION OF VALUE AT RISK

This method has two fundamental assumptions with it which are normal distribution of return on assets and linear relationship between market factors and value of assets. With the latter interpretation, the probability that the portfolio value with a standard deviation for a specified return and confidence level is less than the presumed value is measured by way of the following formula:

$$\text{VaR} = M.\, Z_\alpha .\, \delta\sqrt{T} - \mu.\, x = M.\, Z_\alpha .\, \delta\sqrt{T} - r_p$$

This relationship holds for long term time intervals (Saita, 2009). Since in this research, the time interval under investigation is 11 years and daily information for 11 years have been used, thus it is in fact a long time and this formula has been used. For short term intervals with the assumption of a mean of zero $r_p=0$, the following formula is used:

$$\text{VaR} = M.\, Z_\alpha .\, \delta\sqrt{T} \tag{2}$$

In this formula, knowing the daily standard deviation of δ, standard deviation for T days is calculated from the relation $\delta\sqrt{T}$. M is the market value of assets, 1-α is confidence level and T is the length of the interval used for calculation of return. This value shows that the probability that loss in a period of T days is more than value at risk is equal to ▯% (Raii, 2004). In this research, to calculate variance, the following formula is used:

$$\delta_p = x' * vc * x \tag{3}$$

Where x   ⊙ is the linear horizontal matrix for the portfolio coefficients, ▢c is a square matrix for variancecovariance and x is a vertical columnar matrix for portfolio coefficients (Tehrani, 2007). In this research, the following model is used for improvement of value at risk:

$$\text{Min } Z = Z_\alpha . \delta_p - \bar{r}_p$$
$$\small M$$

$$\text{S. T: } \bar{r}_p = \sum x \, \bar{r} \qquad\qquad (4)$$
$$\small =$$

$$\square \,_{j\square1} x_j \,\square 1, \; x_j \geq 0 \; {\small M}$$

Three stages of computation of value at risk are:

- Determination of kind of data distribution (parametric or nonparametric)

- Model for asset return behavior in the market by way of time series models

- By way of parametric models approach such as the ARCH and GARCH family, conditional nonhomogeneity variance is computed over time where usually rotating window method is used.

3. RESEARCH METHODOLOGY

This research topic wise was in the domain of credit risk management and its relevant models. Additionally, companies accepted in the Tehran stock exchange during the time interval of 2005 to 2014 where short and long term financial facilities were granted in this country. This research purpose wise was applied and in terms of data collection it was experimental. Additionally, this research was quantitative. Sampling of statistical population was nonrandom and by way of screening. In other words, selection of sample members was performed with omission of newly accepted companies in the stock exchange and companies with prolonged transactional interruption (more than 70 days).

Model testing and extrusion of value of assets was performed in the interval from default and probability of default was calculated. The values for interval up to default and probability of default relevant to every company were calculated for prediction of subsequent default by adding one transaction day to the last preliminary data and subtracting one transaction day from last data.

Data related to real default by companies were obtained after collection of relevant information from stock companies, organizing and summarizing them by way of the Tehran stock exchange. To explain the predicting power of the KMV model in prediction of probability of default, comparison of mean probability of default from the value at risk model was used. The analytic model is as follows:

RESEARCH MODEL

$$ER_i = R_F + (ER_M - R_F)\beta_{Mi}$$

Ri: Return of assets, Rf: Riskless return, Rm: market return, E: mathematical error or hope.

The market Beta for each stock is extruded from the following formula:

$$\beta_{Mi} = \frac{cov(R_i, R_M)}{var(R_M)}$$

Therefore, to test the first model, regression analysis was used as follows:

$$R_i = a_{.} + a_{\backslash}\beta_{Mi} + \upsilon_i$$

Where:

Research   Hypothesis

	= Riskless return rate	
	= Stock return excess	
	= Observed stock return	
	= Expected error	

● Cash flow level Samman   Bank KMV structural

ratio to power of credit allowance of the can be predicted by using the Moody's model.

● Credit   risk   of

customers can be predicted using the value at risk model.

● Applicability of Moody's KMV structural models is higher than value at risk in prediction of credit risks.

$a_{\circ}$ = نرخ بازدهٔ بدون ریسک یا همان R_F

$a_{\backslash}$ = اضافهٔ بازدهٔ سهام یا همان $ER_M - R_F$

R_i = بازدهٔ مشاهده شدهٔ سهام i

υ_i = خطای مورد انتظار یا همان $R_i - ER_i$.

FINDINGS

To   evaluate   the   first hypothesis, we first calculate cash flow and credit risk using the Moody's KMV model (Figures 1 & 2).

CRISK
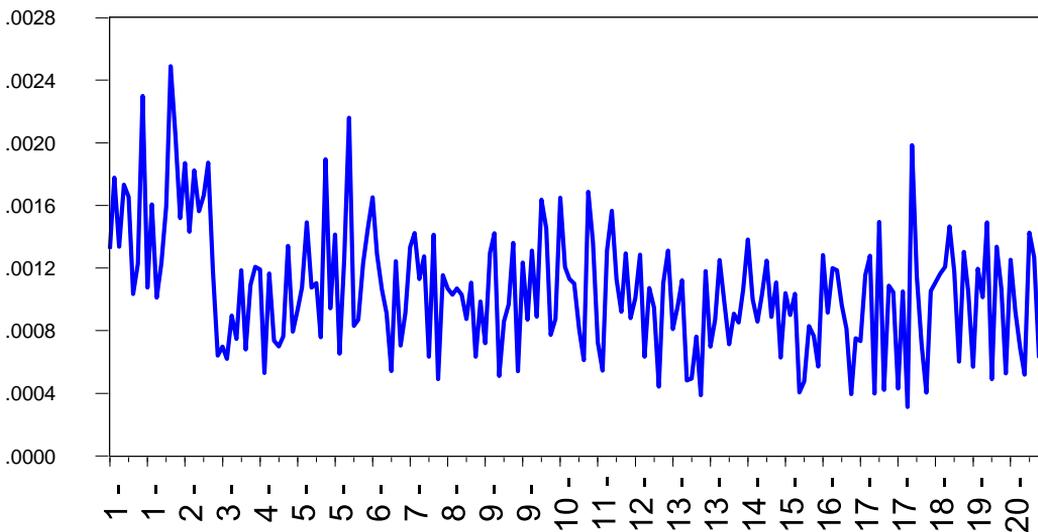
Figure 1: Credit risk

Source: Author
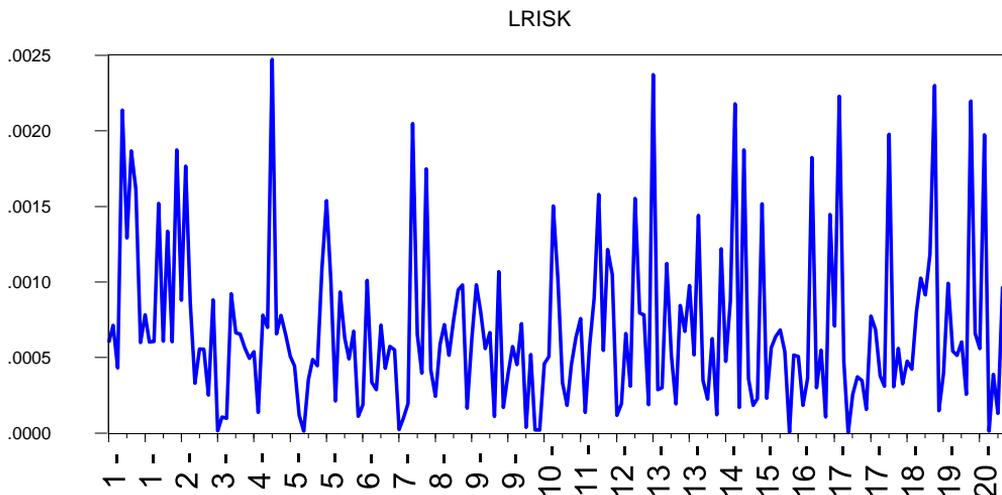
LRISK

Figure 2: Cash flow risk

Source: Author

Table 2. Correlation between model variables

Corre lation	EFF	PER	ACC	LRISK	LQAN	LIQ	CRISK	B
EFF	1.0000							
PER	0.964780 0.0000	1.0000 ----						
ACC	0.038203 0.0012	0.032289 0.0091	1.000000 ----					
LRISK	0.094757 0.0020	0.119112 0.0130	0.035757 0.0052	1.0000 ----				
LQAN	0.600000 0.0000	0.964780 0.0000	0.038209 0.0011	0.094758 0.0002	1.0000 ---			
LIQ	0.420000 0.0000	0.964780 0.0000	0.038209 0.0012	0.094757 0.0010	0.330000 0.0000	1.0000 ----		
CRISK	0.141228 0.461	0.233105 0.0009	0.194701 0.0057	0.102006 0.0006	0.141221 0.0461	0.141221 0.0461	1.0000 ----	
B	0.019541- 0.0036	0.010062- 0.0075	0.461438 0.0000	0.010258- 0.0051	0.019531- 0.0037	0.019533- 0.0037	0.188689 0.0075	1.0000 ----

Source: Author

In the above table, correlation coefficient has been shown in the first row and its significance in the second. If significance level is less than 0/05, the correlation under evaluation is statistically meaningful.

The null and its opposing hypotheses is expressed as follows in the correlation test:

H0: correlation is not significant.

H1: correlation is significant.

Correlation between variables means there is a significant relationship between them during the period under study. Considering Table (2), we can confidently state that meaningful correlation exists between cash flow and credit risk computed by the KMV model.

Second Hypothesis:

Using the value at risk model, we can predict customer credit risk. Figure (3 & 4) shows the statistical distribution of the two variables of credit and cash flow risk.
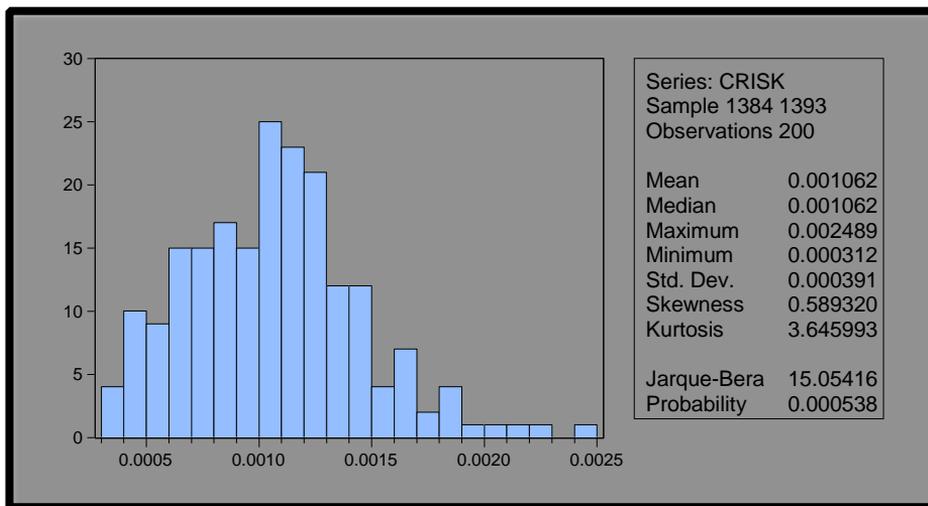
Figure 3. Distribution of credit risk

Source: Author
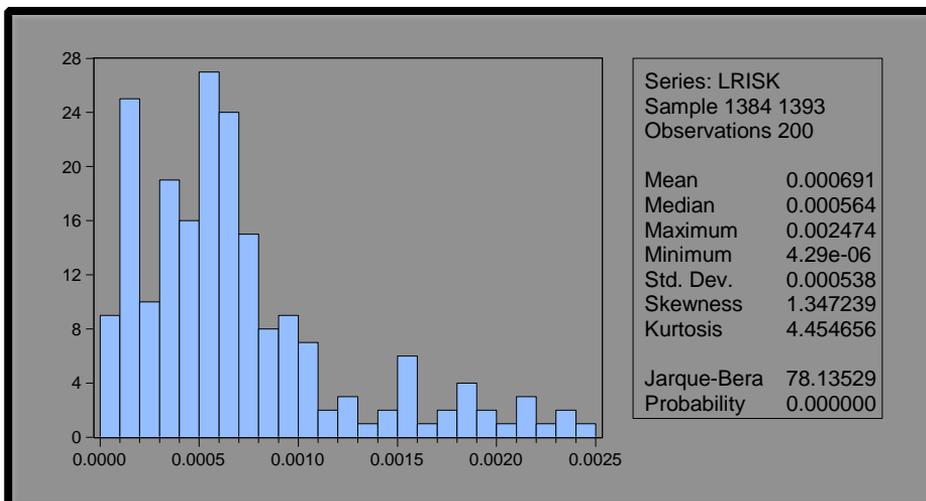
Figure 4. Distribution of cash flow risk

Source: Author

In the following plot, the value at risk has been shown at a 10% level:
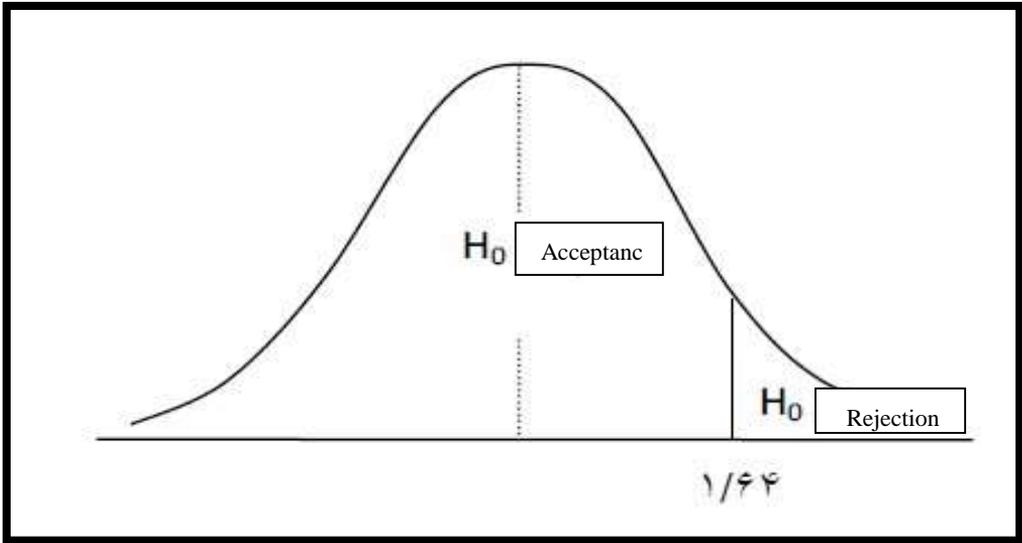
Figure 5: Calculation of value at risk

Source: Author

The value at risk is dependent on level of risk (1%, 5% and10%). In the above figure, error was 10% and the value for $Z\alpha/2$ was equal to 1/64 and next, value at risk is calculated for credit and cash flow risk (Tables 3, 4).

Value at risk for credit in calculations performed is more related to cash flow risk. Therefore, as witnessed by using value at risk model, we can predict credit risk for customers.

Table 3. Calculation of value at risk for credit

Confidence level	Z⎕/2	Value for value at risk
1%	2/57	0/0020
5%	1/96	0/0017
10%	1/64	0/0016

Source: Author

Table 4. Calculation of value at risk for fluidity

Confidence level	Z⎕/2	Value for value at risk
1%	2/57	0/0019
5%	1/96	0/0016
10%	1/64	0/0014

Source: Author

HYPOTHESIS THREE

Efficiency of Moody's KMV model for predicting credit risk is more than the value at risk model.

In the Moody's KMV structural model, prediction of credit risk is performed by way of simulation that has a very higher precision compared to the value at risk model. Therefore, Moody's KMV structural models for efficiency in predicting credit risk is higher than value at risk model and the second minor hypothesis is confirmed.

4. CONCLUSION

Results of this research is completely in agreement with studies by Mahdi Khonsari (2009), Novin Economy Bank (2008), Radpour and colleagues (2009) and Gerigorian (2004). These models are adaptations of structural modeling methods (Moody's KMV) and consider value at risk appropriate for predicting credit and cash flow risks. Among research abroad, the work of Kim and colleagues (1993), Nirson and colleagues (2014), Mahapatra and Chakerboutri (2009) have used various structural models for predicting cash flow and credit risk and their results agree with the conclusions of this paper as well.

Yet, Asadpour (2003), Faraji (2006) and Banks (2005) and Falconer (2001) have not considered structural models appropriate for risk prediction. Therefore, their research work disagrees with this paper. Maybe, previous structural models were not as progressed as the Moody's KMV.

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ORIGINAL RESEARCH PAPER

DESIGNING IT-BASED INTERNAL AUDIT MODEL BY APPLYING ARTIFICIAL NEURAL NETWORKS

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Abstract

The use of IT for internal audit is increasing. This issue has made auditors to be equipped with basic knowledge for doing audits and its technologies. Nowadays, a lot of auditors believe that IT-based audit will be expanded in future influence organizations and auditors. Therefore, the present study is to design an IT-based internal audit model using Artificial Neural Networks (ANN). In the present study, the Levenberg–Marquardt algorithm (LMA), developed from Gradient algorithm, was employed for training and numerical optimization of the network. Using gradient algorithm, a vendor minimizing errors was selected. To predict with the use of ANN, five units were in the input layer (Control environment, risk assessment, control activities, data and communication and oversight activities). The input data in

artificial networks were divided into three classes: Training collection including 70% of the total data set. 2. Attitude set including 15% of the total data and 3. The trial set included 15% of the total data. In the present study, it is indicated that in training collection, 96.4%, in attitude collection 100%, and in trial collection with 100% and in total, 97% of accuracy was available. Finally, according to the analyses, it was identified that values of errors are very low; therefore, the neural network is higher than 0.9 and the neural network technique enjoy appropriate efficacy in the classification and prediction of the internal audit function of investigated companies.

1. INTRODUCTION

In the modern world, the establishment of the internal control system has been converted into an integral part of the efficient management system with the development of big and small firms and different service, production, and business activities. Currently, this system is considered as an efficient method for identifying and controlling the degree of observing legal organizational rules and regulations as well as an instrument for exploring and preventing financial and non-financial errors (Moddares & Bidari, 2011). A part of the internal control system is internal audit referring to accounting and finance. Tasks of internal audit include a vast range of assessing internal controls, checking for frauds, assessing operational processes, advising senior management, and participating in risk management. Internal audit should have profound understanding of operations and processes of companies and be able to provide data related to function quality of a firm (Mousavi Shiri, Tavakkolnia, & Shakeri, 2013). One of the most important aims of the internal control system is timely and reliable financial reporting (Vasarhelyi, Teeter & Krahel, 2010).

Nowadays, with the development of IT in all parts of organization and its advent in all activities, methods of performing works are influenced by it. In fact, IT has changed the method of doing activities from traditional ways into electronic ones. Being accompanied with these comprehensive and changes in multiuser devices and the tendency of organizations for preparing and performing new devices and software

programs have caused that computers get used more than ever, and auditory tasks can be conducted more rapidly and accurately. Therefore, audit as the language of business and data system should adapt itself with new technologies in order to be able to meet financial users' needs. According to the mentioned reasons, nowadays enhancing the quality of profession and advancement of audit should be identified with IT which is used optimally (Aghaei Bastani, 2013). As a result, applying IT-based internal audit seems necessary.

1.1. STATEMENT OF THE PROBLEM

Internal audit refers to a consulting activity designed for increasing and developing performances of organizations. Internal audit covers a systematic approach with assessment of efficiency of risk management, controlling, and monitoring organizational processes for accessing its objectives. One of the comprehensive definitions for internal audit is that it refers to a multi-stage process. This process depends the identification of this issue whether the existing processes and strategies are matched with predetermined rules and regulations or they do not observe the standards? In addition, internal audit as an objective and independent validation, not only enhances the value of performances, but also facilitates the effect of related processes for accessing organizational aims (Kanellou & Spathis, 2011).

Organizational internal audit test performances of accounting organizations, related internal monitoring, financial credits, and useable data and evaluate economy, effects and efficacy of monitoring and business performances, actions and methods, plans, and strategies. According to different definitions of internal audit, it can be concluding that three important parts of this process should be investigated. These parts are as follows: legal or corporate monitoring, risk management and internal control, and monitoring based on standards for internal auditing (Barbar et al. 2012).

In general, it can be said that internal audit is a designed activity. The auditor should design the audit in such a way that it can be ensured that the mission has been conducted successfully in terms of economy, efficacy, and the accepted data. Designing audit is the creation of a comprehensive method and detailed approach for the survival and extent of a project (Popescu & Omran, 2011).

With regard to the significance and extensive duties of internal audit as well as the application of modern technologies in auditing which not only remove time limitation, but also increases productivity, it seems that designing an IT-based internal audit model can increase the audit efficacy. To do so, it is necessary that indicators of the internal control dominating the financial reporting which has been involved in auditing should be evaluated in order that they can be used for designing the audit model. Among those indicators, the following cases can be referred to:

Internal audit may have different objectives and diverse sections in an organization and therefore, there are different explanations about the quality of IT-based audit. Those explanations covers different ideas such as the effect or efficacy and development based on different criteria and costs (Sequel, Houlka, & Merhout, 2012).

In fact, IT is responsible for designing, executing, and supervising organizational processes. IT has a significant role in collecting, processing, and saving data which have been summarized and reported.

In emphasizing the necessity of using IT in internal audit, The Sarbanes-Oxley Act, Sec. 404 can be referred to. It has the significance of monitoring related to the performance of financial reporting with need to evaluating regularly the quality of performances of financial reports. As mentioned in this Act, quality control of the financial reporting system is very important for management to use its own financial reporting system for managing performances, controlling executions, predicting, and reporting results to shareholders of the companies. To achieve this aim, standards of audit and guidance of the SarbanesOxley Act emphasize on applying monitoring related to IT. In fact, the more powerful (or weaker) the ITbased monitoring over the financial reporting system, the higher the quality of the data obtained from the system (Lee et al. 2012).

1.2. RESEARCH OBJECTIVES

The main objective of the present study is to predict the performance of IT-based internal audit of data by applying the Artificial Neural Network (ANN) and indicators of the integrated internal control.

Specific objectives:

- To investigate dimensions and elements of the control environment, Risk assessment, control activities, information and communication and monitoring activities to design IT-based internal audit.

- To use those dimensions and elements for accurate prediction of the internal audit function.

1.3. RESEARCH HYPOTHESES

Questions can be presented in the following hypotheses:

Main hypothesis:

Applying the ANN and indicators of the integrated internal control can predict the IT-based internal audit function.

Secondary hypotheses

2. Dimensions and elements of the indictor of control environment can be appropriate components for IT-based internal audit and a multilayer perceptron (MLP) ANN by those elements can present more accurate predictions of internal audit functions.

3. Dimensions and elements of the indictor of risk assessment can be appropriate components for IT-based internal audit and a multilayer perceptron (MLP) ANN by those elements can present more accurate predictions of internal audit functions.

4. Dimensions and elements of the indictor of control activities can be appropriate components for IT-based internal audit and a multilayer perceptron (MLP) ANN by those elements can present more accurate predictions of internal audit functions.

5. Dimensions and elements of the indictor of information and communication can be appropriate components for IT-based internal audit and a multilayer perceptron (MLP) ANN by those elements can present more accurate predictions of internal audit functions.

6. Dimensions and elements of the indictor of monitoring activities can be appropriate components for IT-based internal audit and a multilayer perceptron (MLP) ANN by those elements can present more accurate predictions of internal audit functions.

The mentioned variables in questions and hypotheses are presented in the following conceptual model.

2. THEORETICAL FRAMEWORK

2.1. INTERNAL AUDIT

Internal audit is an auditing method which is conducted by the personnel of a company and for investigating completion, accuracy, and separation of standard auditing methods. Internal audit investigates the credit of existing registrations and properties of a company and guarantees that managers' policies and methods are properly followed. According to the results of audit, companies can provide guidelines, advices, and

supports of the value added for guaranteeing the success of the company. It can be found out via audit whether the company faces changes or not. Identifying challenges and effects of them makes companies capable to improve strategies of efficient management (Sueyoshi, Shang & Chiang, 2009).
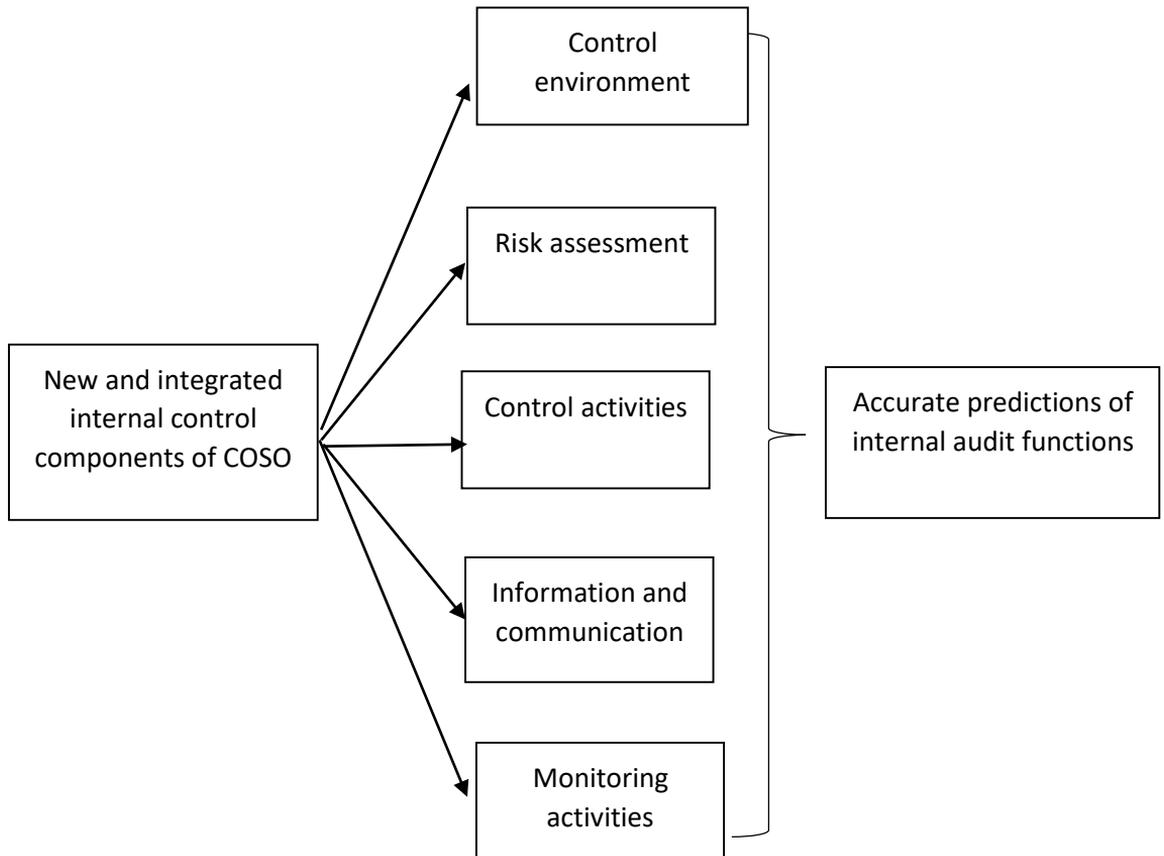

Figure 1. The model of New and integrated internal control components of COSO

(Charter of Audit Committee and Internal Audit Activity)

2.2. THE ROLE OF INTERNAL CONTROL IN INTERNAL AUDIT

Organizations need to keep their financial ability and preparedness against unpredictable consequences and have the internal control system. This internal control system includes continuous measures to have all activities and processes of organization under its control. Usually internal controls continuously occur and integrally move from organizational management (Sheri & Azinfar, 2007).

Determining the structure of internal control is under the authority of the board of directors in that internal control is a means by which managers are assured of the accounting information and they are being allowed to make that information as their bases. There are some frameworks for internal control. The first version of internal control was published by COSO in 1992.

2.3. THE ROLE OF RISK ASSESSMENT IN INTERNAL AUDIT

Each organization or institution is faced with different risks from internal or external resources. Risk is a process referring to the probability of occurrence of an event which is very influential in accessing organizational objectives. Risk assessment includes a dynamic and repetitive process of identification and assessment of risk of accessing those aims. Risks of accessing aims in a unit or organization is focused on the degree of durability. Thus risk assessment is founded on how to manage risks. The presumptions of risk assessment is to identify objectives at different levels. Organizational management identifies aims related to operations, reporting, and observation as clearly as possible with the aim of clarification and analysis of risks. Risk assessment also makes management obliged to focus on appropriateness of objectives for organization and risk management in order that predictable changes can be considered in the external model affective on the field of activity and business model of organizations which can result in inefficacy of internal control (Kasiri, 2013).

Fig. 2: five components of internal control

Source:Authors

☐ **Risk rating**

Applied controls are those related to the field of personal business processes and applied systems including data edition, discrimination of commercial functions, equivalency of processing generalities, reports of transactions, and reports of errors (Bellion et al. 2007). ☐ **Limitations of internal control**

Regardless of the issue that how much internal control is effective can be a confidence for a business institution to realize its own objectives of financial reporting. The probability of realizing objectives is influenced by intrinsic limitations of internal control. Those limitations include this reality that human beings can commit errors in their decision making and this unsuccessfulness in internal control can occur due to human errors. In addition, the control function may not be effective as in cases where information presented for aims of internal control is not effectively used in that an individual responsible for investigating information cannot understand its aim or is faced failure in performing it appropriately (International Auditing and Assurance Standards Board (IAASB), 2010). ☐ **IT in audit**

The significance of using IT in auditing is that investors and creditors have always been in search of continuous information resources for assessing the efficacy of their companies. The mentioned advantages of IT cause that a lot of information can be accessed via the Internet. This issue causes that decision makers can use timely information for their decision making. But it should be noted that users of information have to use informations of Audited Financial Statements. Such information are only accessible periodically. Then the expectation of users for accessing key information existing in internal information systems of companies will be higher. ☐ **Controls of IT**

Figure 2 indicates the two hierarchies of IT. A logical top-down approach in case of performing controls and determining fields which focuses on the internal audit resources during investigating IT functions (The Institute of Internal Auditors, 2012).

3. METHODOLOGY

The present study is an applied research and uses mixed method in terms of the type of data. In addition, it employs a descriptive research. In the present research, Persian and English library resources such as books, articles, and books as well as valid scientific databases were used for collecting some part of the data. In the present research, the data also were collected via survey research due to the aim and nature of the research.
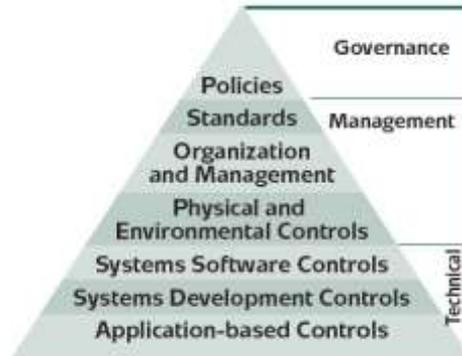
Fig. 3: Hierarchy of IT controls

Source:Authors

To achieve objectives of the research, first of all, the data were collected via library research and then some other parts of the data were collected via survey research including interviews and observations. The data were processed via Delphi method. In response to the research questions, participants were selected from among internal auditors of companies listed in Tehran Stock Market.

3.1. POPULATION AND SAMPLING METHOD

The population includes internal auditors and members of auditing committee of companies listed in Tehran Stock Market. The sample size was collected via random sampling method. The data were collected via observations of auditing statements of 50 companies listed in Tehran Stock Market. To determine the sample size was used via the Cochrane's formula:

$$n = \frac{\dfrac{z^2 pq}{d^2}}{1 + \dfrac{1}{N}\left(\dfrac{z^2 pq}{d^2} - 1\right)}$$

3.2. DATA ANALYSIS

To analyze the data, SPSS and MATLAB software were used. In addition, observations and artificial intelligence methods such as neural networks were used. To answer the research questions, SPSS and MATLAB software and artificial intelligence methods such as neural networks were used.

In neural network programs, there is a concept called learning which is based on identification and collection of links between input and output collections. An artificial neural network is a large number of nodes and pointed lines which connect nodes to each other. Nodes which are input layers are sensual nodes and nodes of the output layers are responding nodes. Latent neurons are between input and output neurons. Data enters the network via input nodes and then are connected via connections to latent layers. Finally, the outputs of the network are obtained via nodes of output layers. Multilayered Perceptron Algorithm Networks:

1. Attributes random values to weights;

2. Perceptron is applied separately on training examples. If there is an error of assessing values of weights, perceptron is corrected;

3. If all training examples are assessed accurately, after stages 1-3, stage 4 is performed, otherwise, we return to stage 2.

For training this network, 80% of the samples were used in that for training the neural network, usually 75 to 80% of the data should be used. In the preprocessing stage of neurons, the data are normalized for better results, i.e. the data become equivalent to 0 and 1. After that, training of the Multilayered Perceptron Algorithm Network is trained via algorithm software on the neural network.
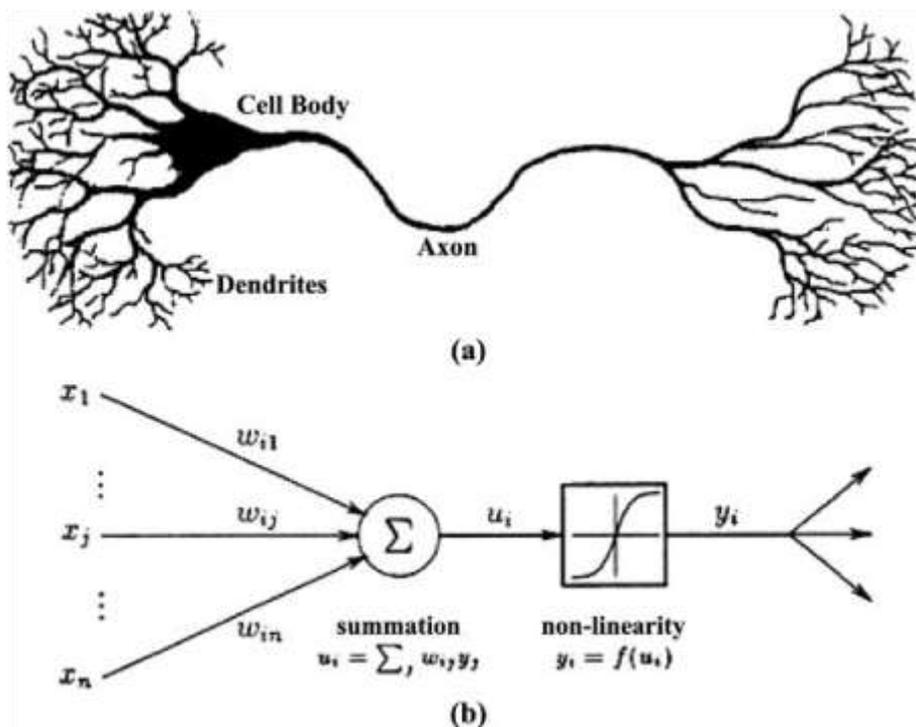
Fig. 4: a. Real neuron and b. Artificial neuron

Source: Authors

□ **Introducing input and target variables**

To design an IT-based internal audit model, the ANN and theoretical and experimental literature were used and the following variables were considered as input and output variables.

Table 1: Introducing input and target variables

Row	General variables	Partial variables	Type of variables	Abbreviations
1	control environment assessment	Commitment to competence and moral values	Input	EC1
2	control environment assessment	Independence and the monitoring of the Supervisory Board	Input	EC2
3	control environment assessment	Structures, reporting lines and delegation of authority	Input	EC3
4	control environment assessment	To attract, develop and retain qualified individuals	Input	EC4
5	control environment assessment	Individuals' responsibility	Input	EC5
Row	General variables	Partial variables	Type of variables	Abbreviations
6	Risk assessment	Operational purposes	Input	AR1
7	Risk assessment	Out-organizational financial reporting purposes	Input	AR2
8	Risk assessment	Out-organizational non-financial reporting purposes	Input	AR3
9	Risk assessment	Inter-organizational reporting purposes	Input	AR4
10	Risk assessment	Compliance goals	Input	AR5
11	Risk assessment	risk identification and analysis	Input	AR6
12	Risk assessment	Attention to potential frauds	Input	AR7
13	Risk assessment	Detection and evaluation of the effective change control system	Input	AR8
14	Control activities assessment	To select and develop risk reduction activities	Input	CA1
15	Control activities assessment	The selection and Development of the IT control activities	Input	CA2
16	Control activities assessment	Development of control activities through policy making	Input	CA3
17	Information and communication assessment	To create and use appropriate qualitative information	Input	IC1
18	Information and communication assessment	To create the internal information and communication system	Input	IC2

19	Information and communication assessment	External organizational notification	Input	IC3
20	Mentoring activities assessment	To identify and develop ongoing evaluation	Input	RA1
21	Mentoring activities assessment	Transmission of failure of internal controls to those responsible	Input	RA2
22	Internal audit function	Relative internal audit function of the company	Target	Y

Source: Authors

Table 2. Estimating central and dispersion parameters of the variable of relative internal audit function

Mode	Percentage	F	Variable components
	84.0	42	Inappropriate
1	16.0	8	Appropriate
	100.0	50	Total

Source: Authors

The values of the above table indicate that relative internal audit functions of 84% of companies is 16% which is appropriate. The mode value is 1 which indicates the highest frequency for inappropriate functions.

3.3. TESTING HYPOTHESES WITH MULTILAYER NEURAL NETWORKS

Main hypothesis:

Applying the ANN and indicators of the integrated internal control can predict the IT-based internal audit function.

Among 50 cases of the obtained data, 10 cases were randomly selected and used for the final validity of the model. Therefore, the network was assessed with 40 cases of data in the first stage of training. Accordingly, the stage of the input data of the neural network was divided into three sections: 1. Training collection including 70% of the total data; 2. the confirmation collection including 15% of the data, and 3. Experimental data including 15% of the total data. To determine the best network, after different deigns, finally a network with designing 4 layers (an input layer, two latent layers, and an output layer) and 21 neurons in the first latent layer and 1 neuron in the second latent layer presented the best GOF. Therefore, a network was designed and used.

Table 3. Classification of internal audit function based on indicators of the internal control

Predicted			Samples	
Final percentage	Appropriate	Inappropriate		
100	0	85.7	Inappropriate	

75	10.7	3.6	Appropriate	Training (28 cases)
96.4	100	96	Sum of percentages	
100	0	66.7	Inappropriate	Confirmation (6 cases)
100	33.2	0	Appropriate	
100	100	100	Sum of percentages	
100	0	83.3	Inappropriate	Experimental (6 cases)
100	16.7	0	Appropriate	
100	100	100	Sum of percentages	
100	0	82.5	Inappropriate	Total (40 cases)
85.7	15	2.5	Appropriate	
97.5	100	97.1	Sum of percentages	

Source: Authors

The classification table indicates the main results of the network. The cells located on the main diameter are correct predictions and the rest are incorrect predictions. According to the training, experimental, and confirmation instances, the degree of classification is at the very high level of accuracy in such a way that the total correct classification in the training collection is 96.4%, in confirmation collection is 100%, in experimental collection is 100%, and the total collections is 97%.

Table 4. Summarization of the final data

Accuracy	E%	CE	Percentage	Instances
96.4	3.6	0.0631	70	Training
100	0.0	0.0209	15	Confirmation
100	0.0	0.0110	15	Experimental
97.5	2.5	0.03	100	Total

Source: Authors

In the above table, the main data of the network is estimated. As observed, the correct prediction values and error values in collections of confirmation and experimental instances are close to each other and have high efficacy. Therefore, the neural network has the predictability degree of 0.9 for predicting internal audit function based on the input factors. In other words, the function of the log-sigmoid transfer which tries to minimize the CE degree via the network is successful and finally, the degree of incorrect predictions of the able (E%) reduces.

Confirmation of the neural network model are separated by the data, but after doing the above sages, 10 instances were selected. For estimating the validity of the neural network model, the test and its results are compared with the general results. If the separated results of the model based on the operationalization algorithm are acceptable for the initial model, the results are valid. **Table 5. Separated model**

Accuracy	E%	CE	Instances

0.100	0.0	0.00019	Separated

Source: Authors

The neural network algorithm has been able to predict 100% of the total separated data from the new instances. In other words, this model has been very successful in case of new instances. Therefore, the neural network technique has acceptable efficacy in classifying and predicting internal audit performance of the study companies.

☐ **Testing secondary hypotheses**

1. Dimensions and elements of the indictor of control environment can be appropriate components for IT-based internal audit and a multilayer perceptron (MLP) ANN by those elements can present more accurate predictions of internal audit functions. A network with 5-39-1-1 is designed and used.

Accuracy	E%	CE	Percentage	Instance
100	0.0	0.0007	70	Training
100	0.0	0.0004	15	Confirmation
83.3	16.7	0.1	15	Experimental
97.5	2.5	0.04	100	Total

Source: Authors

In the above table, the main data of the network is estimated. As observed, the correct prediction values and error values in collections of confirmation and experimental instances are close to each other and have high efficacy. Therefore, the neural network has the predictability degree of 0.8 for predicting internal audit function based on the control environment factors.

After doing the above stages, 10 instances were selected. For estimating the validity of the neural network model, the test and its results are compared with the general results.

The neural network algorithm has been able to predict 100% of the total separated data from the new instances. In other words, this model has been very successful in case of new instances. Therefore, the neural network technique has acceptable efficacy in classifying and predicting internal audit performance of the study companies.

2. Dimensions and elements of the indictor of risk assessment can be appropriate components for IT-based internal audit and a multilayer perceptron (MLP) ANN by those elements can present more accurate predictions of internal audit functions. To determine the best network, after different designs, a network with the design 8-21-1-1 was designed and used.

Accuracy	E%	CE	Percentage	Instance
100	0.0	0.0005	70	Training
100	0.0	0.0004	15	Confirmation

| 0.83.3 | 16.7 | 0.09 | 15 | Experimental |
| 97.5 | 2.5 | 0.04 | 100 | Total |

Source: Authors

In the above table, the main data of the network is estimated. As observed, the correct prediction values and error values in collections of confirmation and experimental instances are close to each other and have high efficacy. Therefore, the neural network has the predictability degree of 0.8 for predicting internal audit function based on the risk assessment factors.

After doing the above stages, 10 instances were selected. For estimating the validity of the neural network model, the test and its results are compared with the general results.

The neural network algorithm has been able to predict 100% of the total separated data from the new instances. In other words, this model has been very successful in case of new instances. Therefore, the neural network technique has acceptable efficacy in classifying and predicting internal audit performance of the study companies.

3. Dimensions and elements of the indictor of control activities can be appropriate components for IT-based internal audit and a multilayer perceptron (MLP) ANN by those elements can present more accurate predictions of internal audit functions. Finally a network with the design as 3-9-1-1 was designed and used.

Accuracy	E%	CE	Percentage	Instance
100	0.0	0.000	70	Training
100	0.0	0.000	15	Confirmation
100	0.0	0.000	15	Experimental
100	0.0	0.000	100	Total

Source: Authors

In the above table, the main data of the network is estimated. As observed, the correct prediction values and error values in collections of confirmation and experimental instances are close to each other and have high efficacy. Therefore, the neural network has the predictability degree of more than 100% for predicting internal audit function based on the control activities factors.

After doing the above stages, 10 instances were selected. For estimating the validity of the neural network model, the test and its results are compared with the general results.

The neural network algorithm has been able to predict 100% of the total separated data from the new instances. In other words, this model has been very successful in case of new instances. Therefore, the neural network technique has acceptable efficacy in classifying and predicting internal audit performance of the study companies.

4. Dimensions and elements of the indictor of information and communication can be appropriate components for IT-based internal audit and a multilayer perceptron (MLP) ANN by those elements can present more accurate predictions of internal audit functions. Finally, a network with the design 3-8-1-1 was designed and used.

Accuracy	E%	CE	Percentage	Instance
96.4	3.4	0.0042	70	Training
100	0.0	0.0007	15	Confirmation
100	0.0	0.0003	15	Experimental
97.5	0.0	0.0011	100	Total

Source: Authors

In the above table, the main data of the network is estimated. As observed, the correct prediction values and error values in collections of confirmation and experimental instances are close to each other and have high efficacy. Therefore, the neural network has the predictability degree of more than 100% for predicting internal audit function based on the information and communication assessment factors. After doing the above stages, 10 instances were selected. For estimating the validity of the neural network model, the test and its results are compared with the general results.

The neural network algorithm has been able to predict 100% of the total separated data from the new instances. In other words, this model has been very successful in case of new instances. Therefore, the neural network technique has acceptable efficacy in classifying and predicting internal audit performance of the study companies.

5. Dimensions and elements of the indictor of monitoring activities can be appropriate components for IT-based internal audit and a multilayer perceptron (MLP) ANN by those elements can present more accurate predictions of internal audit functions. Finally, a network with the design 2-38-1-1 was designed and used.

Accuracy	E%	CE	Percentage	Instance
89.3	10.7	0.0541	70	Training
100	0.0	0.0011	15	Confirmation
100	0.0	0.002	15	Experimental
92.5	7.5	0.0015	100	Total

Source: Authors

In the above table, the main data of the network is estimated. As observed, the correct prediction values and error values in collections of confirmation and experimental instances are close to each other and have high efficacy. Therefore, the neural network has the predictability degree of more than 100% for predicting internal audit function based on the monitoring activities factors. After doing the above stages, 10 instances were selected. For estimating the validity of the neural network model, the test and its results are compared with the general results.

The neural network algorithm has been able to predict 100% of the total separated data from the new instances. In other words, this model has been very successful in case of new instances. Therefore, the neural network technique has acceptable efficacy in classifying and predicting internal audit performance of the study companies.

4. CONCLUSION

To predict via the ANN, five units were in the input layer (control environment, risk assessment, control activities, information and communication, and monitoring activities).

The input data of the neural network were divided into three parts: Training collection including 70% of the total data set. 2. Attitude set including 15% of the total data and 3. The trial set included 15% of the total data. In the present study, it is indicated that in training collection, 96.4%, in attitude collection 100%, and in trial collection with 100% and in total, 97% of accuracy was available. Therefore, by designing 4 layers (An input layer, two latent layers, and an output layer), 21 neurons in the first latent layer and 1 neuron in the second latent layer presented the best GOF. Therefore, a network with the design 5-21-1-1 was designed and used. Moreover, the tangent sigmoid was selected as the best conversion function.

Repeating training continued up to the improvement (minimization) of errors and the best degree of repetition based on the minimum value of the total data of training and confirmation was selected. In addition, it was identified that the errors of training, confirmation, and experimental instances reduced during the training repetition. In the present study, it is indicated that in training collection, 96.4%, in attitude collection 100%, and in trial collection with 100% and in total, 97% of accuracy was available. Finally, according to the analyses, it was identified that values of errors are very low; therefore, the neural network is higher than 0.9 and the neural network technique enjoy appropriate efficacy in the classification and prediction of the internal audit function of investigated companies. Limitations and even lack of training courses are observed in setting up IT-based audit. It seems that the staff and managers of companies require necessary trainings for familiarity and the use of IT for facilitating the process of internal audit.

Nowadays auditing teams use IT and its techniques extensively for facilitating auditing operations and contributing to decision making. The increasing development of IT such as computers, communication networks, and databases has resulted in the increasing in the speed of transference, processing, and analyzing data as well as accessing information for decision making in such a way that in the two recent decades, the use of IT has significantly influenced auditing profession by using a diverse range of general and applied software programs.

Suggestions

- With regard to the results of the present study, it is necessary that required trainings in relation with IT should be planned and performed. Therefore, regarding the nature of high risk in auditing, it is necessary that natural stresses caused by modern thoughts, training standards of risk management, stress management, conflict management, and management, at the level of the internal audit team should be planned and operationalized. In addition, it is necessary that required trainings should be conducted regarding IT.

- It is necessary that with regard to the extensive range of specialties of auditing activities in companies, the system of suggestions of organizations should be active with the aim of collecting the views, experiences and original ideas, planning, commissioning and start up.

- With the use of IT at the appropriate and effective levels compatible with organizational needs in internal audit, the grounds for playing accountability roles can be provided. In addition, IT teams of internal audit contribute to protecting their own business via creating controls and processes. In spite of the use of IT in internal audit, auditing specialized software programs have been used less than computer instruments. It is recommended that we should pay more attention of specialized software programs of internal audit for increasing efficacy and productivity of auditors by organizational managers.

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IDENTIFY AND RANK THE INFLUENCING FACTORS IN KNOWLEDGE BASED BUSINESSES' SUCCESSFUL USING MULTI CRITERIA DECISION MAKING APPROACH

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Abstract

The aim of the research is to identify and prioritize the factors affecting the success of knowledge-based businesses. Territory where research and development center in Iran Polymer and Petrochemical Institute of Technology and Science and Technology Park of Tehran University and ranged in winter 1393 and spring 1394 are considered in the study. The research method was based on cross-filed. Two statistical society are managers and experts in research and development center and technology Polymer and Petrochemical of Iran and Institute of Tehran University Science and Technology Park was formed. To collect data, the theoretical, literature and factors affecting the success used the library refer to books, papers, and related dissertations. In this study, data was collected through survey method. In the study, three main questionnaires were used. In the first part, in order to identify the factors, Delphi questionnaire was used to confirm or reject the two options; from among 134 factors, 41 factors as success factors affecting the knowledge-based businesses were identified. In the second stage, to categories the factors, Likert type questionnaire was used and data were collected. For categories the factor, factor analysis by AMOS software was used and the factors considered in six categories. Finally, using the analysis network process (correlation matrix and paired comparisons) to the ranking factors were discussed. The results of fuzzy analytic network process showed that "infrastructure" as the most important factor among six main factor was Known and "Identification of development bottlenecks" were identified as the most important factor among sub criteria.

JEL *classification: M20, M29*

Keywords*: knowledge based business, science and technology parks, business success, MCDM*.

1. INTRODUCTION

It is obvious that the world has entered a new era. Ever changing scientific and technological developments have encountered organizations with new challenges. New technologies, globalization of markets, new tools and techniques, have created an increasing competitive environment. Traditional principles which are focused on economic capabilities, as key factors of business success, are not valid any more, and today, knowledge plays a key role in competitions and intellectual properties to achieve a sustainable competitive advantage (Sherif et al., 2006).

In order to survive and compete in such circumstances, organizations have adopted new management principles, such as total quality management, reengineering business processes, enterprise resource planning, supply chain management, customer relationship management, e-commerce and knowledge management (Shu-Mei Tseng, 2008).

Today, in most countries, economy and knowledge-based developments are considered as a fundamental approach to development and economic systems. Meanwhile, our country has also adopted this approach, in the form of a twenty-year vision document – as the most important upstream document which explains the general orientation of the four national development plan- and other upstream documents such as comprehensive scientific map and fourth and fifth National Development Plan. This form of development, giving priority to the (implicit and explicit) knowledge inputs and economic developments resulted from them, focuses on synergy resulted from knowledge and non-knowledge inputs in the country (Nevisi, 2002). A knowledge-based Research and Development sector, requires the formation of a national system of science, technology and innovation, and a dynamic interaction among them through effective communication and collaboration between three influential entities of the country, namely government, academia and industry. To develop mutual and dynamic relationships, these entities should inevitably change to knowledge-intensive administration and industry, and entrepreneurial academia (Heikkila, 2010). Entrepreneurial university as third generation of the universities is the mastermind and executive arm of a knowledge-based development that besides graduating people, provides financial-consultant supports for knowledge-based small and medium enterprises, through students with noble and commercialize able ideas, particularly in the field of advanced technology. In recent decades, the supportive environments provided for entrepreneurs are called Science and Technology Parks (Allen, 2007; Hanson et al., 2005).

Success derives from a written or unwritten plan which directs and leads talents, attempts and resources toward a common vision. An entrepreneur should provide such a vision and clarify the needed leadership. While each Chief Executive Officer focuses on a special area of interest or expertise, an entrepreneur must have the ability to operate in numerous areas (Mirghafoori et al., 2013).

According to the reports, in different countries, less than half of the entrepreneurs who found a new company remain in the same initial situation for 5 years or more (Mirghafoori et al., 2013). Therefore, managers of the companies, especially knowledge-based companies should be familiar with organizational success factors, in order to be able to lead their organizations more knowledgeably toward progress and success.

In recent decades, managers, consultants, information technology experts and clients have realized the main factor which leads organizations toward success. This Key factor is nothing but knowledge that invisibly pushes organizations toward success (Vahedi et al, 2011). Huber believes that the current society is characterized with an increasing, complex and turbulent knowledge, which encounters organizations with different demands regarding decision making, innovation and technology demand. Many of the corporations implement knowledge management to increase Organizational Agility. Therefore, providing an appropriate framework and process is very important to identify, obtain and disseminate key knowledge, through a structured method and in a compatible organizational culture (Huseby, Chou, 2003).

In recent era, economy has taken distance from a "resource-based economy" and has turned to "knowledge based economy". In present era we observe substantial changes in the economic situation of our country. The main reason of this situation is ever changing nature of the new technologies which has changed the traditional economic situation. In present era, those economies will succeed that knowledgably are able to develop an innovative environment in the community. A knowledge-based economy is directly based on the acquisition, production, dissemination and applying knowledge in all economic activities. Today, achieving a knowledge-based economy is a necessity for all countries in the world. Accordingly, Islamic Republic of Iran in its twenty-year vision document has focused on a society enjoying from advanced knowledge, capable of producing science and technology, relying on the contribution of human resources and social capital in national production, and this is one of the features of the societies with a knowledgebased economy. Therefore, we can refer to the knowledge-based economy, and consequently knowledgebased businesses as the punch line of the twenty-year vision document of the country. Peter Druker (1999) believes that "The secret of organizations success in the 21st century is knowledge management". Today's organizations are faced pressure tough pressures internally and externally. Pressures imposed from outside include: increased global competition, rapid changes, necessity of quality and after-sales service and limited

resources which demand rapid response of the organizations. Meanwhile, what distinguishes organizations with no doubt is their intangible asset, namely organizational knowledge. Organizational knowledge needs to be managed for more efficiency and effectiveness. This is where the concept knowledge management emerges. Knowledge management is the process of collecting, organizing and storing organizational expertise and experiences from where ever they exist and distributing them in places where they can improve perceptions and performance of the employees in different levels of the organization or provide more income or in general more value for organization (Nonaka, 1994).

Different factors affect the success of an organization. These factors may be different depending on the organization and governing organizational culture. It is the skill of the successful managers that relying on required specialized knowledge and applying modern management techniques, lead his or her organization toward predetermined goals and ensure the success of the organization. It is obvious that Executives acquaintance with factors contributing in organization success and subsequently attempt to implement these factors, can be the most effective tool for managers. Therefore, present study aims to identify and prioritize the factors affecting the success of knowledge-based businesses with a Multiple Criteria Decision Making approach.

2. THEORETICAL FOUNDATIONS

Knowledge-based companies or institutions are private or cooperative companies, or institutions which are established in order to maximize the synergies between science and wealth, development of knowledge based economy, realize scientific and economical goals (including development and application of invention and innovation) and commercialization of research and development results (including the design and production of goods and services), in the field of high technologies and with a high added value especially in manufacturing related software. In knowledge-based companies, economic growth and job creation realize according to the innovation capacity; namely the results of research and development continuously, through investment, turns to new products, processes or systems. The access of entrepreneurs and researchers to the investment capacities, plays a key role in development of innovation and taking advantage of technology potentials in the national economy (Madadi, 2009).

Knowledge accumulation trend and its interdependence with time becomes clearer when we find out that in today's world, in some areas of fundamental sciences, the amount of knowledge created every 5.5 years, is twice existing knowledge and every day three new chemical formulations become invented. Organizations have realized the importance and influence of knowledge and they are looking for new mechanisms to exploit it more efficiently. Meanwhile, the companies which are able to manage their knowledge resources efficiently, can enjoy from its benefits including providing better services, lower costs, easier decisionmaking, innovation, organizational agility, develop new product lines more rapidly, solve problems faster and more efficiently and transfer successful experiences more efficiently (Davenport, Klahr, 1998).

In order to manage the knowledge more efficiently, paying attention to the factors affecting it is essential. Some knowledge management models have addressed these variables. For example, Hisck (2000) has presented one of the applicable models in the field of knowledge management. His model includes four stages, including creation, restore, dissemination and apply. Regarding knowledge management models, we can numerate many items which have evolved over time. The first and most prominent model was introduced by Nonaka and Takeuchi.

Nonaka and Takeuchi in their spiral model for knowledge management outlined 4 types of knowledge: individual explicit knowledge, individual tacit knowledge, collective tacit knowledge and collective explicit knowledge. Accordingly, they introduce for components for knowledge management: Tacit to Tacit (Socialization), Tacit to Explicit (Externalization), Explicit to Explicit (Combination) and Explicit to Tacit (Internalization). These four components realize in the form of mentioned processes in the organizations.

The above mentioned processes won't realize, unless required infrastructures become provided. In order to meet the above mentioned conditions and realize raised processes by the organization, organizational goals, organizational structure, leadership, culture, environment, organizational readiness, technology and employee empowerment, etc. are especially important.

During the past years, issues such as culture, leadership, structure and etc. are frequently discussed, but regarding current knowledge, what has the maximum change rate is technology, and for sure it can be said that those organizations that suffer from technological problems, are faced with problem regarding their activities. Despite the constant technological change in organizations, its diversity and specialization of technology in functional areas, the impact of this change on organizational knowledge management is considerable. Given the competitions, organizations inevitably need to plan their organizational knowledge to realize their goals and strategies. One of the main goals of the organizations is to choose, supply and apply technology to facilitate achieving above mentioned goals. Information technology, makes it possible to extract knowledge from the mind of its knowledge owners. Then, using technology the obtained knowledge can be structured and transferred to other members of the organizations and foreign partners across the world. Technology helps organizations regarding knowledge encryption and sometimes its creation (Afrazeh, 2005).

Knowledge-based organizations are those organizations that their products or services are knowledgeoriented. In other words, knowledge-based organizations seek providing a knowledge-oriented image of them. So, all operations of the organization should be directed toward increasing organizational knowledge. All structural and procedural activities of the organization are in order to absorb, develop and apply knowledge in the organization (Zack, 2002).

In a knowledge-based organization, employees constantly adopt implicit and explicit knowledge, document it and share it with other members. One of the integral and fundamental steps in the process of employees' empowerment process in knowledge based companies is strengthening their knowledge capability through training or creating a link between them and organization's experts to share their knowledge and experiences with less experienced employees (Liang-Chuan Wu et al.,2008).

The nature of these organizations is based on intangible assets, especially human capital. Knowledge based companies are very diverse in terms of products and services they provide for their customers. So that, some of them provide a wide range of product or services, while the others provide a limited range of products or services. The diverse of provided products and services depends on investments and change in composition of human capital (Ibid, 2008).

Research shows that the main reason that companies fail in their initial years is "lack of management experiences" and "insufficient capital". Also, providing a new product is the most expensive and risky phase in the process of producing a new product. So, the companies should allocate a lion share of their time, financial resources and management resources to it. Statistics show that 80 percent of commercialization risks happen in the five initial years of the activity. Therefore, only one idea, out of 3000 ideas succeeds. In a study, the average failure rate for new consumer and industrial products was reported 40 Percent. This rate is 60 percent for high technology products.

THE FACTORS AFFECTING DEVELOPMENT OF KNOWLEDGE-BASED COMPANIES

The companies that use their brand as leverage, have more chance for market acceptance of their new products. In this regard, the brand of science and technology parks and their scientific validity can to some extent compensate this lack of knowledge for startup knowledge-based companies located in these parks. Statistics show that supporting these knowledge-based companies (especially those companies that are in their initial years of activity), as well as startup companies established by university graduates, is a vital necessity for Science and Technology Parks. Meanwhile, taking advantage of the experiences of other countries can facilitate finding solutions more quickly and efficiently.

Given the above mentioned points, the factors affecting development of knowledge based companies can be outlined as follows:

-   Government policies including supportive atmosphere for trade, legal system, tax system and appropriate regulatory policies

-   Infrastructures, including telecommunications, information technology and communications, and science networks

-   Financial resources including venture capital, foreign investment and public funding.

-   Educated, skilled, creative and innovative work forces.

-   Knowledge, skills and continuous learning.

-   The World Wide Web as a means to synergize global knowledge and a tool for knowledge-based development.

-   Efficient organizational structure and proportionate to the development of relevant technology (Hyun Joung et al., 2015).

Li and Cheng (2012) in their research entitled "An investigation on critical success factors for knowledge management using structural equation modeling", examined critical success factors (CSF) for knowledge management (KM) in life insurance industry, using structural equation modeling (SEM). The findings of their study showed that (i) environments significantly affect organizational characteristics, (ii) environments and IT infrastructure significantly affect KM characteristics, and (iii) individual characteristics, KM characteristics and organizational characteristics significantly influence KM implementation. Lindner and Wald (2011) in their research entitled "Success factors of knowledge management in temporary organizations" identified success factors of knowledge management in successful organizations. The findings of their study contributed to a more differentiated understanding of knowledge management in project environments.

Aurilla and Bechina, in a study titled "Success factors in implementing knowledge based systems", investigated the factors affecting efficiency of knowledge management systems. In their study, they used literature review and a case study to form a general framework. This framework describes the dimensions involved in technology acceptance both in user level and organization level.

Mirghafoori et al. (2013) in a research entitled "Ranking the factors affecting innovation improvement in companies associated with business incubators, using fuzzy TOPSIS technique; a case study of Yazd Science and Technology Park" identified and ranked the factors affecting innovation improvement in companies based in business incubators associated with Yazd Science and Technology Park. Accordingly, 37 indices included in questionnaires were ranked according to the answers provided by companies' managers and employees and in order of their importance. According to the study, acquisition of knowledge and new information, as well as access to new and advanced technologies were identified as the most important factors affecting innovation improvement in companies based in business incubators associated with Yazd Science and Technology Park. In their research entitled "Identification of critical success factors of science and technology parks in Iran from the experts' point of view", Salami et al. (2009) investigated critical factors affecting the success of science and technology parks. The findings of their study showed that from a group including four factors, management factors were the most important factor. Also, among identified factors, to have strategic objectives and predetermined plans, managers' dominance over issues related to science and technology parks, existing political atmosphere to support the parks and their objectives and presence of clear and official qualifications for acceptance, presence, evaluation, and to control the activities of the companies based in the parks were the most important factors.

Akbarzadeh and Shafi'zadeh (2012) conducted a study entitled "The role of the Universities in the creation and development of knowledge-based businesses". The aim of their study was to identify and prioritize key activities of the universities to create and develop knowledge-based businesses. The findings of the study indicate the important role universities play in the creation and development of knowledge-based businesses. According to this study, this role realizes through different activities, where training educated and skilled workforces, among the others, is on the top of the list. Therefore, it can be said that universities should initiate widespread measures in this regard, and the authorities should pay especial attention to this issue.

Pourserajian et al. (2012) conducted a study entitled "Evaluation and ranking knowledge management success criteria in science and technology parks in Yazd". The study investigated 27 sub factors, in the form of five main factors including human factors in information technology, leadership strategies, process management, knowledge structure, and organizational culture, which are the factors affecting the success of management system in a science and technology park. These factors are identified according to the related studies and using an Analytical Hierarchy Process, and then they are ranked according to the experts' opinions.

3. RESEARCH METHODOLOGY

Research method used for the purposes of the present study is a causal method. In this methodology, the relationship between variables and their effect on each other will be analyzed according to the objectives of the study. Also, present study is a descriptive research in terms of the method used to collect the data. Given that the results of the study can be used in methods used to encounter the market, it is an applied research.

The statistical population of the study includes managers and experts of business and technology incubator of Iran Polymer and Petrochemical Institute and Tehran University Science and Technology Park. In the first step of the study, the authors sought the opinion of managers, authorities, officials and experts of these two centers, to identify and categorize the factors affecting the success of knowledge-based businesses. In second step, once again, the authors sought the opinion of the managers and experts of these two centers to rank identified factors through Analytic Network Process.

DATA ANALYSIS

From a total 114 variables (extracted from related literature), 41 variables were approved after taking the opinions of the experts. Then, a questionnaire was prepared and distributed among participants.

Exploratory factor analysis

In order to reveal major dimensions or structures of the research data, and to identify the *variance* and *the share* contributed by each component, as well as their priority regarding their impact on the success of knowledge-based businesses, exploratory factor analysis was used.

After identifying related components, experimental share of the variables which are based on a certain factor, will be used to achieve to common concepts. The factors extracted through literature review, considering that they include which one of the questions and loading factor is of which question is more, and consulting the experts, were named as follows.

Table 1: Included factors and items

Factor No.	Title	Observed variables
		Quick access to the commercial and industrial centers
		Quality of information networks infrastructures
		The ability to import equipment
		E-government and e-commerce

Factor No.	Title	Observed variables
Factor 1	Infrastructure (ZIR)	Presence of a university in the region with educational and research plans related to the business activities Presence of research equipment (laboratory, library, etc.) Presence of appropriate copyright and intellectual property legislations in the community Government support and legislations supporting knowledgebased businesses Establish rules and regulations facilitating the process of high technology activities
Factor 2	Financial (MAL)	Access to financial resources Grant facilities to all institutions through Research and Technology Fund Grant facilities to the knowledge-based institutions in their initial growth and growth period Support institutions' investments to develop technical knowledge Reduce the costs of companies to present in parks and incubators Provide consulting services in the areas of administrative,
		financial, insurance, legal and tax Support companies to sell their products and technical knowledge in goal markets
Factor 3	Innovation (NOA)	Strong emphasis on innovation and remove innovation barriers Support specialists, innovators and researchers in the form of bringing up ideas Educated, skilled, creative and innovative workforces Risk taking Be a Learning organization Expertise and qualification Hold training courses in the form of workshops, seminars and conferences
Factor 4	Development (TOS)	Research and Development Support commercialization of research results Protect patents at home and abroad Support institutions for development of knowledge-based businesses Implement some strategies to facilitate technology transfer and commercialization Relationship with global markets
Factor 5	Management (MOD)	Identify bottlenecks hindering development of knowledge-based businesses Provide communication and information exchange networks between businesses present in the park A management dominating knowledge-based business issues The relationships between academia and industry

Source: Author

Financial and economic variables with a coefficient of 0.713 had the maximal role in measuring Latent variable validity and development with a coefficient of 0.227 had the minimal role. Also, the role of innovation, infrastructure and management in measuring success variable was 0.634, 0.537 and 0.340, respectively. The values of components affecting the success of knowledge-based businesses are outlined in Figure 1.

Figure 1: Standard coefficients of the principal model coefficients

Source: Author

RANKING COMPONENTS

Network diagram of the present study is presented in figure (2).
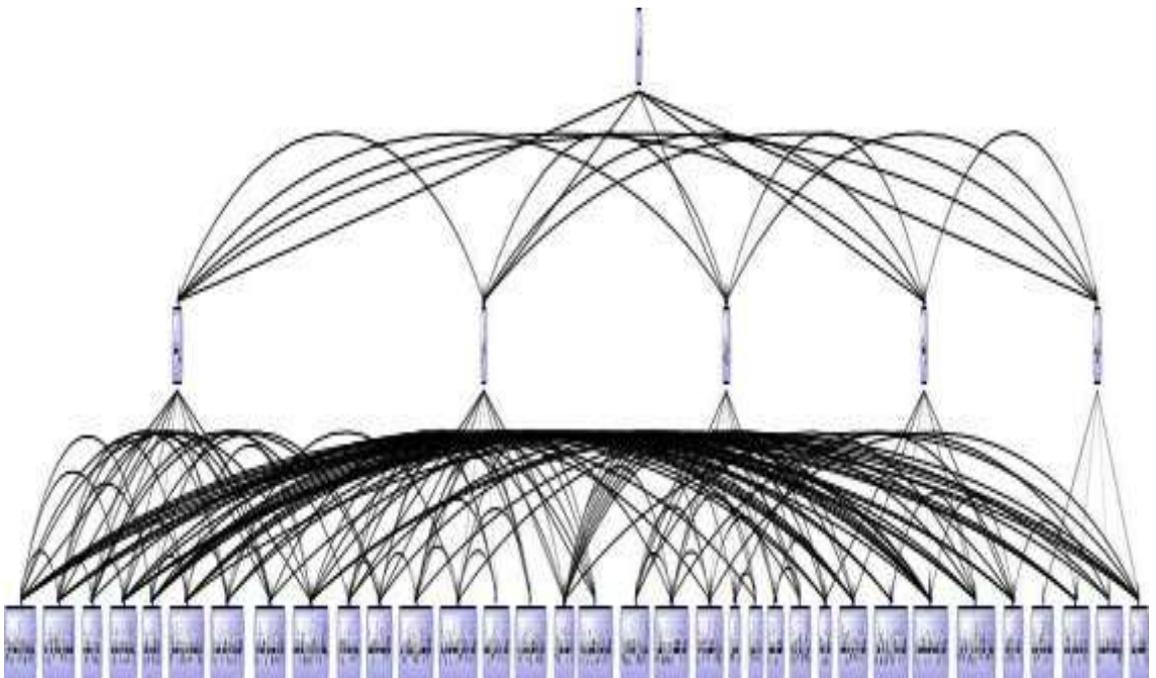
Figure 2: Research Network diagram

In order to realize research objectives, paired comparisons questionnaire was designed and distributed among experts. Given the phased approach of the study, linguistic phrases and fuzzy numbers presented in Table (2) were used.

Table 2: *Fuzzy range* and corresponding linguistic expressions

Code	Linguistic Expressions	Fuzzy number
1	Equal preference	(1,1,1)
2	Low to medium preference	(1,1.5,1.5)
3	Medium preference	(1,2,2)
4	High to medium preference	(3,3.5,4)
5	High preference	(3,4,4.5)
6	High to very high preference	(3,4.5,5)
7	Very high preference	(5,5.5,6)
8	Very high to completely high preference	(5,6,7)
9	Completely high preference	(5,7,9)

In this section, with respect to Figure 2, paired comparison tables were prepared and modified Sami et al. (2009) was used to calculate components weights and prioritize accordingly.

In present software Gogus and Boucher method was used to calculate compatibility.

THE STEPS OF CALCULATING COMPONENTS WEIGHTS WITH FUZZY NETWORK ANALYSIS

Based on the super-matrix, the steps of calculating components weights are as follows:

Step 1: In order to aggregate experts' opinions, geometric mean of the respondents paired comparison should be calculated.

Step 2: Calculate eigenvector: In order to calculate eigenvector for each one of the aggregated paired comparisons tables, according to equation 9, logarithmic least squares method was used.

Equation 9:

$$w_{ks} = \frac{\left(\prod_{n} a_{kjs} \right)^{1/n}}{\sum_{j=1} \left(\prod_{n} a_{m} \right)^{1/n}}, \quad s=\{l,m,u\}$$

$$\square\square \quad_{ij}$$
$$_{i\square 1}\square \quad_{j\square 1}\square$$

So that:

$$\tilde{w}_k \square (w_k^l, w_k^m, w_k^u) \quad k\square 1,2,3,...,n$$

Following table show geometric mean of experts' opinions. In the last column of the tables, eigenvector is shown.

Table 3: The mean of Paired comparisons compared to the goal

Goal	Infrastructure	Financial	Innovation	Development	Management	Eigenvector
Infrastructure	(1,1,1)	(1,1.5,1.5)	(1,1.5,1.5)	(1,1.5,1.5)	(1,1.5,1.5)	(0.195,0.269, 0.269)
Financial	(0.667,0.667, 1)	(1,1,1)	(1,1.5,1.5)	(1,1.5,1.5)	(1,1.5,1.5)	(0.18,0.229, 0.248)
Innovation	(0.667,0.667, 1)	(0.667,0.667, 1)	(1,1,1)	(1,1.5,1.5)	(1,1.5,1.5)	(0.166,0.195, 0.229)
Development	(0.667,0.667, 1)	(0.667,0.667, 1)	(0.667,0.667, 1)	(1,1,1)	(1,1.5,1.5)	(0.153,0.166, 0.211)
Management	(0.667,0.667, 1)	(0.667,0.667, 1)	(0.667,0.667, 1)	(0.667,0.667, 1)	(1,1,1)	(0.141,0.141, 0.195)
$CR^m = 0.015$ $CR^g = 0.011$						
Goal	Infrastructure	Financial	Innovation	Development	Management	Eigenvector
Compatible						

Source: Author

Step 3: Formation of eigenvector matrices (**W$_{ij}$**): These matrices include eigenvectors which are obtained from step 2 Paired comparisons.

In general, these matrices can be divided into two categories:

1. Those matrices that include eigenvectors which show the relations between levels (vertical). If there is no inter level relationship between two components, a values (0, 0, 0) will be placed where these two components intersect. For other elements, according to vertical relationship between components, the eigenvector values obtained from step 2 will be used.

2. The matrices that include eigenvectors which show horizontal relations (intra level). They are square matrices and their main diagonal is (1, 1, 1). If no intra relationship exist between two components, the values (0, 0, 0) will be dedicated to the point where these components intersect. For other elements, according to horizontal relationship between components, the eigenvector values obtained from step 2 will be used.

3. It should be noted that if in an inter-level eigenvector matrix, one or more elements on the main diagonal are not (1, 1, 1), it is because that the column is normalized. Normalization is so that all fuzzy numbers of that column will be divided to the sum of middle values of fuzzy numbers in that column.

4. To calculate the final weights of the levels: In order to calculate final weight of the components for each level (W_i^*) the product of internal relations eigenvector matrix multiplied eigenvector of the same level should be multiplied in final weight of higher level.

$$\text{Equation 10:} \qquad\qquad W_{i*} \square W_{ii} \square W_{i\,i(\,1)\square} \square W_{i*\square 1}$$

If W_{ii} doesn't exist for a matrix level, a unit matrix with the same power will be replaced. In other word, following equation should be used.

$$\text{Equation 11:} \qquad\qquad W_{i*} \square \; I \; \square W_{i\,i(\,\square 1)} \square W_{i*\square 1}$$

Following tables and charts show the final weights.

Table 4: The matrix of criteria's final weight compared to target

Component	Final fuzzy weight	The final decisive components' weight
Infrastructure	(0.174,0.25,0.277)	0.242
Financial	(0.166,0.232,0.267)	0.227
Innovation	(0.153,0.197,0.244)	0.198
Development	(0.144,0.173,0.23)	0.178
Management	(0.133,0.148,0.214)	0.156

Source: Author
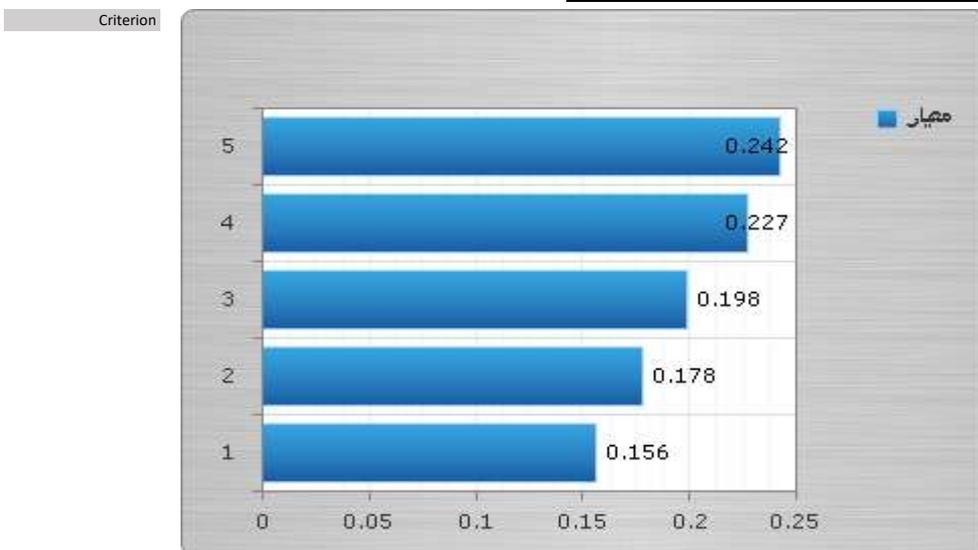
Figure 3: The chart of criterions' final weight compared to the goal

Source: Author

Table 5: The matrix of sub-criteria final weights compared to the goal Component

	Final fuzzy weight	**Components' final decisive weight**
Quick access to the commercial and industrial centers	(0.023,0.044,0.062)	0.044
Quality of information networks infrastructures	(0.02,0.039,0.054)	0.038
The ability to import equipment	(0.015,0.027,0.04)	0.027
E-government and e-commerce	(0.022,0.035,0.06)	0.037
Presence of research equipment	(0.019,0.03,0.051)	0.032
Presence of appropriate copyright and intellectual property legislations	(0.018,0.033,0.052)	0.034
Government support and legislations supporting knowledge-based businesses	(0.015,0.028,0.042)	0.028
Establish facilitating rules and regulations and legal support	(0.013,0.023,0.036)	0.024
The university with related educational and research plan	(0.018,0.03,0.05)	0.031
Access to financial resources	(0.018,0.036,0.05)	0.035
Grant facilities to all institution	(0.017,0.037,0.053)	0.036
Grant facilities in initial growth and growth period	(0.017,0.034,0.053)	0.034
Support institutions' investments to develop technical knowledge	(0.015,0.026,0.043)	0.027
Support institutions' investment	(0.012,0.023,0.036)	0.024
Reduce the costs of companies to present in the park	(0.012,0.023,0.035)	0.023
Provide consulting services	(0.023,0.038,0.067)	0.04
Support companies to sell their products and technical knowledge	(0.011,0.021,0.033)	0.021

Emphasis on innovation and remove innovation barriers	(0.018,0.034,0.046)	0.033
Support specialists, innovators and researchers	(0.022,0.04,0.06)	0.04
Educated, skilled, creative and innovative workforces	(0.017,0.03,0.045)	0.03
Risk taking	(0.013,0.02,0.032)	0.021
Be a Learning organization	(0.013,0.021,0.034)	0.022
Expertise and qualification	(0.014,0.023,0.037)	0.024
Hold training courses	(0.012,0.018,0.03)	0.019
Research and Development	(0.018,0.032,0.045)	0.031
Support commercialization of research results	(0.016,0.028,0.042)	0.029
Protect patents at home and abroad	(0.013,0.02,0.031)	0.021
Support institutions for development of knowledgebased businesses	(0.018,0.032,0.048)	0.032
Implement some strategies to facilitate technology transfer and commercialization	(0.018,0.028,0.044)	0.029
Relationship with global markets	(0.018,0.029,0.048)	0.03
Identify development bottlenecks	(0.032,0.049,0.071)	0.05
Provide communication and information exchange networks	(0.018,0.026,0.042)	0.027
A management dominating knowledge-based business issues	(0.016,0.021,0.037)	0.023
The relationships between academia *and* industry	(0.017,0.023,0.042)	0.025

Source: Author
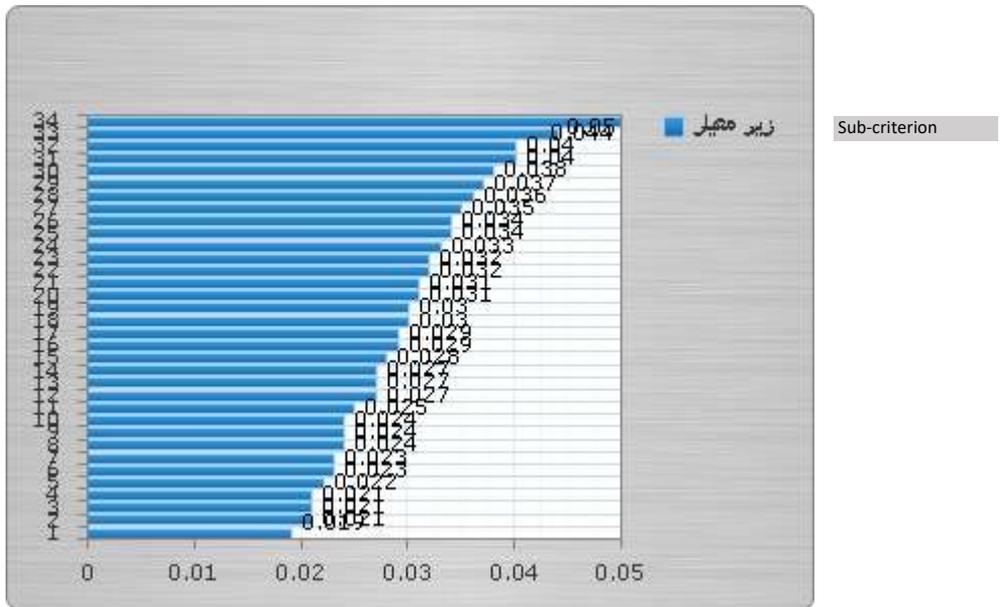
Figure 4: The chart of sub-criteria final weight compared to the goal *Source: Author*

4. CONCLUSION

The main criteria in order of importance are as follows: Infrastructure criterion has the first position, then financial, innovation, development and management criteria take second to fifth positions, respectively.

The results of conducting an Analytic Network Process for sub-criteria related to the infrastructure criterion and rules and regulations show that access to commercial and industrial centers takes the first position, and quality of information networks infrastructures, E-government and e-commerce, presence of appropriate copyright and intellectual property legislations in the community, presence of research equipment (laboratory, library, etc.), presence of a university in the region with educational and research plans related to the business activities, Government support and legislations supporting knowledge-based businesses, the ability to import equipment, establish rules and regulations facilitating the process of high technology activities are in next positions respectively.

According to Bahari et al. (2012), quick access to the commercial and industrial centers is one of the most important factors affecting the success of knowledge-based businesses. In other studies, quality of information networks infrastructures (Bahari, et al. 2012), E-government and e-commerce (Astiri, Moshiri, 2009), Presence of appropriate copyright and intellectual property legislations in the community (Astiri, Moshiri, 2009), Presence of research equipment (laboratory, library, etc.) (Salami, et al., 2011), Presence of a university in the region with educational and research plans related to the business activities (Salami, et al., 2011), Government support and legislations supporting knowledge-based businesses (Akbarzadeh, Safiezadeh, 2012), The ability to import equipment (Afrazeh, 2005), Establish rules and regulations facilitating the process of high technology activities (Samadi, Taherzadeh, 2007) were identified as factors affecting the success of knowledge-based businesses.

The results obtained from conducting Analytic Network Process on sub-criteria related to financial and economic criterion showed that Provide consulting services in the areas of administrative, financial, insurance, legal and tax takes the first place, Grant facilities to all institutions through Research and Technology Fund, Access to financial resources, Grant facilities to the knowledge-based institutions in their initial growth and growth period, Support institutions' investments to develop technical knowledge,
Reduce the costs of companies to present in parks and incubators, Support companies to sell their products and technical knowledge in goal markets take next positions respectively.

Provide consulting services in the areas of administrative, financial, insurance, legal and tax (Bahari et al., 2012), Grant facilities to all institutions through Research and Technology Fund (Bahari et al., 2012), Access to financial resources (Astiri and Moshiri, 2009), Grant facilities to the knowledge-based institutions in their initial growth and growth period (2012), Support institutions' investments to develop technical knowledge (Bahari, et al., 2012), Reduce the costs of companies to present in parks and incubators (Salami, et al., 2011), Support companies to sell their products and technical knowledge in goal markets (Bahari et al., 2012) were identified as factors affecting the success of knowledge-based businesses.

The results obtained from conducting Analytic Network Process on sub-criteria related to learning and innovation criterion showed that Support specialists, innovators and researchers in the form of bringing up ideas took the first place. Strong emphasis on innovation and remove innovation barriers, Educated, skilled, creative and innovative workforces, be a Learning organization, Expertise and qualification, Risk taking, hold training courses in the form of workshops, seminars and conferences took the next places respectively.

Support specialists, innovators and researchers in the form of bringing up ideas (Bahari et al., 2012), Strong emphasis on innovation and remove innovation barriers (Samadi and Taherzadeh, 2007), Educated, skilled, creative and innovative workforces (Astiri and Moshiri, 2009), Be a Learning organization (Valmohammdi, 2009), Expertise and qualification (Bahari et al., 2012), Take risk (Ahmadi, Grant, 2014), Hold training courses in the form of workshops, seminars and conferences (Afrazeh, 2005) were identified as factors affecting the success of knowledge based businesses.

The results obtained from conducting Analytic Network Process on sub-criteria related to research and development, and commercialization criterion showed that Support institutions for development of knowledge-based businesses took the first place. Research and development, Relationship with global markets, Support commercialization of research results, implement some strategies to facilitate technology transfer and commercialization, protect patents at home and abroad, took the next places respectively.

Support institutions for development of knowledge-based businesses (Bahari et al., 2012), Research and development (Hyun Jung et al. 2015), Relationship with global markets (Samadi, Taherzadeh, 2007), and Protect patents at home and abroad (Bahari et al., 2012) were identified as factors affecting knowledge-based businesses.

The results obtained from conducting Analytic Network Process on sub-criteria related to knowledge-based business criterion showed that identifying the bottlenecks hindering development of knowledge-based businesses took the first place. Provide communication and information exchange networks between businesses present in the park, the relationships between academia and industry, a management dominating knowledge-based business issues took the next places respectively.

To identify the bottlenecks hindering development of knowledge-based businesses (Samadi, Taherzadeh, 2007), Provide communication and information exchange networks between businesses present in the park (Salami et al., 2011), the relationships between academia and industry (Salami et al., 2011), a management dominating knowledge-based business issues (Salami et al., 2011) were identified as factors affecting the success of knowledge-based businesses.

Given the study results, it is recommended that knowledge-based businesses first pay especial attention to infrastructure factor as the most important factor affecting knowledge-based businesses. Then, financial and economic, innovation, development, and management factors should be taken into consideration respectively.

Regarding the factors related to infrastructure and regulations, it is suggested that quick access to commercial and industrial centers should be taken into account more than other factors. Then the factors Quality of information networks infrastructures, E-government and e-commerce, Presence of appropriate copyright and intellectual property legislations in the community, Presence of research equipment (laboratory, library, etc.), Presence of a university in the region with educational and research plans related to the business activities, Government support and legislations supporting knowledge-based businesses, The ability to import equipment, Establish rules and regulations facilitating the process of high technology activities respectively should be considered as factors related to infrastructure and in order to realize a successful knowledge-based business.

Regarding financial and economic factors, it is suggested that Provide consulting services in the areas of administrative, financial, insurance, legal and tax take the priority. Then, Grant facilities to all institutions through Research and Technology Fund, Access to financial resources, Grant facilities to the knowledgebased institutions in their initial growth and growth period, Support institutions' investments to develop technical knowledge, Reduce the costs of companies to present in parks and incubators, Support companies to sell their products and technical knowledge in goal markets, should be considered respectively as financial and economic sub-set affecting the success of knowledge-based businesses.

Regarding the factors related to learning and innovation, first Support specialists, innovators and researchers in the form of bringing up ideas should be considered. Then, Strong emphasis on innovation and remove innovation barriers, Educated, skilled, creative and innovative workforces, be a Learning organization, Expertise and qualification, Risk taking, and Hold training courses in the form of workshops, seminars and conferences should be taken into account.

Given the results related to research and development and commercialization, it is suggested that Support institutions for development of knowledge-based businesses should take priority. Then, Research and

development, Relationship with global markets, Support commercialization of research results, implement some strategies to facilitate technology transfer and commercialization, protect patents at home and abroad should be taken into account.

Given the results related to knowledge-based businesses, it is suggested that to identify bottlenecks hindering development of knowledge-based businesses receive more attention than other factors. Then, provide communication and information exchange networks between businesses present in the park, the relationships between academia and industry, and a management dominating knowledge-based business issues should be considered.

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INVESTIGATING RELATIONSHIP BETWEEN BOARD`S CHARACTERISTICS AND INVESTMENT EFFICIENCY

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Abstract

Desirable corporation government considers healthy life of economic agency in long duration as an aim and tries to defend shareholders` beneficiaries in contrast with corporations` management. The research aim is investigating relationship between board`s characteristics and investment efficiency in the accepted corporations in Tehran Stock Exchange. The testing characteristics of the research are: independence, numbers of sessions, size, and financial knowledge of the board. The research is application in term of its aims, is quantitative because of its data, is sectional based on its performance time and is deductive in term of its rational performance. Research statistic population include 125 active corporations in Tehran Stock Exchange from 2009 to 2014. To Analysis research data Paneling Regression model is used. Research conclusions indicate that among board`s characteristics, independence and financial knowledge can have positive meaningful effect on investment efficiency, and no relationship between other characteristics has been considered. So, based on the research suggestions, investors during investment should consider not only board`s characteristics but also other effective factors such as divided profit, liquidity power of corporation, market values of corporations and etc.

JEL classification: M21, L25, O16

***Keywords**: corporation government, board`s characteristics, investment efficiency*

1. INTRODUCTION

The necessity of growth and development of asset market is trust attention of asset. By division of ownership from management, mangers as shareholders` representatives manage corporations. However, there are differences between managers and ownerships because of different theory to risk, division profit and eyesight horizon, (Fuerst, Kang, 2000) and (Jensen, Mackling, 1976), so there is a potential possibility for managers to make decisions diversely to effect on ownerships` beneficiaries (Fame, Jensen, 1983).

Confirmation of an effective and efficient corporation government system can keep managers and ownerships for one aim, (Fame, Jensen, 1983). Corporation government is rules, structures, processes and systems which cause access to answering aims and keeping beneficiaries rights by commercial unit. Doctrine publication of corporation government can help consistence of financial markets, investors` encouragements and economic growth of countries to compete in doctrine performance of corporation government. In fact, the mentioned doctrine can play important role in investment improvement efficiency, economic growth and increase of investors` confidences. Corporation government doctrine can create relationships between management, corporation board and investors, moreover, it causes situations to determine corporation aims and access to these aims. Doctrine correct performance can create motivations for the corporations` managements to determine aims` accessibilities and determine investors` supervisions efficiencies, (Hasas Yeganeh, 2004). In fact, the first aims of corporation guiding are directly corporations` performances

improvements and harmonization of investors` beneficiaries with managers` beneficiaries to solve representing problems, (Babaei et.al 2005).

In the research government corporation means board`s characteristics such as independence, size, numbers of sessions and financial knowledge.

In the researches done by Biddle and Verdi (2006), Francis et.al (2005) and etc. theoretical bases were repeated that help lenders and investors to make decisions better with use of quality increase of financial reports as an important application information source. Corporations that have financial problems lay away projects with positive pure values because of high costs financial securements, so this problem cause less investing in the corporations, (pass from investing situations with positive pure value. Even in the situation that corporation can be successful in financial securement, there is no guarantee for doing true investing because mangers and may loss existence sources because of project incorrect and inefficient choice, so in this instance corporation may go toward inordinate investments (investment in projects with negative pure values), or toward underexpose investments (because of investment sources loss in unsuitable and inefficient projects and miss investments` situations in suitable projects with positive pure value), McKnight and Weir, 2009. Managers to increase their beneficiaries have short term views because they receive encouragements in term of short term performances, so they have short term views. The short term views are grown from asset market performance because asset market gives encouragements to the mangers based on their short term performance, so managers devote their long term beneficiaries because of short term beneficiaries. Then they may do actions which may have inefficiency investing for the corporations, (Muller, Peeve, 2007).

The research wants to answer to this question of whether there are relationships between corporation guiding standards, corporation government and investing efficiency of the accepted corporations in Tehran Stock Exchange or not. Based on Iran economic situation, investigation of performance effect of corporation guiding system in the Iran asset market and specially for investing efficiency is very important.

2. DEFINITIONS AND CONCEPTS OF CORPORATION GOVERNMENT

Existence literature investigating indicates that there is no agreeable definition for corporation government. There are salient differences based on the slightly country even though it is not easy to get working unit definition. International Federation of Accounting in 2004 exhibited a definition as "Corporation Government (commercial unit government) is numbers of used responsibilities and ways by board and bound mangers with clarifying strategic way that guaranteed accessible to aims, risks controls and sources` responsible consume".

International Money Fund and Organization Economic Cooperation and Development in 2002 defined corporation government as "Structure of relationships and responsibilities among one main group as shareholders, board`s members and master manager to publish better competitive performance to access cooperation first aims."

Other definitions show corporations are responsible for total society, future generations and natural sources (biological sources). In this definition corporation government system guarantees limitations and balance levers of inside and outside of the organization for the corporations that they should do their responsibilities for all the beneficiaries and act responsibly in all the commercial activities bases. Moreover, rational argument in this part is that shareholders` beneficiaries can be done just by considering their beneficiaries.

Investigation of corporation government definitions and concepts indicate that corporation government has multi branches concepts and its final aim is answering, transparency, fairness (justice) and considering beneficiaries` rights.

Following definition can be concluded based on the mentioned and analysis of other definitions:

Corporation government is rules, laws, structures, processes, cultures and systems that cause accessible to the aims of answering, transparency, fairness (justice) and considering beneficiaries` rights.

Existence of difference among managers and owners besides other factors as retention and rewards of managers have created situation for profit management. In recent years' researchers and analysts have considered not only profit but also profit quality. Because of the necessary importance of performances factors, most countries have tried to create a suitable guiding system in corporations and economic agencies, (Arab Saleh, Ziaei, 2010).

3. THEORETICAL FRAMEWORK OF CORPORATION GOVERNMENT

There are several different frameworks for the definition and analysis of corporation government and each of them has used different words and has defined it differently which is based on special scientific topic. For example, representative theory is based on economic and financial bases, however; transaction theory is based on economic, legal, organizational and beneficial theories of social view about corporation government. Although there are many differences among these theoretical bases (because each of them considers one different view), they have similar characteristics. There are other theories as organization and cooperation theories which are less important than mentioned theories.

EFFECTIVE FACTORS AND CRITERIONS IN THE CORPORATION GOVERNMENT

A) Board`s Independence

One of the most important factors in corporation government system is board`s independence. Board`s responsibility is independent supervision on performance manager's operations and managers' forces of answering for the shareholders and beneficiaries. It is believed publically that board when more independence has, they will apply effective supervision on the performance managers. Internal manages and those managers who relate financially by corporations are efficiently independent. These managers have less inclinations to analyze and answer performance managers and forget supervision on performance managers because they have relationships with them, (Solomon, 2007).

Board`s independence degree is estimated by ratio of irresponsible members to all board`s members. Irresponsible member is partial board that hasn`t got any responsibilities. Investors believe that managers out of board (irresponsible mangers) are sensitive supervisors on managers` behaviors and operations and control mangers` behaviors. In the research to measure degree of board`s independence, numbers of irresponsible mangers are divided on total board`s members. This variable is derivate from board`s reporting to annual usual societies.

Boards` Size

Board are the highest part in organization basis which play important role in guiding decisions and corporations` operations managements, experimental observations indicate that there is no agreeable theory about basic size of the board. Green (2005), believed that board`s members should be limited to create situations to discuss and argue about corporations` problems. Bigger board will own less power, so agreement about one special topic is more difficult. However, some people believe that board`s size should big as to change ideas, experiments and skills, (Limpan, Limpan, 2006). The important point is that board`s size should be big enough. In the research board`s size is evaluated by numbers of the board`s members, (Abor, 2007).

Numbers of Board`s Sessions (Meetings)

Board`s meetings are places in which performance mangers and board`s members introduce and cooperate their information about corporation performance, politics and designs. Both more than necessary meetings

will have not only costs (such as management time, journey costs and presence wages of board`s meetings), but also deviate corporations` managers from their daily performances responsibilities. So, board should create a balance between cost and beneficiary of meetings` sessions. If board are successful in running board`s meetings based on the closed environment, they will receive economic beneficiaries based on representative theory.

Board`s Knowledge

In todays` societies taking necessary knowledge and qualifications have been important in the way that having special knowledge to get a base in the institute is necessary for the efficient performance of the organization. To run seeking and learning board that constitute active view and desirable and confirmative system of corporation government, managers should be encouraged in learning durations. Moreover, it is necessary that board`s members use special and professional consulting services, (Hasas Yeganeh, Baghomian, 2006). Board to supervise on management and cooperation in decision making need different skills such as accounting, banking and laws to increase effective value, (Hillman, Patzool, 2000). The basic theory in this part is that inexperienced members in financial or accounting knowledge have less abilities in existent problems` discoveries of financial reporting. Moreover, existent of an experienced financial element can cause other members to be sensitive and aware.

Investing Efficiency

One of the important factors to solve economic problems of countries is investment expansion and development, this factor isn`t enough lonely, based on the limitations of the financial sources not only investment development but also increase of investing efficiency should be attended, (Modares, Hesarzadeh, 2008). Corporations which are effective in term of investing if they don`t have differences such as inconsistent choice and running costs, they should choose only projects with positive verbal pure value. So, investment inefficiency includes omitting investing situations which have inexistent of inconsistent choice with positive verbal pure value (investment less than necessities) and choice of projects with negative verbal pure value (investment more than necessities). Investment efficiency as a deviation from expected investments in investing model which has been evaluated as an anticipation function of growth situations. Finally, investing less than necessity (negative deviations from expected investing) and investing more than necessity (positive deviations from expected investing) have been considered as investing inefficiency.

Background

Jabali (20015), in the research "investigating relationship between corporation government with profit consistence in the accepted corporations in Tehran Stock Exchange", concluded that the used mechanism of corporation government in the research, ownership concentration had negative meaningful relationship with profit consistent and irresponsible manager's numbers with profit consistent didn`t have meaningful relationship. Moreover, profit consistent had positive meaningful relationships with controlling variables as corporation size, investing more than necessity and investing less than necessity.

Afsordeh and Niazi (2004), found that there are meaningful relationships between institutional ownership amount, ownership concentration, board independence and investment cash flaws sensitivities. In otherwise, there was a revered meaningful relationship between corporation government and cash flaws sensitivities. Research findings indicated that powerful mechanism of corporation government in each corporation could decrease financial and cash flaws sensitivities by investment basic devotion, this theory was based on representative theory base.

Saleteh et al. (2004), found that system performance of corporation guiding didn`t have meaningful effect on corporation value and investing efficiency. Moreover, system performance of corporation guiding didn`t indicate meaningful effect of relationship between investing efficiency and corporation value.

Hasan Zadeh brothers et al., (2011), found that amount of board `s member's independence was one of the factors that increased board efficiency. In the most researches of accounting to quantify this indicator ratio of irresponsible managers to all board`s members had been used. These individuals didn`t have performance responsibilities in corporation and didn`t get monthly salary. In the most researches the presences of the irresponsible managers among the board could have meaningful effects on corporations` operations and values.

Tehrani, Hesarzadeh (2008), in their article investigated the effect of free cash flow and limitation in financial securement on investing inefficiency and concluded that free cash flow and limitation in financial securement would be continued by investment more than necessities and less than necessities.

Syed Fuzi et al. (2016), in their research investigated board independence and corporation operation and found that there was a meaningful relationship between independent mangers in the board and corporation operation.

Gill, Biger (2013), in their article investigated effect of corporation government on asset in flow management efficiency for 180 American corporations from 2009 to 2011. They found that just board`s size had a reversed relationship with change cycle of cash flow. However, two kinds of management responsibility, master manager cycle and auditing committee of corporations didn`t have meaningful relationship with change cycle of cash flow. So, the research conclusions indicated that corporation government could play important role in management efficiency improvement of corporations` assets in flows.

Cheong et al. (2011), believed that corporation government effected on investing efficiency in two ways. At first, information asymmetry problems in asset market would cause limitation in foreign sources` securements. In incomplete markets, corporations often had limitations in access to foreign exchanges. Finally, financial securement from foreign sources always hadn`t been continued by desirable level of investment. Corporations with corporation government structure could decrease beneficiaries' differences between credits and shareholders better. This factor let corporations to access liabilities with less risk, to decrease asset costs and to improve investment efficiency. This decrease in amount of asset cost might not be because of lack of fund in financial securement of investment projects. So, corporation government and more suitable board`s characteristics could decrease investment efficiency through accessible to foreign sources and cost decrease of new investing designs.

Garsialara and et.al (2010), investigated accounting conservatism and corporation investing efficiency and found that more conservatism corporations had less inclinations to invest more or less than necessity. Moreover, they found a positive relationship between conservatism and efficiency and there weren`t any observations based on the more conservatism corporations in the designs of less risk investments.

4. RESEARCH HYPOTHESES

Main Hypothesis: there is a positive meaningful relationship between board`s characteristics and investment characteristics.

Secondary Hypotheses:

First Hypothesis: there is a positive meaningful relationship between board`s independence and investment efficiency.

Second Hypothesis: there is a positive meaningful relationship between board`s size and investment efficiency.

Third Hypothesis: there is a positive meaningful relationship between numbers of board`s sessions (meetings) and investment efficiency.

Fourth Hypothesis: there is a positive meaningful relationship between financial knowledge of board`s members and investment efficiency.

RESEARCH METHODOLOGY

This research is application based on its aims. Application research is a research that uses theories, rules, doctrine and skills for solving of performance and real problems. This research is descriptive in term of its methodology categorization and is correlative because it investigates relationship between quality of corporation government and corporation operation. So, regression model of multi variables is used to analyze test hypotheses and to be sure of research reliable conclusions pre assumption tests have been used.

DATA GATHERING

Data gathering instruments of the research are certifications and documents. To gather theoretical bases information, articles, books, researches, studies and done M.A about this topic have been used (that have been gathered by libraries and gathering information sites). Moreover, needed research statistic information have been taken by electronic sites and information banks of stock exchange organization. To prepare needed variables for use in the hypotheses test models Excel software has been used. At first, gathered information should enter in the pages and created working pages then necessary calculations to access these variables are done. After all, needed variables` calculations in the research models, these variables are mixed in the unit working variables to transfer to the used software electronically to analyze research data. Gathered data are analyzed by Eviews Software number 9 and SPSS.

RESEARCH POPULATION AND STATISTIC SAMPLE

Statistic sample in the research include all the accepted corporations in Tehran Stock Exchange from the end of February 2013 that are members of inducting and investing corporations and include following characteristics:

Corporation financial year should bethe end of February and it shouldn`t have done financial year change during investigating years.

More than 6-month break shouldn`t be existed among corporation transaction.

Corporation shouldn`t give loss during studied years.

Total information and interpretations of annual financial statements of corporation with price of each share at the end of the year for investing durations of corporation should be existed.

Based on the above limitations, finally 125 corporations have been chosen by systematic deletion among 635 corporations.

RESEARCH VARIABLES AND THEIR EVALUATING METHOD

This research investigated relationship between board's independence and investment efficiency. To do this factor regression analytical model as follow should be used:

$$IN_{it} \, \square\square_{it} \, \square\square_1 CS_{it} \, \square\square_2 BS_{it} \, \square\square_3 BM_{it} \, \square\square_4 BR_{it}$$

IN: investment efficiency of i corporation in t year

CS: board`s independence of i corporation in t year

BS: board`s size of i corporation in t year

BM: the numbers of board`s meetings of i corporation in t year

BR: board`s financial knowledge of i corporation in t year

PERFORMANCE VARIABLES` DEFINITIONS

a)   Board`s characteristics: In the research government corporation means board`s characteristics such as independence, size, numbers of sessions and financial knowledge. Corporation government is rules, laws, structures, processes, cultures and systems that cause accessible to the aims of answering, transparency, fairness (justice) and considering beneficiaries` rights.

b)   Board`s independence: One of the most important factors in corporation government system is board`s independence. Board`s responsibility is independent supervision on performance manager's operations and managers' forces of answering for the shareholders and beneficiaries. It is believed publically that board when more independence has, they will apply effective supervision on the performance managers. Internal manages and those managers who relate financially by corporations are efficiently independent. These managers have less inclinations to analyze and answer performance managers and forget supervision on performance managers because they have relationships with them, (Solomon, 2007).

Board`s independence degree is estimated by ratio of irresponsible members to all board`s members. Irresponsible member is partial board that hasn`t got any responsibilities. Investors believe that managers out of board (irresponsible mangers) are sensitive supervisors on managers` behaviors and operations and control mangers` behaviors. In the research to measure degree of board`s independence, numbers of irresponsible mangers are divided on total board`s members. This variable is derivate from board`s reporting to annual usual societies.

C: Board`s size: Board are the highest part in organization basis which play important role in guiding decisions and corporations` operations managements, experimental observations indicate that there is no agreeable theory about basic size of the board. Green (2005), believed that board`s members should be limited to create situations to discuss and argue about corporations` problems. Bigger board will own less power, so agreement about one special topic is more difficult. However, some people believe that board`s size should big as to change ideas, experiments and skills, (Limpan, Limpan, 2006). The important point is that board`s size should be big enough. In the research board`s size is evaluated by numbers of the board`s members (Abor, 2007).

d: Numbers of Board`s Sessions (Meetings): Board`s meetings are places in which performance mangers and board`s members introduce and cooperate their information about corporation performance, politics and designs. Both more than necessary meetings will have not only costs (such as management time, journey costs and presence wages of board`s meetings), but also deviate corporations` managers from their daily performances responsibilities. So, board should create a balance between cost and beneficiary of meetings` sessions. If board are successful in running board`s meetings based on the closed environment, they will receive economic beneficiaries based on representative theory.

e: Board`s Knowledge in todays` societies taking necessary knowledge and qualifications have been important in the way that having special knowledge to get a base in the institute is necessary for the efficient performance of the organization. To run seeking and learning board that constitute active view and desirable and confirmative system of corporation government, managers should be encouraged in learning durations. Moreover, it is necessary that board`s members use special and professional consulting services, (Hasas Yeganeh and Baghomian, 2006). Board to supervise on management and cooperation in decision making need different skills such as accounting, banking and laws to increase effective value, (Hillman, Patzool, 2000). The basic theory in this part is that inexperienced members in financial or accounting knowledge

have less abilities in existent problems` discoveries of financial reporting. Moreover, existent of an experienced financial element can cause other members to be sensitive and aware.

f: Investing Efficiency: One of the important factors to solve economic problems of countries is investment expansion and development, this factor isn`t enough lonely, based on the limitations of the financial sources not only investment development but also increase of investing efficiency should be attended, (Modares, Hesarzadeh, 2008). Corporations which are effective in term of investing if they don`t have differences such as inconsistent choice and running costs, they should choose only projects with positive verbal pure value. So, investment inefficiency includes omitting investing situations which have inexistent of inconsistent choice with positive verbal pure value (investment less than necessities) and choice of projects with negative verbal pure value (investment more than necessities). Investment efficiency as a deviation from expected investments in investing model which has been evaluated as an anticipation function of growth situations. Finally, investing less than necessity (negative deviations from expected investing) and investing more than necessity (positive deviations from expected investing) have been considered as investing inefficiency.

Following formula is used to estimate and analyze expected investing situations: IFA

$$= \beta 0 + \beta 1*CFO/FAt\text{-}1 + GO + \varepsilon I$$

IFA: corporation investment

CFO: received cash flows from operation

FA t-1: observed fixed assets of last year

GO (SR t-1 and MTB): growth situations (Q-Tobin ratio and growth of sale income at the end of the last year)

DEDUCTIVE STATISTIC AND HYPOTHESES TESTS

A) Unit Root Test of Paneling Data : before model investigation ratio of managed to unmanaged of the used data in the model should be investigated.

Table 1: Research variables naming

Model variables` coding	Model variable
CS	Board`s independence
BS	Board`s size
BM	Numbers of board`s meetings
BR	Financial knowledge of board`s members
IN	Investment efficiency
MV	Corporation market value

Source: Author

Table 2: Lowing Lin and Chow Tests

Meaningful level	t-Statistic	Research variables
0/000	-21/728	Board`s independence
0/000	-10/748	Board`s size
0/000	-7/759	Numbers of board`s meetings
0/000	-13/674	Financial knowledge of board`s members
0/000	-8/344	Investment efficiency

Source: Author

Based on the above table meaningful level of research variable is less than 5 percent, so all research variables in the investigation duration are stable levels. Then recognition of the suitable method for the data analyses should be considered.

Hasman and Limer Tests

Table 3: Conclusions of F-Limer and Haussmann tests related to the research model

Hausman test	F-Limer test	Test kind	Model
44/296	13/109	Statistic amount	Research model
0/007	0/001	P-Value	
Consistent effects	Panel	Model kind	
$IN_{it} = \alpha_{it} + \beta_1 CS_{it} + \beta_2 BS_{it} + \beta_3 BM_{it} + \beta_4 BR_{it}$			

Source: Author

Based on F-Limer test of the research model in the above table, P-Value eith0/095 insurance is near to 0/000, in otherwise is less than 0/05. So, H0 of model pooling (cross passes origin for all the points), is rejected and its contrast hypothesis id accepted. For each of the studied points (corporations) one pass cross from origin should be considered, to analyze it paneling model should be used. Moreover, based on received

conclusions of Haussmann Test for the research hypotheses, □□□□□□□□for each H0. Rejection of H0 indicates that coincidental constant method is abhorrent and constant effects method should be chosen.

HYPOTHESES TESTS

Table 5: Conclusions of the constant effects model related to research model

Research conclusions	P-Value	t Statistic	Standard deviation	Coefficients	Constant effects model	Condition
H0rejected	0.0018	3.137523	0.179904	0.564452	CS	First model
H0 rejected	0.9564	0.054631	0.007358	0.000402	BS	
H0 rejected	0.7841	0.274133	0.002057	0.000564	BM	
H0 rejected	0.0000	11.34219	1.417729	16.08015	BR	
	0.0790	1.759272	0.046764	0.082271	C	
0/750					R2	
0/748					R̄2	
2/22					D.W	
(prob =0/000) 12/147					فیشرF	
$IN_{it} = 0.08 + 0.01 CS_{it} + 0.0004 BS_{it} + 0.0005 BM_{it} + 0.011 BR_{it}$						
$IN_{it} = \alpha_{it} + \beta_1 CS_{it} + \beta_2 BS_{it} + \beta_3 BM_{it} + \beta_4 BR_{it}$						

Source: Author

Main hypothesis: there is a positive meaningful relationship between board`s characteristics and investment efficiency.

First Hypothesis: there is a positive meaningful relationship between board`s independence and investment efficiency.

H0: there is no positive meaningful relationship between board`s independence and investment efficiency.

H1: there is a positive meaningful relationship between board`s independence and investment efficiency.

Based on the received conclusions of table 5, meaningful level amount of t test is less than 0/05 that indicates independent variable effects on dependent variable (in a meaningful way), so there is a positive meaningful relationship between board`s independence and investment efficiency.

Second Hypothesis: there is a positive meaningful relationship between board`s size and investment efficiency.

H0: there is no positive meaningful relationship between board`s size and investment efficiency.

H1: there is a positive meaningful relationship between board`s size and investment efficiency.

Based on the received conclusions of table 5, meaningful level amount of t test is more than 0/05 that indicates independent variable doesn`t effect on dependent variable (in a meaningful way), so there is no positive meaningful relationship between board`s size and investment efficiency.

Third Hypothesis: there is a positive meaningful relationship between numbers of board`s sessions (meetings) and investment efficiency.

H0: there is no positive meaningful relationship between numbers of board`s sessions (meetings) and investment efficiency.

H1: there is a positive meaningful relationship between numbers of board`s sessions (meetings) and investment efficiency.

Based on the received conclusions of table 5, meaningful level amount of t test is more than 0/05 that indicates independent variable doesn`t effect on dependent variable (in a meaningful way), so there is no positive meaningful relationship between numbers of board`s sessions (meetings) and investment efficiency.

Fourth Hypothesis: there is a positive meaningful relationship between financial knowledge of board`s members and investment efficiency.

H0: Fourth Hypothesis: there is no positive meaningful relationship between financial knowledge of board`s members and investment efficiency.

H1: there is a positive meaningful relationship between financial knowledge of board`s members and investment efficiency.

Based on the received conclusions of table 5, meaningful level amount of t test is less than 0/05 that indicates independent variable effects on dependent variable (in a meaningful way), so: there is no positive meaningful relationship between financial knowledge of board`s members and investment efficiency.

5. CONCLUSIONS

Received conclusions of the first hypothesis indicate that there is a positive meaningful relationship between board`s independence and investment efficiency. Based on the representative theory (Fama, Jensen, 1983), independence is one of the introducing topics in board`s characteristics that concentrates on members` independence. Hasan Zadeh brothers and et al.  (2011), found that amount of board `s members' independence was one of the factors that increased board efficiency. In the most researches of accounting to quantify this indicator ratio of irresponsible managers to all board`s members had been used. These individuals didn`t have performance responsibilities in corporation and didn`t get monthly salary. In the

most researches the presences of the irresponsible managers among the board could have meaningful effects on corporations` operations and values.

Received conclusions of the second hypothesis indicate that there is no positive meaningful relationship between board`s size and investment efficiency. Theatrical literature has two viewpoints about board`s size and investment efficiency. First viewpoint indicates that smaller board can cause corporation operation gradation. Hermalin and Weisbach (2003) found that one huge board would miss their abilities in doing their responsibilities, controlling and supervising on master manager function would not be done truly (Leptin, Lorch, 1992). The second viewpoint indicates that smaller board will be bereaved from vast and special beneficiaries of opinions and suggestions. Moreover, bigger board will have advantages of experiences, skills, genders, nationalities and etc. Smaller board will use irresponsible managers in their compositions and will have less time to do their supervising decisions.

Received conclusions of the third hypothesis indicate there is no positive meaningful relationship between numbers of board`s sessions (meetings) and investment efficiency. Board`s meetings are places in which performance mangers and board`s members introduce and cooperate their information about corporation performance, politics and designs.

Received conclusions of the fourth hypothesis indicate there is a positive meaningful relationship between financial knowledge of board`s members and investment efficiency. In todays` societies taking necessary knowledge and qualifications have been important in the way that having special knowledge to get a base in the institute is necessary for the efficient performance of the organization. To run seeking and learning board that constitute active view and desirable and confirmative system of corporation government, managers should be encouraged in learning durations.

RESEARCH APPLICATIONAL SUGGESTIONS

At the end of the research there will be some suggestions as follow for the future researchers:

Relationship between corporation government mechanism, asset structure and corporation value should be investigated based on the industry kind.

In this research by dependent variable change, relationships between board`s characteristics with other factors as income anticipation of each share, fraud amount decrease, efficiency increase of financial reporting and etc. should be evaluated.

It is a suggestion for the future research to investigate other board`s characteristics effects as independent auditors, legal supervision, internal controlling and etc. on corporation value and investment efficiency.

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ORIGINAL RESEARCH PAPER

GLOBALIZATION AND ITS IMPACT ON FOREIGN DIRECT INVESTMENT

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Abstract

The present study aims to study the effect of globalization on foreign direct investment. To do this, the data of 20012011 of twenty countries (Ten developing countries and ten developed countries), multi-variate regression and pooled data model are used. The results of study at developed countries showed that improvement of globalization index led into the increase of foreign direct investment in Iran and this increases the increase of growth capacity and development of country. Also, it improves capital market index and increases foreign direct investment in the country and also it collects capital in the country. On the other hand, the results of study in developing countries showed that improvement of capital market index led into the increase of foreign direct investment in the country and this collected capital in the country and improved good governance index and increased foreign direct investment. This also improves the wage of citizens and increases governance accountability. The growth of urban population leads to the reduction of foreign direct investment in the country and development conditions are not improved with the improvement of human resources. Also, improvement of GDP leads to the reduction of foreign direct investment in the country and this doesn't increase growth and development.

1. INTRODUCTION

The significance of foreign investment in post-sanction era is one of the main issues of eliminating stagnation of economy. As foreign investment in post-sanction can be a good source for funding, this is useful in elimination of present financial and credit problems. According to the studies done by UNCTAD, the countries are divided into three groups "The countries which absorb foreign investment beyond their capacity", "The countries that have absorbed foreign investment as expected", "The countries that can absorb foreign investment lower than their capacity. Iran is in the group of countries that despite high potentiality of absorbing foreign direct investment, cannot use the capacities to absorb the capitals well. With a review of performance of countries successful in absorbing investment, it is necessary to provide the pre-requirements. Fortunately, there are some pre-requirements to be modified and another part of prerequirements should be defined and provided (Mostofi, 2015). Globalization is establishing diverse relations among governments and communities. Gidens (1995) believes that globalization is increasing social relations all around the world and Robrtson (2002) considers globalization as a concept referring to small world and improving awareness of the world. Regarding the performance of this phenomenon, empirical studies of Khan (2005), Bolbol (2005), Kose et al., (2008) state that globalization and trade liberalization can create competitive space for internal industries via development of new production techniques of efficient use of production factors. Also, globalization leads to wide choice about high quality

of mediating inputs with low price of economic activities and this improves total productivity of factors. The new empirical studies presenting new methods and multi-dimensional image of globalization like Ursprung (2006), Dreher (2006) and Gemmell et al., (2008) have focused on two theories: 1) Efficiency hypothesis, 2) Compensation theory. In efficiency theory, globalization of economy reduces the duties of government and economic conditions are competitive with private sector. In compensation theory, the globalization of economy has some risks for the society and national economy (Sadeghi et al., 2012). Regarding the features of this phenomenon, as globalization has various features, most economists consider growth of trade, foreign direct investment and multi-national companies as the main features of globalization. Other features of globalization are trade liberalization and reduction of support or eliminating tariff and this is evaluated in export and import for different groups of goods (Aziznejad et al., 2011). In globalization process, the capitals are moved with the aim of achieving more profits easily around the world. This dynamic movement makes great economic changes in different countries and finally dynamics of global capitalism system (Azarbayejani et al., 2012). Foreign direct investment can be the economic driving force of host country. Based on the benefits of foreign investment, the evaluation of the effects of foreign investment on economic growth namely based on globalization is of great importance (Farzin et al., 2012). In the present study, the following questions are raised: 1) Is improvement of globalization index leading to the increase of foreign direct investment in the country? 2) Is improvement of capital market index leading to the increase of foreign direct investment? 3) Is economy openness leading to foreign direct investment in the country? 4) Is human capital development leading to the increase of foreign direct investment? 5) Is growth rate of urban population leading to the increase of foreign direct investment in the country? 6) Is improvement of good governance index leading to the increase of foreign direct investment in the country? 7) Is improvement of Per capita GDP leading to the increase of foreign direct investment in the country?

2. REVIEW OF LITERATURE

Dogan & Arsalan (2016) evaluated the relationship between globalization from political dimensions and foreign direct investment in Turkey. This study was during 1970-2012. The results showed that there was no short-run and long-run significant association between political globalization and foreign direct investment. Kong et al., (2016) in a study "An Investigation into Real Estate Investment and Economic Growth in China: A Dynamic Panel Data Approach" showed how real estate investment was effective on economic growth of China. They found that real estate investment had negative effect on economic growth. The negative effect was different in different states. Pekarskiene & Susniene (2015) "Features of foreign direct investment in the context of globalization" and considered the features of foreign direct investment (FDI) as one of the driving forces of globalization, and its most prominent manifestation. An analysis of selected FDI indicators for assessment of the level of globalization of a small open country was carried out in a case of Lithuanian economy. The results of the study indicated the level of globalization of a small open country was more affected on inward FDI in comparison with outward investment.

Ezenwakwelu (2015) in a study he studies examined the challenges encountered by foreign investors for foreign direct investment in Nigeria. Findings indicated that Foreign exchange risk, political risk and increased agency cost are challenges encountered by foreign investors for foreign direct investments. There was a positive relationship between the foreign investors and the host nation, and there was a significant relationship between foreign direct investment and economic growth. Foreign direct investment (FDI) played an extra ordinary and growing role in international business.

Kojo et al., (2014) in a study "Financial Development, Trade Openness and Economic Growth in African Countries: New Insights from A Panel" examined the effect of trade openness and financial growth in economic growth of 21 African countries. They found that financial development and trade openness had no considerable effect on economic growth of studied countries. In another study, Gourgul and Lach (2014) examined the relationship between globalization and economic growth in Eastern and Central European countries during 1960-2010. They introduced KOF index using various indicators of globalization (economic, political and social) and found that there was a positive and significant relationship between

three indicators and economic growth. Leitão (2012) in another study "Relationship between foreign direct investment and globalization of Portugal and some other European countries analyzed the effect of variables including globalization, market size, trade, human capital and urban population using generalized method of moments (GMM) during 1995-2007. The results showed that market size and globalization had positive effect on foreign direct investment. The urban population and trading had significant effect statistically.

Dodangy (2006) evaluated the effective factors on absorbing domestic and foreign investment in Iran. It was found that price volatilities and crude oil revenue, international contracts, effective volatilities of exchange rate and high inflation rate increased the tendency to absorb foreign direct investment to achieve stable and positive economic growth in Iran. Despite positive inclinations, foreign direct investment was not adequate. The evaluation of results of economic models shows that various factors including national income, GDP, state sector costs, inflation rate, economic openness, human capital and foreign direct investment are effective on total investment.

Agharkakli et al., (2016) examined the financial international development and its role in economic globalization in Iran using panel data. The results of trend model showed that international financial development in west south Asia and Iran was negative and this index was reduced during the period. Regarding the effect of international financial development on economic globalization index, the results of study showed that there was a significant relationship between international financial development and economic globalization.

In a study done by Hekmati farid et al., (2015) as "The effect of globalization and corruption control on economic growth of countries with low per capita, average and high per capita revenue showed that there was a negative and significant relationship between economic globalization and economic growth in countries with low per capita revenue. Also, the results showed that there was a negative and significant association between economic globalization and economic growth in countries with low per capita. Also, the results showed that in countries with high and average per capita, the effect of three indices of globalization (economic, social and political) and total index of globalization on economic growth was positive and significant.

3. RESEARCH METHOD

3.1. MAIN HYPOTHESIS:

Improvement of globalization index leads to the increase of foreign direct investment in the country and it increases the growth capacity, development and progress.

- *Sub-hypotheses*

1- Improvement of capital market index leads to the increase of foreign direct investment in the country and this collects capital in the country.

2- The economic openness leads to the increase of foreign direct investment in the country and this increases employment in the country.

3- Human capital development leads to the increase of foreign direct investment in the country and this increases intellectual capital.

4- The urban population rate leads to the increase of foreign direct investment in the country and improves progress by improving quantity of human resources.

5- Improvement of good governance index leads to the increase of foreign direct investment and this improves the wage of citizens and increases governance accountability.

6- Improvement of per capita GDP leads to the increase of foreign direct investment in the country and this increases growth, development and progress of country.

☐ *Study population*

The study population is all global bank member states, of which 20 countries (10 developed countries and 10 developing countries) are selected as the study sample. The data of 12 years of these countries during 2000-2011 are used for analysis (The data of next years are not in world bank databases). The sample during 2000-2011 consists of 20 countries.

• Data collection measures

For data collection, library and documents are used. To achieve the data for hypotheses processing, the data from the website of World Bank (Databank.worldbank.org) is used.

• Study variables and models

To test the main hypothesis and sub-hypotheses, the following model is used: *Foreign*

Direct Investment$_{i,t}$ = β_0 + β_1 Globalization Index$_{i,t}$ + β_2 Stock Market Index$_{i,t}$ + β_3

Economic Openness$_{i,t}$ + β_4 Human Capital Development$_{i,t}$ + β_5 Urban Population

Growth$_{i,t}$ + β_6 Good Governance Index$_{i,t}$ + β_7 Capitation GDP$_{i,t}$ +$\varepsilon_{i,t}$ Where,

Foreign Direct Investment$_{i,t}$: Foreign direct investment of country i in year t.

Globalization Index$_{i,t}$: Globalization index of country i in year t.

Stock Market Index$_{i,t}$: Stock market index of country i in year t

Economic Openness$_{i,t}$: Economic openness of country i in year t

Human Capital Development$_{i,t}$: Human capital development of country i in year t

Urban Population Growth$_{i,t}$: Urban population growth of country i in year t

Good Governance Index$_{i,t}$: Good governance index of country i in year t

Capitation GDP$_{i,t}$: Capitation GDP of country i in year t

As shown, the conceptual model of present study is shown as Figure 1.
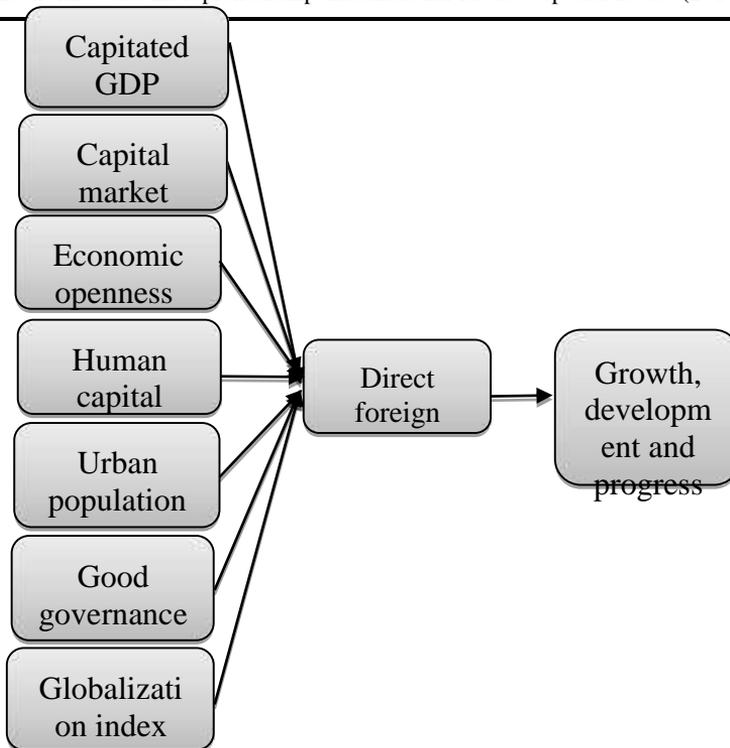
Figure 1-Conceptual model of study

Source: Author

Foreign Direct Investment$_{i,t}$ =Foreign direct investment of country I in year t using natural logarithm of its price in Dollar of US..

Globalization Index$_{i,t}$: Globalization index of country I in year t using KOF index

reported by the world bank in the required year.

Stock Market Index$_{i,t}$: The index of capital market of country i in year t using natural logarithm of its price based on US dollar.

Economic Openness$_{i,t}$: Economic openness of country I in year t using TOPN index for its computation:

$$\text{Trade Openess (TOPN)} = \frac{\text{Export} + \text{Import}}{\text{GDP}}$$

Where:

Export = Total export of country in US dollar

Import : Total import of country in US dollar

GDP =Total gross domestic product in US dollar.

Human Capital Development$_{i,t}$ =The development of human capital of country I in year t using HDI index reported by the world bank in the required year.

Urban Population Growth$_{i,t}$: Urban population growth rate of country i in year t using POP index growth reported by the world bank in the required year compared to the previous year..

Good Governance Index$_{i,t}$: Good governance index of country i in year t using WGI index reported by the world bank for the mentioned country in the required year.

Capitation GDP$_{i,t}$: Capitation GDP of country I in year t using natural logarithm of capitation GDP reported by the world bank for the mentioned country in the required year.

4. KEY FINDINGS

At first, Pearson correlation of study variables is evaluated. The results of Pearson correlation test of study variables are shown in Table 1. As shown in Table 1, in Pearson correlation, there is a direct and significant correlation between foreign direct investment with globalization index, capital market index, human capital development, urban population growth rate, good governance index and capitation GDP. In addition, the independent variables of study didn't have strong correlation with each other (the correlation statistic is lower than ±0.8) and there is no problem in estimation of model.

Table 1. Pearson correlation of study variables

Variable	Foreign direct investment	Globalization index	Capital market index	Economic openness	Human capital development	Urban population growth	Good governance index	Capitation GDP
Foreign direct investment	1	0.555 0.000	0.778 0.000	0.114 0.111	0.528 0.000	0.169 0.018	0.548 0.000	0.644 0.000
Globalization index		1	0.438 0.000	0.375 0.000	0.588 0.000	0.084 0.242	0.571 0.000	0.502 0.000
Capital market index			1	0.039- 0.585	0.557 0.000	0.13 0.022	0.591 0.000	0.505 0.000
Variable	Foreign direct investment	Globalization index	Capital market index	Economic openness	Human capital development	Urban population growth	Good governance index	Capitation GDP
Economic openness				1	0.177 0.013	0.123 0.085	0.287 0.000	0.262 0.000
Human capital development					1	0.005 0.943	0.434 0.000	0.515 0.000
Urban population growth rate						1	0.028 0.697	0.076 0.286
Good governance index							1	0.465 0.000
Capitated GDP								1

Source: Author

☐ *Study hypotheses test*

To estimate coefficients of model, to determine pooled data and homogeneity or their lack of homogeneity, chow and F-Limer's are used. The results of test are shown in Table 2. **Table 2. Results of Chow test**

Result of chow test	Significance level	F statistics	H0

H0 is rejected	0.000	8.198	Pooled data

Source: Author

As shown in Table 2, the result of chow test shows that the probability for F statistics is less than 5%. To test this model, the data are used as panel. In Table 3, by Hausman test, the fixed or random effects methods are used.

Table 3. Hausman test

Result of test	Significance level	Chi-square statistics	H0
H0 is rejected.	0.017	17.001	Using random effects model

Source: Author

As shown in Table 3, significance level of Hausman test is less than 0.05. To estimate the coefficients of model, fixed effects model is used. The result of test is presented by fixed effects model and estimated generalized least squares (EGLS) in Table 4.

Table 4. Results of testing model

Variable	Coefficients	Standard error	T statistics	Significance level
Constant	5.226	1.792	2.916	0.004
Globalization index	0.033	0.018	1.798	0.073
Capital market index	0.649	0.085	7.564	0.000
Economic openness	0.043	0.372	0.116	0.907
Human capital development	0.0006-	0.0008	0.766-	0.444
Urban population growth	4.311-	1.17	3.684-	0.000
Variable	**Coefficients**	**Standard error**	**T statistics**	**Significance level**
rate				
Good governance index	0.025	0.007	3.461	0.000
Capitated GDP	0.255-	0.171	1.489-	0.138
F statistics	65.443	Coefficient of determination		0.81
Significance level of F statistics	0.000	Adjusted coefficient of determination		0.796
EGLS method (eliminating probable variance Heteroscedasticity		Durbin -Watson		1.646

Source: Author

As shown in the results of Table 4, t statistics of globalization index is smaller than ±1.965 and its significance level is bigger than 0.05. There is no significant relationship between globalization index and foreign direct investment in countries. This result is inconsistent with the main hypothesis (improvement of globalization index leads to the increase of foreign direct investment in the country and this increases the

capacity of growth, development and progress). Such condition is true for economic openness, human capital development and capitation GDP. Thus, second sub-hypotheses (economic openness can lead to the increase of foreign direct investment in the country and this increases employment in the country), third (human capital development leads to the increase of foreign direct investment in the country and intellectual capital capacity is increased), sixth (improving capitation GDP leads to the increase of foreign direct investment and this increases growth, development and progress of country and these hypotheses are not supported. Durbin-Watson statistics is 1.646 ranging 1.5 to 2.5. Significance level of F statistics is 0.000 lower than 0.05 and it shows significance of model. Another important point in Table 4 is adjusted coefficient of determination of the model. The adjusted coefficient of determination of the applied model is 79% and this shows that about 79% of changes of dependent variable are explained using independent variables. Using EGLS and correction of white diagonal lead into elimination of probable variance Heteroscedasticity. The chart of disturbance terms is shown in Figure 2. The significance level of JarqueBera is bigger than 0.05 and the result of this test shows normality of disturbance terms.
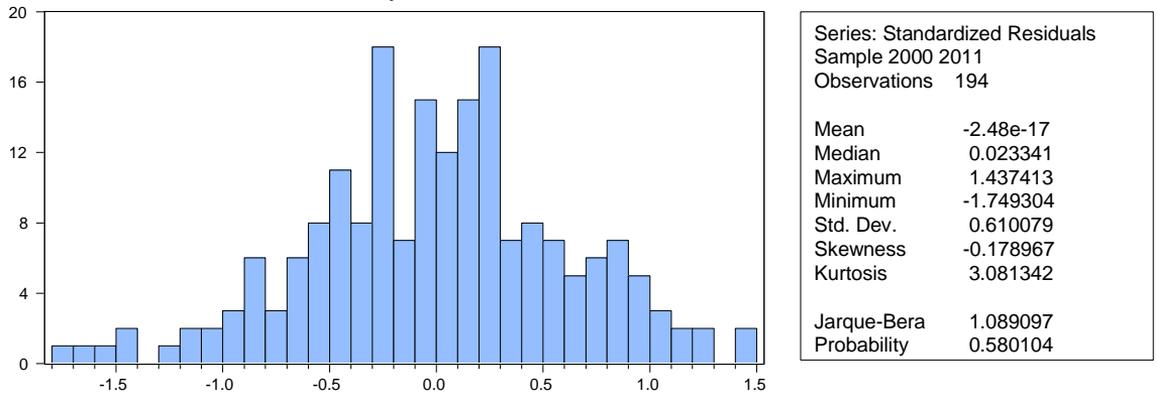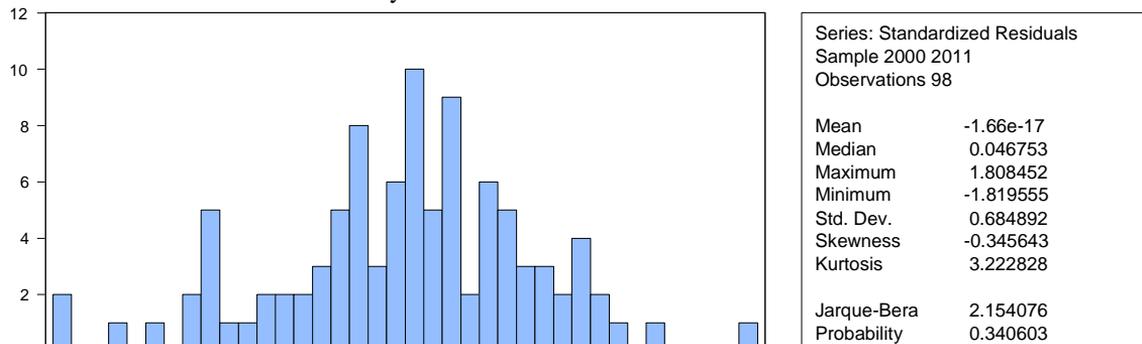

Figure 2- The chart of dispersion of disturbance terms

Source: Author

☐   *The hypotheses test in developed countries*

As shown in the results of Table 5, t statistics of globalization index is smaller than ±1.965 and its significance level is smaller than 0.05. There is a significant relationship between globalization index and foreign direct investment in countries. Such condition is true about capital market index. T-statistics of other variables is smaller than ±1.965 and their significance level is bigger than 0.05 and there is no significant association with dependent variable. In developed countries, only globalization index and capital market are effective on foreign direct investment.

Table 5. The results of test of model in developed countries

Variable	Coefficients	Standard error	T statistics	Significance level
Constant	1.688-	5.326	0.316-	0.752
Globalization index	0.108	0.028	3.777	0.000
Capital market index	0.816	0.22	3.94	0.000
Economic openness	0.239	0.191	1.249	0.214
Human capital development	0.005-	0.003	1.761-	0.081
Urban population growth rate	2.502-	2.235	1.119-	0.266

Good governance index	0.055-	0.048	1.155-	0.25
Capitated GDP	0.441	0.585	0.754	0.452
F statistics		6.029	Coefficient of determination	0.319
Significance level of F statistics		0.000	Adjusted coefficient of determination	0.266
EGLS method (eliminating prob variance Heteroscedasticity			Durbin -Watson	

Source: Author

Durbin-Watson statistics is 1.685 ranging 1.5 to 2.5. Significance level of F statistics is 0.000 lower than 0.05 and it shows significance of model. Another important point in Table 5 is adjusted coefficient of determination of the model. The adjusted coefficient of determination of the applied model is 26% and this shows that about 26% of changes of dependent variable are explained using independent variables. The chart of disturbance terms is shown in Figure 3. The significance level of Jarque - Bera is bigger than 0.05 and the result of this test shows normality of disturbance terms.
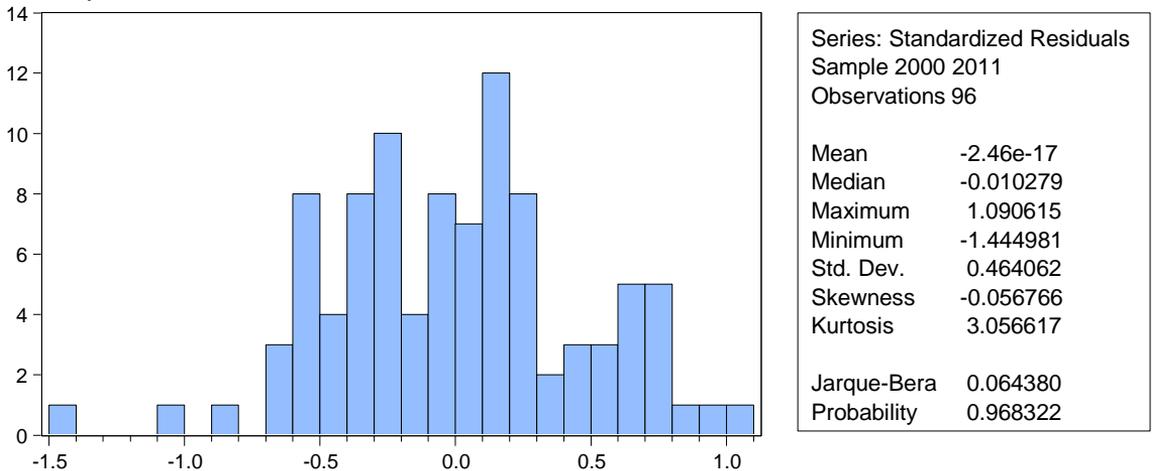

Series: Standardized Residuals	
Sample 2000 2011	
Observations 98	
Mean	-1.66e-17
Median	0.046753
Maximum	1.808452
Minimum	-1.819555
Std. Dev.	0.684892
Skewness	-0.345643
Kurtosis	3.222828
Jarque-Bera	2.154076
Probability	0.340603

Figure 3- The chart of dispersion of disturbance terms

Source: Author

This condition is different in developed countries and only capital market index has maintained its effect and variables of urban population growth and good governance index cannot explain foreign direct investment. Globalization index had great effect on foreign direct investment.

☐   *Study hypotheses test in developing countries*

As shown in the results of Table 6, t statistics of globalization index is smaller than ±1.965 and its significance level is bigger than 0.05. There is no significant relationship between globalization index and foreign direct investment in countries. Such condition is established for economic openness and human capital development. T-statistics of capital market index is bigger than ±1.965 and its significance level is smaller than 0.05 and there is a significant association with capital market index and foreign direct investment in countries. Such condition is established for good governance index. **Table 6. The results of study model in developing countries**

Variable	Coefficients	Standard error	T statistics	Significance level
Constant	8.791	2.225	3.951	0.000

Globalization index	0.039	0.024	1.633	0.106
Capital market index	0.622	0.094	6.598	0.000
Economic openness	0.198	0.587	0.338	0.736
Human capital development	0.001-	0.001	0.964-	0.337
Urban population growth rate	6.293-	1.479	4.253-	0.000
Good governance index	0.025	0.008	2.942	0.004
Capitated GDP	0.505-	0.177	2.849-	0.005
F statistics	94.081	Coefficient of determination	0.75
Significance level of F statistics	0.000	Adjusted coefficient of determination	0.74
EGLS method (eliminating probable variance Heteroscedasticity		Durbin -Watson	

Source: Author

As T-statistics of good governance index is bigger than ±1.965 and its significance level is smaller than 0.05 and there is a significant and inverse association between urban population growth and foreign direct investment in countries. Similar conditions are established for capitation GDP. Durbin-Watson statistics is 1.58 ranging 1.5 to 2.5. Significance level of F statistics is 0.000 lower than 0.05 and it shows significance of model. Another important point in Table 4 -13 is adjusted coefficient of determination of the model. The adjusted coefficient of determination of the applied model is 75% and this shows that about 795% of changes of dependent variable are explained using independent variables. Using EGLS and correction of white diagonal lead into elimination of probable variance Heteroscedasticity. The chart of disturbance terms is shown in Figure 4. The significance level of Jarque - Bera is bigger than 0.05 and the result of this test shows normality of disturbance terms.

Series: Standardized Residuals	
Sample 2000 2011	
Observations 96	
Mean	-2.46e-17
Median	-0.010279
Maximum	1.090615
Minimum	-1.444981
Std. Dev.	0.464062
Skewness	-0.056766
Kurtosis	3.056617
Jarque-Bera	0.064380
Probability	0.968322

Figure 4- The dispersion chart of disturbance terms

Source: Author

The condition in developing countries is similar to the results of general analyses and only GDP has significant effect despite the results of study.

5. CONCLUSION

The results showed that there was no significant relationship between globalization index and foreign direct investment in countries. Based on the results, the current realities show that most countries around the world are involved in a challenge of globalization. The fear of globalization and facilities of globalization had made decision making problematic. Over the past decade, the changes at international arena have changed the attitude to the world and have created different criteria for decision making. The results of study showed that there was a significant association between capital market index and foreign direct investment. Generally, foreign investment enters the country using different methods: The investment in oil and gas sector is absorbed as foreign financial loan (e.g. sale contract and finance in need of guaranty bank instruments and approving of economy council). The investment in free zone of the county is performed in accordance to special rules of foreign investment. Some of investments are made via stock market. The results showed that there was no significant association between economic openness and foreign direct investment in countries. The macro view to foreign direct investment shows the capital flow between national borders from the source country to the host nation and is measured by payment balance. This increases capital inventory in host nations, the investment value of the country is on inputs as stock companies and is control by an owner in the country or the one with special share of board votes. The results showed that there was an inverse and significant relationship between urban population growth and foreign direct investment in countries. We can refer to an example that Africa has some attractions to enter foreign direct investment. Raw materials including oil, metal and diamond and the population of more than 800 million are good incentives to perform profitable investments in transportation, tourism, energy, etc. in the region. Beside these factors, some policies as rapid growth of financial markets, achieving regional markets, privatization policies, incentives of export development as creating export processing regions, tax incentives, reduced bureaucracy, multi-dimensional agreement and reduction of control on capital are effective.

The results showed that there was a direct and significant relationship between good governance index and foreign direct investment in countries. At global economy, competition means achieving a suitable position in international markets. The results showed that there was no significant relationship between capitation GDP and foreign direct investment in countries. The west of Asia consists of 15 countries including Iran and recent years, with the increase of energy price, it has received much attention by foreign investors. The results showed that the condition was different in developed countries and only capital market index maintained its effect. The variables of urban population rate and good governance index couldn't explain foreign direct investment. Globalization index had great effect on foreign direct investment. The results showed that the condition of developing countries was similar to the results of general analyzes and only GDP variable had inverse and significant effect. Based on the results, it is necessary that to achieve the best interpretations, the results are considered in developing and developed countries. The results generally include both developed and developing countries. The results of studies in developed countries showed that in these countries, only globalization and capital market had direct relationship with foreign direct investment. In some countries including Japan, the increase of total index of capital market improved foreign investment. By improvement of globalization index, international direct investments were absorbed. In developed countries, economic openness, human capital development, urban population growth, good governance index and capitation GDP are not important. We can say, developed countries have good indices and foreign investment is not affected by these indices.

On the other hand, in developing countries, effective indices on foreign direct investment are capital market index, urban population growth rate, good governance index and capitation GDP and capital market index is common with the results of study in developed countries. Capital market is an important index in developed and developing countries. Based on the effective role of some indices as urban population growth, good governance index and capitation GDP on foreign direct investment in developing countries, we can

say these countries are involved with improving these indices (This issue is resolved in developed countries) and improving good governance and urban population growth rate can be with the improvement of foreign direct investment. The inverse relationship between GDP and foreign direct investment is based on the lack of interest of foreign investors in high costs of production in investment target countries. The great international investors attempt to direct their capitals to the countries with the lowest costs of production and workers and improvement of capitation GDP as an index to increase welfare can lead to the ignorance of foreign investors to make investment. The negative effect of urban population growth on foreign direct investment is explained in this regard. The foreign investors are interested to perform reliable investment at sale environment and accept improvement of good governance index. As shown in the results, exact statistical tests showed that there was no significant relationship between globalization index and foreign direct investment generally and this result is consistent with the results of study of Dogan and Arsalan (2016) and inconsistent with Leitão (2012) and Pekarskiene and

Susniene (2015). In addition, there was a direct and significant relationship between capital market index and foreign direct investment and this result is consistent with the study of Leitão (2012). Other results of study showed the lack of significant effect of economic openness on foreign direct investment and this result is consistent with the study of Kojo et al., (2014). In addition, the results of test of hypotheses showed that there was no significant relationship between human capital development and foreign direct investment and this result is consistent with the results of study of Leitão (2012). Another result of study as urban population growth reduces foreign direct investment is inconsistent with the results of study of Leitão (2012). On the other hand, the results of study showed that good governance index increased foreign direct investment. Other results of study showed the lack of significant effect of capitated GDP and the result is inconsistent with the results of study of ALizade et al., (2014) and Kong et al., (2016).

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INVESTIGATING THE ROLE OF FINANCIAL PERFORMANCE ON THE RELATIONSHIP BETWEEN CORPORATE SOCIAL RESPONSIBILITY AND OWNERSHIP STRUCTURE OF LISTED FIRMS IN TEHRAN STOCK EXCHANGE

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Abstract

The main aim of this study was to investigate the mediating role of financial performance on the relationship between social responsibility and the ownership structure of listed firms on the Tehran Stock Exchange. In order to achieve this goal, return on assets and the institutional ownership indicators were considered for financial performance and ownership structure, respectively. This study is applied research in respect to goal. Regarding the fact that library research method has also been used in this study, it can be stated that it is a descriptive – survey study on the basis of the nature and method. The population is consisted of firms listed in Tehran Stock Exchange. The total of 125 firms was selected in the period of 1388 to 1392 (total 625 Year- firm). Data was collected and analyzed using the Eviews software. The results indicate the relationship between corporate social responsibility and institutional investors is affected by the moderating role of the financial performance.

JEL *classification: G02, G19*
***Keyword:** Financial performance, social responsibility, ownership structure*

1. INTRODUCTION

Nowadays, roles of commercial units have been under various changes. As expected, the commercial units should not just be seeking their own interests, but also be accountable and helpful to community being interacted with. The commercial units cannot stand away from the community and society is also not able to survive without commercial units there exist, so, there is a mutual relationship between the commercial units and community. In recent years, a theory has been proposed stating that commercial units can create wealth, employment and innovation, supply market, enhance their activities and strengthen their competitions, if they contribute to protect the community where in they are engaged to create. To do so, it is necessary for community to provide the conditions required to achieve return by investors and ensure stakeholders there exists no arbitrage and unfair activities, offering appropriate environments to develop and improve commercial units. (Sadandhu, Kapur, 2010)

Corporate social responsibility presents ways by which organizations perform their business and meet their trading, legal, moral and social expectations. It is needed to state that organizations bear wide range of responsibilities in social, economic and environmental contexts regarding staff, shareholders, customers, government, suppliers and all other stakeholders. Without doubt, most of problems and challenges will be eroded and there will be a healthy and peaceful society, if people, groups, organizations and different institutions in society feel as being responsible to the different events and crises and each engages in solving these events and crises as much is possible as in their work scope. In other word, regardless to what and how

they are performing, organization can impact on society. So, organizations are required to engage in activities that are accepted by society and are compatible to its values. Organizations that are not adapted to this fundamental will not be successful. In other words, organizations must pay enough attention to their social responsibilities to protect their position in society or improve it in a way promising their survival and success. Therefore, social responsibility is key survival factor for each organization (Royayi, Mehrdust, 1388).

According to the theoretical foundations it can be said that corporate social responsibility is considered as accountability to society and stakeholder's requirements, which can influence on attracting institutional investors. The aim of present study is to provide evidences on the role of social responsibility, so "Is discoursing information about social responsibility and its dimensions associated to institutional ownership?" (Pourali, Hajjami, 1393). Ownership structure simply means who (natural or legal) controls and governs corporate operational and strategic decisions making. Shareholder compositions and the extent of ownership concentration are two essential dimensions of ownership structure. Shareholder composition can be measured by four variables including foreign ownership, corporate ownership, managerial ownership and institutional ownership (Biabani, Razi Kazemi, 1392).

Institutional investors are main actors in financial markets. Since their influence on corporate governance has been increased due to accepted privatization policies by different countries, it can be concluded that institutional investors are in a great importance in most of corporate governance mechanisms. Institutional owners play a key role in monitoring shareholders equity kept by firms. Firm owners (shareholders) have different authorities including selecting board of directors that acts as a representative to supervise manager's performance. Major Shareholders have significant role in transferring information to other shareholders. They Can access private information from management and transfer it to others (Asadi et al., 1389).

It can be expected that the corporate social responsibility disclosure is affected by ownership structure and, more specifically, institutional shareholders. As such, this study preliminary intended to investigate the relationship between corporate social responsibility and institutional shareholders. In addition, it seems that many factors can influence this relationship. Financial performance is one of these influencing variables, having mediating role. Therefore, we are seeking an answer to the question whether the relationship between corporate social responsibility and institutional investors is affected by the mediating role of financial performance?

2. LITERATURE AND THEORETICAL FOUNDATION REVIEW

Tendency and insistence of commercial unit to be committed to the social responsibility in all dimensions has considerable effect on financial performance. Indeed, moving toward social responsibility encourages commercial units to contribute improving environment, using less energy and fewer materials, waste management etc. As a result, commercial units will be able to maximize their long - term returns through volunteering decreasing their negative effects on community. Nowadays this fact is spreading among commercial units that they can gain long - term success through managing firm operations while ensuring environmental support and corporate social responsibility development. So, implementing corporate social responsibility improves long term success and ultimately enhances competitive power and financial performance. (Weiss et al, 2009).

According to pervious research there are three kinds of positive, negative and neutral (no relationship) relations between social responsibility and financial performance. There are several different perspectives regarding positive relationship between corporate social responsibility and financial performance (Arab Salehi et al., 1392).

The First perspective is that there is a relationship between quantitative costs of a firm, like interest payment to bondholders and their qualitative costs, like production quality or security costs. Efforts done by firms to bear less qualitative costs through social activities lead to more quantitative costs. Also, the community effect hypothesis is proposed as a base of the positive relationship between social performance and financial performances. Indeed, this hypothesis proposes "meeting all non-owner stakeholders' needs positively effects on financial performance (Arab Salehi et al., 1392).

The second perspective is that financially successful firms use less resources in creating high financial performance, so that; they can assign most of their recourses to social performance. According to the third perspective, the more social responsibility the less risks of negative events, because firms having high social responsibility are less likely to pay fine due to making (Environmental) pollution, or to engage in negative social activities destroying their reputation. Finally, all these trends positively impact on financial performance. Generally, suppose two firms are same in any aspect except social responsibility (one adapted social responsibility and the other ignored it), it can be expected the first firm be less negative risky and face less detrimental events (Arab Salehi et al., 1392).

The negative relationship between corporate social responsibility and financial performance is compatible with thoughts proposed by Friedman and neoclassical economists. They argue the social responsibility causes firms to bear costs in the expense of decreasing Shareholders profits and wealth. The management opportunism hypothesis is presented as a base for negative relationship between corporate social responsibility and financial performance. Based on this hypothesis when the financial performance is strong, managers decrease the costs related to social Responsibility, since by which they can increase short term profitability and their personal compensation which are linked to the short-term profitability. By contrast, when financial performance is weak, managers devote their efforts to increase costs of revealed social planning. Some researchers have been proved the existence of a neutral relationship (no relationship) between these two variables. These studies state since general positions of firm and community is complex; there is no straight relationship between corporate social responsibility and financial performance (Arab Salehi et al., 1392).

Yegane et al (1394) examine corporate social responsibility and accounting theories . Their results suggest that the factors determining corporate social responsibility in emerging and even developed economies are not comprehensive. Accounting theories failed to prove any evidences supporting managing firms to engage in reporting and disclosing social responsibility in annual reports. This theory failed to provide appropriate theoretical foundation to justify and explain corporate social responsibility.

Yegane et al (1393), examine the theoretical foundation of corporate social responsibility and its research paradigm in accounting. The results indicate that there is a positive relationship between corporate social responsibilities efforts and financial performance as a new paradigm in social responsibility studies.

Pourali et al (1393) studied the relation between social responsibility disclosure and institutional ownership in listed firms on Tehran stock Exchange. The results suggest that there is a significant negative relationship between social responsibility disclosures and institutional ownership. It shows that institutional investors are not disinterested to the social responsibility and apply it as an information source. There is no significant statistical relationship between disclosure of information related to social engagement and institutional ownership and it indicates institutional investors are against firm engagement in social activities.

Kiaii (1393) investigates the impact of ownership type on level of corporate social responsibility disclosure. He studied chemical, pharmaceutical, petroleum products and cement industries listed on the Tehran Stock Exchange during the three consecutive periods of 1389, 1390 and 1391. The disclosure level of corporate social responsibility, disclosure of corporate social responsibility model index was measured based on the disclosure model of Barzegar (1392) using content analysis of annual reports of board activities. The calculations and analysis were performed by regression using Excell and Eviews7 software. The results showed a significant relationship between institutional ownership and private ownership with disclosure

level of corporate social responsibility, but there was no significant relationship between the government ownership and disclosure level of corporate social responsibility.

Baharmoghadam et al (1392) review the relationship of corporate governance mechanisms on the corporate social responsibility disclosure. They used data panel regression method on 39 listed firms on Tehran stock Exchange during the period of 1385 to 1389. The results suggest there is a significant relationship between corporate governance mechanisms including owners' concentration, percentage of non-executive members of board of directors and auditor size and disclosure level of corporate social responsibility. So, concentration of shares in hands of major shareholders, more non - executive managers having chair in board of directors and selecting auditing corporate as auditor cause better disclosure of corporate social responsibility. If CEO is chairman or vice chairman, the disclosure level of social responsibility will be reduced. CEOs having more options and authorities decrease monitoring and effective information disclosure.

Dosky (2015) evaluates corporate social performance, ownership structure and corporate governance. Empirical evidences show that concentrated ownership has a negative effect on social performance. The main shareholder is reluctant to spend money on CSR that can benefit to all stakeholders. In contrast, dispersed ownership strengthens social performance that reflects the strong commitment of managers to CSR. This allows them to resolve conflicts between shareholders and stakeholders. It does not seem ownership type effects on CSR. The nature of the family in turn is not significant. However, the large family shareholder undermines negative effect of concentrated ownership, since these shareholders are more amenable to invest in CSR than non-family shareholders. So, family firms had goals other than economic objectives. Meantime, the level of board independence imposed a significant effect in which the social performance increases by raising the number of independent directors. These managers are representatives of stakeholders. Other used variables were not significant in assessing the appropriate governance practices.

Wanger et al (2014) investigated the ownership against the management effects on issues related to the social responsibility in the large family firms. The results showed that the ownership and management aspects of founder and family firms differently effect on the extent of the tendency to CSR. Although family ownership reduces CSR concerns, the management aspects of the founder and family firms were in the opposite direction. The Family CEOs and founder CEOs are related to the CSR concerns.

Vahba et al (2014) examined the moderating and mediating effect of the financial performance on the relationship between social responsibility and ownership structure. In this study, data panel regression was performed on the samples of all listed companies in Egypt social responsibility index during the period of 2007 to 2010. The results showed that better financial performance and social responsibility guide institutional investors in decision making.

The research hypothesis:

➢ *The relationship between corporate social responsibility and institutional investors is affected by the mediating role of the financial performance.*

The period, population and Sample

The population in this study consisted of company listed on the Tehran Stock Exchange during the period of 1387 to 1393 . In this study, a systematic elimination method is used. The sample is selected out of Stock Exchange due to following reasons:

- Accessing to financial information related to the listed firms on the stock exchange is easier.

- Specific criteria and regulations have been established regarding listing and enlisting of the firms in stock Exchange and the way of their reporting, so it seems that the information stated in financial statements of such firms is more reliable and valid, having higher quality.

- Information of listed firms on the Stock Exchange is more reliable due to monitoring and establishing certain regulations.

- If it is required, accessing to other information is available and possible.

Research methodology:

This study is applied research, which is considered correlation analysis. Since the data is real and historical; it can be said that this study is post-events and is considered as positive accounting research. Multivariate regression is applied to test hypothesis.

The research model and variables

$$ROA_{it-1} = \alpha + b_1 CSR_{it-2} + b_2 SIZ_{it-1} + b_3 AGE_{it-1} + b_4 LEV_{it-1} + b_5 DIV_{it-1} + b_6 LIQ_{it-1} + b_7 CAP_{it-1} + v_{it}$$

$$INS_{it} = \alpha + b_1 CSR_{it-2} + b_2 ROA_{it-1} + b_3 SIZ_{it} + b_4 AGE_{it} + b_5 LEV_{it} + b_6 DIV_{it} + b_7 LIQ_{it} + b_8 CAP_{it} + v_{it}$$

Dependant variable: corporate social responsibility ($CSP_{i,t}$)

In this study corporate social responsibility as the dependent variable is measured following the model proposed by Pourali and Hajjam (1393) which is defined as follow:

This variable includes four dimensions including employee relations (EMPD), community participation (COMD), production (PROD) and the environment (ENVD). Corporate social responsibility is calculated by the following formula:

$$CSP = EMPD + COMD + PROD + ENVD$$

Employee relations dimension (EMPD):

To show corporate social performance in this dimension, six following criteria are considered: a)

Environmental health of staff;

b) Staff training;

c) Employee benefits;

d) Employees characteristics;

e) Employee stock ownership;

f) Employee health and safety (ISO 180000).

This score of this dimension is calculated by the following formula:

$$EMPD = \frac{\Sigma B}{6}$$

EMPD: Score of employee relations dimension;

B: The score for each criteria of employee relations in company j;

The denominator of six indicates the criteria related to employee relations.

The community participation dimension (COMD):

To show corporate social performance in this dimension six following criteria are considered:

    1) Cash donation program;

    2) Charity program;

    3) Scholarship program;

    4) Sponsors for sports activities;

    5) Supporters of national pride; 6) Public projects.

This score of this dimension is calculated by the following formula:

$$COMD = \frac{\sum A}{6}$$

COMD: The score of community participation dimension;
A: The score for each social engagement criteria in the company j;

Denominator of Six represents the criteria related to community participation.

Production dimension: (PROD):

To show corporate social performance in this dimension the following four criteria were considered:

    1) Product safety;

    2) Product quality (ISO 9000);

    3) Product development; 4) After-sales service.

This score of this dimension is calculated by the following formula:

$$PROD = \frac{\sum C}{4}$$

$PROD$: *Score of* production *dimension;*

C: The score for each production criteria in the company j;

The denominator of six represents the criteria related to production dimension.

The environment dimension: (ENVD):

To show corporate social performance in this dimension the following four criteria were considered:

    1) Controlling air pollution;

    2) Maintenance and compensation program; 3) Conservation and

    use of recycled products; 4) Environmental Award.

The score is calculated by the following formula:

$$ENVD = \frac{\sum D}{4}$$

ENVD: The environmental *dimension;*

D: The score for each environmental criterion in company j;

The denominator of four represents the criteria related to the environment dimension.

Institutional investors:

In fact, a legal person who holds more than 5% or over 5 billion Rial nominal value of outstanding securities is categorized in this group. So, the percentage hold by these investors is determined by notes in financial statements.

Financial performance:

ROA: Return on assets.

Control variables:

FIRM SIZE: Firm size defined as the natural logarithm of total assets.

FIRM AGE: Firm life cycle, number of years the company is operating.

FLV: Financial leverage. Total debt to total assets ratio.

DIV: dividend payment per share. Ordinary shares dividends to number of ordinary shares ratio.

LOQ: Liquidity. Current assets to current liabilities ratio.

CAP: Capital intensity. The ratio between the payment of the fixed assets and total assets.

3. RESEARCH FINDINGS:

Descriptive statistics of the variables are presented in Table 1

Table 1. Descriptive statistics of variables

$$ROA_{it-1} = \alpha + b_1 CSR_{it-2} + b_2 SIZ_{it-1} + b_3 AGE_{it-1} + b_4 LEV_{it-1} + b_5 DIV_{it-1} + b_6 LIQ_{it-1} + b_7 CAP_{it-1} + v_{it}$$

Variable / parameter	Symbol	Mean	Median	Maximum	Minimum	Standard deviation	Observations
Corporate Social Responsibility	CSR	2.272	2.250	3.583	1.166	0.379	625

Return on assets	ROA	0.184	0.170	.378	-0.013	.378	625
Institutional shareholders	INS	66.436	66.890	98.050	0.000	.378	625
Firm size	SIZ	13.012	12.909	18.351	9.183	0.377	625
firm age	AGE	15.112	15.000	39.00	2.000	.378	625
Financial Leverage	LEV	0.569	0.573	0.907	0.017	.378	625
Dividend per share	DIV	189.154	185.8	5687.855	0.000	0.376	625
Liquidity	LIQ	1.387	1.230	5.161	0.201	0.384	625
Capital Intensity	CAP	0.260	0.191	.848	0.030	0.377	625

Source: Author

According to Table (1), descriptive quantity of variables is logarithm and ratio, therefore it has been able to make good homogeneity in the data. 125 firms were studied based on the firm - Year (88-92) using 625 Observations. Descriptive statistics results show that the mean and median of corporate social responsibility in firms listed on the Tehran Stock Exchange are between two and three (of four). In addition, return on assets is the only variable having negative value, which indicates that some firms did not have any gains and face losses in some years.

Inferential statistics:

The aim of this study was to evaluate the role of financial performance on the relationship between corporate social responsibility and ownership structure of listed firms in Tehran Stock Exchange. Statistical hypothesis is defined as follows:

$$INS_{it} = \alpha + b_1 CSR_{it-2} + b_2 ROA_{it-1} + b_3 SIZ_{it} + b_4 AGE_{it} + b_5 LEV_{it} + b_6 DIV_{it} + b_7 LIQ_{it} + b_8 CAP_{it} + v_{it}$$

Table 2. Chow test results (Leamer) and Hausman

Tests	Test statistics	Significant level	Test result
Chow test (Leamer)	7.465	.0000	Panel model
Hausman test	47.656	.0000	Fixed effects model
Chow test (Leamer)	27.449	.0000	Panel model
Hausman test	21.281	.0000	Fixed effects model

Source: Author

According to Chow test, significance level for all models is under 5%, so the H_0 hypothesis is rejected at 95 percent confidence and it indicates that the panel data method is more appropriate for the model fitness. In addition, since the significant level of Housman test is under 5 per cent for all models, the

H_0 hypothesis is rejected at 95 Percent and indicates that the fixed effects model is more appropriate for the model fitness.

According to the results of Chow tests, the model is estimated using fixed effects model. The results are presented in Table 3 and 4.

Table 3. The results of the first regression model

$$ROA_{it-1} = \alpha + b_1 CSR_{it-2} + b_2 SIZ_{it-1} + b_3 AGE_{it-1} + b_4 LEV_{it-1} + b_5 DIV_{it-1} + b_6 LIQ_{it-1}$$
$$+ b_7 CAP_{it-1} + v_{it}$$

The dependent variable: financial performance (ROA_{it-1})

Independent variable	Symbol	Coefficient	Standard deviation	t test (t)	Significant level	VIF	Result
Intercept		-0.060	0.038	-1.562	0.118	-	-
Corporate Social Responsibility	CSR_2	0.469	0.061	7.647	0.001	1.078	Confirmation
Firm size	SIZ_1	-0.578	0.173	-3.334	0.002	1.121	Confirmation
firm age	AGE_1	0.016	0.037	0.450	.352	1.040	Rejection
Financial Leverage	LEV_1	-0.004	0.002	-2.108	0.033	2.201	Confirmation
dividend payments	DIV_1	1.892	0.155	12.193	0.000	1.091	Confirmation
Liquidity	LIQ_1	0.040	0.009	4.049	0.004	2.084	Confirmation
Capital Intensity	CAP_1	-0.008	0.061	-0.141	0.417	1.086	Rejection
The determination coefficient (R^2)		.532		Durbin - Watson (DW)		1.913	
Adjusted determination coefficient (Adj. R^2)		0.510		F- Statistics (Significance level)		34.427 (0.000)	
Chi-Square Statistics		0.029		Significant level of Chi-Square statistics		0.837	

Source: Author

F statistic is used to review the significant level of the model. As shown in Table 3, the determination coefficient and the adjusted determination coefficient are of 0.532 and 0.510, respectively, indicating the explanatory power of the model is at a good and accepted level. Durbin - Watson statistic is equal to 1.913, and since the range of 1.5 to 2.5 is indicative of the absence of first order autocorrelation, the first order autocorrelation does not exist in the model error component. Variance inflation factor Statistics (VIF) shows the extent of co-linearity between the independent variables. The allowable value of VIF is less than 10. Since the values of the table (4-4), is less than 10, there is no co-linearity between the independent variables. Finally, F- statistic is equal to 34.427 and the probability value is equal to 0.000 since the probability value is less than 0.05, the significance of model is confirmed. According to the results in table 3 coefficients, t statistics and significant level for corporate social responsibility are 0.469, 7.647 and 0.001 respectively. It can be said there is a significant relationship between corporate social responsibility and return on assets, due to the significant level of less than 0.005. The coefficient obtained for this variable is positive, indicating that corporate social responsibility has a positive and significant relationship with return on assets in companies listed on the Tehran Stock Exchange.

The estimation results of the second regression are provided in the table 4. First, we deal with the heteroskedasticity. As it can be seen chi – square value and its probability are 0.002 and 0.942 respectively. As a result, since the probability value is less than 0.05, the null hypothesis of homoscedasticity is rejected due to the heteroskedasticity. Model is estimated using OLS model. **Table 4 The results of the regression model**

$INS_{it} = \alpha + b_1 CSR_{it-2} + b_2 ROA_{it-1} + b_3 SIZ_{it} + b_4 AGE_{it} + b_5 LEV_{it} + b_6 DIV_{it} + b_7 LIQ_{it} + b_8 CAP_{it} + v_{it}$ **Dependent variable: return on equity (INS_{it})**							
Independent variable	Symbol	Coefficient	Standard deviation	t- test	Significant level	VIF	Result
Intercept		-0.251	0.074	-3.371	0.000	=	=
Corporate Social Responsibility	CSR-2	0 0.325	.129	2.511	0.009	1.086	Confirmation
Return on assets	ROA-1	0.213	0.081	2.677	0.018	4.424	Confirmation
Firm size	SIZ	79.391	8.099	9.802	0.004	1.172	Confirmation
Firm age	AGE	6.239	3.159	1.975	0.024	1.042	Confirmation
Financial Leverage	LEV	0.870	0.298	2.913	0.006	3.066	Confirmation
dividend payments	DIV	7.118	2.622	2.714	0.014	1.743	Confirmation
Liquidity	LIQ	-1.015	1.218	-0.833	0.315	2.066	Rejection
Capital Intensity	CAP	43.569	8.589	5.072	0.034	1.087	Confirmation
The determination coefficient (R^2)	0.498			Durbin - Watson (DW)		2.061	
Adjusted determination coefficient (Adj. R^2)	0.473			F- Statistics (Significance level)		17.927 (0.000)	
Chi-Square Statistics	0.002			Significant level of Chi-Square statistics		0.942	

Source: Author

F-statistic model is used to test the significance of the model. As shown in Table 4, the determination coefficient is 0.498 and the adjusted determination coefficient is 0.473. It means that the explanatory power of the model is at a good and accepted level. Durbin - Watson statistic is equal to 2.092. Since the range of 1.5 to 2.5, is indicative of the absence of first order autocorrelation, so the first order autocorrelation does not exist in the model error component. Variance inflation factor Statistics (VIF) shows the co-linearity between the independent variables. The allowable value of VIF is less than 10. Since the tabled values (4 - 5) are less than 10, there is no co-linearity between the independent variables. Finally, F -statistics is equal 12.97 and its probability value is equal to 0.000, since its probability is less than 0.05, the significance of the model was confirmed. According to the results of table 4, coefficient value, T- statistics and significant level of corporate social responsibility are 0.325, 2.511 and 0.009 respectively. Therefore, the obtained significant level is less than 0.05; we can say there is a significant relationship between corporate social

responsibility and institutional shareholders. In addition, the obtained coefficient is positive, showing that there is an inverse relationship between corporate social responsibility and institutional shareholders in firms listed on the Tehran Stock Exchange. Furthermore, according to the results of table 4, coefficient value, T-statistics and a significant level of return on assets are 0.213, 2.677 and 0.018 respectively. There is a significant relationship between return on assets and institutional shareholders due to significance level of less than 0.05. In addition, the obtained coefficient is positive, which indicates there is a direct relationship between return on assets and institutional shareholders in firms listed on the Tehran Stock Exchange.

4. CONCLUSION

The main objective of this study was to investigate the mediating role of financial performance on the relationship between social responsibility and ownership structure of listed firms in Tehran Stock Exchange. To achieve this objective, return on assets and institutional ownership were considered for financial performance and ownership structure, respectively. In addition, the sample includes firms listed on Tehran stock exchange. Total of 125 firms was selected as sample in period of 1388 - 1392 (625 Year – firm in total) and collected data were analyzed. The results show the relationship between corporate social responsibility and institutional investors is affected by moderating role of financial performance. In this regard and in accordance with the results of this study, Vahba and Alsaiid (2015) announced better (or worse) financial performance and corporate social responsibility guide institutional investors in decision making related to the investments. Also, Mustafa Soleiman et al (2012) found different owners differently effect on firm engagement to corporate social responsibility. Kiai (1393) concluded that there is a significant relationship between private ownership and disclosure level of corporate social responsibility. Yegane et all (1393) reported a significant positive relationship between corporate social responsibility and financial performance as a new paradigm in studies on social responsibility. Kiai (1393) concluded there is a significant relationship between institutional ownership and private ownership with disclosure level of corporate social responsibility. Arabsalehi et al (1392) stated financial performance is related to the corporate social responsibility of firm to the customers and institutions available in society.

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INVESTIGATING THE FINANCIAL CRISIS ON DIVIDEND POLICIES AND CASH FLOW OF ACCEPTED FIRMS IN TEHRAN STOCK MARKET

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Abstract:

The main purpose of this research is the relation of financial crisis of 1390-1392 and dividend policies and the cash flow of the accepted firms in Tehran stock market. This is a descriptive research using library method to collect data. Statistical data were used to achieve the purpose of the research. We have used multivariable linear regression model. The study society of the research includes all accepted firms of Tehran stock market who were active in 1388-1393. The correlation results between variable of financial-currency crisis and dividend policies of the stock interest and the operational cash flow of accepted firms of Tehran stock market shows that there is a positive relation between the financial crisis and expansive crisis of distributing cash flow. There is also a negative relation between the financial crisis and the operational cash flow. It can be concluded that the accepted firms of Tehran stock market tend to expansive policies due to the lack of investing chances in the course of crisis. Thus, the whole hypothesis of the research is verified.

1 INTRODUCTION

By the end of 2007, the world experienced one of the worst financial crisis of the history, (Mian, S.,2009). From academic viewpoint, the recent financial crisis has an interesting architecture which inspires from many financial and economic backgrounds. Many studies of discovering the reasons of crisis had been taken place. Studies on the effects of financial budget on the investments during the financial crisis are restricted. They are publicly announced based upon the listed firms (Akbar, et.al, 2013). The recent financial crisis in many countries have resulted in decrease of profit and sales. It had caused many problems in financial supply for the firms. Thus, managers should take correct decisions for more/less distribution of distributed profit to prevent fundamental problems for the firm. They should try to maintain the activity of the firm and prevent reduction of its efficiency. The economy of Iran is strongly dependent to the global economy, as the import, export of Iran was 131, 68 billion dollars respectively in 2011. If we divide the sum of these two numbers to the domestic net production of the country, we can see the wide opening of the economy (/6) and its strong relation with the global economy. Thus, the consequences of the crisis are extended to the investing market and specifically the stock market through the change of business, restricting the financial resources and the

marginal profit of accepted firms. It affects the development of the investment market and the 44th principle of the constitution, by making the stockholders lose.

Natural occurrence of currency crisis hurts the balance of payments. Imbalance of payments is the beginning of currency crisis. Balance of payments consists of two main parts, namely the current account and investment account. The current account is consisted of commercial balance, service balance, income balance and transactional balances.

Commercial balance is one of the most important parts of the balance of currency account which includes the entrance and exit of the goods.

The occurrence of currency crisis in countries results in the lack of payment balance. Thus, lack of payments prepares the conditions of currency crisis. Payment balance is composed of "current account" and "investment account". The current account consists of commercial balance, service balance, income balance and transactional balance. Commercial balance is one of the important parts of the current account balance in the payment balances which includes the import and export of the goods. The balance of "investment account" is related to the international debts and commitments. Considering the above points, when you refer to the balance table or payment table of years 1389-1391, you can conclude that: payment balances of the year 1390 was more than the year 1389 by 22 billion dollars. payment balances of the year 1391 was also more than the year 1389 by 13 billion dollars. The total balance or the payment of the country in 1390,1391 was positive. The main question is that even though the payment balances of the country was positive, why did the price of currency increased significantly and the country was exposed to the currency crisis?

The trend of currency crisis begins in 1390 such that the difference of the formal price of the currency with the free market was 420 tomans. In 1391, the currency crisis was on the peak such that the same difference reached 1850 tomans in the second 6 months.

Thus, considering the fact that payment balances are appropriate, but the price gap between the official prices and the free market is increased, other variables must have played role in the currency crisis of 1391. Considering the fact that currency price had increased compare to the previous years in 1390 from 11.050 tomans to 21500 tomans, it can be concluded that 1390 is the currency crisis of Iran. Considering the abovementioned critical conditions, dividend policies and the currency flow, has special status for some beneficiaries. Potential users are eager to be aware of the ability to create currency and distribute it among the stockholders of the firm. Such information doesn't provide a clear picture of the current state of the firm, but it also provides the possibility to evaluate its future, which is highly important in the decision makings. Thus, doing an experimental test to determine the effect of financial crisis on the policies of dividened and currency flows is highly important (Gilkriest, et.al, 2015). This issue is highly important due to the using of the required information in the process of the firm and to evaluation of the market from their performance in critical conditions. Thus, some parts of the attention of the managers is pivoted on the "interest division policies and currency flow". The main challenge of this research is to estimate the relation of critical conditions in years 1390-1392 on the storing policies of the currency of the accepted firms in the stock markets of Tehran. Considering the abovementioned issues, the main challenge of this research is to determine the relation of financial crisis in 1390-1391 with the interest division policies and the currency flow of the accepted firms in stock markets of Tehran.

2 LITERATURE SURVEY

2.1 FINANCIAL CRISIS

Currency crisis is the immediate drop of the national value of the money. It is called the crisis of payment balances as well. It may be concluded from the deficiency of commercial balance or the estimate of the market about the abilities of the government in supporting the national money. Currency crisis has always

serious economic expenses for the countries including the reduction of production, unemployment, or even the bankruptcy of the banks.

2.2 DIVIDEND POLICY

The most important type of distributing stock dividend is in the form of annual cash after the approval of the general assembly of stockholders. The general assembly should consider two main points regarding the problem of distributing cash dividend: acquired earnings and the existing cash flows.

The acquired dividend doesn't guarantee the cash inflow. The firm may have some claims. It may have converted the cash flow into assets, or have paid its debts by such assets.

There are two main approaches concerning the dividend policies:

The first approach is the theory of representation. According to this theory, there is a contradiction of interest between the manager and the owner. According to the second approach, dividend policies is an expense by itself. In this case, the ability of the firm to finance is reduced, and the probability of financial problems increases. (Zhang et. Al.,2010).

2.3 MODEL AND HYPOTHESIS OF THE RESEARCH

The theoretical model of the research is based upon the financial crisis constructs as an independent variable and the ratio of dividend and cash flow as a dependent variable according to the figure 1.
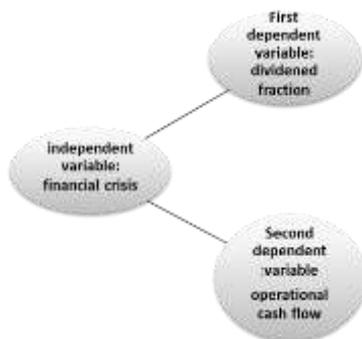
Figure 1: Conceptual model of research

Thus, the hypothesis of the research is based upon the theoretical framework and the conceptual model of the research as follows:

The main hypothesis of the research: The financial crisis has occurred in 1391-1393 has significant relation with cash flow holding policies of accepted firms in stock market of tehran.

The first hypothesis: The financial crisis in 1391-1393 has significant relation with the dividend distribution of firms in stock market.

Second hypothesis: The financial crisis in 1391-1393 has significant relation with the operational cash flows of accepted firms in stock market.

3 INTRODUCTION

Considering the fact that we have used library methods, comparative methods, and collected data to verify or reject hypothesis in inductive manner, the present study is application. We should consider the fact that we have used post-event correlation method as our current tested type of research. We have used

multivariable regression method to determine the effectiveness of our independent variables on variable ones. The sequence of the research is as follows: some sample firms were chosen. Then the required data were collected to be used for the desired model to test the hypothesis of the research by referring to the related resources. The desired criteria were estimated to test the hypothesis of the research using the data and formula for each of them. In the next part, we have used multiple regression to analyze with the model parameters. After fitting the tested regression model, the results were compared with the expected results.

And the rejection/approval of the hypothesis was determined. After the conclusion, the suggestions were proposed for users of this research.

This research is comparative/inductive. The model can construct concepts/index with logical reasoning of hypothesis to verify the observed data. (To test them with real data) In other words, in this method we can reach the whole from the parts.

The statistical society of this research includes all accepted firms in stock market of Tehran in (13881393), which were 437 firms according to the Tehran stock market. The statistics were selected by the following criteria: 1- Selecting firms who were accepted in Tehran stock market after 1388 (removing 118 firms, removing 32 firms due to the entrance) 2- Their financial period shouldn't be by the end of esfand (removing of 71 firms) 3- They should have changed their activity or having had changed their financial year (removing of 56 firms due to the investing activity). 4- Their financial records shouldn't be available in the years. (Removing of 61 firms) 5- They should have had long-term delay in dealings. The final selected firms were 99 ones.

Considering the fact that collected data were extracted out of the documents, and special formula were used to calculate indexes, to be used as a global standard, we can trust the reliability of the measurement tools.

The required data of this research were collected by the data bases, the library of stock market organization, and using novel software (www.rdis.ir) of the stock market organization. (Research management, development and Islamic studies.)

The financial records of firms were used as methodology tools which includes balance sheets, Expense account of cash flows, and notes of financial records at the end of the financial year (29th esfand). In this research, we have done preliminary computations in Excel to investigate the variables of the research, to provide data for analysis. Then, we have used EView 7 software to do the final analysis. Two regression models were used to evaluate the hypothesis of the research. (Hang, et.al., 2014) To evaluate the first hypothesis, we have used the following model:

$$DI_{it} = \beta_0 + \beta_1 * FC_{it} + \beta_2 * Size_{it} + \beta_3 * Lev_{it} + \varepsilon_{it}$$

In the above relation, DI_{it} denotes the fractional dividend of the firm, FC_{it} denotes the financial crisis criterion, $Size_{it}$ is the size of the firm, Lev_{it} is the operational cash flow, ε_{it} is the error of the model.

To evaluate the second sub-hypothesis, we have used the following model:

$$CO_{it} = \beta_0 + \beta_1 * FC_{it} + \beta_2 * Size_{it} + \beta_3 * Lev_{it} + \varepsilon_{it}$$

CO_{it} denotes the operational cash flow of the firm which is extracted out of the cash flow circulation of the firm in each operational period.

In this research, financial crisis (FC) is the independent variable which is a virtual variable having values (0,1). For crisis years (90-92) its value is set to 1 and then it is set to zero for other years. (87-88)

The fractional dividend (DI) it is obtained by dividing the approved dividend by the number of distributed stocks.

(CO) it is the operational cash flow which equals the operational cash flow. It is derived out of the division of operational cash flow to the sum of assets of the firm. Size of the firm (Size)it is the natural logarithm of the sum of the assets of the firm. The fraction of financial leverage (Levit) is computed as the division of the sum of debts of the firm to the sum of the rights of the stock holders.

In this research, we have used multi-variable regression by using combinational data. To estimate the parameters and to investigate the hypothesis of the research, the classis regression hypothesis was investigated. We have used E Views software to analyze the data in a descriptive manner and test the hypothesis of the research and to extract the regression model. To determine the used model, we have used combinational data by using chaw, hausman tests.

4 ANALYSIS OF THE INFORMATION

To analyze the collected data, we have used descriptive statistical methods, inductive methods, and drawing table. By using descriptive statistics, we have sought to further recognize our statistical society. In the first run of the model, we have used chaw, hausman statistics to determine the appropriate type of regression fitting, (combinational data with fixed and random effects) we have also used Eim, pesran, shin, lin, Levin statistics to validate the reliability of the variables.

We have then investigated the classical regression hypothesis of the model, including the normalization of the distribution of variables, independency of error distribution, normalization of the distribution of errors, inhomogeneity of variances, and independence of the independent variables. The final model was extracted in the final execution of the model considering the significance of the whole model and the significance of each of the coefficient of the final model.

The descriptive statistics of the variables of the research were investigated in the period. The descriptive statistics of the variables were measured by using 99 firms through the period of the test (1388-1393) in 594 year-firm, including average, median, standard deviation, minimum and maximum in table 1. **Table 1. Statistics of research variables**

Dev.	Min.	Max.	Med.	Aver.		Variables
288092.7	18	3769434	24538.5	99898.98	DI	First dependent variable
0.150178	0.38871	1.119475	0.109171	0.130909	CO	Operational cash flow (second dependent variable)
0.500192	0	1	0	0.484848	FC	Financial crisis (independent variable)
1.244242	9.888526	16.68593	13.4086	13.42985	Size	Size of the firm (control variable)
0.200276	0.14	1.39	0.68	0.66798	LEV	Operational cash flow (control variable)

| 27.74352 | -50.188 | 226.0616 | 11.05414 | 16.63645 | G | Growth of the firm (control variable) |

Source: Author

In the following we have investigated the statics or reliability of the research variables. In order to investigate the reliability, we have used Im, Pesaran, Shin tests (2003). Im, Pesaran, Shin tests were generalized based upon the average of Dickie fuller tests, which were shaped between sectional tests. The results of this test are illustrated in table 2.

Table 2. Im, pesaran, shim test (IPS)

p-value		W-stat	Variable
0.0000	-18.798	DI	First dependent variable: dividend fraction
0.0000	-24.540	CO	Operational cash flow (second dependent variable)
p-value		**W-stat**	**Variable**
0.0225	-1.185	FC	Financial crisis (independent variable)
0.0000	-17.489	Size	Size of the firm (control variable)
0.0000	-18.440	LEV	Operational cash flow (control variable)
0.0000	-22.004	G	Growth of the firm (control variable)

Source: Author

Considering the results of IPS tests (table 2), Hypothesis H0 shows the lack of reliability of the variables, hypothesis H1 shows the reliability of the research variables, as the significance level of each variable is less than /05.

The results of IPS tests shows that the average, variance of variables and covariance of variables were fixed in the course of time and years.

Thus, using such variables doesn't make any false regression. We have used chaw, hausman test to determine the appropriate model to estimate the regression model to test the hypothesis and determine the appropriate model (hybrid or panel with random or fixed effects)

There are personal or group effects. we should use panel data method to estimate the regression model of the research. In the following we have used hausman test to determine the kind of panel model (with random or fixed effects).

The results of the F test for the regression model of the research are shown in table 3.

Table 3. Chaw Test.

Result	Probability	F statistics	F test	Regression model
Rejection of null hypothesis	0.030	21.130	value	First regression model
Rejection of null	0.000	4.809	value	Second regression model

Source: Author

There are personal and group effects. We should use panel data method to estimate the regression model of the research. We will use hausmman test to determine the type of panel model (with random or positive effects).

To investigate the fixed effect model, each component has a fixed value. As working with each fixed value needs a virtual variable, the estimator of fixed effects is the estimator of virtual variables of minimum squares. (LSDV)

This model can be written as:

$$Y = D^{\alpha} + X\beta + u.$$

D is the matrix of virtual variables with NT*N dimension and X is a descriptive matrix of variables with dimension NT*k, β is the matrix of coefficients with dimension K*1. The latter model is a classic regression model without any new condition to analyze. The model can be estimated by OLS.

In Hausman tests, we must determine the method to estimate the model (fixed or random effects) by hausmann tets, after recognizing the fact that intercept is not same for different years.

In Hassman test, the hypothesis H0 denotes the consistency of the estimation of random effects against the H1 hypothesis which denotes the inconsistency of the estimation of random effects of the test. **Table 4. Haussman test**

Result	Probability	Statistics χ_2	Hausman test	Regression Model
Not Rejection of null	0.433	3.799	value	First research model
Not Rejection of null	0.604	1.679	value	Second research model

Source: Author

$$\chi_2$$

The results of hausman tests are seen in table 4 for the research model. The results show that statistics of the hausman tests for the first and second model of the research are respectively 1.679 و 3.799. It is not significant in trust level of 95%. It shows the lack of verification of hypothesis H1. Thus, we can fit the main regression model of the research by the panel data model by random effects method.

Before the fitting of the regression model, we have to test the hypothesis of the linear regression.

In order to investigate the normalization of the distribution of dependent variable we have used jarcoubra tests. The output table of this test is shown in table 5 by Eviews software. Considering the above table and jarcoubra test, we can verify H0 test, given the fact that significance level of the variable is more than /05. Thus, we can say by 95% for sure that dependent and independent variables of the research have normal distribution.

Table 5. Jarkubra test

Result	Significance	Jarcubra	Variable	
Normal distribution	0.092	1.375	DI	Fractional dividened (first dependent variable)
Normal distribution	0.189	7.706	CO	Operational cash flow (second dependent variable)
Normal distribution	0.765	9.900	FC	Financial crisis (independent variable)

Result	Significance	Jarcubra		Variable
Normal distribution	0.484	1.452	Size	Size of the firms (control variable)
Not Normal distribution	0.0000089	23.333	LEV	Operational cash flow (control variable)
Not Normal distribution	0.0005768	3157.005	G	Growth of the firm (control variable)

Source: Author

By considering the error-independent test, we can see that the statistics of Watson camera together with the critical values has 1% error level as shown in table 5. Considering the computed statistics of the Watson camera is greater than the regression model of the research in /05% error-level, we have verified the lack of serial correlation of residue in regression model in the significance level of /05.

As we have used two regression model to evaluate the two hypotheses, the above models are as follows:

The first model to evaluate the first hypothesis:

$$DI_{it} = \varphi_0 + \varphi_1 * FC_{it} + \varphi_2 * Size_{it} + \varphi_3 * Lev_{it} + \varphi_4 * G_{it} + \varepsilon_{it}$$

Second model to evaluate the second hypothesis:

$$CO_{it} = \varphi_0 + \varphi_1 * FC_{it} + \varphi_2 * Size_{it} + \varphi_3 * Lev_{it} + \varphi_4 * G_{it} + \varepsilon_{it}$$

In the following, the test of independency of errors in the main model is shown in Table 6 as follows. **Table 6. Error independent test**

Watson camera statistics	Critical values (error 1%)		Regression model
	Dl	Du	
2.277	1.244	2.756	First regression model
1.697	1.481	2.572	Second regression model

Source: Author

The distribution of errors in the model has normal distribution considering the jarkue-bra statistics.

Considering the collinear test between independent variables, tolerance of independent variables was more than /2. The inflation factor of variance is close to 1. (Much less than 5) Thus, we can verify the hypothesis of the lack of collinearity between independent variables.

Table 7. Colinear test between independent variables

Inflation variance factor	Tolerance	Variable name

Inflation variance factor	Tolerance		Variable name
2.707	0.63	FC	Financial crisis (independent variable)
2.127	0.53	Size	Size of firm (control variable)
Inflation variance factor	**Tolerance**		**Variable name**
3.448	0.71	LEV	Operational cash flow (control variable)
2.631	0.62	G	Growth of the firm (control variable)

Source: Author

The results of inhomogeneity test of variances is shown in Table 8.

Table 8. Results of inhomogeneity of variances

Test result	P-value	White statistics	Description
Lack of inhomogenity	0.639	0.632	First regression model
Lack of inhomogenity	0.057	2.302	Second regression model

Source: Author

The results of Brause-pagan-godfree test is shown in table 8. The results show that F statistics is not significant in each of the models in error-level of /05. Thus, the zero hypothesis of the lack of inhomogeneity of variances is proved among the data of the model in error-level of /05.

4.1. THE TESTS OF THE HYPOTHESIS OF THE RESEARCH

In this research, we have used the following regression model to test the first hypothesis.

$$DI_{it} = \alpha_0 + \alpha_1 * FC_{it} + \alpha_2 * Size_{it} + \alpha_3 * Lev_{it} + \alpha_4 * G_{it} + \varepsilon_{it}$$

After testing the hypothesis of the regression model and making sure of its holding, the results of fitting the equation of the above regression for productive firms is shown in Table 9. The statistics of F (15.946) shows the significance of the whole regression model.

As evident in the lower part of table 9, the determining coefficient and the modified determining coefficient of the model are 63.9 and 62.2 respectively.

Thus, it can be concluded that in the above regression equation, 62.2% of the variation of the fractional dividend of the firm are related to the control or independent variables. In this table, positive (negative) numbers in the coefficient column show the direct (reverse) effect of each variables on the fractional dividend of the firm.

Table 9. Results of fitting the first regression equation

Significance level	Statistics t	Value of the coefficient	Variable coefficient	Variable
0.466	0.730	102772.900	α_0	constant
0.043	2.085	401.995	α_1	FC
0.724	0.353	3654.701	α_2	SIZE
0.094	-1.679	-99871.120	α_3	LEV
0.511	-0.658	-284.600	α_4	G
Significance level	Statistics t	Value of the coefficient	Variable coefficient	Variable
15.946	Statistics of F		0.639	Determination coefficient
0.0003	Significance (P-Value)			Modified determination coeffcient
2.276	Watson determination coefficient		0.622	

Source: Author

The main hypothesis of the research: The financial crisis in 1391-1393 has significant relation with the holding policies of cash flow of the accepted firms in Tehran stock market. We have used two secondary hypotheses in this research as follows:

The first sub-hypothesis: The financial crisis in 1391-1393 has significant relation with the fractional dividend of the accepted firms in Tehran stock market.

Considering the findings of the table, it can be said that significance level of the coefficient of the effect of the financial crisis (FC) is less than the first estimated type of the error level (/05) = 0/042(p-value)

Thus, it can be said that the effect of financial, currency crisis in years 91-93 has been significant on the fractional dividend of the accepted firms in Tehran stock market.

Considering the positive regression coefficient (401.99), it can be concluded that currency and financial crisis have direct and positive effect on the fractional dividend.

It can be concluded that during financial crisis and lack of proper conditions of investment, the firms move toward the expanding policies to distribute the dividend in cash. Thus, the dividend in cash among the shareholders may be increased during the financial crisis, and the first hypothesis is verified.

Second sub-hypothesis: The occurred financial crisis in 1391-1393 has significant relation with the cash flow of accepted firms of Tehran stock market.

We have used the following regression model to test the first hypothesis of the research.

$$CO_{it} = \alpha_0 + \alpha_1 * FC_{it} + \alpha_2 * Size_{it} + \alpha_3 * Lev_{it} + \alpha_4 * G_{it} + \varepsilon_{it}$$

After testing the hypothesis of the hypothesis of the regression, and making sure of their holding, the results of the fitting of the regression equation is represented for production firms for table 9.

F statistic (23.470) shows the significance of the whole regression model. As seen in the lower part of the table 10, determining coefficient and the modified determining coefficient are respectively 71.3% and 70.7%. Thus, it can be said that only 70.7& of the whole variation of the operational cash flow ratio is due to the independent and control variables.

In this table, positive (negative) numbers in the coefficient column show the direct(inverse) effect of each variables on operational cash flow of the firms.

Table 10. Results of the fitting of the second regression equation

Significance	Statistics of t	Value of the coefficient	Variable coefficient	Variable
0.0409	2.049	0.226	α0	constatnt
0.0129	-3.520	-0.072	α1	FC
0.3909	-0.859	-0.007	α2	SIZE
0.9631	0.046	0.0012	α3	LEV
0.0121	2.517	-0.0005	α4	G
23.470	statistics F		%71.3	Determination

Significance	Statistics of t	Value of the coefficient	Variable coefficient	Variable
0/0063	Significance (P-Value)		%70.7	converted determination coeffitient
1.697	Watson camera statistics			

Source: Author

Considering the findings of table 10, significance level of the variable of financial crisis variable (FC) is less than the estimated error of the first type (/05) (p-value= 0.012)

Thus, it can be said that the effect of financial-currency crisis of the country in 91-93 on operational cash flow of the firms of Tehran stock market has been significant. Considering the negative regression coefficient effect (-/072), we can say that financial-currency crisis of the country has negative, direct effect on the operational cash flow of the firms. It can be said that in if there is any financial crisis in the accepted firms of Tehran stock market, the operational cash flow reduces. As it can be concluded from the first hypothesis, in financial crisis, the operations of the firm will be reduced due to the variations and lack of proper investment environment. Thus, the cash flow of operational activities will decrease as well, thus we can accept the second hypothesis of the research. It must be pointed out that the main hypothesis of the research is achieved.

5. CONCLUSION

The financial crisis of the recent years has occurred in most countries of the world. It causes the reduction of sales and profit of many firms and many financial troubles as well. Thus, the managers should take appropriate decisions to prevent fundamental problems of the firms and to maintain the activity and prevent the reduction of customers of the firms. This research tries to investigate the effect of financial crisis on dividend policies and cash flow current of the accepted firms of Tehran stock market. Such evaluation is based upon the analysis and correct conclusion of collected data and information, to obtain reliable results with an analytic approach. Thus, we need an experimental test to determine the effect of financial crisis on

the investments of the firms. The main question of the research is that: is the financial crisis of 1391-1393 has significant relation with the cash flow holding policies of the accepted firms in Tehran stock market?

First secondary hypothesis: The financial crisis of 1391-1393 has significant relation with the dividend of the accepted firms in Tehran stock market.

Considering the findings of the table, we can see that significance level of the coefficient of the effect of financial crisis variable is less than the error level of the first type (/05) = 0/042(p-value)

Thus, it can be said that the effect of financial crisis of the country in 91-93 has significant effect on the dividend of the accepted countries in Tehran stock market. Considering the positive regression effect coefficient (401.99) we can say that financial crisis has positive effect on the ratio of dividend of the deposit. It can be concluded that in the course of financial crisis, the firms move toward expansive policies to distribute the cash dividend, to increase the cash dividend among shareholders during financial crisis. Thus, the first hypothesis is accepted. The results of the evaluation of the first hypothesis is consistent with the previous researches like fausberg. (2012)

The secondary sub-hypothesis: The financial crisis of 1391-1393 has significant relation with the cash flow of the accepted firms of the Tehran stock market.

The significance level of the effect coefficient of the financial crisis (FC) has been less than the estimated error level of the first type (p-value = 0/012(

 Thus, it can be said that the effect of financial, currency crisis in the country in 91-93 has been significant on the operational cash flow of the accepted firms in Tehran stock market. Considering the negative regression coefficient (-/072) , it can be concluded that financial, currency crisis of the country have negative, direct effect on the operational cash flow of the firms. It can be said that in the accepted firms of Tehran stock market, the operational cash flow reduces. As concluded in the first hypothesis, due to the instant variations and lack of proper investment conditions, the operations of the firm will experience depression, to reduce the cash flow of operational activities. Thus, the second hypothesis of the research is accepted.

The results of the evaluations of the second hypothesis is consistent with the results of the previous researches of Fausberg (2012),(2013).

Considering the results of the research, we have the following suggestions:

Considering the discovered relation between the occurrence of financial crisis and the short-term, longterm level of cash holding of the sample firms, it is suggested that active firms of Tehran stock market pay attention to the critical conditions and the interest of stock holders to make deal. And evaluate its effects in the analysis of their investments. Thus, the results are helpful to prevent the critical conditions inside the organization and firms of stock market. The attention of regulating institutions including the organization of stock holding, investment institutes of Iran, investment firms, and all participants of investment market to the relations between the effects of financial crisis and holding level of cash flow of the firms, can be helpful for many decisions.

The results of the present study can be helpful in the analysis of the behavior of the managers, owners and its effects on the decisions of cash holding and dividend policies.

For future researches concerning this research, the following issues are suggested:

The issue of the research can be investigated separately in each of the industries separately. It is expected that considering the different behavior of firms in different industries, different results should be obtained. The subject of the current study is should be investigated and compared with the following subjects: evaluation of the effect of financial crisis on other basis of financial circulation, or on the other separated samples of the active firms in stock market based upon the commercial cycle (depression and expansion)

the stages of life cycle (growth, maturity, depression) of the accepted firms in Tehran stock market or the separated samples based upon the size of accepted firms in Tehran stock market to small and big groups.

The main restriction of this research which must be considered for interpretation of the findings of the research and its generalization, is the lack of variation of financial year, availability of required information of the variables etc. Considering the temporal availability of this research, (1388-93), and the fact that the sample firms doesn't represent the whole economic unit of the country, based upon the size, organizational structure, type of products, and type of industry, generalizing the finding should be with care

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ORIGINAL RESEARCH PAPER

STUDYING THE EFFECT OF HUMAN RESOURCE STRATEGIC MANAGEMENT ON IMPROVEMENT OF HIGH INVOLVEMENT HUMAN RESOURCE STRATEGIES IN ADMINISTRATION OF THE IMAM KHOMEINI RELIEF COMMITTEE OF PROVINCE OF FARS IN 1395

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Abstract

General goal of this research is determining the effect of strategic management of human resource on improvement of high involvement human resource strategies in administration of the Imam Khomeini Relief Committee of province of Fars in 1395. It is a descriptive correlative research. Statistical society of this research is all of the staff of administration of the Imam Khomeini Relief Committee of province of Fars (230 people). Size of sample was about 140 people by use of Morgan table. Method of stratified sampling which is proportional to size was used for selecting the number of statistical sample (number of people that are busy in any assistance of administration of the Imam Khomeini Relief Committee of province of Fars). Descriptive statistics (mean and standard deviation) and statistical inference (correlation coefficient of Pearson, path analysis) were used for data analysis. 16 version SPSS software was used for statistical analysis of data. Human resource strategic management has a direct and positive effect on high involvement human resource strategies. It is equal to 75%. It is meaningful in level 0.05 based on t= 13.17. Human resource strategic management has a direct and meaningful effect on high involvement human resource strategies.

JEL classification: J24, J39

Keywords: *human resource strategic management, high involvement human resource strategies, managers.*

1. INTRODUCTION

Rapid environmental variations, globalization, competition, providing goods and innovative services, customer expectation variations and investors demands and high standards of organizations because organizations improve their performance by minimizing the costs, improving the quality and diversification of services and goods and have a more effective competitive market (Ekjuoori, Mirkalani,1391). Nowadays, one of the most important challenges of human resources is communication and coordination between human resource strategies and upstream strategies (such as business strategy). Fundamental and applied researches created a new and nascent domain to response the so-called challenges. This new and nascent domain comprises concepts, theories and patterns of human resource strategic managements and human resource strategies (Mitchell et al, 2013).

Recent researches considered human resource strategic management as a factor of increasing competitive advantage. Staffs also test their own approach, process and viewpoint by organizational strategic programming widely. Human resource strategic management is a method of decision making about objectives and initiatives of organization. These objectives and initiatives of organization are as following:

employment relations, staffing, training, rewards, policies and methods related to staff relations. Human resource strategic management also study relationships between human resource management and corporation strategic management, human capital requirements and process capabilities development (ability of working effectively). Overall, human resource strategic management pay attention to each human problem; each human problem which affects organizational strategic plan or is affected by it (Ekjuoori, Mirkalani, 1391).

Human resources are known as the most important organizational resources. When they are effective, they are accompanied the strategic management viewpoint. As Minzberg (1992) emphasized human resource strategy is not necessary result of thought. It is an organizational behavioral pattern that relates human resource management. It is itself introducer of human resource strategy in human resource management. Approach of human resource strategic management points to applying modern techniques and methods. Organization can respond well to an unstable environment according to these modern techniques and methods. Organization can mobilize human resources in order to get competitive advantage. Human resource enterprise management faces various problems by increasing of global competition and 1990s measurements for minimizing the costs and quality improvement. Legitimacy of human resource unit (staffing unit) is based on the following statement since its appearance. Organization operates as a shield for the main technology. It prevents strengthening suspicious phenomena that prohibit homogeneity of human force. It is a shield against unstable labor market and militant movement of labor union. Managers were not very interested to the origin of these suspicious phenomena in this decade. They paid more attention to quality, flexibility and unique competences (as the main sources of competition advantage). In fact, influential management consultants and application methods researchers focus on human resource strategic management and organizational strong culture plan in earlier years of 1980s (ex, Deill, Condi, 1982; Ouchi, 1981; Pitterz, Waterman, 1982). These writers discovered that effective human resource management can guarantee quality. It is effective from the viewpoint of competitive advantage. For example, Pitterz & Waterman (1982) enumerate eight characteristics for getting benefit from people. It means that staffs are the main source and root of quality improvement and efficiency and man power is the main source of process of increasing of efficiency and a type of investment. Two important dimensions can differentiate human resource strategic management from traditional methods of staff management based of the viewpoint of Rite, Mc Mahan (1992). Mitchell et al. (2013) argued that human resource strategic management causes improvement of ability- motivation-opportunity of success of staff (high involvement human resource strategies) which in turn leads to improvement of organizational performance. Their research studies moderator variable of delegation of authority in the relationship between human resource strategies and high involvement human resource strategies. Findings of their research show that delegation of authority improves human resource strategies. Relationship between human resource strategic management and high involvement human resource strategies is not studied in the previous researches. A few of researches studied the relationship between literature about high involvement human resource strategies and human resource practitioners' strategy. The main topic of this research is as following: Are factors of human resource strategic management effective on high involvement human resource strategies in administration of the Imam Khomeini Relief Committee of province of Fars?

HUMAN RESOURCE STRATEGIES AND ORGANIZATIONAL PERFORMANCE

Human resource management attends the effect of human source strategies on organizational performance very much (Boxall, Macky, 2007). Resource-based view RBV of corporation is reason of importance of human resource and effective management presents human resource as a stable competitive advantage (Barani, Right, 1997; Right, Doonford, Osnel, 2001). It emphasized on effect of human resource strategies on human capital within organization so that organization successes. Nature of relationship between high involvement human resource strategies and organizational performance has been converted to the focus of attention of field of human source strategic management based on resource view (Boselie et al.,2005). There are considerable evidences about the relationship between high involvement human resource strategies and financial performance of organization. There are also considerable evidences about the upward mobility or

promotion of scope of high involvement human resource strategies, productivity and as a result, financial performance of organization. Human resource strategies which promote ability, staffing and training have a direct effect on executional ability of employee by knowledge, skills and abilities (Katou, Budhwar, 2010). Selective staffing is used for recognizing applicants that their abilities are confirmed with organizational needs (Hosleed, 1995). Providing comprehensive training can conduct skillful employees with abilities that are adequate the special necessities of developing organizational technologies (Arthur, 1994). Human resource strategies which promote motivation links employee's productivity and high involvement human resource strategies are seen in previous models. For example,

Bet (2002) proposed motivation dimensions of high involvement work systems (HIWS). These dimensions are as following: relatively high payment and commitment to job security. Guest (1997) presents some evidence in order to support the relationship between performance-related payment and promoted motivation of employee. Other so-called promoted motivation strategies in the literature of human source strategic management are as following: formal performance appraisal, skill-driven payment and group-driven payment. All of them are related to organizational performance (Guthrie, 2001; Huselid, 1995). Final taxonomy of high involvement human resource strategies and promotion opportunity strategies also has a positive relationship with organizational output. If businesses are not structured well, employee's performance is limited to high skill and motivation (Tsai, 2006). When a work environment is suggested to employees that support them and provide a participation opportunity for them, they work better and have a high efficiency (Boxall, Purcell, 2003).

Since publication of first work in mid-1990s that was about the relationship of high involvement human resource strategies and organizational performance, considerable global researches were done (Beker, Gerehat, 1996; Huselid, 1995). Generally, empirical studies that are about the relationship between high involvement human resource strategies and organizational performance showed that human resource strategies relate measures of organizational performance (Wright, Kehoe, 2008) and it is the base of promotion of scientific benefits for writers. The scientific benefits that can be accessed by high involvement human resource strategies than employees control driven strategy (Tsai, 2006). Most of the empirical researches showed the effect of high involvement human resource strategies on a spectral of organizational performance indicators such as financial performance (Huselid, 1995), employees productivity (Guthrie, 2001), turnover rate (Arthur, 1994; Vandeberg, Richardson, Eastman, 1999) and absence rate (Marks et al.,1986; Wood, De Menezes 1998).

ROLE OF HUMAN RESOURCE STRATEGIES, HIGH INVOLVEMENT HUMAN RESOURCE STRATEGIES AND FINANCIAL PERFORMANCE

Dessler, Griffiths, Lloyd-Walker (2007) suppose the role of human resource strategies as a full participant of development and operation of organizational strategies. This role requires support of innovations of human resource strategic management by human resource managers with unidirectioning human resource goals, strategies, goals and executing business strategies (Andersen, Cooper, Zhu, 2007). It also requires participation of human resource managers in strategic business planning process (Sheehan, 1995). It means that human resource managers have an active role in both of strategy formulation and strategic execution of a role (DeCieri et al, 2008).

One of the most important duties of human resource managers is creating human resources as a permanent competitive advantage resource in a strategic programming role (Barney, Wright, 1997; Becker, Gerhart, 1996). It implies the participation of human resource strategies in organizational performance by strategic decision-making process (Huselid, 1995). Delery, Doty (1996) recognized seven strategies in their meta-review. They are mapped as high involvement human resource strategies. These strategies relate to organizational performance theoretically and empirically. These strategies comprise ability strategies such as training systems, motivation factors such as results-oriented appraisal, and opportunity factors such as employee participation programs.

One determinant driven of adopting human resource strategies is perceiving of human resource strategic management as a legitimate mechanism of promotion of organizational performance. It is possible that practitioners who have a legitimate strategic role because of their hierarchical position in an organization, have authority, opportunity and references for search and adopting innovative high involvement human resource strategies (Gooderham, Nordhaug, Ringdal,1999; Jennings, 1994). Expertise in high involvement human resource strategies has a same importance as a human resource practitioner that leads to perception of individual competence (Walton, Allen, Gaffney, 1978). It can in turn promote the ability of gathering valuable information and affect other strategic decision makers (Kane, 1994). So, a legitimate human resource strategic role causes credibility of human resource innovations (Bennett, Ketchen, Schultz, 1998; Galang, Elsik,Russ, 1999). Researches show that when legitimation of human resource manager is known as a permanent strategic partner, this subject increase influence on resource allocation and decision making authority. Possible benefits are more resource allocation and increased authority that provide more opportunity for more accepting of high involvement human resource strategies (Coopey, Keegan,Emler, 1998; Galang et al., 1999; Kanter, 1988). This matter is as the same as previous researches. It shows that senior management has a key role in recognizing innovations and priorities of human resource, references and their support (Bear, 1997; Kane, 1994).

 The relationship between human resource strategic role and execution of high involvement human resource strategies in accepting innovation champion is also supported in researches. Previous researches present some witnesses about importance of champions in successful acceptance of new human source strategies (Frost, Egri, 1991; Kanter, 1983). Expert of human resource is known as a champion. He/she stimulate to create new policies and strategies for creating human resource capabilities. It is possible that it leads to high rate of high involvement human resource strategies (Howell, Higgins, 1990). HR strategic practitioner is mapped as an organizational variation factor- He/ she is a practitioner who wants to improve his/her skill in order to recognize human resource innovations, execute and control them to promote the organizational performance (Beatty, Schneier, 1997; Russ, Galang, Ferris, 1998). So, relationship between human resource practitioners and strategic role is known as a vital element that affects acceptance of high involvement human resource strategies, although it is not studied very much.

2. LITERATURE OVERVIEW

Efje et al. (1388) had a research, entitled," **the relationship between human resource strategic management and companies' performanc**e". Findings of this research showed that companies that follow the activity of human resource strategic management have a better performance than companies that don't follow the activity (traditional companies) and use of measures and principles of human resource strategic management will improve companies or corporation's performance.

Bahrami et al. (1390) had a research, entitled," studying the simple and multiple functions of human resource strategic management and technical innovation in state university of province of Isfahan". Analysis of data showed that mean of scores of functions of human resource strategic management and technical innovation in state university of province of Isfahan were below the average and there was a statistical meaningful correlation between functions of human resource strategic management and technical innovation. β Coefficients between functions of human resource strategic management and technical innovation were statistically meaningful; there was no linearity between them and regression model was meaningful. There was a meaningful difference between member's opinion about the relationship between functions of human resource strategic management and technical innovation based on demographic characteristics. Bahrami et al. (1391) had a research, entitled," studying the simple and multiple functions of human resource strategic management and administrative innovation in Isfahan University of Medical Sciences and its other universities. Mean of scores of functions of human resource strategic management and administrative innovation in state university of province of Isfahan were below the average. On the other hand, there was

a multiple meaningful correlation between functions of human resource strategic management and administrative innovation. β Coefficients between all of the functions human resource strategic management and administrative innovation were statistically meaningful and variance inflation coefficient of predictive variables was at least equal to 1.33-2.75. It showed that there was no linearity between them and regression model was meaningful. Kafami et al. (1391) had a research, entitled, "determining the correlation level between delegation of authority and job satisfaction of nurses". However, we need more researches in this field. Hatami (1391) had a research, entitled, "studying the effect of delegation of authority on human resource productivity in region1of Islamic Azad University by model of Hersi & Goldsmith". Results showed that there is a direct and meaningful relationship between delegation of authority and some of the taxonomies such as capability, organizational support, rules validity and organizational decisions. Hasani, Nemati (1394) had a research, entitled, studying the relationship between programs of human resource strategic management and capability of staff. Results of this research show the importance of attending the effect of human resource strategic management and capability of staff.

Theodosiou et al (2012) had a research, entitled, "strategic orientation, marketing capability and companies' performance: empirical investigating directors of the front line". They studied the relationship between strategic orientation and companies' performance by considering the mediating effect of marketing capability. Effects of environmental forces and organizational characteristics in decision making were studied after beneficial strategic orientations. Writers concluded that volatility in market, intensity of competition and decentralization plays an important role in determining the priorities of strategic management by gathered data of managers of 316 branches of banks.

3. METHODOLOGY

Main hypothesis of research: There is a positive relationship between human resource strategic role and high involvement human resource strategies.

The present research is a descriptive- correlative research from the view point of functional or applicative goal and method of gathering data. Statistical society of this research comprises all of the staff of administration of the Imam Khomeini Relief Committee of province of Fars in 1395. Number of these staff was about 230 ones. Table of Morgan was used for determining the sample size according to the number of statistical society. Estimated sample was about 140 ones by this table. Stratified random sampling proportionate with volume was used for selecting the number of statistical sample (The number of ones who are busy in each office of assistant of administration of the Imam Khomeini Relief Committee of province of Fars). Data of 140 questionnaires were analyzed. Three questionnaires were used in this research.

QUESTIONNAIRE OF HUMAN RESOURCE STRATEGIC MANAGEMENT LEU (2006)

Standard questionnaire of human resource strategic management Leo (2006) comprises of 27 questions. Goal of this questionnaire was studying the methods of human resource activities in organization. This questionnaire is based on Likert scale (1-very high; 2- high; 3- intermediate; 4-low; 5- very low). If the scores of questionnaire are between 27-52, the rate of human resource strategies are law in the society. If the scores of questionnaire are between 52-76, the rate of human resource strategies are intermediate in the society. If the scores of questionnaire are more than 76, the rate of human resource strategies is very good. Stability of the questionnaire of Darvish et al (1391) was 83% by Cronbach's alpha coefficient test.

Questionnaire of high involvement human resource strategies:

This questionnaire is a combination of three questionnaires of staff capability of Haji zadeh (1384), staff motivation of questionnaire of Hakman & Oledham (1976) and staff advance opportunity of questionnaire of Haiyan et al (2011).

Staff capability of Haji zadeh (1384):

Questionnaire of staff capability comprises of 17 questions that has a five Likert spectrum. If the scores of questionnaire are between 17-34, rate of efficiency of staff is low in this society. If the scores of questionnaire are between 34-51, rate of efficiency of staff are in an intermediate level. If the scores of questionnaire are higher than 51, rate of efficiency of staff is very well. Stability of this tool by Haji zadeh, Hamed (1384) was 83% by Cronbach's alpha coefficient test.

Staff motivation of Hakman, Oledham (1976):

Questionnaire of staff motivation comprises of 15 questions from the viewpoint of staff of Hakman & Oledham. **Diversity of skill**: Diversity of skill points to development of staff occupation needs that are used for successful job or career. Questions (1, 6, and 11); **Professional identity**: professional identity means doing a specific job by staff. It means that they begin their job by raw material or information and finish their work by a product that is prepared by a customer or other individual or group in the corporation. Questions (2, 7, 12). **Job importance**: Job importance points to contact of someone with other people. When job or occupation of someone is important, what he do leads to more successful performance of this job than other jobs. Questions (3, 8, 13). **Independence**: A job is independent that has freedom in decision-making, supervisor independence, methods of indexing occupational duties and method of jobs implementation. Questions (4, 9, 14). **Job feedback**: Feedback refers to the ability of an employee in discussing about implementation of job customarily or does the job (duty) has been done efficiently or not (Jozi, 1388). Questions (5, 10, 15).

Staff advance opportunity of haiyan et al (2011):

Questionnaire of haiyan et al (2011) entitled, studying the path of job advancement of organization's individual comprises of 11 questions and three taxonomies of appraisal, development and training. This questionnaire has three dimensions of appraisal, development and training. This questionnaire has a five Likert spectrum from very low (score1) to very high (score5). Stability of this questionnaire by Rezaian (1390) was 89% by Cronbach's alpha coefficient test.

Table1. Cronbach's alpha variables

Cronbach's alpha	Variables
0.78	human resource strategic management
0.81	high involvement human resource strategies

Source: Authors

FINDINGS

75%, 25% of 140 studied employees in this research were respectively male (105 men) and female (35 women). Mean and standard deviation of age of staff are 37.80, 11.26 respectively. 30, 70, 33, 7 of 140 studied employees in this research were respectively Diploma and associate of arts (21%), bachelor (51%), Master of Arts (or sciences) (23%) and P.H.D (5%). So, we can say that most of the participants in this research had degree of bachelor according to above table. Mean and standard deviation of work experience of all of the participants were respectively 13.59, 7.16.

Strategic management variables are respectively positive and negative according to skewness and kurtosis: Strategic management variable are at the intermediate level. Research variables are approximately between -1, +1 according to values of skewness and kurtosis. Distribution of all of the variables is normal.

D escriptive statistics of research variables in sample group (n=140))

Results of table 3 are the results of Pearson correlative coefficient. There is a positive and meaningful relationship between human resource strategic management and high involvement human resource strategic management ($p < 0.001$).

Table 2. Descriptive statistics of research variables in sample group (n=140)

Kurtosis	Skewness	High limit	Low limit	df	t	Standard deviation	Mean	No	Dimensions
-1.05	-0.448	96.83	88.69	139	45.06	24.35	92.76	140	Strategic management
-1.53	-0.437	105.68	90.16	139	24.94	45.46	97.92	140	motivation
-0.924	-0.171	53.87	47.15	139	35.22	17.13	51.01	140	Efficiency
-1.62	-0.152	42.18	38.38	139	41.87	11.38	40.28	140	Opportunity
-1.58	-0.419	201.20	177.23	139	29.12	71.71	189.22	140	high involvement human resource strategies

Source: Authors

Table 3: Correlative coefficients between IT and comprehensive quality management and performance

4	3	2	1	Variable
			1	1-human resource strategic management
		1	0.150**	2-motivation
	1	0.823**	0.669**	3-efficiency
1	0.858**	0.730**	0.764**	4-opportunity
0.801**	0.755**	0.698**	0.668**	5- high involvement human resource strategies

**p < 0.001

Source: Authors

Main hypothesis of the research: Human resource strategic management has a positive and meaningful effect on high involvement human resource strategies. Human resource strategic management has a direct and positive effect on high involvement human resource strategies. It is equal to 75%. It is meaningful in level 0.05 based on t= 13.17. So, the main hypothesis is approved.

Table 4: Effect of human resource strategic management on high involvement human resource strategies

	R	R Square	Unstandardized Coefficients		Standardized Coefficients	t	sig
			B	Std. Error	Beta		

Effect of human resource management on human resource strategies	.759*	.577	2.236	.163	.759	13.71	.000
Effect of motivation on human resource management strategies	.692a	.478	1.667	.119	.698	12.89	.000
Effect of efficiency on human resource management strategies	.863a	.744	4.223	.180	.836	15.01	.000
Effect of opportunity on human resource management strategies	.640a	.41	1.210	.110	.621	12.01	.000

Source: Authors

4. CONCLUSION

Results show that human resource strategic management has a positive and meaningful effect on high involvement human resource strategies. Positive and direct effect of human resource strategic management on high involvement human resource strategies is equal to 75%. It is meaningful in the level 0.05 according to the value (t= 13.71) according to the findings of the present research. So, the first hypothesis of this research is approved. Mitchell et al (2013) assessed theoretical foundations of high involvement human resource strategies based on three dimensions of capability, motivation and opportunity of professional development of staff.

Results of the current research are compatible with researches of Mitchell et al (2013) and Mir aghaii (1393). Programs of human resource management such as support of human resource teams, rotation of individuals in human resource unit and training will promote staff capability. Human resource talents, substitution of senior positions in other units can increase motivation and development opportunity of staff.

Development and implementation of human resource strategic management programs able human sources to develop their performance. Findings of research of Mitchell et al (2013) showed that human resource strategic management lead to high involvement human resource strategies in process of strategic programming. These strategies are useful for promotion of employee's capability, increasing of job motivation and increasing of participation and involvement.

Human resource strategic management has a positive and meaningful effect on delegation of authority of managers has and positive and direct effect of human resource strategic management on delegation of authority of managers is equal to 63% and it is meaningful in the level 0.05 according to the value (t= 9.72)

according to the findings of the present research. Researches of Mitchell et al (2013) were only similar to previous researches. So, results of this research were limited to the results of other researches in comparison.

The present research was unidirectional the research of Mitchell et al (2013). As it is noted, delegation of authority is inevitable in import organizations especially giant organizations but managers, who pay necessary attention to ability and talent of subordinates, are more successful in applying principles of delegation of authority. It also conducts them toward higher goals by training and participating them in implementing the duties of responsibility of organization better than any time. Delegation of authority is known as one of the most important management software that is vital for organization. Delegation of authority should be based on organizational structure, organizational goals and mission, organizational centralization and decentralization, organizational expertise and profession.

Finally, we can say according to the results of path analysis that the research hypothesizes are approved. On the other hand, the direct effect of human resource strategic management on high involvement human resource strategies is approved.

RECOMMENDATIONS

Human resource managers can improve motivation, efficiency, staff development opportunities and at last staff performance by support of team works, training, empowerment programs and paying attention to correct and efficient human resource information systems according to the role of human resource strategic management in improvement of high involvement human resource strategies.

Current situation of human resource strategic management is in the low level from the view point of staff. Managers should support this variation of management by their decision making and decrease human resource service costs and human resource rate staff and provide possibility of online human resource consultation.

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THE ROLE OF KNOWLEDGE MANAGEMENT STRATEGIES IN JOB SATISFACTION (CASE STUDY: THE AIRLINE AND AVIATION INDUSTRY)

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Abstract

This study has examined the relationship between knowledge management strategies and job satisfaction (Case study: airlines and aviation industry). This study is an applied and descriptive-survey research through field method using a questionnaire. The study population is consisted of airlines and aviation industry experts in Tehran city including 4275 people, among them, 211 subjects were selected as the sample using the Cochran formula by simple random sampling. Structural Equation Modeling and Partial Least Squares (PLS) approach were used by Smart pls.2 software to analyze the data. The results showed that the model created for the influencing factors, has good fitness. The factor loadings achieved for the observed variables were higher than 0.5 and constructs had good reliability and validity. The findings also showed that the research main hypothesis based on that 'knowledge management affects job satisfaction' was accepted with a probability of 99 percent.

1.INTRODUCTION

Global developments after the transition from the agricultural revolution, in which, the source was land, and the Industrial revolution in which, the source was capital and labor, faced with information revolution, in which the key and valuable source of wealth creation is knowledge (Nikookar and Hakim, 2012). In other words, knowledge is one of the driving forces for business success and the concept of knowledge is systematically treated like other tangible resources and exploring the field of knowledge management is used to improve and strengthen the competitiveness (Elahi et al., 2014).

Keep pace with developments in the coming years, only companies that create new knowledge and use it efficiently and effectively, will be successful in creating competitive advantage (López & Merno, 2011). Knowledge management is a new concept in management science and is considered a vital source of the success of today's organizations. Then, the organizational knowledge should be viewed as a strategic asset in the organization (Deepak Chawla & Himanshu Joshi, 2014). The necessity to knowledge acquisition and ongoing training, as key elements for success in the new economy for the transition from an industrial society to a knowledge-based society and achieving the critical element of competition and utilizing Knowledge management as the process through which an organization generates value of its assets based on modern knowledge of business, make organizations forced to pay attention to the importance of knowledge as a key issue to achieve a sustainable competitive advantage by modernizing its own knowledge to primarily

eliminate barriers to the exchange of knowledge (ibid.) Using knowledge management to resolve organizational important issues such as the companies' survival in the face of continuous changes in the environment is increasing which includes organizational processes that absorb synergic combination of data and have the ability to process data with information technology and creating the new knowledge (Aliahmadi et al, 2014). In general, knowledge management can be classified as the subset of learning organization that acts as a powerful and effective arm in learning organization (Ebrahimian Jelvedar et al, 2012). Jafari et al (2007) introduced organizational structure, technical infrastructure and teamwork motivation of the staff of the critical success factors of knowledge management. Staff training has also a key role in knowledge management; by staff training we can assure of using the potential capabilities of the tools available. These training are in areas such as communications, network software, learning from coworkers, team building, cooperation and collaboration and creative thinking. Also, staff training and education is as one of the main factors underlying the development and success of knowledge management in organizations (Omidvar, 2014). The work satisfaction category or staff satisfaction is as one the important managerial issues (Ghanimat et al., 2015). Knowledge management Systems which are more consistent with a knowledge map and are more customized, directly or indirectly attract the staff satisfaction through the system usefulness effects which are gained by increased ease of use and knowledge management system (ibid). The success of any organization depends on its employees' work and job satisfaction (Shams and Esfandiari Moghaddam, 2015). Job satisfaction is as a mediator for communication between working conditions on the one hand and individual achievements on the other hand (Kasmsab, 2015). Knowledge management by creating suitable environments increases informal organization contacts, removes fear and distrust of the organization, simplifies organizational structure and management language and, increases employees' job satisfaction (Suleimani and Al-Hosani, 2014). So, considering the role that knowledge management can play an important role in increasing the success rate of managers and job satisfaction and due to the importance of knowledge management in the airline and aviation industry and the efficient use of it, studying knowledge management strategy and its impact on job satisfaction is the focus of the present research.

Airline industry and aviation industry can play an important role in the better implementation of knowledge management programs and thereby, improve its capabilities in the field of information resources. The successful implementation of knowledge management in the airline and aviation industry requires the factors that can organize all activities of the organization. Trying merely to implement knowledge management cannot guarantee to achieve its perceived benefits. Change in organizations requires appropriate structural, cultural and human areas as well as coordinated changes. In other words, success in the implementation of knowledge management needs to analyze the current situation in terms of education, knowledge creation, knowledge sharing, knowledge storage, and application of knowledge of the airline and aviation industry, have awareness of experts' readiness to apply our knowledge of successful KM participation in knowledge management program lack of participation in knowledge management programs causes disruptions in experts' participation in knowledge management programs. In the meantime, the airline and aviation industry employees' familiarity with the concept of knowledge management and their ability to implement it, is very important. Because it causes some of the employees' weaknesses, such as lack of familiarity with the organization and its properties and lack the educational skills necessary to participate in training classes. The present research, given the importance of knowledge management and its impact on the airline and aviation industry seeks to identify knowledge management factors affecting job satisfaction through literature review, (case study: airline and aviation industry).

Table 1: Literature review on the relationship between knowledge management strategies and job satisfaction

Scholar	Findings

Etemad Ahari et al. (2015)	Confirmation of the effect of knowledge creation, knowledge sharing, knowledge application and knowledge storage on knowledge management and job satisfaction in Maskan Bank
Koorosh Nia (2014)	Confirmation of the positive impact of Knowledge Management dimensions on job satisfaction
Omidvar (2014)	Confirmation of the positive impact of Knowledge Management dimensions on job satisfaction
Ahmadi Baladehi and Mirzaee Arabi (2014)	Verification of the effect of KM dimensions (knowledge production, knowledge acquisition, knowledge organization, knowledge storage,
Scholar	**Findings**
	knowledge dissemination and application of knowledge) on job satisfaction
Zinni Nasab et al (2014)	Confirmation of the positive impact of Knowledge Management dimensions on job satisfaction
Chang et al (2011)	Confirmation of the positive impact of Knowledge Management dimensions on organizational performance
Salina et al (2011)	Confirmation of the positive impact of Knowledge Management dimensions on organizational performance
Donut and Gadamilas (2011)	Confirmation of the positive impact of Knowledge Management dimensions on organizational innovation
Robertson & O'Malley Hammersley)2009(	Confirmation of the positive impact of Knowledge Management dimensions on job satisfaction
Petty John and Charles (2008)	Confirmation of a positive relationship between their employers' perceived work ethics and morality and their job satisfaction
Rampersad (2007)	Confirmation of the positive impact of Knowledge Management dimensions on job satisfaction
Akhavan and Jafari (2006)	Confirmation of the positive impact of Knowledge Management dimensions on job satisfaction

Source:Author

1. 1. DEVELOPING HYPOTHESES AND MODEL

- Job Satisfaction affects knowledge management in airlines and aviation industry.

- Training affects knowledge management in airlines and aviation industry..

- Knowledge creation affects knowledge management in airlines and aviation industry.

- Knowledge sharing affects knowledge management in airlines and aviation industry.

- Knowledge storage affects knowledge management in airlines and aviation industry.

- Application of knowledge affects knowledge management in airlines and aviation industry.

- The nature of the job affects experts' job satisfaction in airlines and aviation industry.

- Supervision affects experts' job satisfaction in airlines and aviation industry.

- Coworkers affect experts' job satisfaction in airlines and aviation industry.

- Encourage and benefit affects experts' job satisfaction in airlines and aviation industry.

- Promotion opportunities affect experts' job satisfaction in airlines and aviation industry.

2. RESEARCH METHODOLOGY

The present study is a descriptive-causal research in terms of the purpose and an applied research with survey method in terms of the results. The data needed for research are gathered using a questionnaire of the field study. The questionnaire used in this study to measure job satisfaction is JDI standard questionnaire which was formed in 1969 by Smith, Kendall and Hiulin and measures the components of nature of jobs (6 items), supervision (6 items), coworkers (5 items), promotion opportunities (5 items) and compensation (6 items). The knowledge management questionnaire which is an adjusted and completed questionnaire is designed about components used in research and questionnaires developed by researchers featured in this field. In the first part of the questionnaire, demographics information such as age, education, gender and marital status is raised. In the second part of the questionnaire, questions to assess variables such as training (5 items), knowledge creation (6 items), knowledge sharing (5 items), knowledge storage (6 items) and application of knowledge (6 items) are provided. The content and construct validity (method of factor loading, convergent validity and divergent validity) were used to assess the validity. To assess the reliability, Cronbach's alpha and the composite reliability were used. The Cronbach's alpha value for each construct of research and for the entire measurement tools are provided in table 2. As can be seen, Cronbach's alpha coefficient is more than 0.7 for all study constructs that represent the validity of research measures. The research sources are provided in table 2. The process of data design and implement the questions was in such a way that based on the research model, the questions of each variable were translated and adjusted; afterwards, according to experts, the questions were set compatible with the research environment. Then the questionnaire was distributed in a 30member sample and based on the analysis of the obtained results, the initial sample was adjusted using SPSS software and the final questionnaire was developed. Data gathered by statistical techniques including confirmatory factor analysis and structural equation using SPSS and Smart PLS software were analyzed in order to explain the implementation of the model and its relationships. In this study, construct validity was evaluated by confirmatory factor analysis and Cronbach's alpha in Table 2, shows reliability. The population of this study includes all experts in aviation industry in Tehran city, equal to 4275 people. Of these, 211 patients were selected using Cochran formula as the sample. The time limit of gathering information was the summer, 2015.

Work
nature
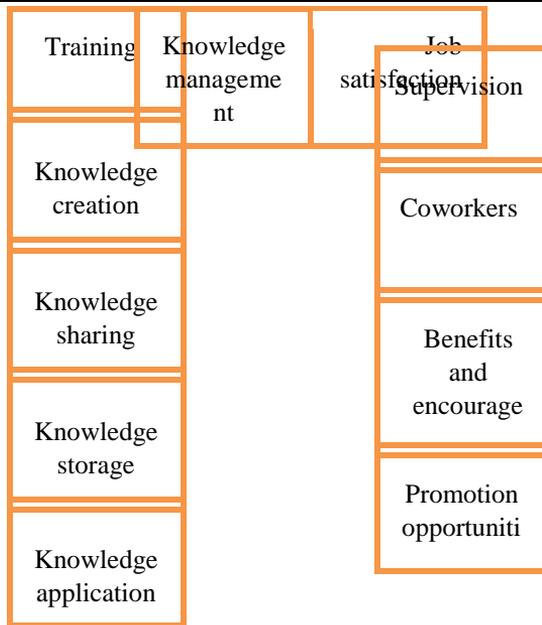
Figure 1: Research conceptual model

Table 2: Research variables and Cronbach's alpha

Variable name	Questions Source	Number of questions	Cronbach's alpha
The nature of jobs	Smith, Kendall and Hiulin (1969)	6	0/91
Supervision	Smith, Kendall and Hiulin (1969)	6	0/92
coworkers	Smith, Kendall and Hiulin (1969)	5	0/79
Promotion opportunities	Smith, Kendall and Hiulin (1969)	5	0/89
Salary and benefits	Smith, Kendall and Hiulin (1969)	6	0/81
Education	Gandri (2010), Nazim and Mokharji (2011)	5	0/89
Variable name	**Questions Source**	**Number of questions**	**Cronbach's alpha**
Knowledge creation	Hossein Zadeh (2010), Atapour (2009), Larijani and Noori Asl (2008) and Alhammadi et al (2009), Rafi Zadeh et al (2014)	6	0/89
Knowledge sharing	Hossein Zadeh (2010), Atapour (2009), Larijani and Noori Asl (2008) and Alhammadi et al (2009)	5	0/81

Knowledge Storage	Hossein Zadeh (2010), Atapour (2009), Larijani and Noori Asl (2008) and Alhammadi et al (2009)	6	0/87
Knowledge Application	Gandri (2010), Nazim and Mokharji (2011), Rafi Zadeh et al (2014)	6	0/85

Source: Authors

2.1. PLS METHOD TO MODEL FITTING AND VALIDITY AND RELIABILITY OF THE RESEARCH RESULTS

PLS (Partial least square method) method is one of the multivariate statistical techniques that despite constraints such as the unknown type of variables distribution and correlation between independent variables which should be observed in the regression and structural equation models, can fit models with multiple independent and dependent variable (Jafari Samimi and Mohammadi, 2011).

Fitting indices in PLS model include:

1. Load Factor coefficient

Load factors are calculated by computing the correlation value of a construct index, and if this amount is equal to or greater than 0.5, testifies that inter-construct variance and its indices are greater that measurement error variance of that construct and reliability is not acceptable on that measurement model (Alipour Dervishi, 2012). The results of factor loadings are shown in Table 3. With respect that the proper value is 0.7 for Cronbach's alpha, 0.7 for hybrid and 0,5 for the average variance extracted and it is necessary that questions with factor loadings less than 5.0 are removed, so inevitably, the question of (the use of specialized updated publications of the field to enrich knowledge (q4) related to the creation of knowledge, possibilities of acquiring knowledge from anywhere else (q5) related to knowledge storage, workshops to make use of knowledge (q6) related to the knowledge application, my work is varied and require creativity (q1), my work is clear (q2), I feel pride for my job (q6) the nature of the work, all the rights and privileges is fair and complies with my job (q1) related to promotion opportunities) were eliminated.

Table 3: Checking the factor loadings for homogeneous test in knowledge management and job satisfaction

Knowledge management dimensions	Questions	Factor loadings	Job satisfaction dimensions	Questions	Factor loadings
Education	Q1	0/782	The nature of jobs	Q3	0/912
	Q2	0/891			
	Q3	0/872		Q4	0/945
	Q4	0/745			
	Q5	0/870		Q5	0/926
Knowledge creation	Q6	0/832			
	Q7	0/879	Supervision	Q6	0/893
Knowledge management dimensions	**Questions**	**Factor loadings**	**Job satisfaction dimensions**	**Questions**	**Factor loadings**
				Q7	0/762

	Q8	0/795		Q8	0/862
	Q10	0/848		Q10	0/876
	Q11	0/845		Q11	0/889
Knowledge sharing	Q12	0/715		Q12	0/882
	Q13	0/817	Coworkers	Q13	0/749
	Q14	0/750		Q14	0/774
	Q15	0/733		Q15	0/746
	Q16	0/765		Q16	0/704
Knowledge storage	Q17	0/861		Q17	0/723
	Q18	0/799		Q18	0/701
	Q19	0/817	Promotion opportunities	Q19	0/817
	Q20	0/789		Q20	0/742
				Q21	7480/
	Q22	0/795		Q22	0/775
Knowledge application	Q23	0/723		Q24	0/879
	Q24	0/863		Q25	0/897
	Q25	0/744	Salary and benefits	Q26	0/846
	Q26	0/843		Q27	0/769
	Q27	0/815		Q28	0/802

Source: Authors

2. The **composite reliability index**, which measures the reliability of the model; if the index is greater than 0.7 means that the composite reliability is appropriate. In the fitted model of the research, the index is more than 0.85 for all latent variables (Vinzi et al., 2007).

The appropriate amount of **convergent validity index** (AVE), is determined at the minimum of 0.5 by Fornell and Larcker. The index shows that a latent variable, on average explain more than half of the variance Index (ibid). In the present paper research model, the index has been above 0.54 for all latent variables.

Table 4: Hybrid reliability coefficient and the average variance extracted (convergent validity

Latent variables	AVE	CR
Education	0/69	0/91
Knowledge creation	0/70	0/92
Knowledge sharing	0/57	0/86
Knowledge storage	0/66	0/90
Knowledge Application	0/63	0/89
The nature of job	0/86	0/94
Supervision	0/72	0/93
Coworkers	0/54	0/85
Promotion opportunities	0/70	0/92
Salary and benefits	0/57	0/87

Source: Authors

3. The Divergent validity is acceptable when the AVE value for each construct is greater than the variance shared between the construct and other constructs (the square of the correlation coefficient between the constructs) in the model. In PLS software this is fulfilled by matrix which principal amount include the square root of AVE of each construct and low values of main diagonal including correlation coefficients between each construct with other constructs (Fornell C & Larcker, 1981)

In accordance with the table (4), the square root of AVE of all of first order variables is more that their correlation that this shows good divergent validity and fitness of measurement models.

2.1.2. INTERNAL (STRUCTURAL) MODEL FITNESS
After confirmation of the suitability of the measurement model, the reliability of the structural models should be noted that two indicators have been used for this purpose.

Table 5: Fornell and Larcker Test

	Education	Knowledge sharing	Knowledge creation	Wage	Knowledge storage	Supervisor	Promotion opportunities	Nature of job	Coworkers	Application of knowledge
Education	0/83									
Knowledge sharing	0/097	0/83								
Knowledge creation	0/40	0/24	0/75							
Wage	0/09	0/99	0/23	0/81						
Knowledge storage	0/38	0/40	0/56	0/39	0/79					
Supervisor	0/13	0/09	0/14	0/09	0/16	0/92				
Promotion opportunities	0/21	0/12	0/36	0/12	0/28	0/11	0/84			
Nature of job	0/11	0/11	0/05	0/11	0/07	0/02	0/07	0/73		
Coworkers	0/04	0/31	0/15	0/30	0/20	0/16	0/52	0/05	0/83	
Application of knowledge	00/10	0/08	0/07	0/08	0/11	0/04	0/05	0/11	0/09	0/75
$\sqrt{AV}_{=*}$										

Source: Authors

Table 6: Structural model fitting

Dimension	R²>0/19	Q²>0/15
Job Satisfaction	0/24	0/28
Education	0/42	0/45
Dimension	R²>0/19	Q²>0/15
Knowledge creation	0/65	0/16
Knowledge sharing	0/28	0/46
Knowledge storage	0/71	0/29
Knowledge application	0/49	0/24
The nature of job	0/28	0/16
Supervision	0/22	0/32
Coworkers	0/62	0/40
Promotion opportunities	0/58	0/15
Salary and benefits	0/27	0/28

Source: Authors

3. RESEARCH FINDINGS

Table 6 shows the results of structural equation modeling and testing hypotheses. This table presents the results of hypothesis testing with presenting the significance of the relationship between knowledge management and job satisfaction through T-Statistic and the effect of these factors through the path coefficient. Figure 2 shows the model of this study. The resulting model can be seen in the diagram (2) by eliminating paths which T-Statistic is not significant.

Table 7: Results of testing hypotheses

Hypothesis Number	Path	Path coefficient	T statistics	Result
1	Knowledge Management --<Job satisfaction	0/49	5/82	Confirmed
2	Knowledge Management --< Education	0/65	7/53	Confirmed
3	Knowledge Management--< Knowledge creation	0/80	19/70	Confirmed
4	Knowledge Management--< Knowledge sharing	0/53	6/48	Confirmed
5	Knowledge Management--< Knowledge storage	0/84	30/44	Confirmed
6	Knowledge Management--< Knowledge application	0/22	26/12	Confirmed
7	Job satisfaction --< Nature of jobs	0/170	1/59	rejected
8	Job satisfaction --< Supervision	0/46	3/81	Confirmed
9	Job satisfaction --< Coworkers	0/78	19/93	Confirmed

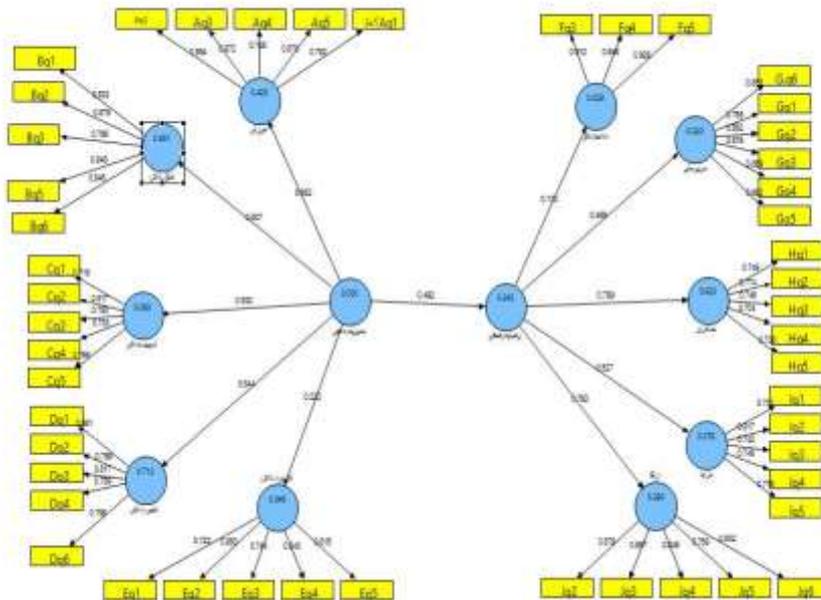| 10	Job satisfaction --< Salary and benefiits	0/52	2/36	Confirmed
11	Job satisfaction --< Job promotion	0/76	14/56	Confirmed

Source: Authors

Figure 2: fitted model in standard mode *Source: Authors*

4. CONCLUSION

The need to investigate the role of knowledge management strategies on job satisfaction (case stud: the airline and aviation industry) is clear according to various studies. The present study has aimed to investigate the role of knowledge management strategies on job satisfaction (case stud: the airline and aviation industry). The results showed that the main hypothesis of "knowledge management affects job satisfaction", is approved. In fact, it is predicted that is the hypothesis be confirmed in a larger sample.

Job satisfaction is as a mediator for communication between working conditions on the one hand and individual/organizational achievements on the other hand. Job satisfaction is related with the employees' high participation rate in achieving organizational goals, customer satisfaction, increased employee commitment to the organization, increase productivity and profitability. Knowledge management by creating appropriate environment, increases non-official contacts, removes fear and distrust, makes organizational structure and management language simplified and increases the human resource job satisfaction. This result is in line with the results of Ahari et al (2015), Koorosh Nia (2014), Omidvar (2014), Ghanimat et al (2014), Ahmadi Baladehi and Mirzaee Arabi (2014), Athanasius et al (2015), Taher et al. (2010) and Akhavan and Jafari (2006).

The results indicate that the hypothesis of "education affects knowledge management in the airline and aviation industry", is accepted. In fact, it is expected that the hypothesis be confirmed in a larger sample. If organizations sufficiently invest in training of management and staff, Members of the organization become more aware and gain better understanding and common knowledge management. In this regard, the intended

organization has higher than average performance and has attempted to some training on knowledge management commensurate with their position. This component is consistent with Nazim research and Mokahraji (2011).

The results showed that the hypothesis of "knowledge creation affects knowledge management in the aviation and the airline industry", is accepted. It is expected that the hypothesis be confirmed in a larger sample on. This stage encompasses activities that are associated with the arrival of new knowledge system that includes development, discovery and conquest of knowledge. Knowledge can be created by a number of processes for venture innovation to attempt to do research. Also, knowledge creation could be the result of the individuals' extraordinary ability to recognize the new relationship between and combination of previous knowledge elements based on complex deductive reasoning. The kind of knowledge can be discovered through problem solving, experimental and pilot projects that may be valuable for organizations. While generally, knowledge acquisition is adaptive, but knowledge creation is dynamic and productive and this type of knowledge is essential for learning organization. New knowledge creation includes not only group developed external information but also, encompasses extremely mouthpiece personal insight and illumination. Knowledge creation is about the use of ideas as well as the ideas for innovation. In general, the creation of organizational knowledge in the area of performance appraisal system causes creation of new systems and methods in accordance with the organization situations and this can help effectiveness of performance appraisal system. This component is consistent with Hosseinzadeh (2010), Atapour (2009), Larijani and Noori Asl (2008) and Alhammadi et al (2009), Rafizadeh et a. (2014).

The results indicate that the hypothesis of "sharing knowledge affects knowledge management in the airline and aviation industry", is accepted. In fact, it is expected that the hypothesis to be confirmed in a larger sample on. Knowledge sharing is most important components and the center of knowledge management. Many organizations face difficulty in knowledge sharing due to lack of appropriate organizational culture that requires planning and serious attention. Knowledge sharing needs to create an appropriate context that so that the airline and aviation industry experts can share their knowledge. This component is consistent with Hossein Zadeh (2010), Atapour (2009), Larijani and Noori Asl (2008) and Alhammadi et al (2009).

The results showed that the hypothesis of "knowledge application affects knowledge management in the airline and aviation industry", will be accepted. In fact, it is expected that the hypothesis of the effect if the knowledge application on knowledge management to be confirmed in a larger sample. In general, it is necessary that the organizational knowledge be used in products, processes and services. If an organization fails to allocate the right type of knowledge in the right manner, then, it cannot hope to maintain a competitive advantage. When creativity and innovation are expressed as the signs of competitive advantage, the organization should be agile and nimble in discovering the correct form of knowledge in the right organization. There are some methods that organizations can apply their knowledge resources. For example, the organization can reorganize its available knowledge in various fields, raise internal measurement standard, educate and motivate people to think creatively and apply their ideas in products, processes or services. Knowledge application means the practice to bring knowledge into the organization to create value; this refers to the fact that the obtained ideas and knowledge should be used in case of usefulness and appeared in the organization products and services. This component is consistent with Nazim and Mokahraji (2011) and Rafizadeh et al (2014).

The results suggest that the hypothesis of "the nature of the jobs affects the experts' job satisfaction in aviation industry" will be rejected. The items such as the variety of jobs, job usefulness and value, interest, satisfaction with existing equipment, job security, experts' professional status, independence, authority levels and job contradictions and ambiguities constitute job nature components. Based on the results, there is no significant relationship between the experts' tasks in the job description and job satisfaction and this is consistent with Herzberg two-factor theory; as Herzberg believes that Hygienic or preservatives agents do not increase job satisfaction, but when the quality of these factors decreases, will cause dissatisfaction. This category of services, according to Herzberg's theory, are among hygiene or maintenance factors whose

existence is necessary at work, but it increased job satisfaction. However, when their quality is reduced will cause job dissatisfaction.

The results showed that the hypothesis of "supervision affects experts' job satisfaction in aeronautics and aviation industry", will be accepted. Experts' satisfaction from supervisor dimension includes: competence of supervisory authority, access to authorities when necessary and the amount of feedback and support is in difficulties, all of which are important points of consideration. It seems that by selecting directors on the basis of their professional competence, strengthening the management structure at high levels through the creation of the office in ministries and agencies, employing competent administrator at lower administrative levels, creating short and long term training courses on management inside and outside the country, managers' material and spiritual support of staff and holding regular meetings of face to face discussions between managers and employees may be able to increase experts' job satisfaction in terms of this dimension. This component is consistent with Mirkamali and Nasti Zaei (2010) findings.

The results indicate that the hypothesis of "coworkers affect the experts' job satisfaction in aeronautics and aviation industry" will be accepted. This dimension includes: cooperation, activeness, creating motivation and responsibility as well as respect for the experts by coworkers. Perhaps the cause of dissatisfaction of some experts of this dimension refers to their dissatisfaction with their profession. For experts who loses hope and passion in working environment for reasons such as lack of sufficient authority, job contradictions and ambiguities, Lack of coordination between duties, lack of opportunity for the expression of merit, lack of respect with colleagues and so on, is natural to have insincere behavior with their coworkers and cannot express the items of good coworker such as activeness, creating motivation and sense of responsibility and this vicious cycle continues. This component is in line with Mirkamali and Nasti Zaei (2010) findings.

The results showed that the hypothesis of the effectiveness of encouraging and benefits on experts' job satisfaction in airline and aviation industry is accepted. The results of salary and benefits questions show that the experts were not completely satisfied of their salary and benefits to meet the urgent needs. Since thinkers such as Maslow and Herzberg believe that if the basic human needs are not met, he will not be able to focus on the needs of higher levels, and on the other hand, staff income is mentioned as an important factor of employees' satisfaction in most of the studies (Hooman, 2002), according to experts, strategies such as allocating a percentage of the welfare budget to experts, increasing conservative design, building facilities and sporting organizations to provide housing and welfare centers can improve satisfaction. The results of Jahani and Farazi (2010), Mirkamali and Nasti Zaei (2010) and Tasi (2011) are all in line with these findings.

The results indicate that the hypothesis of the effectiveness of promotion opportunities on the experts' job satisfaction in airline and aviation industry is accepted. Investigating the scope of promotional opportunities in this study indicate that participants had high satisfaction of this dimension including elements such as: promotion based on rules, transparency of promotion method, having opportunity to promotion, promotion based on capacity and efficiency, and the possibility of showing merit. Experts satisfaction of this dimension can indicate a strength in administrative and management systems in all the mentioned cases and strategies such as creating opportunities for academic achievement and professional growth by increasing graduate tendencies, continuing education programs (effectively), selecting managers on professional merit provided management degree, managers' precision in accurate performance evaluation and use proper encouragement and punishment system using modern methods of management, can increase experts' job satisfaction from this dimension. The results of Jahani et al studies (2010), Mirkamali and Nasti Zaei (2010) and Tasi (2011) are all consistent with these findings.

Suggestions

- Providing appropriate information systems for the storage, transfer and exchange of knowledge such as: Internet, intranet, groupware, providing facilities necessary for easy access to appropriate hardware for sharing information, providing for easy access to suitable software to share information, building skills in

the use of information systems such as the internet, intranet, groupware etc., for partners by holding needed training session

- Trying to implement absorb knowledge culture and offering educational programs in line with current scientific knowledge in a systematic manner

- Creating facilities to exchange professionals' knowledge with each other and holding continuous effective and practical meetings

- Strengthen the research capabilities of talented staff to create knowledge through team activities

- Strengthening research capabilities of talented employees to create knowledge through team activities

- Incentive programs for providers of valuable ideas for improving the organization level

- Encouraging knowledge sharing and application among organization managers

- Necessary measures should be conducted to provide the policy and instruction of knowledge management implementation and creating knowledge management team in the organization

- Setting strategies so that creating new knowledge, application of new knowledge, dissemination and sharing knowledge and saving knowledge is explicitly considered.

- Organization should provide mechanisms for knowledge creation and acquisition from various sources, including employees, their past experiences and its competitors

- Improving the living conditions and material needs and observing the rights and benefits with organizational justice approach;

- Adjusting the job promotion system based on merit and competence principles

- Managers can have a positive impact on staff job satisfaction and quality of service and empower them with their effective behaviors and implementing knowledge management practices.

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THE ROLE OF KNOWLEDGE-ORIENTED LEADERSHIP AND KNOWLEDGE MANAGEMENT PROCESSES IN INNOVATION IN KALLEH DAIRY CO. IN TEHRAN

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Abstract

To investigate the role of a particular leadership –knowledge-based leadership- on knowledge management, the present research follows initiatives that seek to achieve innovation. The selected members in the research consist of 1200 rank and headquarter staff and specialized personnel of Tehran Kalleh Co that 310 staff were selected through simple random sampling and the Cochran Test. Correlation test was used to evaluate the research hypotheses as well as assess and identify the relationships between variables; and Pearson correlation coefficient was used, given quantitative nature of data. The research consisted of 10 hypotheses. By confirming all hypotheses on significant relationship between components of knowledge-based leadership and innovative performance with the broker role of knowledge management components, components of knowledge management affecting innovative performance and the effectiveness of knowledge-based leadership were arranged as the follows: components of knowledge transfer had the most effectiveness on knowledge-based leadership component in Tehran Kaleh Co; while knowledge storage had the lowest level of effectiveness in the company. By examining the influence of knowledge management components on innovative performance, it was also found that knowledge transfers and knowledge creation had the most and the least effective on innovative performance level in Tehran Kaleh Co. respectively.

JEL classification: M21, M29

Keywords: *knowledge, knowledge-based leadership, knowledge management, innovative performance, human resources.*

1. INTRODUCTION

Knowledge management is a comprehensive approach to design a broad and general perspective for organizations that its main attention is focused on creating and applying knowledge and ultimately, achieving organizational effectiveness. Of course, the main challenge for knowledge management is to change tacit knowledge into explicit knowledge more and better. Knowledge of the main strategic source allows manager to manage the value of production and operation properly (Zack, 1999). Knowledge management has emerged in 1990s, due to discipline of business. It helps organizations around the world to develop and implement knowledge management to improve the efficiency of business processes, increase productivity and quality of services and find new ideas and ways to supply products to their customers (Neguyen, Mohammad, 2011). The efficiency of knowledge management has a direct result on technology and innovation setting; it is also one of the main objectives of companies to pursuit competitive advantage of knowledge-creating companies (Nonoka, Takeuchi, 1995). Companies consider innovation as a mean to create organizational adaptation, cope with competitive pressures and change customer demands

(Costopolos, 1997). Today, innovation is a factor affecting success and survival of knowledge-based organizations (Ardakani, Shakeri, 2010) and a main source to achieve competitive advantage (Homsa, 2009). Innovation refers to an idea, product, process, a system or device that can be understood by members of a community as a new issue. In the present research, innovative performance is measured by aspects of innovation in product and process (Hung, 2011).

Leadership behavior is another important factor affecting organization, in terms of the effectiveness (Neguyen, Mohammad, 2011). On the one hand, given the circumstances, leaders can allow participants to develop and manipulate their knowledge and skills using resources of personal knowledge or it is easier way to access knowledge (Politis, 2002; Crawford, Gold. Scott, 2003). Leadership is an essential requirement to develop and encourage innovation in companies. In the companies, competitive advantages are used to develop new products and exploit this knowledge (De Carlos, Dedez, 1999; Subramanian, Yondet, 2005). The present research specifically aims to address and analyze organizational leadership, product performance analysis and the role of knowledge in relation to leadership and performance in product innovation.

2. RESEARCH LITERATURE

2.1. KNOWLEDGE MANAGEMENT

Knowledge management is a process that organizations can change data into information and information into knowledge. They also can use the acquired knowledge in their decisions effectively (Soknona, 2001).

Implementing Knowledge Management

Stage Model of Implementing Knowledge Management, Kim and Li Method: In this model, there have been considered stages to implement management: early (innovation), replication, integration and knowledge networking. The stages are occurred sequentially and hierarchically.

Innovation (Early) Stage: At this stage, organization identifies the importance of knowledge management and its necessity and prepares itself for organizational efforts on knowledge management. At this stage, how to prepare organization for knowledge management is the most important matter in strategic management. Knowledge management is not a sudden and fast issue, but requires long-term and adequate resources such as human resources, capital and wide managerial efforts. Therefore, organization requires long-term strategic and systematic plans to create knowledge management fields. It can be said that allocating human resources and funding are the first necessary steps at this stage. Modeling other successful institutions will be useful to gather necessary information or the required experiences in the field.

Multiplication Stage: At this stage, knowledge management infrastructure is shaped in organization and there is provided the required contexts to perform various stages of knowledge management process, namely discover, capture, share, store and use the process. However, there should be carried out the required beds for implementing this process. This stage features include:

1. Advisory leadership systems;

2. Reward and promotion system to motivate;

3. Establishing educational systems

At this point, there should be developed the relevant rules and systems and establish a fixed team to manage knowledge across organization; in other words, knowledge should be classified. We can use ICT, database and methods of creating knowledge repositories to facilitate, support, maintain and keep knowledge resources in an organization.

Integration Stage: At this point, knowledge activities are institutionalized and they are seen as daily activities in whole of organization. Here, all members of organization are familiar with knowledge activities and volume of the activities will be maximum. At this stage, integrating wide organizational knowledge can be considered as manager success key so that they can be used as a lever for products, services and organizational processes. The art of management is to align and integrate the distributed diverse knowledge among individuals in organization. In addition, organizational knowledge should be monitored and controlled, by considering to environmental changes; meanwhile, the related activities should be guided in direction with organization's objectives.

Networking Stage: The final stage is to establish a knowledge-based organization. At this stage, there is performed an outside integration that organizational knowledge is not related within the organization, but with other organizations such as suppliers, authorities of research companies and universities as network (Afrazeh, 2007).

2.2. INNOVATION

Innovation is considered as an active vital element for companies to create value and sustainable competitive advantage in today's complex and changing environment (Madhavan, 2005: 18). Organizations with higher innovation show faster and better actions against changing environments and they will have ability to develop new capabilities that allow them to achieve better performance (Montes, 2004).

Types of innovation

Product Innovation

This innovation leads to supply new products and services or promote previous ones. It is the most widely used and the most popular innovation that can be very beneficial for organization.

Process Innovation

This innovation leads to the improved processes in organizations, for example in areas of operations, human resource management, finance etc. It emphasizes on improving effectiveness and efficiency. This innovation will improve work flow, promote products and services as well as progress of organization by improving process, creating new and innovative techniques and changing processes.

Marketing Innovation

This innovation refers to functions of marketing, promotion, pricing, distribution and other functions of product, except product development (such as packaging or advertising). Using the concept of *marketing* innovation enables organizations to keep pace with technology changes, in addition to identify and provide customer needs that are constantly changing by tastes and requirements of society.

Management Innovation

This type of innovation improves organization management method and leads to change and innovation, by modifying and creating new methods, styles and managerial structures in the organization. For example, when Hewlett-Packard (hp) found that it has lost its competitiveness in global markets, it could achieve its position again, by revising and creating a new organizational structure (Cummings, Paramita, 2010).

2.3. KNOWLEDGE LEADERSHIP STYLE

Doubtlessly, knowledge leaders are new forms of organizational managers. These managers do not fit perfectly in traditional organizational charts. This category of managers is often found at connection points within organizations, in common border of organizational departments and units. Command and control positions in organizations are usually occupied by the managers (Stagdil, 1984).

Organization leader includes a wide range of organizational positions, regardless the accepted organization title. It includes similar functions and features. The most prominent feature includes a combination experience of business and IT, something that requires at least ten years work experience in both areas. It also has organizational thinking and interest that development is of one of its inevitable consequences. The leaders should strengthen informal networks to establish informal and hidden organizations, in addition to consider current relations in organizational hierarchy. Through these channels, knowledge leaders can introduce new methods and systems to encourage students to compete with providers (Kohn, 1998).

Analyzing knowledge leadership identified the following dimensions for knowledge management (Vitala, 2004):

Tips for learning;

Creating an environment to help learning;

Supporting learning process at individual and group level
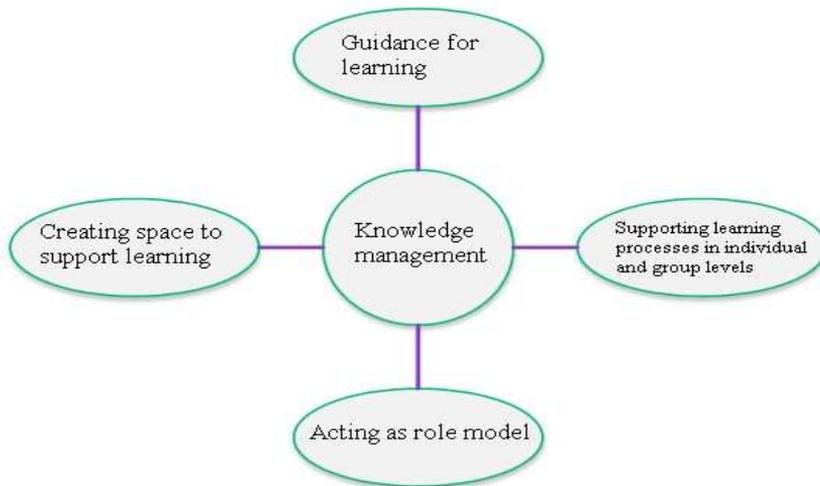
Figure 1: Knowledge leadership style and its dimensions

Source:(Vitala, 2000)

The used model in this study is derived from Donate (2015). In this model, knowledge management components have been considered as independent variables including transfer, create, use and store knowledge. In addition, this variable was also considered as a mediator.
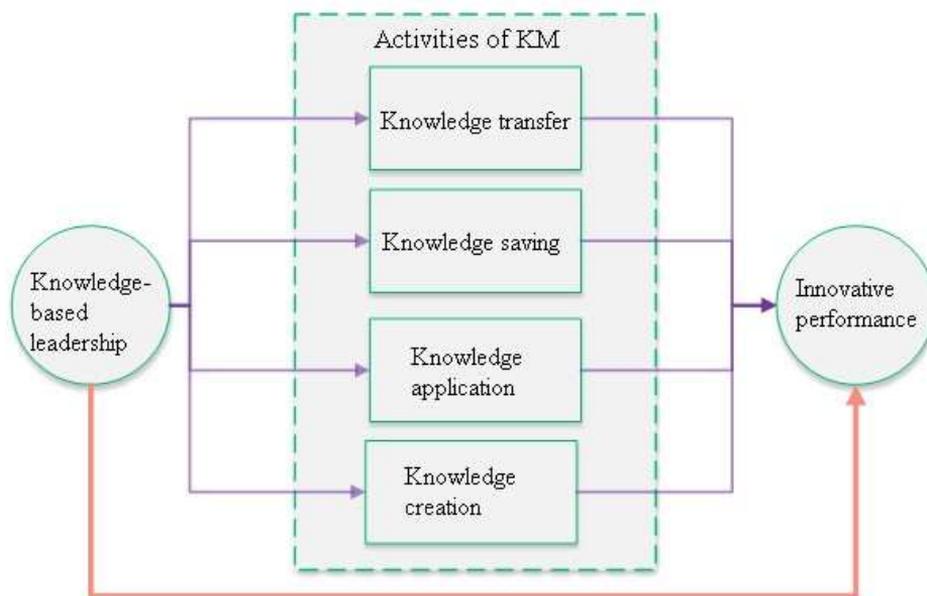
Figure 2: The research conceptual model

Source: (Donate, 2015)

2.4. RESEARCH HYPOTHESES

H₁: There is a relationship between activities of knowledge management with innovative performance in Tehran Kalleh Co.

H₁ sub-hypotheses

> ➢ There is a relationship between activities of knowledge creation with innovative performance in Tehran Kalleh Co.

> ➢ There is a relationship between activities of knowledge transfer with innovative performance in Tehran Kalleh Co.

> ➢ There is a relationship between activities of knowledge application with innovative performance in Tehran Kalleh Co.

H₂: There is a relationship between activities of knowledge saving with mediating the role of knowledge transfer activities on innovative performance in Tehran Kalleh Co.

H₃: There is a relationship between activities of knowledge saving with mediating the role of knowledge application activities on innovative performance in Tehran Kalleh Co.

H₄: There is a relationship between knowledge-based leadership and knowledge management activities in Tehran Kalleh Co.

H₄ sub-hypotheses

> ➢ There is a relationship between knowledge-based leadership with activities of knowledge creation in Tehran Kalleh Co.

> ➢ There is a relationship between knowledge-based leadership with activities of knowledge transfer in Tehran Kalleh Co.

> ➤ There is a relationship between knowledge-based leadership with activities of knowledge saving in Tehran Kalleh Co.

> ➤ There is a relationship between knowledge-based leadership with activities of knowledge application in Tehran Kalleh Co.

H_5: There is a relationship between activities of knowledge management with knowledge-based leadership and innovative performance.

2.5. METHODOLOGY

This research is survey type. Its population consisted 1200 rank and headquarter staff and specialized personnel of Tehran Kalleh Co that 310 staff were selected as sample using simple random sampling method and the Cochran Test. To collect data, there was used a questionnaire with Cronbach's alpha coefficient 0.88. Correlation test was used to evaluate the research hypotheses as well as assess and identify the relationships between variables; and Pearson correlation coefficient was used, given quantitative nature of data.

3. DATA ANALYSIS

H_1: There is a relationship between activities of knowledge management with innovative performance in Tehran Kalleh Co.

According to Table 1, Pearson correlation coefficient for these two variables is 0.531. Its significant number is 0.000 (sig= 0.000) that is less than standard significance level ($\square$= 5%). Therefore, there is a significant relationship between both variables. By considering positive sign of the Spearman correlation coefficient between the research variables, it can be interpreted that level of knowledge creation has a direct impact (positive) on the company's innovative performance.

Table 1: Spearman correlation test

	Spearman correlation test	Knowledge creation	Innovative performance
Knowledge creation	Spearman coefficient	1	0.531
	Sig		1
	N	310	310
Innovative performance	Spearman coefficient	0.531	1
	Sig	0.000	
	N	310	310

Source: Author

H₂

The main hypothesis: There is a significant relationship between knowledge application with innovative performance in Tehran Kalleh Co.

Table 2: Spearman correlation test

	Spearman correlation test	Knowledge application	Innovative performance
Knowledge application	Spearman coefficient	1	0.578
	Sig		0.000

	N	310	310
Innovative performance	Spearman coefficient	0.578	1
	Sig	0.000	
	N	310	310

Source: Author

According to Table 2, Pearson correlation coefficient for these two variables is 0.578. Its significant number is 0.000 (sig= 0.000) that is less than standard significance level ($\square$= 5%). Therefore, there is a significant relationship between both variables. By considering positive sign of the Spearman correlation coefficient between the research variables, it can be interpreted that level of knowledge application has a direct impact (positive) on the company's innovative performance.

H3

The main hypothesis: There is a significant relationship between knowledge transfer with innovative performance in Tehran Kalleh Co.

Table 3: Spearman correlation test

	Spearman correlation test	**Knowledge transfer**	**Innovative performance**
Knowledge transfer	Spearman coefficient	1	0.442
	Sig		0.000
	N	310	310
Innovative performance	Spearman coefficient	0.442	1
	Sig	0.000	
	N	310	310

Source: Author

According to Table 2, Pearson correlation coefficient for these two variables is 0.442. Its significant number is 0.000 (sig= 0.000) that is less than standard significance level ($\square$= 5%). Therefore, there is a significant relationship between both variables. By considering positive sign of the Spearman correlation coefficient between the research variables, it can be interpreted that level of knowledge transfer has a direct impact (positive) on the company's innovative performance.

H4

The main hypothesis: There is a significant relationship between knowledge saving with innovative performance in Tehran Kalleh Co.

Table 4: Spearman correlation test

	Spearman correlation test	**Knowledge saving**	**Innovative performance**
Knowledge saving	Spearman coefficient	1	0.549
	Sig		0.000
	N	310	310
Innovative performance	Spearman coefficient	0.549	1
	Sig	0.000	

	N	310	310

Source: Author

According to Table 2, Pearson correlation coefficient for these two variables is 0.549. Its significant number is 0.000 (sig= 0.000) that is less than standard significance level ($\square$= 5%). Therefore, there is a significant relationship between both variables. By considering positive sign of the Spearman correlation coefficient between the research variables, it can be interpreted that level of knowledge saving has a direct impact (positive) on the company's innovative performance.

H₅

The main hypothesis: There is a significant relationship between knowledge saving with knowledge transfer in Tehran Kalleh Co.

Table 5: Spearman correlation test

	Spearman correlation test	Knowledge saving	Knowledge transfer
Knowledge transfer	Spearman coefficient	1	0.518
	Sig		0.000
	N	310	310
Innovative performance	Spearman coefficient	0.518	1
	Sig	0.000	
	N	310	310

Source: Author

According to Table 2, Pearson correlation coefficient for these two variables is 0.518. Its significant number is 0.000 (sig= 0.000) that is less than standard significance level ($\square$= 5%). Therefore, there is a significant relationship between both variables. By considering positive sign of the Spearman correlation coefficient between the research variables, it can be interpreted that level of knowledge saving has a direct impact (positive) on the company's Knowledge transfer.

H₆

The main hypothesis: There is a significant relationship between knowledge-based leadership with knowledge creation in Tehran Kalleh Co.

According to Table 2, Pearson correlation coefficient for these two variables is 0.346. Its significant number is 0.000 (sig= 0.000) that is less than standard significance level ($\square$= 5%). Therefore, there is a significant relationship between both variables. By considering positive sign of the Spearman correlation coefficient between the research variables, it can be interpreted that level of knowledge-based leadership has a direct impact (positive) on the company's knowledge creation.

Table 6: Spearman correlation test

	Spearman correlation test	Knowledge-based leadership	Knowledge creation
Knowledge-based leadership	Spearman coefficient	1	0.346
	Sig		0.000
	N	310	310

Knowledge creation	Spearman coefficient	0.346	1
	Sig	0.000	
	N	310	310

Source: Author

H₇

The main hypothesis: There is a significant relationship between knowledge-based leadership with knowledge application in Tehran Kalleh Co.

Table 7: Spearman correlation test

	Spearman correlation test	Knowledge-based leadership	Knowledge application
Knowledge-based leadership	Spearman coefficient	1	0.519
	Sig		0.000
	N	310	310
Knowledge application	Spearman coefficient	0.519	1
	Sig	0.000	
	N	310	310

Source: Author

According to Table 2, Pearson correlation coefficient for these two variables is 0.519. Its significant number is 0.000 (sig= 0.000) that is less than standard significance level ($\square$= 5%). Therefore, there is a significant relationship between both variables. By considering positive sign of the Spearman correlation coefficient between the research variables, it can be interpreted that level of knowledge-based leadership has a direct impact (positive) on the company's knowledge application.

H₈

The main hypothesis: There is a significant relationship between knowledge-based leadership with knowledge transfer in Tehran Kalleh Co.

Table 8: Spearman correlation test

	Spearman correlation test	Knowledge-based leadership	Knowledge transfer
Knowledge-based leadership	Spearman coefficient	1	0.612
	Sig		0.000
	N	310	310
Knowledge transfer	Spearman coefficient	0.612	1
	Sig	0.000	
	N	310	310

Source: Author

According to Table 2, Pearson correlation coefficient for these two variables is 0.612. Its significant number is 0.000 (sig= 0.000) that is less than standard significance level ($\square$= 5%). Therefore, there is a significant relationship between both variables. By considering positive sign of the Spearman correlation coefficient between the research variables, it can be interpreted that level of knowledge-based leadership has a direct impact (positive) on the company's knowledge transfer.

H9

The main hypothesis: There is a significant relationship between knowledge-based leadership with knowledge saving in Tehran Kalleh Co.

Table 9: Spearman correlation test

	Spearman correlation test	Knowledge-based leadership	Knowledge saving
Knowledge-based leadership	Spearman coefficient	1	0.383
	Sig		0.000
	N	310	310
Knowledge saving	Spearman coefficient	0.383	1
	Sig	0.000	
	N	310	310

Source: Author

According to Table 2, Pearson correlation coefficient for these two variables is 0.383. Its significant number is 0.000 (sig= 0.000) that is less than standard significance level (α= 5%). Therefore, there is a significant relationship between both variables. By considering positive sign of the Spearman correlation coefficient between the research variables, it can be interpreted that level of knowledge-based leadership has a direct impact (positive) on the company's knowledge saving.

H10

The main hypothesis: There is a significant relationship between knowledge-based leadership with innovative performance in Tehran Kalleh Co.

Table 10: Spearman correlation test

	Spearman correlation test	Knowledge-based leadership	Innovative performance
Knowledge-based leadership	Spearman coefficient	1	0.533
	Sig		0.000
	N	310	310
Innovative performance	Spearman coefficient	0.533	1
	Sig	0.000	
	N	310	310

Source: Author

According to Table 2, Pearson correlation coefficient for these two variables is 0.533. Its significant number is 0.000 (sig= 0.000) that is less than standard significance level (α= 5%). Therefore, there is a significant relationship between both variables. By considering positive sign of the Spearman correlation coefficient between the research variables, it can be interpreted that level of knowledge-based leadership has a direct impact (positive) on the company's innovative performance.

It can be concluded that activities of knowledge management have played a mediator role in the relationship between knowledge-based leadership and innovative performance. By considering the sign of correlation

coefficient in the studied components, it can be said that this significant relationship and its mediating role have been a direct relationship.

4. CONCLUSION

According to the obtained results from the conducted analyses, it can be concluded that all components of knowledge management have a significant impact on knowledge-based leadership. The components have a significant impact on innovative levels in Tehran Kalleh Co. Therefore, it can be said that knowledgebased leadership has a significant impact on dimensions of innovative performance in Tehran Kalleh Co. with mediating of knowledge management components.

However, the important matter is the importance of knowledge transfer in influence of knowledge-based leadership and its effectiveness on level of innovative performance. In fact, the component has had a significant effect to create the cycle and the effectiveness of knowledge-based leadership on innovative performance in Tehran Kalleh Co. In other words, if knowledge is not transferred in the organization, knowledge-based leadership cannot influence its human resources, creating spontaneous effectiveness and proper motivation. In fact, knowledge-based leadership will have a very pale effect due to lack of knowledge transfer on all organizational levels. As a result, it has no significant effect on level of innovative performance or other aspects of performance efficiency.

Suggestions

1. To improve organizational innovative performance through knowledge management, managers of Tehran Kalleh Co. should seriously support staff and encourage their new ideas; in this way, the employees have more willing to create, preserve and maintain their knowledge.

2. It is suggested that managers trust and support employees; as a result, the employees have more willing to achieve and share their knowledge with others.

3. It is suggested that there is established a committee consisting the experienced experts in Tehran Kalleh Co. to carry out the required planning to implement management and create and preserve knowledge as well as identify the barriers between aspects of knowledge management and innovative performance.

4. The organization leaders should take necessary actions to apply the governing values properly and identify and use values that have not paid attention previously, which they help to staff development.

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INVESTIGATING THE RELATIONSHIP BETWEEN TRANSFORMATIONAL LEADERSHIP AND ORGANIZATIONAL CITIZENSHIP BEHAVIOR: AN EVIDENCE OF DEPARTMENT OF EDUCATION IN IRANSHAHR CITY

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Abstract

This research was conducted to investigate the relationship between transformational leadership and organizational citizenship behavior with organizational effectiveness in Department of Education in Iranshahr city. This research was descriptive - survey and was also correlation type. The study population included the employees of the Department of Education of Iranshahr city (127 people) that the sample size is equal to 80 people. Simple random sampling and research tool questionnaire transformational leadership (Bass et al., 2006), organizational citizenship behavior questionnaire (Bass et al., 2006) and organizational effectiveness questionnaire (Daft, 2006). The findings suggest that there was a significant direct relationship between transformational leadership and its components and organizational effectiveness and also direct and significant relationship was observed between organizational citizenship behavior and its components with organizational effectiveness and stepwise regression analysis showed that idealized influence and inspirational motivation variable component of transformational leadership and organizational citizenship behavior was the most predictive variable component of altruism and impact on organizational effectiveness. Also, the results of independent t test and ANOVA showed that there was no significant difference between organizational effectiveness in terms of gender, age, education level and work experience.

JEL classification: M54, I20
Keywords: *Transformational leadership, organizational citizenship behavior, organizational effectiveness*

1. INTRODUCTION

Much of organizational effectiveness depends on the characteristics of the people who run these organizations. It is noteworthy that the leadership is in direct connection with the creation or utilization of social capital. Bennis (2009) states that influence individuals and communication in the form of group and team that is among the principal tasks that will mean in manager transformational leadership role. So, it seems that effective transformational leadership will be able to enhance the effectiveness of the organization and if it has been unable or not willing to take that action, motivation level of employees has decreased, increased organizational conflict and disharmony will be exacerbated by the decline of the organization (Bennis, 2009). As Kent and Chadoray (2001) point out the main factors in the organization's transformational leadership are idealized influence, inspirational motivation, rational persuasion and individual considerations and if that managers pay attention to these factors, will be able to positively influence on employee motivation, accountability and participation will be impacted them in improving their

performance (Yaghoubi et al., 2010). In addition, one of the most important issues that today a large volume expanded managerial and organizational studies, organizational citizenship behavior issues. Behaviors that take place in the workplace and beyond the official framework and job descriptions of

individuals in order to help the other employees and even customers. (Zain Abadi, 2011). Lack of attention to organizational citizenship behavior can lead to consequences such as loss of organizational effectiveness, decreased performance, increased displacement and also increased absenteeism. Leaving the organization by employees generally undesirable and destructive and costly, in addition, employees who are forced to remain in the organization and had less involvement in organizational citizenship behaviors and will not have required productivity for the organization (Behrangi and Movahed Zadeh, 2010). So in order to increase individual and organizational effectiveness and organizational culture development assistance and cooperation of your employees should not solely confined to the framework of the official job description but it should be limited to official duties beyond the organization to employees and even customers (clients) are concerned. However, the point that should be noted is that organizational citizenship behaviors affected, disabilities and is associated with some individual and organizational factors that directly or indirectly cause to encourage and prohibit employees from engaging in such behavior. (Bettencourt, 2011). Finally, it should be noted the lack of transformational leadership, organizational citizenship behavior and the effectiveness of the organization, respectively, will result in lower levels of motivation, increased organizational conflict, exacerbate the imbalances organization and the decline of organization and function decline, increased mobility, increased absenteeism of employees, employee turnover and reduced customer satisfaction (Bass et al., 2006). Department of Education has long played in the continuity and survival of human societies that the goals and objectives of the organization needs to pay attention to various aspects and attempt to influence individual and organizational variables such as leadership effectiveness and organizational citizenship behavior. The emergence of transformational leadership in organizations to increase the effectiveness of organizational performance can be used as a competitive advantage for the organization. Here is what noted the importance of finding a way to achieve the organization's goals changed to the peak of organizational effectiveness and benefit from the opportunities in the environment. The success of the corporate environment today's world depends on the ability of managers to play a leadership role effectively. The need to change the current state Department of Education in Iran and move towards excellence and ideals of the Islamic Revolution, the emergence of these questions in mind who are needed for developing such a system. Transformational leadership theory, a theoretical framework that is in the world in recent years much attention has been oriented to test the new pattern of change management. And in today's organizations that customer or client tribute in practical terms it, need leaders who can advance staff approach towards increasing customer satisfaction which is the organizational citizenship behavior, and it will not be possible unless leaders to accept transformational leadership styles and the way to provide the organization and staff are enjoying it. So what should be considered in educational management system is the use of transformational leadership to deal with the profound changes that further the knowledge and information society the opportunity arises because transformational leadership alone will not be able to change management and leadership so the tools and infrastructure necessary to provide empowerment that can overcome the panic and fear increased staff to manage change. Given that the educational system has different management levels so transformational leadership also be reproduced at different levels. Considering the above main research question is "Is there a relationship between transformational leadership and organizational citizenship behavior and organizational effectiveness in Department of Education in Iranshahr city?" To provide scientific and practical strategies effective in promoting education purposes.

2. OBJECTIVES AND RESEARCH QUESTIONS

The purpose of this study was to investigate the relationship between transformational leadership and organizational citizenship behavior and organizational effectiveness in Department of Education in Iranshahr city. To achieve this objective, the following assumptions will be discussed:

1. There is a relationship between transformational leadership and organizational citizenship behavior and organizational effectiveness in Department of Education in Iranshahr city.

2. There is a relationship between the components of transformational leadership and organizational effectiveness.

3. There is a relationship between organizational citizenship behavior and organizational effectiveness.

4. Component of transformational leadership and organizational citizenship behavior is more predictable for organizational effectiveness.

5. There is a difference between demographic characteristics (age, gender, academic record, work experience) and organizational effectiveness.

3. LITERATURE REVIEW

The theory of transformational leadership, first by Burns (1978) in order to distinguish between those leaders who have established strong relationships with subordinates and followers motivating and those of them who are widely focused on exchange or interact to create results have emerged. Transformational leadership may be in several forms. Burns has identified two types of transformational leadership: Reform, and development-oriented. Reform works on the components while the evolutionist works on the whole. Reformist reforms seek to coordinate with existing processes and is compatible with common principles and theories. Evolutionist to determine the route, avoid change or violation of theories and principles (Rosete, Ciarrochi, 2005). According to Pawar and Eastman, the effectiveness of a transformational leadership is the result of three factors; the relative position of the continuum of organizational acceptance (accepting the change), the necessary implementing transformative process for the success of the organization and that the organization running the process of transformational leadership and transformational leadership capabilities suitable for implementing transformative process. Flexibility will ensure that the capacity of dynamic activities or respond quickly to changing competitive conditions and therefore has created a competitive advantage or maintain competitive advantage available. A transformational leadership, change has instilled throughout the organization, and creates a vision for managers and employees. However, the external environment in which the organization operates, plays a role in the change to be effective or less efficient operations, (Palmer Wallace, Madhu, 2001).

ORGANIZATIONAL CITIZENSHIP BEHAVIOR

The concept of organizational citizenship behavior was introduced for the first time by people like Barnard (1938), Katz (1964), Katz and Kahn (1978), Batman and Oregon (1938), Smith et al (1938), and later in more detail by Oregon (1988), in organizational behavior literature. Although the concept of organizational citizenship behavior in the literature and research from Barnard (1938) and Katz (1964) was presented but first Batman and Oregon (1983) who examine the relationship between job satisfaction and performance during its investigation and have used the term "organizational citizenship behavior". In their view, organizational citizenship behavior, it is useful as a set of behaviors that is not listed in the job description but the staff to help others do the obvious organizational tasks, will develop these behaviors themselves. Oregon also believes that organizational citizenship behavior, individual behavior directly by the formal reward systems in organizations is not designed, however, to promote the effectiveness and performance of the organization. (Cohen and Cole, 2004; 386). This definition focuses on three main features of citizenship: First, it must be voluntary behavior that is neither a duty nor a predetermined part of a person's official duties. Second, the benefits of this behavior, organizational aspects and the third characteristic is that organizational citizenship behavior has multifaceted nature. With these definitions, the man expected to exceed the requirements of their role as corporate citizens and beyond official duties in the service of the organization. In other words, the structure of organizational citizenship behavior to identify, manage and evaluate extra-role behaviors of employees who work in the organization and their behavior because of improved organizational effectiveness (Bienstock et al., 2003; 361).

EFFECTIVENESS

The concept of effectiveness in the management of change success rate with the results of work should be the principal target. Performance management issued a manager needed to be measured not by the amount incurred on the success of his work, not a set of things that are delegated to him/her or does in a day. Effectiveness is what obtains the sound operation and management will do. Effectiveness is what obtains

managing director of enforcement and provides for efficiency. Effectiveness definition is the success of managers in efficiency and business results that have been entrusted to him/her (Seyed Javadein, 2010: 91). Rezaeian knows the efficacy or effectiveness of an organization in the form of designated purpose and satisfaction of those involved in achieving these goals. Heavy and Cycle define effectiveness and management's ability to have a privileged position in negotiations with their environment and use their positions to earn a scarce and valuable resource. This definition focuses on the effectiveness of ongoing behavioral round exchange and solidarity, as well as in getting scarce and valuable resource.

4. CONDUCTED RESEARCH

Marouf Zadeh (2013) conducted a study entitled "The relationship between organizational culture and organizational effectiveness from the perspective of librarians of Islamic Azad University libraries of district six ". The results showed that the organizational culture of the libraries in the four components of corporate identity, clarity of objectives, coherence and organizational communication in average and in six other risk factors, management support, self-control, individual creativity, tolerance and conflict reward system was weak, there was a positive and significant correlation between organizational culture and organizational effectiveness. Ghezalbash (2013) has done a study titled "investigating the effects of Organizational Justice on organizational citizenship behavior in staff area of Ministry of Power". The results suggest that organizational justice in staff area of Ministry of Power has impact on organizational citizenship behavior. Paymazd (2012) conducted a study entitled "The relationship between emotional intelligence and transformational leadership style in the Administrative Director of Youth and Sports of Qom province». The results showed that there was a strong relationship between emotional intelligence and transformational leadership style in the Administrative Director of Youth and Sports of Qom province.

Rakjah (2011) conducted a study entitled "The relationship between transformational leadership style and organizational commitment in Nargan Engineering and Construction Company". The results showed that there is a significant positive relationship between transformational leadership style and organizational commitment and significant relationship between the dimensions of the transformational leadership style and organizational commitment. Fincheng (2013) conducted a study on the effect of organizational citizenship behavior and organizational commitment: the mediating role of personality in the Chinese hotel industry. In this study, he concluded that first, organizational citizenship behavior influenced organizational commitment and, secondly, the effect is influenced by personality characteristics. Mahara and Yauchi (2013) have carried out a study entitled Understanding the dynamics of organizational effectiveness in small and medium-sized Japanese companies. They concluded in their study that a multidimensional organizational effectiveness and organizational factors affect the individual and the environment. Wang and Wong (2011) conducted a study called "organizational citizenship behavior from the perspective of culture" in China. Their goal was to identify the characteristics of a good employee value hotel in China. The sample consisted of 745 employees of the hotel in China. The results showed that the value of traditional Chinese culture has a significant relationship with organizational citizenship behavior in this country. Eilmaz and Ergun (2008) in their study titled "organizational culture and organizational effectiveness: investigating the effects of the adjustment related to the characteristics and cultural theory in an emerging economy "in Turkey concluded that there is a significant relationship between organizational culture and organizational effectiveness. Madhu and Krishnan (2005) experimental study "the effects of transformational leadership

on organizational citizenship behavior in a production facility in India" tested. They found that transformational leadership behaviors increase employee altruism and conscientiousness and civic virtue behavior decreases. This type of leadership behavior to be nonsignificantly reduces the fair. It was found that transformational leadership has no effect on behavior, courtesy of employees.

5. RESEARCH METHODOLOGY:

The method of this research was descriptive - survey and was also correlation type. The study population included the employees of the Department of Education of Iranshahr city (127 people) that the sample size is equal to 80 people. The method was simple random sampling and research tool is a questionnaire transformational leadership (Bass et al., 2006), organizational citizenship behavior questionnaire (Bass et al., 2006) and organizational effectiveness questionnaire (Daft, 2009).

RESEARCH FINDINGS

Hypothesis 1: There is a relationship between transformational leadership and organizational citizenship behavior and organizational effectiveness in the Department of Education of Iranshahr city.

Table 1: The results of Pearson correlation coefficient transformational leadership and organizational citizenship behavior and organizational effectiveness

Variables	Correlation coefficient	Transformational leadership	Citizenship behavior
Organizational effectiveness	R	** 0.485	** 0.552
	Sig	0.001	0.001

Source: Author

The results of Table 1 show the relationship between the variables of organizational effectiveness and leadership development is a direct and significant correlation with the amount of r = 0.485 in confidence level of 99% (P <0.01). So it can be concluded that there is a relationship between transformational leadership and organizational effectiveness in the Department of Education of Iranshahr city. Direct and significant relationship between variables as well as organizational effectiveness and organizational citizenship behavior with a correlation coefficient r = 0.552 in confidence level of 99% (P <0.01). So it can be concluded that there is a significant relationship between transformational leadership and organizational citizenship behavior in the Department of Education of Iranshahr city.

Hypothesis 2: There is a relationship between the components of transformational leadership and organizational effectiveness.

Table 2: The results of Pearson correlation coefficient component of transformational leadership and organizational effectiveness

Variables	Correlation coefficient	Idealized influence	Inspirational motivation	Rational persuasion
Organizational effectiveness	r	** 0.532	** 0.880	** 0.559
	Sig	0.001	0.001	0.001

Source: Author

The results in Table 2 show that direct and significant relationship between organizational effectiveness and leadership development aspects of idealized influence the value of the correlation coefficient (r = 0.532), between organizational effectiveness and inspiring motivational dimensions of transformational leadership

and correlation coefficient (r = 0.880) and between transformational leadership and organizational effectiveness and rational persuasion of the correlation coefficient (r = 0.559) at the confidence level of 99% (P <0.01). So it can be concluded that there is a significant relationship between the components of transformational leadership and organizational effectiveness.

Hypothesis 3: There is a relationship between organizational citizenship behavior and organizational effectiveness.

Table 3: The results of Pearson correlation coefficient citizenship behavior and organizational effectiveness

Variables	Correlation coefficient	Altruism	Loyalty	Work ethic	Civil attitude
Organizational effectiveness	r	** 0.548	** 0.497	** 0.506	** 0.513

Variables	Correlation coefficient	Altruism	Loyalty	Work ethic	Civil attitude
	Sig	0.001	0.001	0.001	0.001

Source: Author

The results in Table 3 show that direct and significant relationship between organizational effectiveness and altruistic citizens' behavior correlation coefficient (r = 0.548), between organizational effectiveness and loyalty of citizens 'behavior correlation coefficient (r = 0.497) and between organizational effectiveness and work ethic aspects of citizens' behavior correlation coefficient (r = 0.506) and between organizational effectiveness and civil aspects of citizens' behavior correlation coefficient (r = 0.513) at the confidence level of 99% (P <0.01). So it can be concluded that there is a significant correlation between organizational citizenship behavior and organizational effectiveness.

Hypothesis 4: The component of transformational leadership and organizational citizenship behavior have more predictable for organizational effectiveness.

Table 4: Summary of stepwise regression model to predict component of transformational leadership and organizational effectiveness

Step	Variable	R	R2	F	β	t	Sig
1	Inspirational Motivation	0.880	0.771	267.06	0.880	16.34	0.001
2	Inspirational Motivation	0.905	0.815	175.09	0.792	15.14	0.001
	Idealized influence				0.231	4.42	0.001

Source: Author

Table 4 shows that the component of transformational leadership in the first component inspirational motivation alone could predict 77% of organizational effectiveness. Standard beta coefficient indicates that the regression equation, components inspirational motivation has the beta coefficient of 0.880. The regression results indicate that the component is inspirational motivation affect transformational leadership on organizational effectiveness by the amount of the adjusted R2 (0.771) and predict it. In the second step the ideal component also entered the equation is that they are able to increase 4 percent changes in organizational effectiveness. The regression results indicate that by the inspirational and motivational factors could affect idealized influence on organizational effectiveness by the amount of the adjusted R2 (0.815) and predict it.

Table 5 shows that the organizational citizenship behavior in the first component of altruism alone could predict 29 percent change in organizational effectiveness, standard beta coefficient indicates that the regression equation, the components are altruism OCB has the beta coefficient of 0.548. The regression results indicate is that altruism factors affect organizational citizenship behavior on organizational effectiveness by the amount of the adjusted R^2 (0.291) and predict it.

Table 5: Summary of stepwise regression model to predict the effectiveness of citizenship behavior

Step	Variable	R	R2	F	β	t	sig
1	Altruism	0.548	0.291	33.48	0.548	5.78	0.001

Source: Author

Hypothesis 5: There is a difference between demographic characteristics (age, gender, academic record, work experience) and organizational effectiveness.

Results Table 5 shows that in the field of organizational effectiveness female employees have average 3.09 and standard deviation 0.70 and male employees have average 3.13 and standard deviation 0.75. Also, the findings show that the calculated t -0.178 with 78 degrees of freedom is not significant at the 95% confidence level (P>0.05). So it can be concluded that the effectiveness of different male and female employees and male and female employees equally important organizational effectiveness.

Table 5: The results of independent t test in relation to organizational effectiveness difference between male and female employees

Variables	Gender	Number	Mean	Standard deviation	t	df	sig
Organizational effectiveness	Female	13	3.09	0.70	-0.178	78	0.86
	Male	67	3.13	0.75			

Source: Author

Table 6 ANOVA test results in relation to organizational effectiveness by age, show that F is calculated equal to (1.76) with 3 and 76 degrees of freedom, there is no significant difference at 95% confidence level (P>0.05). So, it can be concluded that the effectiveness of personnel by age is not different and is the same.

Table 6: ANOVA test results and organizational effectiveness by age

Variable	Age	Number	Mean	Standard deviation	df	F statistic	Sig
Organizational effectiveness	20-25 years	15	3.26	1.11	3	1.76	0.16
	26-35 years	42	3.04	0.59	76		
	36-45 years	16	3.39	0.56	79		
	Over 46 years	7	2.71	0.84			

Source: Author

Table 7 ANOVA test results in relation to organizational effectiveness in terms of qualification, indicates that F calculated is (1.61) with 3 and 76 degrees of freedom, there is no significant difference at 95% confidence level (P > 0.05). So, it can be concluded that the effectiveness in terms of staff by degree of education is not different and is the same.

Table 7: ANOVA test results according to degree of education of organizational effectiveness

Variable	Degree of education	Number	Mean	Standard deviation	df	F statistic	Sig
Organizational effectiveness	Diploma	5	3.05	0.18	3	1.61	0.19
	Associate Degree	15	3.07	0.79	76		
	Bachelor	47	3.03	0.75	79		

| | Master's degree or higher | 13 | 3.53 | 0.72 | | | |

Source: Author

Table 8 ANOVA test results in relation to organizational effectiveness in terms of service, shows that calculated F equal to (1.02) with 5 and 74 degrees of freedom, there is no significant difference at 95% confidence level (P>0.05). So it can be concluded that the effectiveness of employees in terms of work experience

Table 8: ANOVA test results of organizational effectiveness in terms of years of service

Variable	Years of service	Number	Mean	Standard deviation	df	F statistic	Sig
Organizational effectiveness	Under 5 years	14	3.15	0.99	5	1.02	0.40

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Variable	Years of service	Number	Mean	Standard deviation	df	F statistic	Sig
	6-10 years	24	2.94	0.63	74		
	11-15 years	17	3.44	0.61			
	16-20 years	10	2.95	0.71	79		
	21-25 years	10	3.17	0.86			
	Over 26 years	5	3.09	0.68			

Source: Author

6. CONCLUSION

The results of the first hypothesis suggest that there is a direct and significant relationship between leadership effectiveness and organizational transformation with correlation coefficient r = 0.485 in 99% confidence level. This finding is consistent and complies with known results of Marouf Zadeh (2013) and Madhu and Krishnan (2005) they had reported in their study a significant positive relationship. The results also suggest that there is a direct and significant relationship between organizational effectiveness and organizational citizenship behavior with a correlation coefficient r = 0.552 in 99% confidence level. This finding is consistent and complies with results of Abdollahian (2013), Ghezalbash (2013), Sohrabi and Khanlari (2009), Kazemi (2009), Gohari Poor (2009), Fincheng (2013), he and colleagues (2012), Wang and Wong (2011) also reported significant and positive relationship between organizational citizenship behaviors. According to this hypothesis, organizations and educational institutions, especially in the Department of Education, it is recommended to absorb training managers to note that managers pick and choose which conditions have transformational properties managers. Because transformational leadership is the ability to get people to need to change, improve and guide and includes incentives for partner's evaluation, needs assessment and is therefore worth giving them a transformational leadership and value to its partners, the more successful the company. And due to features, such as idealized influence, inspirational motivation, stimulate and support the development of civilization can be oriented towards a culture of knowledge sharing and satisfy the needs of knowledge workers who need to progress, the need for self-

employment, the need for business success and need fairness is a fundamental step forward and this is a factor in the effectiveness of the organization. The results of the second hypothesis suggests that there is a significant negative correlation between organizational effectiveness and leadership idealized influence the value of the correlation coefficient (r = 0.532), inspirational motivation between organizational effectiveness and leadership development with correlation coefficients (r = 0.880) and between organizational effectiveness and encourage logical next transformational leadership and correlation coefficient (r = 0.559) at the confidence level of 99%. This finding is consistent and complies with known results of Marouf Zadeh (2013), Madhu and Krishnan (2005) and Eilmaz and Ergun (2008). Thus, the education department managers who had high self-awareness, change behaviors usually show themselves. The managers have a moral and spiritual senses have high personal standards of behavior and a great desire to do things right, they were deeply respected and trustworthy by staff and teachers. They lead the staff, teachers and other officials in order to achieve the vision and mission of the Department of Education has encouraged them to follow the organizational vision and to create new opportunities for education, staff, teachers and other education department officials, implement organizational behavioral patterns of correct and healthy culture. The results of the third hypothesis suggests that there is a significant correlation between organizational effectiveness and altruistic citizens' behavior correlation coefficient (r = 0.548), between organizational effectiveness and loyalty of citizens' behavior correlation coefficient (r = 0.497) and between organizational effectiveness and work ethic of citizens' behavior correlation coefficient (r = 0.506) and between organizational effectiveness and civic attitude of citizens' behavior correlation coefficient (r = 0.513) at the confidence level of 99%. These findings are consistent and complies with results of Mahara and Yauchi (2013), trout Be (2013), Fincheng (2013), Wang and Wong (2011). Considering the above hypothesis and the results of relationship between organizational citizenship behavior and organizational effectiveness, staff and managers should promote positive attitudes toward the organization and its partners which makes the promotion of loyalty, work ethic and loyalty within the organization. The fourth hypothesis results show that the component of transformational leadership in the first step component inspirational motivation alone could predict 77% of organizational effectiveness and its influence is also entered in the second step idealized influence factors in this equation that this variable could change the 4% increase organizational effectiveness and influence on it. These results are consistent with the findings of Paymazd (2012), Madhu and Krishnan (2005) and Eilmaz and Ergun (2008). Also results show that the organizational citizenship behavior in the first step component of altruism alone could predict 29 percent change in organizational effectiveness and influence on it. This finding is consistent with results of Ghezalbash (2013), Mahara and Yauchi (2013), Fincheng (2013), Wang and Wong (2011). As results showed altruism hypothesis has the greatest impact on organizational effectiveness, it is suggested employees be encouraged to maintain an intimate relationship with colleagues and when we need help, help them in solving their problems. Fifth hypothesis results showed that the effectiveness of different male and female employees and male and female employees equally important organizational effectiveness. The findings also showed that the effectiveness of employees by age, education level and work experience are not different and are the same. These results are not consistent with the findings of Rakjah (2011) and Mahara and Yauchi (2013), they reported significant differences in gender, age, education level and work experience. The results of this study clearly recommend to policymakers and senior managers of the Department of Education through education, leadership training managers or reduce the level of corporate concentration, are favorable grounds for applying transformational leadership behaviors. Because Iran does apply in education leadership, is more effective instructional leaders or task-oriented leadership. Although this does not count as a disadvantage, however, the study puts the question on officials why organizational culture education department, employees and managers to try to do our duty defined at a level beyond expectations did not come? From the perspective of researchers, strengthening the culture and traditions of their own behavior accordingly urges school administrators in educational leadership and provides a possibility to improve performance and organizational effectiveness at the level of inner efficiency and provide a sense of personal staff and managers and increasing their effectiveness. Accordingly, we can offer two executive suggested: A) In particular, senior managers advised that the Department of Education provide the necessary context for change in educational leadership styles. In such circumstances, the Human Resources Department of

Education, along with the demands of development and in response to the requirements of its implementation, realize the importance of an effective leadership style of leadership styles, trying to take advantage of the best of them. The transformational leadership style in order to have shown its effectiveness in educational organizations, strong candidates for election to the high office of education are training managers. B) It is recommended to educational administrators in sporadic opportunities to apply the appropriate style of leadership, styles that their effectiveness is confirmed for educational organizations run on a trial basis. Although the effectiveness of implementation of a leadership style educational system is subject to its association with strategic plans, however, since orientation of large systems of Department of Education to the change in administration and leadership of schools takes place slowly, school administrators will attempt, however limited action and is dependent culture, Adds to the richness of organizational knowledge in the field and increases the accumulation of experience scattered, perhaps direction and speed of movement towards the transformation of the Department of Education in educational leadership.

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ORIGINAL RESEARCH PAPER

STUDY ON THE IMPACT OF ORGANIZATIONAL ETHICS AND TRANSFORMATIONAL LEADERSHIP ON THE ORGANIZATIONAL PERFORMANCE OF HORMOZGAN SADERAT BANK

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Abstract:

In today's world, the surrounding environment of organizations has already been more dynamic and it is essential for organizations to move towards the evolution to gain success. Transformational leadership as one of the leadership paradigms to improve the performance of the Organization in today's turbulent environment with the ability to incite the employees and the development of a corporate culture in which ethical procedures are considered as a behavioral norm is trying to forecast environmental changes. In this study, it is tried to deal with the role of organizational ethics and transformational on upgrading the organizational performance of the employees of Hormozgan Saderat Bank, so this research in terms of the nature is descriptive-experimental and in terms of the objective applied. Theoretical topics of this research are drawn from a library method (including books, scientific documentations, journals and academic theses) and articles and foreign thesis via valid websites. Relevant data will be collected via a questionnaire to verify the assumptions and goals of the research and to determine the inner harmony and the coefficient of the questionnaire's validity Cronbach's alpha coefficient was used. 180 persons of the staff of Saderat Bank in Hormozgan Province using field method and through a questionnaire, and the sample size in this research were selected in a reasonable manner and based on the scientific reasons and relations, and data analysis in this study was conducted using the SPSS software. The findings of the research suggest that there a significant relationship and correlation between the organizational ethics and organizational performance of the staff in the entire group of the research. Also, there is a significant relationship and correlation between transformational leadership and organizational performance of staff in the total group of the research.

JEL classification: M54, M59

Keywords: *organizational ethics, transformational leadership, organizational performance*

1. INTRODUCTION

At present the process of changes and the variety of tools used in life are getting more and more. The speed of the changes and transformation is to the extent that none of the human beings even in a last century did predict such changes. Global competition and the growing trade in East and West, in developed and in developing countries have created a highly volatile space for all businesses. In order to deal with this uncertain environment and constant changes, the need for people in the role of a leader is strongly felt. It is

evident that the traditional leadership in the third millennium will not continue and the world will need transformative leaders. Transformative leadership measures allow companies to upgrade their organizational performance when competing in a turbulent and unpredictable environment. When transformative leadership component is applied as complements of other leadership actions, it can become a source of competitive advantage for the company and to use this competitive advantage can help significantly in the strategic competition and gain higher returns in the short term and long term. In fact, without effective transformative leadership, the probability that the company can achieve a superior and even a satisfactory organizational performance in encountering the challenges of the global economy will be reduced. Nowadays, to justify the inevitability of the change phenomenon in organizations and the necessity of the resourcefulness in the direction of effective and right adjustment with changes, the perspective of "restless waters" is used. This view considers the organization as comparable to a boat that should pass a turbulent river that its water flow is always stormy. In this case, what makes the situation worse is that those are in this boat that did not have any cooperation before and none of them have passed the river before. In the path of the river, there are twists and big stones that the boat encounters them unexpectedly, and the destination of the boat is not properly clear as well, and every so often a few new people get in the boat, and some of them leave the boat. Lacket believes that if you withstand it throw you to the corner, nevertheless, if you sit on it, it can take you to a long distance in a short time. Certainly, it is much easier to wait for the waves of change, and get in it than you insist to remain motionless and be driven to a direction. Still and motionless management cannot be last for a long time; either the wave will sink it or the ship of this management remains submerged in the mud.

2. REVIEW LITERATURE

2.1 THE CONCEPT OF ORGANIZATIONAL ETHICS

The ethics is defined as a set of human mental and inner traits that appear in the form of behaviors and actions arise from internal moralities of human, and thus it is said that that ethics can be defined through its effects. The continuation of a specific behavior is because this behavior has found an internal and inner root in the depth of the individual's spirit and body in which that root is called ethics. Generally, the scope of ethics is considered as individual behaviors, but when individual behavior is generalized and spread at the level of the community or social institutions is exchanged to a kind of collective or social moral which is rooted in the culture of the society and finds itself a kind of predominant aspect that the community can be recognized with it. By organizations and corporations becoming complex, the management is also suffered from complexity. Organizational behavior is one of these complexities. Nowadays, in analyzing the behavior of organizations, addressing the moral values and ethics is one of the requirements. The external symbol of organizations is formed by their moral behaviors they are themselves the sum of various moral values in which organizations have been appeared (Bagheri, 2004).

The ethics has been used in three meanings:

1. The plural of the words Ethic and in the meaning of Ethics (any inner character, ranging from good and bad);

2. In the meaning of the character and proper behavior and not any kind of behavior;

3. In the meaning of good and bad knowledge of morals. This recent meaning (knowledge of reviewing and valuation on human behaviors and morals) is called ethics. In organizational view, the topic of the ethics has been raised as the factor of making balance between economic performance (revenues, costs and profits) and social performance of the organization (its commitments at home and abroad to others). The ethics is the observer of stable behavior. Doing good action in its limit is not called ethics; but in terms of being almost permanent, it takes the name of ethics. In the words of many thinkers, virtue is the sensual

Queen. The recent modality has the capability of predictability that the appearance of predictable moral behavior in individual is virtue and in organization is of important components of the progress and development.

Since morality is manifested individually in human behavior and it can be defined through its effects, at the level of the enterprise it is the organizational behavior that forms organizational ethics. Against the technical definition of the organization that knows it a sustainable, social and official structure that in oppose to receiving sources from environment and their process produces outsource, the organization in behavior perspective is a set of rights, privileges, obligations and responsibilities that has been balanced during a course of the conflicts and solving those conflicts. In the modernist theories, organizational environment affects the organization by imposing limitations and the requirement of the organization to adapt to the environment as the cost of continuing the life. The organization is affiliated to both the environment and at the same time facing uncertainty. From the modernist theorists of the organization perspective, this dependency and uncertainty justify and explain structures and organizational measures in the environment. The environment seeks its responsibly action against of organization and responsibly action forms the organizational ethics. From the perspective of institutional theorist, the organization not only conforms itself to the pressure of the internal groups, but also to the values of the Organization's foreign community. Park (2004) reflecting on this idea argued that "the organization not only competes to obtain the resources and customers, but also to gain political power and institutional legitimacy for social and economic relevance". The institutional pressures themselves have been divided into three categories:

1. Compulsory institutional pressures: the pressure induced for the compatibility of State laws and regulations.

2. Normative institutional pressures: arising from cultural expectations.

3. Mimetic institutional pressures: arising from the uncertainty of the Organization and its desire to become like other organizations.

Based on these categories it can be concluded that if the organizational ethics does not be endogenous (based on insight or internal tension of principals and employees not to crave the ethics and moral responsibility), then it can be considered as an approach to respond to institutional pressures. People's Protests against applying the unethical business ruined a wide range of organizations in the late 1990's (such as Saros (2001) in USA, Parmalt in Italy) or threatened their survival (Arnold, 2001). In the early years, numerous examples of protests British Petroleum Company about oil pollutions on the Gulf of Mexico can be mentioned.

Now the ethics in the form of the Organization's ethics charter and the rules of professional conduct of jobs is the inter-organizational basis of the institutions. In a recent decade, the increasing attention has been paid to this issue that its reason should be seen it in the events of recent decades such as globalization, the development of the lack of concentration, managerialism, the increased in gob-trade relationships of government agencies with the private sector, the growth of social studies and increasing request for social responsibility and accountability from the law and political references.

2.2. TRANSFORMATIONAL LEADERSHIP

Terminologies of evolution, transformational and transactional are the main topics of leadership studies, and used for the differentiation between leadership and management. The theory of transformational leadership at first was created by Burns (1978) to the distinction between those leaders who make strong and motivational relationships with followers and subordinates and those who widely focus on the exchange or interaction to create results. He indicated that a transformational leader is looking for potential motivation in followers and satisfying their higher needs. Transformational leaders establish a mutual motivational relationship that makes followers to leaders. Therefore, transformational leadership is interactional and two-sided (Duct, 2003).

Dai (2013) defines a transformational leadership as a leadership that occurs when the leader incites an interest among his colleagues and followers to see their works from a new perspective. The transformational leader creates knowledge from the mission or vision of the organization and develops colleagues and followers for higher levels of potential and ability. In addition, the transformational leader stimulates the colleagues and followers to pay attention to interests beyond their own interests that make benefit to the group.

Transformational leadership is a kind of leadership in which the leaders have the divine endowment and provide spiritual motivation for their followers and special attention and guide them by penetrating to their hearts. Transformational leaders create an organizational dynamic perspective that often makes the metamorphism necessary in the cultural values for reflecting more innovation. Transformational leadership is also seeking to create a relationship between individual and collective interests to allow subordinates to work for transcendental goals (Neyestani, 2012).

Transformational leaders are effective for several reasons: they are able both to unite their followers and to change the followers' beliefs and goals. The transformational leaders provide a picture of the future perspective to their followers. Since such leaders are able to form a clear and required perspective, they are probably able to stimulate the staff for participation in that perspective. Transformational leaders stimulate the subordinates to do job more than expected. Transformational leadership might be in several forms. Arnold (2001) has identified two types of transformational leadership: reformist and evolutionist. "The reformist works on the components while the evolutionist works on the whole. Reformist is looking for reforms coordinated with the existing trends and consistent with common principles and theories. Evolutionist is searching for determining the path, preventing or violating the theories and changing principles.

2.3. BACKGROUND OF CONDUCTED RESEARCHES

According to Bass and Avolio (2002) transformative leaders pay a lot of attention to growth and success of their followers on an individual basis. Individual considerations may include providing a kind of support, encouragement, exercises and evolutionary experience for followers. The transformative leadership gains the most organizational performance from subordinates because they can give inspiration to subordinates to increase their capabilities towards success and evolve the skill of solving problems and innovation of the subordinates, Xin and Zhu (2003) reported a positive relationship with the level of the followers' creativity. Also, Zhang et al (2003) found a significant relationship between leadership style and organizational climate.

On the other hand, Zhang et al. (2003) stated that the expansion of a research to this level of analysis has a good support for knowledge, because only a small number of experimental studies have look at the relationship between transformative leadership and organizational performance.

Angoni et al. (2006) in a research examined the impact of transformational and transactional leadership on job satisfaction, organizational commitment, and initial organizational citizenship behaviors in Tanzania. Regression analysis showed that transformational leadership dimensions have a strong effect on job satisfaction, organizational commitment, and motivation and organizational citizenship behaviors of teachers. It was also shown that although transactional leadership is associated with the variables, compared with transformational leadership is a poorer predictor for variables.

The results of Mehmet (2007) study titled the leadership style on organizational health showed that transformational leadership has a profound impact on the teachers ' job satisfaction, while transformational leadership of principals directly and through the teachers ' job satisfaction indirectly affect on the organizational health of the school.

Garcia and Morales (2008) have reviewed the impact of transformational leadership on innovation and organizational performance, which depends on the level of organizational learning in industrial companies.

The findings of the investigation showed that there is a positive relationship between transformational leadership and organizational innovation, between organizational performance and transformational leadership.

Gamus Logo and Eel Seev (2009) stated that transformational leadership affects motivation and job satisfaction, at the level of the enterprise, and they realized that these two factors have a serious impact on each other.

Noda (2010) has considered the factors affecting job incentive in organizations as encourage and punishment, work and job advancements, external expectations, cognitive interests, social discipline, dignity and respect for the jobs, human relations corporate, freedom of action and the possibility of progress in them that has examined these factors in the domain of knowledge, skills, opinions and social network.

Duffy (2010) has introduced the factors of discipline, the fair behavior between the partners, transformational leadership, professional and ultra-structural support through surveillance, control, leadership, participation in activities and deemed the way of the superior's behavior, the way of communicating with visitors, learning experiences in job environment, job opportunities, the effects of family environment, freedom of action and working interest and the trust of administrator on job incentive effective.

The Excel Team magazine in an article (2010) has considered the factors of positive reinforcement, high expectations of the job, effective punishment, justice in dealing with others, to meet the needs of employees, meaningfulness of job, honoring the efforts and endeavors on behalf of the superiors, the existence of group norm, exchanging information and sincerely cooperation, strengthening the job conscience and responsibility and the three indicators of job progress, the type of work and the attractiveness of work environment on the job incentive effective.

Tonkeh Nejad (2006) has compared the two styles of server and transformational leadership in two different environments and he writes in such a way that these two leadership styles help principals in adopting the leadership style. Server and transformational leadership styles that are of modern styles of leadership enjoy a lot of similarities due to the same basis and root that this article, while explaining the definition and expressing each style expresses the characteristics of these two styles, and at the end for more understanding of these two styles compares these two styles (Tonkeh, 2006).

Zahedi and Kheirandish in studying the impact of transformational leadership on citizenship behavior that conducted in 2009 have examined the relationship between transformational leadership and organizational citizenship behavior of staff. The main question in this research was: does the amount of the components of transformational leadership in organization lead a high level of to organizational citizenship behavior of staff? The Statistical population of the study is the staff of the National Company of distributing Iranian petroleum products and has been determined using the classified random sampling method. The instrument of data collection has been questionnaire and the research method, field descriptive. The results suggest the existence of a significant relationship among all the components of transformational leadership, and organizational citizenship behavior of staff. In the end, according to the findings of research proposals have been presented (Zahedi and Kheirandish, 2009).

In another article conducted by Niaz Azari et al. (2010), they examined the impact of the transformational leadership style and transactional leadership on teachers work ethics that he has investigated work ethics in high school teachers in Sari city so that in his research method 250 teachers among 650 teachers with the use of random stratified sampling method and in accordance with Karjasi and Morgan table have been selected and the sample size or sample was the same for principals. Research tools include the standardized questionnaires of Waner Bark transformational leadership and transactional leadership that were answered by 43 of school's principals and standardized questionnaire of ethics by Iraj Soltani that was answered by 210 teachers. The internal validity of the ethics questionnaire was obtained by Cronbach's alpha test of 0.802.

For the data analysis, two methods of descriptive statistics and inferential statistics were used. Research findings show that examining the first and the second question there is no significant difference between males and females transformational and transactional leadership style. The results of the third, fourth and fifth questions showed that the level of education and records of service does not have any impact on transformational leadership and transactional leadership styles. Reviewing the sixth, seventh, eighth and ninth question also showed that the level of education and records of service does not have a significant difference between men and women work ethics. The results of the research question have also shown that female's work ethics is more than that of males and there is a significant difference between work ethics of males and females (Niaz Azari et al., 2010).

3. RESEARCH METHOD

In this study, it is tried to study the role of organizational ethics and transformational leadership on upgrading the organizational performance of the staff of Hormozgan Saderat Bank, so this research is descriptive in terms of the nature and applied in terms of the objective. Theoretical research topics drawn from library method (includes scientific documentation, books, journals and academic theses), articles and external thesis from a reputable website. Relevant data to verify the assumptions and objectives of the research will be collected via a questionnaire and to determine the inner harmony and the rate of questionnaire validity coefficient, Cronbach's alpha coefficient was utilized. Statistical population of the research is the staff of Saderat Bank in the city of Bandar Abbas in Hormozgan using field method and through a questionnaire, and the sample in size will be selected in a reasonable manner and based on scientific reasons and relationships. The analysis of the data in this study is done using SPSS software.

Statistical population of the research includes all staff working in the branches of Saderat Bank of Hormozgan Province in 2015. The method of sampling is stratified random. In this case that, at first different fields are identified in the organization and assigned it to a sample in terms of the number of people in each field. Sample size was obtained with a preliminary study on the population level. Population studied in this research is 403 participants that to determine the sample size, Cochrane method is used and finally 180 individuals were selected as the sample size. To collect information, the following questionnaires were used.

- • **Paterson organizational performance questionnaire**
- • **Organizational ethics questionnaire**
- • **Transformational leadership questionnaire**

In this research for the study of literature and examination of the background of the research, library studies method (includes books, journals and academic theses) is used and articles and external thesis used in this study are received through a reputable site. Field method for the validation of the results in the real environment is examined. Of course, in field work there are also limitations because only a relatively small communities or groups can be studied with this method. Also, two standard questionnaires that include organizational ethics and transformational leadership questionnaire as well as the staff performance questionnaires have been used. For the analysis of the collected information, the methods of descriptive statistics and inferential statistics have been used. The use of descriptive statistics is done with the aim of quantifying and shortening the collected information about the statistical population, therefore, the purpose of the descriptive statistics is calculating the society parameters using the census of all elements of society. But generally, the purpose of inferential statistics is deducing the community through data analysis that this measurement is under the title of assessing uncertainty in these deductions. In inferential statistics, the researcher calculates the statistics using the sample values, and then generalizes the statistics to the community parameters with the help of estimation or the premise statistics test. For data analysis and

hypothesis test, inferential statistics methods are used. It is worth noting that for data analysis and assessing the amount of significance of the research assumptions, SPSS software has been used.

4. THE COLLECTED DATA ANALYSIS

- • The staff record of service

Table 1: Distribution of frequency and the percentage of staff based on record of service

Record of Service	Frequency	Percentage
One to five years	48	26.67
Six to ten years	36	20.00
Eleven to twenty years	59	32.78
Twenty-one years and more	37	20.56
Total	**180**	**100.00**

Source:Author

As described in table (1) 26.67% of the responsive staff has been with record of one to five years, 20% with record of six to ten years, 32.78% with record of eleven to twenty years, and 20.56% twenty-one years and more.

Table 2: Frequency, mean and standard deviation for research components

Variable	Dimensions	Number	Mean	Standard Deviation
Organizational ethics	Conscientiousness	180	3.52	0.58
	Altruism	180	4.23	0.38
	Social customs	180	3.13	0.52
	Magnanimity	180	3.10	0.64
	Respect	180	4.05	0.39
Transformationalizm	Charismatic Leadership	180	4.16	0.43
	Individual Attention	180	3.32	0.61
	Mental Stimulation	180	3.05	0.84
Organizational Performance		**180**	**3.54**	**0.59**

Source:Authors

Based on table 2 it is observed that altruism dimension in organizational ethics has the highest mean (4.23) and the standard deviation of 0.38 and magnanimity dimension has the lowest mean (3.10) and standard deviation of 64.0. Also, charismatic leadership dimension in transformational leadership has the highest mean (4.16) and the standard deviation of 0.43 and then mental stimulation dimension has the lowest mean (3.05) and the standard deviation of 0. 84.

4.1. STUDY ON THE NORMALITY OF DATA

At the beginning of this section of data analysis, at first one sample Kolmogorov Smirnov test was used to study the normality of the study variables. In the test, null hypothesis represents the normality of data distribution and alternative hypothesis indicates non-normality of it. Based on the results of the table, the values of significance level of all variables in the research was higher than 0.05. Therefore, the assumption of normality of these variables distribution was confirmed and alternative hypothesis based on nonnormality of data distribution rejected.

Table 3: One sample Kolmogorov Smirnov test to determine the normality of data

	Kolmogorov-Smirnov		
	Mean	**Number**	**Significance level**
Organizational Ethics	0.668	180	0.715
Transformationalizem	0.723	180	0.759
Organizational Performance	0.736	180	0.768

Source: Authors

- **Investigating the uniformity of variance**

Table 4: Related to the investigating the uniformity of variance

Index	**F**	**First Degree of Freedom**	**Second Degree of Freedom**	**Significance Level**
Organizational Ethics	9.25	1	138	0.001
Transformationalizem	7.26	1	138	0.001
Organizational Performance	10.576	1	138	0.001

Source: Authors

In the above table that has been obtained for variance consistency test for variables and components obtained from a value of F in which the low value of P relevant to the significance level in output indicates that the uniformity assumption is being accepted.

4.3. HYPOTHESIS TEST

The first hypothesis test: organizational ethics affects organizational performance of ormozgan Saderat Bank.

- **The main variable of the first hypothesis test:**

Table 5: coefficient of determination relating to the impact of organizational ethics on the organizational performance of Saderat Bank

R Coefficient	**Coefficient of determination (R²)**	**Adjusted Coefficient of Determination**	**DW**	**Standard error**
0.558	0.311	0.306	1.99	48.545

Source: Authors

In the table above coefficient of determination is R² = 0.311 i.e. organizational ethics components has been able to explain the variable of organizational performance to the value of 31.1% and data dispersion around this regression is 28.545.

As can be observed in table 6, organizational ethics component forecasts significantly organizational performance, so that with beta value of 0.394 and value of t = 7.771, in significant level of $\alpha = 0.001$ (less than P=0.01) is the positive predictor of organizational performance.

Table 6: β coefficients and t values and significance level for the impact of organizational ethics on organizational performance of Saderat Bank

Sources	Non-standard coefficients		Standard Coefficients	t	Significance levels
	B egression coefficient	Standard error	β		
Constant	191.559	17.681		10.834	0.001
Organizational ethics	1.782	0.229	0.394	7.771	0.001

Source: Authors

The second hypothesis test: transformational leadership influences organizational performance of Hormozgan Sederat Bank.

□ **The main variable of the first hypothesis test:**

Table 7: Coefficient of determination relating to the impact of transformational leadership on organizational performance of Saderat Bank

R Coefficient	Coefficient of determination (R²)	Adjusted Coefficient of Determination	DW	Standard error
0.571	0.326	0.321	2.01	21.185

Source: Authors

In the above table coefficient of determination is R² = 0.326, i.e. the components of transformational leadership of 32.6% value have been able to explain dependent variable of organizational performance of Saderat Bank and data dispersion around this regression is 21.185.

Table 8: β coefficients and t values and significance level for the impact of transformational leadership on organizational performance of Saderat Bank

Sources	Non-standard coefficients		Standard Coefficients	t	Significance levels
	B egression coefficient	Standard error	β		

| Constant | 76.708 | 13.122 | | 5.846 | 0.001 |
| Organizational ethics | 1.904 | 0.170 | 0.561 | 11.185 | 0.001 |

Source: Authors

As can be observed in table 8, componential leadership component forecasts significantly organizational performance of Saderat Bank, so that with beta value of 0.561 and value of t = 11.185, in significant level of α = 0.001 (less than P=0.01) is the positive predictor of organizational performance.

5. CONCLUSION

Investigating hypothesis 1: organizational ethics affects organizational performance of Saderat Bank.

Research findings show that there is a significant relationship and as a result correlation between organizational ethics and organizational performance of staff in the whole research group. According to the coefficient of determination table $R^2 = 0.326$ i.e. transformational leadership components to the value of 32.6% has been able to explain dependent variable of organizational performance of Saderat Bank Saderat and data dispersion around this regression is 21.185.

Investigating hypothesis 2: transformational leadership affects organizational performance of Saderat Bank.

Research findings show that there is a significant relationship and as a result correlation between transformational leadership and organizational performance of staff in the whole research group. According to the coefficient of determination table $R^2 = 0.311$ i.e. organizational ethics components to the value of 31.1% has been able to explain dependent variable of organizational performance Saderat and data dispersion around this regression is 28.545.

Recommendations

•   Since organizational ethics influenced organizational performance of staff, therefore it is recommended that organizations hold classes and training seminars regarding the improvement of organizational ethics and explaining its dimensions. • Since human forces, whether on an individual basis or as a group and in interaction with others is still the most important factor of competitive advantage, people judging about accuracy and inaccuracy of works severely affects the quantity and quality of their organizational performance and consequently, the performance of the organization and therefore its success. Hence, paying attention to ethical principles for organizations is an inevitable requirement.

•   Finally, organizations and principals should move step by step to create organizational ethics. Because the process of organizational ethics is not a one-day process that can quickly enter it into the organization like a new technology, rather is a continuous and time-consuming process.

•   Since that transformational leadership style had an impact on organizational performance of staff, therefore it is recommended that organizations hold training classes and courses of new and transformational leadership styles for their senior and middle executives and encourage principals to implement them.

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ORIGINAL RESEARCH PAPER

THE EFFECT OF CHANGES (TIME, PROFESSION, ETC.) ON THE POSITION OF WOMEN ENTREPRENEUR

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Abstract

Introduction: in the developed countries, paying attention to women's job has been always considered by planners to realize social development. This study has investigated the effect of changes created (time, profession, etc.) on position of women entrepreneur in Comprehensive Center for Women and Family Empowerment and Entrepreneurship. Statistical population of this study consists of managers, experts and women entrepreneur in Comprehensive Center for Women and Family Empowerment and Entrepreneurship. The size of population is infinite. Using sampling method and according to Krejcie - Morgan table, a minimum number of 384 people are introduced for the study and about 215 users responded. The method applied in this study is descriptive-survey method in kind of applied research and correlation. Required data was collected and was classified in Excel file as reference data. Moreover, the hypotheses are tested using LISREL equation structure software. Obtained results showed that professional positions (job and learning) of the current age can affect position of women entrepreneur according to traditional methods of entrepreneurship, knowledge and the knowledge development in a growing business, meeting personal needs of women and promotion of use of information communication technology (ICT) to facilitate affairs.

JEL *classification: L26, L29*

Keywords: *gender, technology in entrepreneurship, women's skills*

1. INTRODUCTION

When talking about employment and entrepreneurship of women, number of employed women comes to mind; although the highest amount of employment is belonged to rural and self-employed and also urban women entrepreneur. Hence, one of the most important indicators to measure degree of development of a country is the importance and credit of women of the country. As half of total population of the world is formed of women and two-thirds of working hours is filled by women, only 1 tenth of the income of the world and only one percent of ownership of properties and assets are belonged to women. Lack of participation of women in economic activities can be a problem in way of development of country. Entrepreneurship can play an important role in development and economic growth of states as a modern phenomenon in field of economics. Nowadays, entrepreneurship plays key role in countries with competitive economic system and market-oriented states. In other words, in a dynamic economy, ideas, products and services change continuously and in this field, the entrepreneur can bring a pattern to cope with the new conditions. Hence, in a wide range, all active elements in economics (consumers, suppliers and investors) must consider entrepreneurship and they must be also entrepreneur for their part. The concept of entrepreneurship has been always existed throughout the human creation. Nowadays, entrepreneurship is a common term among many people (Mokaya et al, 2012). Necessity of women's entrepreneurship must be enhanced through increasing and expanding job opportunities based on creativity that its cultural-value burden is controllable. As women have tender and motherly nature, they must choose a job that they are

prepared for it from every aspect. Therefore, according to importance and role of women in the society, this study is aimed in investigating the effect of the changes such as job, knowledge and development on position of women entrepreneur.

2. THEORETICAL FRAMEWORK

Today, the term "entrepreneurship" can remind concepts such as innovation, risk-taking, creation of structure of an economic and social unit, personal satisfaction and independence seeking. All people believe that entrepreneurship is driving motor of economic development of developing and developed countries. Entrepreneurship is the process of creation and achievement to opportunities and following them with paying no attention to currently available resources. One main aspect of entrepreneurship is to identify and use opportunities to expand smaller companies. Entrepreneurship refers to the process of innovation and use of opportunities with abundant effort and taking financial, mental and social risks with the motivation of gaining financial gain, need for achievement, personal satisfaction and independence (Hisrich, 1985). Entrepreneurship is a process of supplying new thoughts and ideas, use of available opportunities and facilities relying on knowledge and the profession related to it and risk-taking. An entrepreneur provides required conditions such as land, workforce, materials and capital to realize desired ideas. Moreover, an entrepreneur uses decision making power, skills and personal talents to design, organize, establish and manage the new department and realizes the desired ideas to make money. Entrepreneur is not a capitalist; although such person can use stagnant capitals properly. Moreover, such person may have inventor, scientist, and expert and may use arts of other people. Jeffry Timmons believes that entrepreneur creates a valuable thing from nothing. Bill Gates believes that the most solutions are discovered elsewhere and they should be identified and transferred from that scope to the internal scope and this is same entrepreneurship (Motahari, 2007: 37). Lavey Dina (1995) has defined women entrepreneur as follows: women who create a business by themselves or with cooperation of others or through heritage and take the financial risks and social, moral, and mental risks and attend in daily affairs and create new products with creativity and innovation to overcome competitors in the market (Golrad, 2005: 103). Brush (1990) believes that women entrepreneurship includes all activities of women in field of cooperative or independent self-employment, quarterback and all single ownership and new businesses (Djiver, 2006: 3). According to limited number of studies about women entrepreneurship, definition of women entrepreneurship is also limited. One of the definitions is presented by Wells (1998). From perspective of Wells, women entrepreneur is a person who creates new business and investigations. He believes that women entrepreneurship includes all women's activities in field of cooperative selfemployment, independent self-employment and quarterback and all single ownership and new businesses (Djiver, 2006: 5).

3. RESEARCH HYPOTHESES

Over the past 30 years, entrepreneurship is changed into a desirable social behavior, so that many countries today are aimed in planning to develop it as a social evolution and change. Promotion of entrepreneurship is the main issue of policy makers at least for two reasons: economic effect and idea of entrepreneurs as agents of change, growth and innovation (Byer et al, 1997).

Entrepreneurial behaviors such as creation and establishment of business can be trained and learnt. Hence, according to Peter Dracker, entrepreneurship is behavior and based on theory and not based on inspiration and illumination (Collins et al, 2004).

Natasha and Karen (2017) have conducted a study to investigate critical perspectives on migrant small businesses among Thai women entrepreneurs in Sweden. Obtained results from this study showed challenging normative perspective in entrepreneurship according to gender approach of perceiving business

activities of Thai women. Moreover, family structure, the duration of immigration and labor market status are the factors affecting position of Thai women entrepreneurs in Sweden.

Fatima and Muneer (2016) have investigated factors affecting performance of women entrepreneurs in SMEs. The results obtained from the study showed that the most effective factors include entrepreneurship goals, incentives and legal factor. Sarker and Palit (2014) have explored the main success factors of women entrepreneurs in achievement to technology, individual skills, education and incentives, freedom and social security, commercial property, helping easy regulations, family support and guarantee of quality and facing risks.

According to the results of various studies, various factors can affect position and success of women entrepreneurs including psychological-personality characteristics (Sarker & Palit, 2014; Papzan et al, 2008; Ray & Charles, 2005; Ferris et al, 2002), economic factors (Coy et al, 2007), demographic factors (Ferris et al, 2002), network o / Communications factors (Sarker & Palit, 2014; Shabbir & Gregorio, 1996), social factors (Sarker & Palit, 2014) and legal factors (Sarker & Palit, 2014; Coy et al, 2007).

According to the mentioned, the hypotheses and research model are presented as follows:

Hypothesis 1: Professional positions (job and learning) of current age can affect position of women entrepreneur due to traditional methods of entrepreneurship.

Hypothesis 2: Knowledge and the knowledge development in a developing business can affect position of women entrepreneurs.

Hypothesis 3: Social-cultural changes and discourses can affect position of women entrepreneurs.

Hypothesis 4: Meeting personal needs of women can affect position of women entrepreneurs.

Hypothesis 5: Promotion of using ICT to facilitate affairs can affect position of women entrepreneurs.
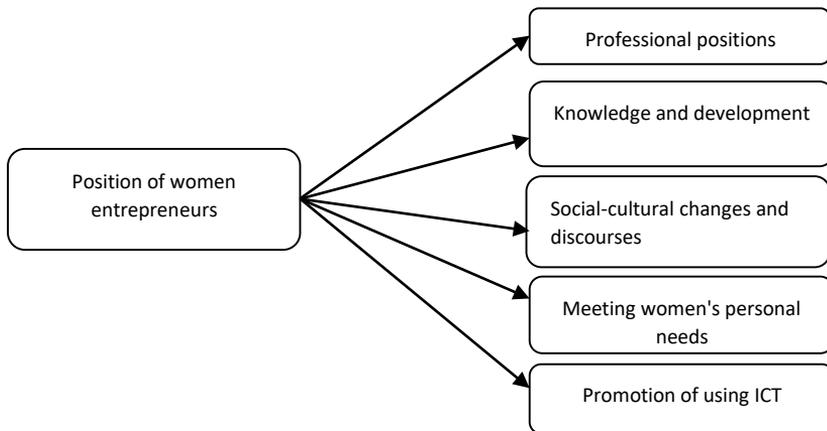
Figure 1: Conceptual model of research

3.1. METHODOLOGY

In terms of purpose, this study is an applied research and in terms of data collection method, it is descriptive research and in terms of control level, it is among field studies and in terms of research level, it is causal-relational research. Statistical population in this study consists of managers, experts and women entrepreneur in Comprehensive Center for Women and Family Empowerment and Entrepreneurship. The size of population is infinite. In this study, cluster sampling is used at the first. To select individuals, simple random sampling is used. Using sampling method for infinite population and according to KrejcieMorgan table, a

minimum number of 384 people are introduced for the study (384 questionnaires were distributed and only about 215 people responded and the return rate of questionnaire is equal to 56%). ▯ Data collection instrument and data analysis

In order to collect theoretical literature of information about the literature of the studied topic, library method and documented studies are used. one of the main methods for data collection in this study is library method, so that the required theoretical discussions of the study are collected from relevant sources such as books, articles, theses and the sources available in databases and libraries of universities and

Higher Education Institutes. In this study, questionnaire is used for purpose of data collection. The questionnaire is derived from research conducted by Irene Kamberidou (2013). The items of measurement of main research variables are designed based on Likert scale and are pointed from totally agree to totally disagree (table 1). After this step, the mentioned items are presented to professors and experts to consider their attitudes to adjust and correct items and to confirm validity of the questionnaire.

Table 1: Variables and measurement methods

Research variables	Measurement criteria
Professional positions (job and learning)	5-point Likert scale, average of questions 1-5
Knowledge and development	5-point Likert scale, average of questions 6-10
Social-cultural changes and discourses	5-point Likert scale- average of questions 11-15
Meeting women's personal needs	5-point Likert scale- average of questions 16-18
Promotion of using ICT	5-point Likert scale- average of questions 19-22
Position of women entrepreneurs	5-point Likert scale- average of questions 23-27

Source: Authors

▯ **Reliability of research instrument**

In order to measure reliability of the questionnaire, Cronbach Alpha is used in SPSS-21 software. Cronbach alpha is regarded as an estimation of reliability of research instrument and can specify correlation of internal instruments of research. Reliability coefficient (Cronbach alpha) is a function of number of items in the questionnaire dividing to heterogeneous samples in answering questions. The table 2 has presented results obtained from testing reliability for each group of research variables.

Table 2: Reliability test

Variable	Cronbach Alpha	Result
Research questionnaire	83.8	confirmation of reliability

Source: Authors

In the following, the data are collected using Excel software in frame of data reference. The method of testing hypotheses in this study is research data using equation structure software of $LISREL_{8.50}$.

4. DATA ANALYSIS AND RESULTS

According to table 3 (appendix 1), almost 44% of respondents are in age range of 20-30 years old; 20.5% are in age range of 31-40 years old and about 36% are in age range over 41 years old. Moreover, education level of the respondents is as follows: 51% of respondents are in BA level and about 49% of respondents are in MA and higher educational levels. According to the table 3, about 47% of respondents are female and 53% are male. Moreover, 41% of respondents have work experience of 5 years and below, 14% have experience of 5-10 years and 42% have work experience over 10 years. Moreover, to test normality of distribution of answers related to each factor, Kolmogorov-Smirnov test is used. According to table 4

(appendix 2), the results obtained from K-S test is significant for no one of studied variables and hence, the distribution of variables is normal.

4.1. EQUATION MODELING OF RESEARCH MODEL
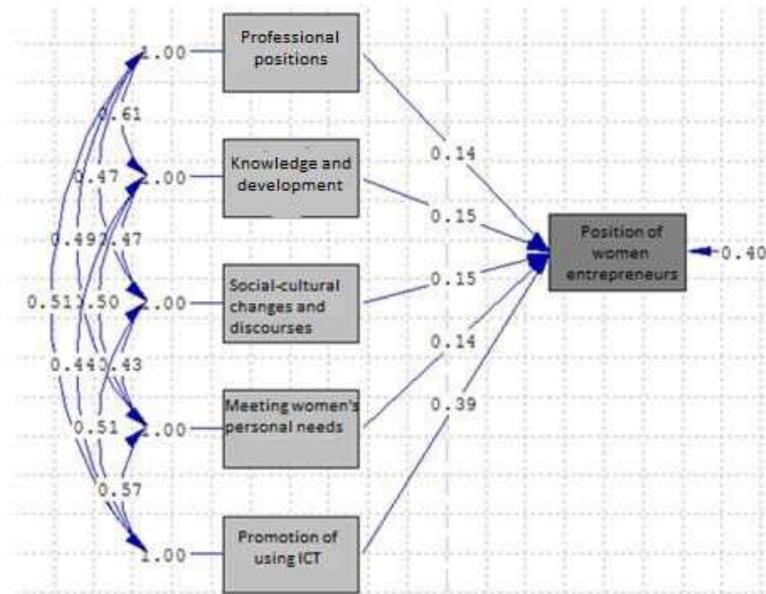
This section presents the model of standardized values:

Figure 2: Final structural model of research in state of standard estimation

Source: Authors

Moreover, significance level of the correlation between variables is as follows:
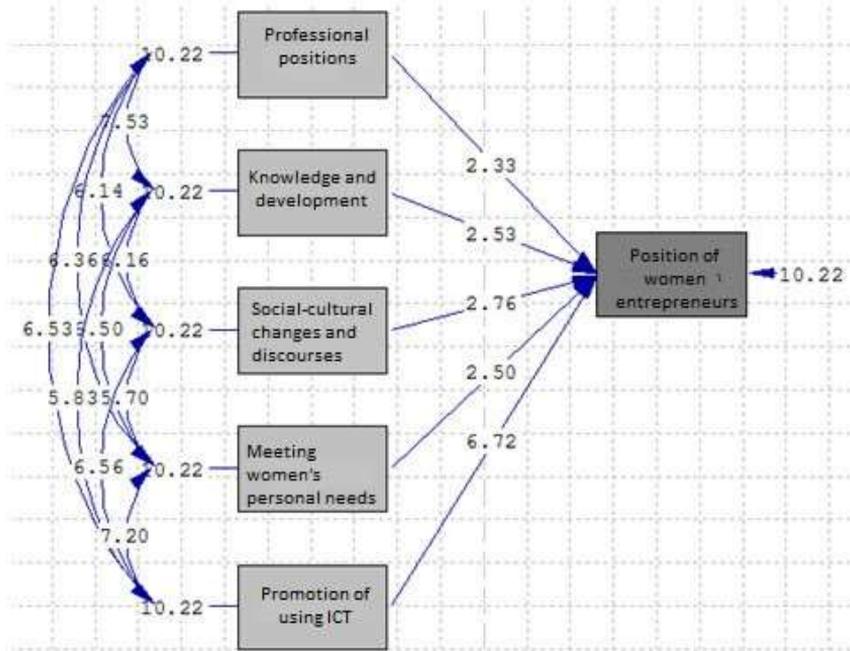
Figure 3: final structural model of research in significant state

Source: Authors

Other values of final model are presented in table 5.

Table 5: Values of final model

Hypotheses	Standardized value (Landa)	Standard Error	T-value	R₂	p-Value	Result
Hypothesis 1	0.14	0.034	2.33	0.6	P<0.05	confirmed
Hypothesis 2	0.15	0.033	2.53	0.6	P<0.05	confirmed
Hypothesis 3	0.15	0.051	2.76	0.6	P<0.05	confirmed
Hypothesis 4	0.14	0.032	2.5	0.6	P<0.05	confirmed
Hypothesis 5	0.39	0.049	6.72	0.6	P<0.01	confirmed

Source: Authors

Standard estimation values of factor loads calculated using Maximum Likelihood Method are presented in table 5. These values that are called as the term "λ " are used for standard estimation of latent variables in Structural Equation Modeling and the values are comparable. Moreover, values of standard estimation error show error level in raw estimation of factor loads. The lower values (close to 0) show more exact estimations and lower confidence interval.

4.2. RESEARCH MODEL

In structural equation modeling, the model estimations can be reliable, when the model has sufficient and good fitness.

Table 6: Final model fitness indices

Index	Acceptable range	Value	Result
X^2/DF	$X2/DF \leq 3$	2.81	confirmed
RMSEA	RMSEA<0.09	0.069	confirmed
GFI	GFI>0.9	0.93	confirmed
AGFI	AGFI>0.85	0.90	confirmed
CFI	CFI>0.90	0.93	confirmed
IFI	IFI>0.90	0.93	confirmed

Source: Authors

All fitness indices used here show that the model has good fitness. Hence, it could be found that the research model has high ability to measure main research variables. According to standard nature of model, the results of LISREL are reliable.

According to table 5, the results obtained from testing research hypotheses using structural equation modeling are as follows:

Hypothesis 1: professional positions (job and learning) of current age can affect position of women entrepreneur due to traditional methods of entrepreneurship.

According to standard estimation of variable of effect of professional positions (job and learning) of current age due to traditional methods of entrepreneurship on position of women entrepreneurs to 0.14 and values of T=2.33 and R2=0.6; it could be found that at confidence level of p<0.05, the professional positions (job and learning) of current age can affect position of women entrepreneurs due to traditional nature of entrepreneurship methods. Hence, the H1 is confirmed.

Hypothesis 2: knowledge and the knowledge development in a developing business can affect position of women entrepreneurs.

According to standard estimation of the effect of knowledge and the knowledge development in a developing business on women entrepreneurs to 0.15 and values of T=2.53 and R2=0.6, it could be found that at confidence level of p<0.05, knowledge and development in a developing business can affect position of women entrepreneurs significantly. Hence, the H2 is confirmed.

Hypothesis 3: social-cultural changes and discourses can affect position of women entrepreneurs.

According to standard estimation of effect of social-cultural changes and discourse on position of women entrepreneurs to 0.15 and values of T=2.76 and R2=0.6, it could be found that at confidence level of p<0.05, social-cultural changes and discourse can affect position of women entrepreneurs significantly. Hence, H3 is confirmed.

Hypothesis 4: meeting personal needs of women can affect position of women entrepreneurs.

According to standard estimation of the effect of meeting personal needs of women on position of women entrepreneurs to 0.14 and values of T=2.5 and R2=0.6, it could be found that at confidence level of p<0.05, meeting personal needs of women can affect position of women entrepreneurs significantly. Hence, H4 is confirmed.

5. CONCLUSION

Entrepreneurship is the core and gravity center of effort and work and advancement in modernity age. It was observed in this study that women in field of entrepreneurship in modern societies have created many

changes and development in all economic, social, cultural and political activities and have been considered as the most important instrument for modern entrepreneurship. As it was mentioned, women play key role in economic cycle of d\family and the society because of their creative perspective and high skills and as the breadwinners and main factor raising children. If the conditions are provided for activity and employment in society for women as such huge force that can take various kinds of actions formally and informally, their potential talents and skills would be actualized and they can be effective and useful not only for making money and welfare of family, nut also they can be also a capital resource for their country. Although cultural actions are required to refine inequality and sexism, women must not wait for changes passively, but also they must take effort to deform and change the existing conditions. The process of entrepreneurships begins with formation of a thought and idea and is implemented through choosing best ways and approaches, supplying resources and overcoming the obstacles. Economy of a society can be successful based on entrepreneurs. Success factor of entrepreneurs, especially women entrepreneurs, is finding creative methods to meet more desires and expectations using modern technologies and lower costs. Moreover, women entrepreneurs can change the bottlenecks and environmental threats into new opportunities and communicate the market through using their creativity and risk-taking ability.

Empowerment of motivation of women and enhancement of their individual and personality characteristics such as creativity, power and credit is useful. Also, educational workshops and training courses can be hold for them with participation of successful women entrepreneurs. Moreover, role of information resources of women entrepreneurs is important in field of success development and making these information sources available for them can be useful. This study has had some limitations as follows:

1. The bottlenecks existed in field of selecting statistical sample and hard access because of scatter of statistical samples

2. Weakness in documentation of research objectives and lack of access to the information registered

3. Data collection instrument in this study has been questionnaire that measures attitude of the respondent and hence, he instruments has innate limitations.

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APPENDIX 1: DEMOGRAPHIC STATISTICS

Table 3: demographic description of research

Demographic variable		Frequency	Frequency percent
Education	BA	111	51.4
	MA and higher	104	48.6
Age	20-30 years old	94	43.8
	31-40 years old	44	20.5
	over 41 years old	77	35.6
Gender	male	115	53.4

	female	100	46.6
Work experience	5 years and below	88	41.1
	5-10 years	35	16.4
	10-15 years	15	6.8
	15 years and more	77	35.6
Total		215	

Source: Authors

APPENDIX 2: NORMALITY OF VARIABLE DISTRIBUTION

In this study, to test normality of the answers related to each factor, Kolmogorov-Smirnov test is used. This test is used to test the claim about normality of data distribution of a quantitative variable. Statistical hypotheses in this test are as follows: H0: data distribution is normal

H1: data distribution is not normal

In case of confirmation (p-value>0.05), distribution of deviations is normal. Obtained results from this test are presented in table 4.

Table 4: results of testing normality of data distribution

Variable	Kolmogorov-Smirnov		
	Stat	df	Sig
Professional positions (job, learning)	1.183	214	0.122
Knowledge and development	1.310	214	0.065
Social-cultural changes and discourse	2.251	214	0.122
Meeting women's personal needs	0.857	214	0.312
Promotion of using ICT	1.547	214	0.187
Position of women entrepreneurs	1.812	214	0.096

Source: Authors

According to table 4, results of K-S test is significant for no one of studied variables. Hence, distribution of variables is normal.

APPENDIX 3: SOFTWARE OUTPUTS

DATE: 11/25/2016

TIME: 20:45

L I S R E L 8.50

BY

Karl G. J¤reskog & Dag S¤rbom

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Number of Iterations = 0

LISREL Estimates (Maximum Likelihood)

Structural Equations

MoghZana = 0.079*MoghHer + 0.084*DaneTose + 0.14*TaghEjFa + 0.081*BaraNiaz + 0.33*TarvFana,
Errorvar.= 0.13 , R² = 0.60

(0.034)   (0.033)   (0.051)   (0.032)   (0.049)   (0.012)

2.33   2.53   2.76   2.50   6.72   10.22

Covariance Matrix of Independent Variables

MoghHer DaneTose TaghEjFa BaraNiaz TarvFana

-------- -------- -------- -------- --------

MoghHer   1.00

(0.10)

10.22

DaneTose   0.61   1.00

(0.08)   (0.10)

7.53   10.22

TaghEjFa   0.28   0.28   0.36

(0.05)   (0.05)   (0.04)

6.14   6.16   10.22

BaraNiaz   0.49   0.50   0.26   1.00

(0.08)   (0.08)   (0.05)   (0.10)

6.36   6.50   5.70   10.22

TarvFana   0.34   0.30   0.21   0.39   0.46

(0.05)   (0.05)   (0.03)   (0.05)   (0.04)

6.53   5.83   6.56   7.20   10.22

Goodness of Fit Statistics

Degrees of Freedom = 62

Minimum Fit Function Chi-Square = 170.22 (P = 0.00)

Normal Theory Weighted Least Squares Chi-Square = 174.20 (P = 0.00)

Estimated Non-centrality Parameter (NCP) = 112.20

90 Percent Confidence Interval for NCP = (76.59 ; 155.45)

Minimum Fit Function Value = 0.45

Population Discrepancy Function Value (F0) = 0.30

90 Percent Confidence Interval for F0 = (0.20 ; 0.41)

Root Mean Square Error of Approximation (RMSEA) = 0.069

90 Percent Confidence Interval for RMSEA = (0.057 ; 0.081)

P-Value for Test of Close Fit (RMSEA < 0.05) = 0.0052

Expected Cross-Validation Index (ECVI) = 0.61

90 Percent Confidence Interval for ECVI = (0.52 ; 0.73)

ECVI for Saturated Model = 0.48

ECVI for Independence Model = 4.24

Chi-Square for Independence Model with 78 Degrees of Freedom = 1580.13

Independence AIC = 1606.13

Model AIC = 232.20

Saturated AIC = 182.00

Independence CAIC = 1670.35

Model CAIC = 375.46

Saturated CAIC = 631.56

Normed Fit Index (NFI) = 0.89

Non-Normed Fit Index (NNFI) = 0.91

Parsimony Normed Fit Index (PNFI) = 0.71

Comparative Fit Index (CFI) = 0.93

Incremental Fit Index (IFI) = 0.93

Relative Fit Index (RFI) = 0.86

Critical N (CN) = 203.17

Root Mean Square Residual (RMR) = 0.041

Standardized RMR = 0.057

Goodness of Fit Index (GFI) = 0.93

Adjusted Goodness of Fit Index (AGFI) = 0.90

Parsimony Goodness of Fit Index (PGFI) = 0.64

Time used: 0.016 Seconds

STUDY THE SITUATION AND THE TENDENCY TO GENDER STEREOTYPES IN DIFFERENT TYPES OF CAREER IN ARAK, IN 2015

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Sociology and member of faculty in Islamic Azsd university Ashtyan

Abstract

This research aimed to study the situation and the tendency to gender stereotypes in different types of career in 2015. In this study, the theories of Durkheim, Weber, Parsons, Davis and Moore, Rich Vey, Rosabet Moss Kanter, Carol Gilligan, Walter Lippmann, Henson and Rogers are used. The statistical population included all individuals working in the city of Arak that 380 samples were selected by using Cochran sampling. In this survey, to examine the hypothesis, the independent t-test, ANOVA and Pearson correlation test were used. The results show that factors such as adherence to moral values, burnout, patriarchy at work and the separation of roles in the family are influential on the trend of gender stereotypes.

1. INTRODUCTION

There are significant differences between two genders and, above all, it is the ability of women in childbirth. These biological differences help the development of sexual identity, which means, "being a woman" or "being a man". In fact, sexual identity is the first and the foremost identity that people learn. Children will understand their sexual identity as a girl or boy from 18 months to 3 years old. In many societies, there are differences between the sexes that almost exclusively are because of their biological distinctions. This largely reflects the impact of socialization (Sotoudeh, 2005).

Some researchers believe that the main method of classifying people is based on gender (female and male). For example, the first question that people ask about a baby is likely to be: "a boy or a girl?" In one study, 80 percent of the people first, asked about being a boy or a girl baby and then, thanks to them, they asked about the health of the mother or the baby, but only after they were relieved that the baby is a boy or a girl (Matlyn, 1986 According to the Sotoudeh, 2005). Therefore, the study of gender stereotypes in different types of career in Arak will be done to measure the tendency to these stereotypes. In stating the problem, the existence of gaps in scientific knowledge was proven, and then, by using the theories of sociologist, the theoretical framework and the hypotheses are explained. So that, by using independent ttest, ANOVA and Pearson correlation test, the questionnaire data can be used as a conclusion. Practical suggestions are also presented to help the gender stereotypes in a variety of jobs in Arak.

1.1. STATEMENT OF PROBLEM

The main objective of this study is to investigate and study the situation and the tendency to gender stereotypes in different types of career. Human society is composed of two halves, male and female. A man

and a woman that need each other to survive and make a living, man and woman that joining them, is the fundamental basis of characteristic in a society that if it is safe, it will be the most secure environment for individual members of society. The family can be a comfortable place, and it can renew mental and physical faculties and provide psychological security.

Zadeh, Momayeni (2011), believe that based on gender stereotypes, women and men have specific characteristics, specific behavior and specific psychological states in the community, and finally, they have the ability to perform tasks and things that are usually different from each other. On the one hand, stereotyping allocates the abilities and characteristics to men that women do not have. On the other hand, the men think and behave more stereotyped than women behave. In addition, Mohammad Ismail Riahi, in 2007 conducted a study entitled social factors affecting the adoption of gender stereotypes. He concluded that tools or constructive personality traits, such as active, energetic, independent, aggressive, director, strong and mighty have been attributed to men and expressive or morale personality traits such as emotional, sensitive, charming, quiet, tolerant, anxious, dependent on others and concerned have been attributed to women. It was also found that between gender, location, education level, family income and strict parents with the acceptance of traditional gender stereotypes, traditional occupational attitude and marital status are effective on the acceptance of gender stereotypes.

Sex refers to physical differences. Gender relates to differences in psychological, social and cultural between men and women. The distinction between sex and gender is a fundamental distinction, because many differences between men and women are not biological origin (Giddens, 1998).

Stereotypes are pre-formed notions about individuals, groups or objects (Adhami, Roghanian, 2009). The concept of stereotypes or stereotypical behaviors represents the behavior of a group of people that have exaggerating imagination about their members and those outside the group. Stereo word has a Greek root and means "stiff" and "hard". Stereotypes are formed through the combination of prejudices and biases. Since the stereotypes include feelings and emotions like love and loyalty (to the team), or hatred and fear (to those outside the group), which even are hard to change in the face of contradictory evidence (Azdanlo, 2005).

The word job literally means to get busy, engage and having fun (Dehkhoda, 1958). Giddens defines job as follows: job means performing tasks that involve mental and physical efforts and aim to produce goods and services that fulfill human needs. Job or career is something that will be done for a regular wage or salary. Work in all cultures is the basis of the economic system, which includes institutions that deal with the production and distribution of goods and services (Giddens, 1994).

All communities have expectations from their members about behaviors, attitudes and values. Expectations about the differences related to sex make people play roles according to their gender (male or female) that it is called gender roles. Sexual behavior, which is related to gender identity and partly arises from it, includes what a person does or says for recognizing himself as a boy (man) or girl (woman). So although the biological factors affect in shaping gender roles, but a major factor in the composition of the proper role with sex is learning (environmental factors) (Ehtesham Zadeh, Bita, 52). The concept of gender is the primary aspects of identity that looks at the woman, not only in terms of biological differences with men, but also according to her relationship with the man and in addition, the relationship between the two in terms of social and structural. The issue of gender identity is one of the first obvious feelings in child development. Before the child recognizes his or her nationality, religion and social status, they recognize their gender and link themselves to related activities, so, gender is a basic concept of self and as Fox-Jenevis (1991) states: "in fact, my identity is my gender" (Hossein Zadeh, Mombany, 2011).

Important parts of these understandings relate to the features and gender identity, caused by mold or stereotype ideas. Walter Lippmann noted that people's behavior with others largely influenced by their mental images of others. He has used the cliché term to refer to our simple notions from others (Rahmati, 1992).

The role of mold thoughts in shaping public opinions is obvious, because every culture provides previous picture of what they must perceive for its members. In this sense, we see what we expect not what we should see and we hear what we want to hear rather than what is actually said. Everyone inferred, and understood the meaning of words and experiences, in a way that traditions, and beliefs and standards of his society dictate (Asadi, 1992, quoted by Sotoudeh, 2005).

In fact, the beliefs and our acceptable imaginations of personality features, especially personality traits and behaviors of a group of people can be defined as stereotype (Badar et al., 2002). These stereotypes and stereotypical ideas about different ethnic, religious, linguistic, ethnic and occupational groups are common in a society. Gender stereotypes (uniformity and formatting image of certain behaviors related to women and men without inspection and test) are a clear example of this phenomenon (Riahi, 2007).

Many researches have been done with the subject of gender, gender roles and gender stereotypes like Hoseinzadeh and Mambany, Ameli Rezaei, Fareghi, Riahi, Safiri and Zare, Adhami and Roghanian. However, each of these researches has studied certain aspects of the issue or they have been done within a certain time and place, that are different with the current study, and the researcher has selected this topic according to his personal interest in the subject, and the need of agencies and offices in the results. Therefore, this study investigates the situation and the tendency to gender stereotypes in different kind of job in Arak in 2015 and it is new in terms of time and place. Therefore, the main question in this research is that how are the situation and the tendency to gender stereotypes, in different job types. What are affecting social factors on the tendency to gender stereotypes? How is the sociological analysis of social factors influencing gender stereotypes?

2. RESEARCH BACKGROUND

Folgeh and Merrill, in a study in 1986, have examined gender stereotypes about political candidates. They have found that, since, being male is generally accompanied with more positive expectations about the competence, knowledge, and leadership ability than being female, men often benefit from their status, while women, do not charge interest. Folgeh and Merrill perceive from this perspective, and declare that being male is a very significant feature that is associated with positive expectations of being a woman.

Mohammad Ismail Riahi has studied the young trainee in vocational and technical training centers in Mazandaran Province and has examined social factors influencing acceptance of gender stereotypes. Riahi findings show that although significant gender differences are observed in the acceptance of gender stereotypes. In general, tools or constructive personality traits such as active, energetic, independent, aggressive, direct, strong and mighty are attributed to men and the expression or morale personality traits such as emotional, sensitive, charming, quiet, tolerant, anxious, dependent on others and concerned are attributed to women.

Safiri and Zare (2007) in a study, entitled "Study the gender stereotype relationship and conflict in marital roles on young couples" showed that adherence to gender stereotypes reduces the role conflict. Moreover, women with higher education and knowledge, higher status in terms of their family and husband's social class and higher income, feel less of role conflict. However, with the increase in working hours and the diversity of women's roles, their role conflict increases.

Hossein Zadeh and Mombany (2011) in a study titled "Social factors affecting the credibility of gender stereotypes in the public and private spheres" showed that in families with patriarchal power structure has more an admission of gender stereotypes than families with the matriarchal power structure and participatory families. Another finding is that men think and behave more stereotyped than women behave.

Table 1. Theoretical framework of research

Experts	Theoretical idea	Generalization of the idea to the subject	Hypothesis	Variable
Durkheim	According to Durkheim, there are inequalities that are created because of individual differences, abilities and special talents. He believes that in societies that social relations are mechanical, external inequalities are more common and in societies where these relations	According to Durkheim, it must be said, in Iranian society, people in different situations and of job category, may feel a sense of injustice and inequality	It turns out that there is a relation between job roles and feeling a sense of social injustice and the trend of gender stereotypes.	Independent variable job role Intermediate variable: the feeling of inequality Dependent variable the
Experts	Theoretical idea	Generalization of the idea to the subject	Hypothesis	Variable
	are organic, internal inequalities are more obvious. In fact, Durkheim has not much to say about class conflict and even social stratification, but his theories of social order, later, emphasized on the need for social order, to have a system of social stratification.	among employees is different that this would affect attitudes to gender stereotypes.		tendency to gender stereotypes
Weber	The ways through them, the gender forms the hierarchy and power in organizations.	According to Weber's theory, we can say, men in society have higher job categories and this is despite the fact that either woman do not have jobs or they reach jobs with lower job categories, which, this is effective in the tendency to gender stereotypes.	It seems, there is a relationship between the job roles and patriarchy at the work place and the tendency to gender stereotypes.	Independent variable job role Intermediate variable: Patriarchy Dependent variable the tendency to gender stereotypes

Source: Author

Table 2: The theoretical framework

Experts	Theoretical idea	Generalization of the idea to the subject	Hypothesis	Variable

Parsons	Parson knew the source of differences in gender roles within the family. Parsons believed that historically having children has been essential for women for the survival of the human species. Hence, raising children has been very functional for women, as men were the breadwinners. Parsons correctly predicted that with increasing number of women who work outside the home, the family structure is changing.	In some families there is a separation of roles and in some, there is no separation of the role that it would be effective in the tendency to gender stereotypes	It seems that there is a relationship between the job role and the separation of role in the family and a tendency toward gender stereotypes.	Independent variable job role Intermediate variable: the separation of roles in the family Dependent variable the tendency to gender stereotypes
Davis and Moore	There has been no society in the world that has not been stratification or has been completely without class. Davis and Moore's point of	According to Davis and Moore's theory, there is a system of stratification in any society. This	It seems there is a relationship between the role of job and social stratum and the	Independent variable job role Intermediate variables:
Experts	**Theoretical idea**	**Generalization of the idea to the subject**	**Hypothesis**	**Variable**
	view, stratification has necessary functions. In addition, they considered the stratification system as a structure and reminiscent that stratification is not individuals, and not stratification system, but it refers to a system of positions. They believed that the positions that are senior in a system of stratification are the positions that having them are more distasteful, but they are more important for the survival of society and they need the most ability and talent.	stratification exists in Iranian society and notwithstanding the fact that the employees are close together in terms of jobs somewhat, but they are not considered a stratum and according to the type of occupation, education and income, people are in different segments and the trend of gender stereotypes, in different segments of society, is different.	trend of gender stereotypes.	social stratum Dependent variable the tendency to gender stereotypes

Source: Author

Table 3: The theoretical framework

| **Experts**	**Theoretical idea**	**Generalization of the idea to the subject**	**Hypothesis**	**Variable**

Reich Vey	Sex in American society and in the majority of the world population is clearly a feature status. Men are generally paid more attention than women are. When a feature, such as a sexual category has status value, shaping expectations has started and formed a basis for stereotypes (Safiri, Imanian, 2009: 69).	According to Reich's theory, we can say, in Iranian society and in organizations, as well, the expectations are different in male and female workers, that causes the tendency towards gender stereotypes in men and women will be different.	It seems that there is a difference between the gender and the trend to gender stereotypes.	Independent variables: gender The dependent variable: the tendency to stereotype
Rosabet Moss Kanter	However, in terms of control, the real issue is that the experience of people of work and jobs depends on the presence of a social type person to some extent.	People at different times, arrived at the recruitment agency, which shows, job experience is different and the experience and length of employment can be effective in the tendency to gender stereotypes. In addition, individuals, according to length of employment, tend to gender stereotypes in varying degrees. Today, most organizations run in a bureaucracy way that it can be effective in the tendency to gender	It seems, there is a relation between length of employment and the tendency toward gender stereotypes.	Independent variable job role Intermediate variables: Job Experience The dependent variable: the tendency to stereotype

Experts	Theoretical idea	Generalization of the idea to the subject	Hypothesis	Variable
		stereotypes.		
Carol Gilligan	Women were more flexible than men are in moral judgment and they understood the potential problems between searching a set of dry morals and avoiding hurting others. Gilligan says that the way of attitudes reflects the traditional status of women that are more committed to caregivers' relationships than men outward oriented attitude.	Adherence to moral values in the society is different among office workers. Some respect for morality more and some less, which is effective on attitudes to gender stereotypes.	It seems that there is a relation between the job role and adherence to moral values and adherence to moral values and the trend of gender stereotypes.	Independent variable job role Dependent variable: rate of adherence to moral values Dependent variable the tendency to

				gender stereotypes
Walter Lippmann	Traits, behaviors, physical traits and jobs These components are relatively independent of each other, but people usually attributed a series of them to women and a series of them to the men. In other words, based on knowledge derived from a component, the evaluation extends to the other three components. People belief to gender differences in abilities, including the ability of learning language, the ability to learn math and computer science, and so on, makes gender inequality in the social division of labor. The stereotypes based on boys' more talent in learning math and a high power of girls in language skills, such as reading and writing, will be the filter in selecting the next important career	Rank job in the administration in Iran is different. Some have promoted and have achieved a higher position, some have been in a lower rank, and people in different types of job tend to gender stereotypes in varying degrees.	It seems, there is a relation between different types of job and an approach to gender stereotypes	Independent variable: Different types of job

Dependent variable the tendency to gender stereotypes |

Henson and Rogers	The vast majority of office workers are women and this is true for the temporary jobs. Henson and Rogers found that before the 1960s did not employ male volunteers for offices, so no surprise if men who work in an office, face with	According to the theory of Rogers and Henson, it can be said that job burnout can affect the tendency to gender stereotypes.	It seems there is a relation between the job role and job burnout and a tendency toward	Independent vari able job role Intermediate variable: Burnout Dependent
Experts	**Theoretical idea**	**Generalization of the idea to the subject**	**Hypothesis**	**Variable**
	questions, surprise and disapproval of peers and colleagues.		gender stereotypes.	variable the tendency to gender stereotypes

Source: Author
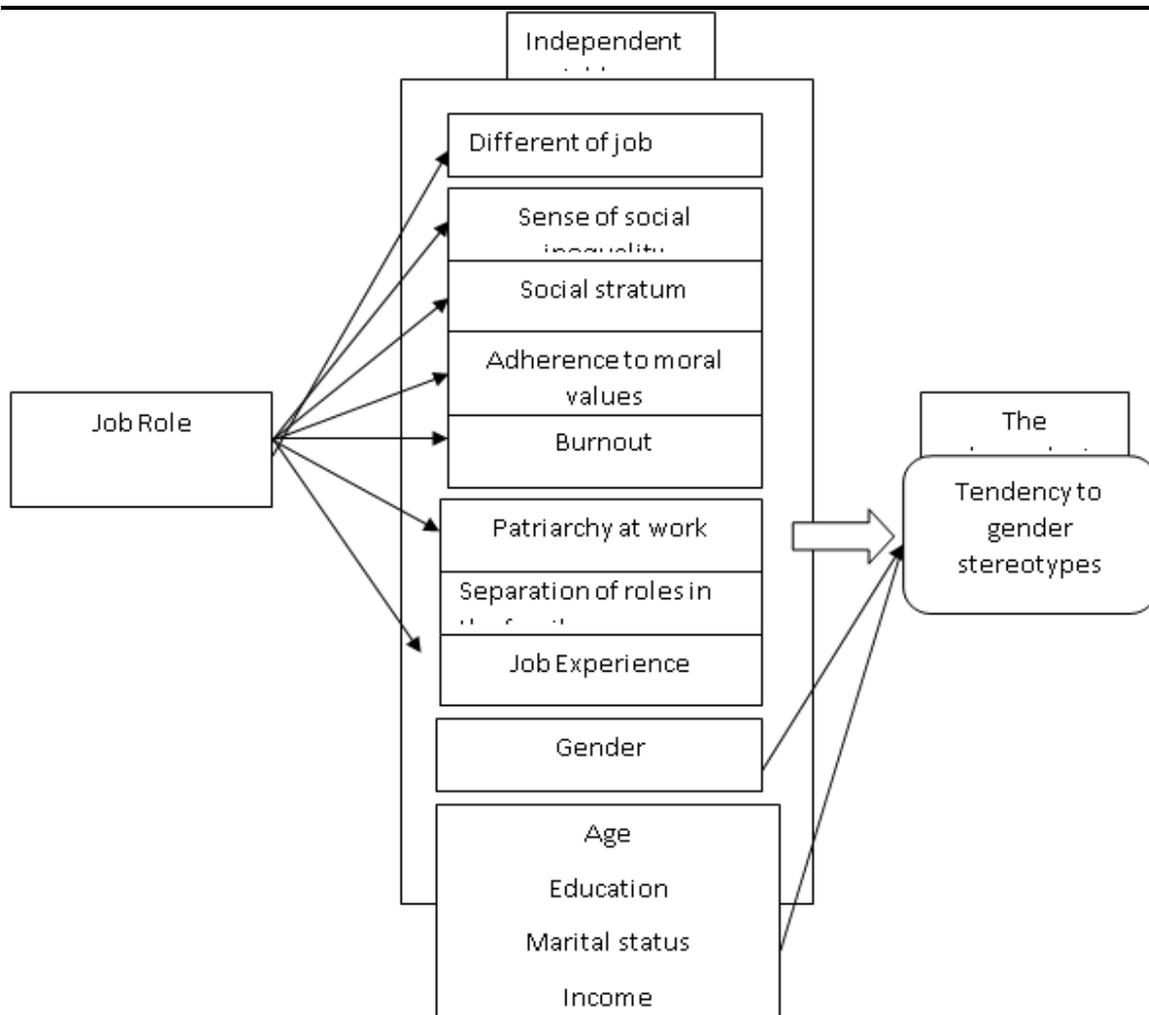
Sl. 1. The research model

3. RESEARCH HYPOTHESES

1. The main hypothesis: It seems that there is a difference between the different types of job in terms of the tendency to gender stereotypes.

3.1. THE RESEARCH SUB HYPOTHESES:

1. It seems that there is a relationship between the job roles and a sense of social injustice, a sense of social injustice and the tendency towards gender stereotypes.

2. It seems that there is a relationship between the job roles and social stratum, the social stratum the tendency towards gender stereotypes.

3. It seems that there is a relationship between the job roles and adherence to moral values, adherence to moral values and the tendency towards gender stereotypes.

4. It seems that there is a relationship between the job roles and job burnout, job burnout and the tendency towards gender stereotypes.

5. It seems that there is a relationship between the job roles and patriarchy at work, patriarchy at work and the tendency towards gender stereotypes.

6. It seems that there is a relationship between the job roles and the separation of roles in the family, the separation of roles in the family and the tendency towards gender stereotypes.

7. It seems that there is a relationship between the job roles and the job records, the job records and the tendency towards gender stereotypes.

8. It seems that there is a difference between gender and the tendency towards gender stereotypes.

9. It seems that there is a relationship between background variables and the tendency towards gender stereotypes.

3.2. THE STATISTICAL POPULATION, SAMPLE SIZE AND SAMPLING METHOD

In this study, according to the research subject, a survey method was used. The statistical population in this study consisted of people employed in the city of Arak. The sample size was 380 people by using the Cochran formula.

Table 4. Test sample

The population	Number
The total population of the city of Arak in 2011	526182
Working population of Arak in 2011	127829

Source: Author

To select the sample size, multi-stage cluster sampling is used. Thus, three areas are selected from different areas of the Arak city, by using random sampling, two main streets are selected from each region, and businesses on the same street, interviews will be done through questionnaires. Two offices are selected as well from offices in selective areas.

3.3. RESEARCH HYPOTHESES

Hypothesis 1: It seems that there is a difference between different types of jobs in terms of the tendency towards gender stereotypes.

Table 5: Study the relationship between different types of job and the tendency to gender stereotypes

Commentary	The significance level(Sig)	The amount of F	Average	Number	Different Job Types	Type of test
The difference is not significant	0.214	1.376	86.7895	38	Employer	One-way analysis of variance (ANOVA)
			94.3241	145	Self-employed worker	
			97.5632	87	Rights and wage earner in the private sector	
			94.0000	62	Rights and wage earners in the public sector	
Commentary	The significance level(Sig)	The amount of F	Average	Number	Different Job Types	Type of test

		104.0000	3	Rights and wage earner in the cooperative sector	
		90.0909	11	Unpaid Trainees in public sector	
		85.7500	4	Unpaid Trainees in public sector	
		93.6667	6	Paid Trainee in private sector	
		94.0983	356	Total	

Source: Author

Calculations show that the value of F is equal to 1.376 that has a significant level of 0.214 (at the level of error greater than 0.05). The H_1 hypothesis is rejected and H_0 hypothesis is accepted. Therefore, there is no relation between different types of job and the tendency to gender stereotypes. Sig. (P)> (0.05) α

Hypothesis 2: It seems that there is a relationship between the job roles and a sense of social injustice, a sense of social injustice and the tendency towards gender stereotypes.

Table 6: Study the relationship between job role and sense of social inequality

Commentary	The significance level (Sig)	The amount of F	Average	Number	Different Job Types	Type of test
The difference is not significant	0.667	0.523	19.6905	84	Industry	One-way analysis of variance (ANOVA)
			19.0830	229	Services	
			19.6000	40	Cultural and social	
			20.6667	9	other	
			19.3204	362	Total	

Source: Author

Calculations show that the value of F is equal to 0.523 that has a significant level of 0.667 (at the level of error greater than 0.05). The H_1 hypothesis is rejected and H_0 hypothesis is accepted. Therefore, there is no relation between job role and the sense of social inequality. Sig. (P)> (0.05) α

Table 7: Study the relationship between the sense of social inequality and the tendency to gender stereotypes

The trendency to gender stereotypes				
Commentary	The significance level (Sig)	ρ(Pearson)	N	The sense of social inequality
The difference is not significant	0.374	0.046	380	

Source: Author

Pearson correlation test results showed that the correlation coefficient between the sense of social inequality and the tendency towards gender stereotypes is 0.046 at the level of significance 0.374 (at the level of error greater than 0.05). The H_1 hypothesis is rejected and H_0 hypothesis is accepted. Therefore, there is no relation between the sense of social inequality and the tendency to gender stereotypes. Sig. (P)> (0.05) α

Hypothesis 3: It seems that there is a relationship between the job roles and the social stratum, the social stratum the tendency towards gender stereotypes.

According to the intersection table of the job role based on social stratum, it must be stated:

Interpretation of the first column: Most people, namely 77.5 percent of people, who are among the lower social stratum, work in the service sector and the least people, namely 1.8 percent of people, who are in the lower social stratum, work in the cultural and social sector.

Table 8: Study the relationship between job role and the social stratum

Job Role		The social stratum			Total
		Low	Middle	Top	
Industry	Frequency	23	46	15	84
	Percent	20.7	21.3	42.9	23.2
Services	Frequency	86	125	18	229
	Percent	77.5	57.9	51.4	63.3
Cultural and social	Frequency	2	36	2	40
	Percent	1.8	16.7	5.7	11.0
Other	Frequency	0	9	0	9
	Percent	0.0	4.2	0.0	2.5
Total	Frequency	111	216	35	362
	Percent	100.0	100.0	100.0	100.0

Source: Author

Interpretation of the second column: Most people, namely 57.9 percent of people, who are among the middle social stratum, work in the service sector and the least people, namely 4.2 percent of people, who are in the lower social stratum, work in other sectors

Interpretation of the third column: Most people, namely 51.4 percent of people, who are among the upper social stratum, work in the service sector and the least people, namely 5.7 percent of people, who are in the upper social stratum, work in cultural and social sectors

Table 9: Study the relationship between job role and social stratum

Commentary	The significance level (Sig)	Chi-square value (value)	Value df	N	Type of test
The difference is significant	0.000	33.517	6	362	**Chi-square test**

Source: Author

Calculations show that the value of Chi-square is equal to 33.517 that have a significant level of 0.000 (at the level of error less than 0.01). The H_0 hypothesis is rejected and H_1 hypothesis is accepted. Therefore, there is a relation between job role and the social stratum. Sig. (P) < (0.05) α

Table 10: Study the relationship between the social stratum and the tendency to gender stereotypes

Commentary	The significance level (Sig)	The amount of F	Average	Number	The social stratum	Type of test
The difference is not significant	0.573	0.558	95.6348	115	Lower class	One-way analysis of variance (ANOVA)
			93.6391	230	Middle class	
			92.2857	35	Upper class	
			94.1184	380	Total	

Source: Author

Calculations show that the value of F is equal to 0.558 that has a significant level of 0.573 (at the level of error greater than 0.05). The H_1 hypothesis is rejected and H_0 hypothesis is accepted. Therefore, there is no relation between the social stratum and the tendency towards gender stereotypes. Sig. (P)> (0.05) α

Hypothesis 4: It seems that there is a relationship between the job roles and adherence to moral values, adherence to moral values and the tendency towards gender stereotypes.

Table 11: Study the relationship between the job role and the adherence to moral values

Commentary	The significance level (Sig)	The amount of F	Average	Number	The job role	Type of test
The difference is not significant	0.961	0.098	26.2500	84	Industry	One-way analysis of variance (ANOVA)
			26.0480	229	Services	
			25.8500	40	Cultural and social	
			27.0000	9	Other	
			26.0967	362	Total	

Source: Author

Calculations show that the value of F is equal to 0.098 that has a significant level of 0.961 (at the level of error greater than 0.05). The H_1 hypothesis is rejected and H_0 hypothesis is accepted. Therefore, there is no relation between the job role and the adherence to moral values. Sig. (P)> (0.05) α

Table 12: Study the relationship between the adherence to moral values and the tendency to gender stereotypes

The trendency to gender stereotypes				
Commentary	The significance level (Sig)	Value ρ(Pearson)	N	The adherence to moral values
The difference is significant	0.000	0.234 **	380	

Source: Author

Pearson correlation test results showed that the correlation coefficient between the adherence to moral values and the tendency towards gender stereotypes is 0.234 at the level of significance 0.000 (at the level of error less than 0.05 and 0.95 level of confidence). The H_0 hypothesis is rejected and H_1 hypothesis is accepted. Therefore, there is a relation between the adherence to moral values and the tendency to gender stereotypes.

In addition, the more the level of adherence to moral and religious values is, the more tendencies towards gender stereotypes will be. Sig. (P) < (0.05) α

Hypothesis 5: It seems that there is a relationship between the job roles and job burnout, job burnout and the tendency towards gender stereotypes.

Table 13: Study the relationship between job role and the job burnout

Commentary	The significance level (Sig)	The amount of F	Average	Number	The job role	Type of test
The difference is not significant	0.543	0.716	19.3452	84	Industry	One-way analysis of variance (ANOVA)
			19.4017	229	Services	
			20.4000	40	Cultural and social	
			22.1111	9	Other	
			19.5663		Total	

Source: Author

To investigate the relationship between job role and the burnout, one-way analysis of variance was used. Calculations show that the value of F is equal to 0.716 that has a significant level of 0.543 (at the level of error greater than 0.05). The H_1 hypothesis is rejected and H_0 hypothesis is accepted. Therefore, there is no relation between the job role and the job burnout. Sig. (P)> (0.05) α

Pearson correlation test results showed that the correlation coefficient between the job burnout and the tendency towards gender stereotypes is -0.234 and this is in direct correlation (negative) at the level of significance 0.000 (at the level of error less than 0.01 and 0.99 level of confidence). The H_0 hypothesis is rejected and H_1 hypothesis is accepted. Therefore, there is a relation between the job burnout and the tendency to gender stereotypes. In addition, the more the level of the job burnout is, the fewer tendencies towards gender stereotypes will be. Sig. (P) < (0.05) α

Table 14: Study the relationship between the job burnout and the tendency to gender stereotypes

The trendency to gender stereotypes				
Commentary	The significance level (Sig)	Value ρ(Pearson)	N	The job burnout
The difference is significant	0.000	−0.234**	380	

Source: Author

Hypothesis 6: It seems that there is a relationship between the job roles and patriarchy at work, patriarchy at work and the tendency towards gender stereotypes.

Table 15: Study the relationship between job role and the patriarchy at work

Commentary	The significance)Sig(level	The amount of F	Average	Number	The job role	Type of test
The difference is not significant	0.444	0.894	19.3452	84	Industry	One-way analysis of variance
			19.4017	229	Services	

			20.4000	40	Cultural and social	(ANOVA)
			22.1111	9	Other	
			19.5663	362	Total	

Source: Author

Calculations show that the value of F is equal to 0.894 that has a significant level of 0.444 (at the level of error greater than 0.05). The H_1 hypothesis is rejected and H_0 hypothesis is accepted. Therefore, there is no relation between the job role and the patriarchy at work. Sig. (P)> (0.05) α

Table 16: Study the relationship between the patriarchy at work and the tendency to gender stereotypes

The trendency to gender stereotypes				
Commentary	**The significance level (Sig)**	**Value)Pearson(ρ**	**N**	The patriarchy at work
The difference is significant	0.000	0.328 **	380	

Source: Author

Pearson correlation test results showed that the correlation coefficient between the patriarchy at work and the tendency towards gender stereotypes is 0.328 at the level of significance 0.000 (at the level of error less than 0.01 and 0.99 level of confidence). The H_0 hypothesis is rejected and H_1 hypothesis is accepted. Therefore, there is a relation between the patriarchy at work and the tendency to gender stereotypes. In addition, the more the level of the patriarchy at work is, the more tendencies towards gender stereotypes will be. Sig. (P) < (0.05) α

Hypothesis 7: It seems that there is a relationship between the job roles and the separation of roles in the family, the separation of roles in the family and the tendency towards gender stereotypes.

Calculations show that the value of F is equal to 1.115 that has a significant level of 0.343 (at the level of error greater than 0.05). The H_1 hypothesis is rejected and H_0 hypothesis is accepted. Therefore, there is no relation between the job role and the separation of roles in the family. Sig. (P)> (0.05) α **Table 17: Study the relationship between job role and the separation of roles in the family**

Commentary	The significance)Sig(level	The amount of F	Average	Number	The job role	Type of test
The difference is not significant	0.343	1.115	22.9167	84	Industry	One-way analysis of variance (ANOVA)
			22.1354	229	Services	
			21.6500	40	Cultural and social	
			20.8889	9	Other	
			22.2320	362	Total	

Source: Author

Table 18: Study the relationship between the separation of roles in the family and the tendency to gender stereotypes

The trendency to gender stereotypes				
Commentary	The significance level (Sig)	Value ρ(Pearson)	N	The separation of roles in the family
The difference is significant	0.000	** 0.289	380	

Source: Author

Pearson correlation test results showed that the correlation coefficient between the separation of roles in the family and the tendency towards gender stereotypes is 0.289 at the level of significance 0.000 (at the level of error less than 0.01 and 0.99 level of confidence). The H_0 hypothesis is rejected and H_1 hypothesis is accepted. Therefore, there is a relation between the separation of roles in the family and the tendency to gender stereotypes. In addition, the more the level of the separation of roles in the family is, the more tendencies towards gender stereotypes will be. Sig. (P) < (0.05) α

Hypothesis 8: It seems that there is a relationship between the job roles and the job records, the job records and the tendency towards gender stereotypes.

Table 19: Study the relationship between job role and the job records

Commentary	The significance level (Sig)	The amount of F	Average	Number	The job role	Type of test
The difference is significant	0.021	3.290	15.3704	81	Industry	One-way analysis of variance (ANOVA)
			11.6668	220	Services	
			12.2895	38	Cultural and social	
			8.7500	4	Other	
			12.5764	343	Total	

Source: Author

Calculations show that the value of F is equal to 3.290 that have a significant level of 0.021 (at the level of error greater than 0.05 and the confidence level of 0.95). The H_0 hypothesis is rejected and H_1 hypothesis is accepted. Therefore, there is a relation between the job role and the job records. According to the mean, people who were active in the industrial sector had more career records. Sig. (P) < (0.05) α

Table 20: Study the relationship between the job records and the tendency to gender stereotypes

The trendency to gender stereotypes				
Commentary	The significance level (Sig)	Value ρ(Pearson)	N	The job records
The difference is not significant	0.923	0.005−	380	

Source: Author

Pearson correlation test results showed that the correlation coefficient between the job records and the tendency towards gender stereotypes is -0.005 at the level of significance 0.923 (at the level of error greater than 0.05). The H_1 hypothesis is rejected and H_0 hypothesis is accepted. Therefore, there is no relation between the job records and the tendency to gender stereotypes. Sig. (P) > (0.05) α

Hypothesis 9: It seems that there is a relationship between background variables and the tendency towards gender stereotypes.

Gender and the tendency towards gender stereotypes

Independent t test results show that the value of t is equal to 2.616 that have a significant level of 0.009 (at the level of error less than 0.01 and the confidence level of 0.99). The H_0 hypothesis is rejected and H_1 hypothesis is accepted. Therefore, there is a difference between the gender and the tendency towards gender stereotypes. According to the mean, male have more tendency towards gender stereotypes. Sig. (P) < (0.05) α

Table 21: Study the relationship between gender and the tendency towards gender stereotypes

Commentary	The significance level (Sig)	The amount of t	Average	Number	Gender	Type of test
The difference is significant	0.009	2.616	95.7086	278	Male	Test t (IndependentSamples T Test)
			89.7843	102	Female	
			94.1184	380	Total	

Source: Author

Age and the tendency towards gender stereotypes

Pearson correlation test results showed that the correlation coefficient between the age and the tendency towards gender stereotypes is 0.024 at the level of significance 0.637 (at the level of error greater than 0.05). The H_1 hypothesis is rejected and H_0 hypothesis is accepted. Therefore, there is no relation between the age and the tendency to gender stereotypes. Sig. (P) > (0.05) α

Table 22: Study the relationship between age and the tendency towards gender stereotypes

The trendency to gender stereotypes				
Commentary	The significance level (Sig)	Value ρ(Pearson)	N	Age
The difference is not significant	0.637	0.024	380	

Source: Author

Education and the tendency towards gender stereotypes

To investigate the relationship between education and the tendency towards gender stereotypes, one-way analysis of variance was used. Calculations show that the value of F is equal to 0.739 that has a significant level of 0.595 (at the level of error greater than 0.05). The H_1 hypothesis is rejected and H_0 hypothesis is accepted. Therefore, there is no relation between education and the tendency towards gender stereotypes. Sig. (P)> (0.05) α

Table 23: Study the relationship between education and the tendency towards gender stereotypes

Commentary	The significance level (Sig)	The amount of F	Average	Number	Education	Type of test
The difference is not significant	0.595	0.739	96.1923	52	Low literate	One-way analysis of variance (ANOVA)
			94.1938	129	diploma	

			96.0217	92	Associate Degree	
			91.8608	79	bachelor	
			89.7500	24	MA	
			91.7500	4	PhD	
			94.1184	380	Total	

Source: Author

Marital status and the tendency towards gender stereotypes

Calculations show that the value of F is equal to 0.557 that have a significant level of 0.573 (at the level of error greater than 0.05). The H_1 hypothesis is rejected and H_0 hypothesis is accepted. Therefore, there is no relation between the marital status and the tendency towards gender stereotypes. Sig. (P) > (0.05) α

Table 24: Study the relationship between marital status and the tendency towards gender stereotypes

Commentary	The significance level (Sig)	The amount of F	Average	Number	Marital status	Type of test
The difference is not significant	0.573	0.557	94.1591	88	Single	One-way analysis of variance (ANOVA)
			94.1896	269	Married	
			86.2857	7	Divorced or widows	
			94.0302	364	Total	

Source: Author

Employment status and the tendency towards gender stereotypes

Table 25: Study the relationship between employment status and the tendency towards gender stereotypes

Commentary	The significance level (Sig)	The amount of F	Average	Number	Employment status	Type of test
The difference is not significant	0.473	0.943	93.9085	295	Employed	One-way analysis of variance (ANOVA)
			83.2727	11	Unemployed	
			102.8571	7	Unemployed in search of jobs	
			88.4286	7	Student	
			92.7500	4	Income without work	
			97.0000	2	out of service	
			97.1818	44	Retired	
			96.6000	10	housewife	
			94.1184	380	Total	

Source: Author

Calculations show that the value of F is equal to 0.943 that have a significant level of 0.473 (at the level of error greater than 0.05). The H_1 hypothesis is rejected and H_0 hypothesis is accepted. Therefore, there is no relation between the employment status and the tendency towards gender stereotypes. Sig. (P) > (0.05) α

4. CONCLUSION

4.1. ACCORDING TO THE PURPOSE OF THE STUDY

The research results showed a relation between the rate of adherence to moral values and a tendency toward gender stereotypes. In addition, the more the level of adherence to moral and religious values is, the greater tendency towards gender stereotypes will be. There is a relation between the job role and social stratum. There is a relation between burnout and a tendency toward gender stereotypes. In addition, the more level of burnout is the lower tendency toward gender stereotypes will be. There is a relation between the patriarchy at work and a tendency toward gender stereotypes. In addition, the more patriarchy at work is, the greater tendency towards gender stereotypes will be. There is a relation between the separation of roles in the family and a tendency toward gender stereotypes. In addition, the more separation of roles in the family is the greater tendency towards gender stereotypes will be. There is a relationship between job role and job records. According to mean, people who were active in the industrial sector had more job record.

There is no relationship between different types of jobs and a tendency toward gender stereotypes. There is no relationship between job role and sense of social inequality. There is no relationship between the feeling of social inequality and a tendency toward gender stereotypes. There is no relationship between social stratum and a tendency toward gender stereotypes. There is no relationship between the job role and an adherence to moral values. There is no relationship between job role and job burnout. There is no relationship between job role and the patriarchy at work. There is no relationship between job role and the separation of roles in the family. There is no relationship between job records and the tendency toward gender stereotypes.

According to the theory of Walter Lippmann, in a society, some jobs have been known masculine and individuals in different types of jobs have a gender tendency toward those jobs. In Iran society, with the transition from tradition to modernity, this viewpoint has changed, and people have a less gender view toward different jobs. This matter is required to be done in other cities in Central Province and other provinces so that the results will be more generalized with greater reliability.

According to Durkheim, the relations of Iran society are the proper type of mechanical and almost organic, and therefore, there are internal and external inequalities, so that people in different job types, feel unequal, but in this study, this sense of inequality does not affect the orientation to gender stereotypes.

According to the theory of Carol Gilligan, women have greater flexibility in the comments and decisions and are more committed to ethics, which is effective on the tendency of people toward gender stereotypes, so that, the findings also confirmed this.

In short, we can say that factors such as adherence to moral values, burnout, patriarchy at work and the separation of roles in the family are influential on the tendency toward gender stereotypes.

The results of this study are coordinated and consistent with the results of Maryam Gholami, as "the tendency to gender stereotypes, a comparative study between men and women teachers in the Kashan city (2015),", and in their study, they reached the conclusion that there is a relationship between gender, religious beliefs and patriarchy and a tendency toward gender stereotypes.

In addition, they are consistent with the results of Gholam Reza Fareghi, titled "Study the social Factors affecting gender attitudes change between 40-30-year-old female high school teachers, Karaj (2011)".

4.2. PRACTICAL SUGGESTIONS

According to the results, which showed that most of the 44.5 percent had moderate job burnout, Trade Organization, the Department of Labor should assign consultations, and programs for different jobs, and prevent burnout.

The results showed that the more level of patriarchy at the workplace, the greater tendency towards gender stereotypes would be. Trades Organization and the Department of Labor should provide employment opportunities for women and consider the comments and suggestions of women, and reduce the amount of patriarchy at the workplace.

According to the results of most people, that is 51.1 percent have a modest feeling of unequality. With counseling sessions and classes, they should increase the knowledge level.

Most people, who mean 35.3 percent, modestly, had a tendency toward gender stereotypes. Governor of Arak should hold conferences, on the importance of work for women and men and increase their knowledge level, and they must inform the workers, in the field of gender stereotypes and their effects on working process, reduce the person's tendency to gender stereotypes.

The Islamic Propagation Organization should print brochures, in the field of working importance for women and men in terms of Islam and the hijab for women during labor and increase their knowledge level.

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THE RELATIONSHIP BETWEEN PERSONALITY TYPES AND PERFORMANCE CONTAGION AMONG PAKSHOO COMPANY STAFF

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Abstract

The purpose of the present research is to explore the correlation between personality types and performance contagion of Pakshoo Company employees. To this end, 185 Pakshoo employees were selected using a simple random sampling procedure. The present research is an applied empirical study in its purpose and is a descriptive survey study in terms of the procedure. The data were collected through literature review, the Myers-Briggs personality questionnaire, and a performance contagion questionnaire constructed by the researcher. The validity of the questionnaire was established using expert opinion and Confirmatory Factor Analysis and the reliability was estimated to be 0.94% according to Cronbach's Alpha test. The descriptive and inferential statistical analyses were performed using SPSS software program. The results of the One-way ANOVA indicated that Pakshoo employees'' personality types and their performance contagion are significantly correlated.

1. INTRODUCTION

A fundamental factor which influences an individual in the society and work environment, is the emotions and behavior by other individuals with who he works. The presence of popular and promising individuals in a group could contribute to other individuals' increased performance. This social facilitation is created due to an increase in the emotions (tensions and impulses) which individuals experience through other people's presence. The influence of individuals on one another is defined as performance contagion.

Direct contact among people in the work environment leads to mutual impact of their subconscious ego on each other. Performance contagion is considered an environmental influencing factor. Influential individuals' performance causes changes in contagious individuals' behavior. These changes are the result of fundamental differences among individuals in terms of varying attitudes, mental functions, and personality classes (Maddockas, 2004).

Individuals have different personalities and personality represents those class of individual characteristics which shapes their steady pattern of behavior. An insufficient understanding regarding the nature of individuals' personality and individual differences generates varied behaviors, posing new challenges for managers. According to Lazarus and Monat's (1979) definition, personality is relatively stable and essential psychological structures and processes which organize human experience and shape a person's actions and reactions to the environment (Najari et al, 1393). Personality traits are closely related to employees' performance to the extent that can determine an individual's behavior in an organization with some traits

cause serious damages in the work environment, which if not properly and reasonably controlled, will ensue irreparable losses. An individual's personality plays an important part in his performance since personality specifies his attitude and motive to a job and how he responds to job demands (Babaeian et al, 1393). In fact, the development of any organization considerably depends on the proper use of human force and as an organization grows, do the problems of this huge force increase. Pakshoo Company as a leader in its industry needs to keep its present status. On the other hand, the company's entry into export markets and vision to go global requires sustaining competitive advantage and improving performance. In this regard, one of the factors that best contributes to the improvement of the organization's performance improvement, is the transmission of employees' positive performance to other employees and prevention of transmission of their poor actions and performance. Given the fact that employee personality type is one of the major factors which influence performance contagion, and that given the above-mentioned arguments that the correlation between employees' personality types and performance contagion is not empirically studied n Pakshoo Company, the need to such a study is highly felt for more effective management of Pakshoo Company employees' performance management. This correlation, once known, will help human resources experts and practitioners as well as the senior management of Pakshoo Company to improve their recruitment and employment processes in a way that the output of the processes is aligned towards contagion of positive performance and prevent contagion of negative performance among employees. Not understanding the correlation between employees' personality types and performance contagion, causes personality type, as an important and influential factor in Pakshoo employees' behavior and performance management to be ignored by the human resources management and experts, which in turn weakens effective performance management.

Bases on what discussed so far, it is essential for organizations to identify the rationale behind people's intimacy and companionship and the effects of good and bad business behavior transmission in various personality types.

2. MAIN RESEARCH BODY

2.1. THEORETICAL BACKGROUND

Personality is defined variously in various views. Nevertheless, as a reasonably acceptable definition which encompasses the common characteristics of the existing definitions, personality can be defined as a set of physical, mental, and behavioral characteristics which distinguish an individual from others (Karimi, 1394). Personality is a stable set of characteristics and orientations which characterize an individual's psychological similarities and differences (i.e. thoughts, emotions, and actions) which are consistent through time and may be recognized through the social and biological pressures of immediate situations, or may not be understood easily (Francis et al, 2004).

Personality characteristic is based on the theory that states behavior is determined by relatively stable personality traits which form the fundamental units of an individual's personality. These traits make the individual prone to certain situation-independent behaviors. In other word, these traits are stable through time and under various circumstances, but they are different from one person to another. In addition, in this approach to personality it is assumed that individuals are different from each other due to genetic differences (Mary-jay and Wandy, 1395).

Personality dimensions represent individuals' psychological preferences in their focusing, perceiving, processing, and decision making about various kinds of information as well as providing a comprehensive model of an individual's mental dynamics in coping with, resisting, and progression through lifetime. This fact indicates that individuals possess abilities that could be used more intelligently to enrich interpersonal interactions and provide a proper model to study and develop the usefulness of personality dimensions (Thompson, 22006).

Catherine Briggs and Isabelle Briggs Myers proposed four personality preferences and sixteen personality types in 1932. Their personality dimensions are designed to measure four bipolar dimensions namely extroversion-introversion, sensing-intuitive, thinking-feeling, and judging-perceiving (Higgs, 2001). People with each of the personality dimensions behave in a certain way and have certain expectations.

They also have unique abilities and different needs and based on their personality pattern have their certain needs, expectations, and attitudes (Nasiripoor and Helalitab, 2008). Personality traits are among the most important predictors of an individual's performance (Panney et al, 2011).

Performance is how to do assigned tasks and responsibilities and generally, those behaviors which people demonstrate in work context (Meyer et al, 2001). Performance contagion is defined as a kind of individual's emotional and behavioral response who are in contact with other individuals. Continuous contact among individuals at work environment leads to their unwanted subconscious influence on each other. Performance contagion is considered an influential environmental factor. The performance of individuals with influential and charismatic personalities leads to behavioral changes in close contagious individuals. If people were to rely only on the past effects of their own deeds to decide what to do, learning would become increasingly time-consuming and strenuous. Fortunately, human behaviors have often been observationally and through modelling; that is, individuals form the idea of how to perform new behaviors by watching other individuals. In later situations, this coded information will serve as an action guide to the individual (Ahmadi and Ashabi, 2015).

Performance contagion is based on learning theory. The social learning theory presented by Albert Bandura, has probably been the most influential learning and development theory. Although this theory is rooted in many of the traditional learning theoretical concepts, Bandura believes that direct training and teaching is not the only means of learning. His theory also takes a social element into account and states that people can learn new information and behaviors through observing other people. This type of learning which is known as observational learning (i.e. through modelling) can be drawn to explain a wide variety of behaviors (Ahmadi and Mirsepasi, 2010).

2.2. BACKGROUND RESEARCH

In the studies carried out so far both in Iran and other countries, no study was found which deals with the correlation between personality types and performance contagion. In other words, this is the first time that this issue is studied in Iran and the population of the present study, Pakshoo Company. Nevertheless, a review of similar extant research shows that previous studies have similarities and difference with the present research. For instance, in the study carried out by Heidarian et al (1392) who have studied the relationship between Myer-Briggs personality types and productivity among the employees at Iran National Oil Products Company and Kim and Hun's (2012) study on the relationship between personality type and nursing students' performance and satisfaction, have used the Myers-Brigggs Type Indicator (MBTI) to identify personality types, like the present study. However, Valiabbasi (1391), Ghaffari et al (1391), Kooshki et al (1388), Bahati et al (2014), Abdullah et al (2013), Klang (2012), have used the NEO test in their studies. Further, in most studies carried out so far, the effect of personality traits on individuals' job performance, or on employees' commitment and satisfaction has been measure or studies such as motional contagion and team effectiveness by vijaykalakshemi and Hatacharay (2006) have dealth with emotional contagion and behavioral contagion. So far, no research has dealt with the correlation between personality type and performance contagion.

2.3. CONCEPTUAL FRAMEWORK

The conceptual framework of the present research is a researcher-constructed model where Myer-Briggs personality Type Indicators (1985) and the indicators of performance contagion proposed by Ahmadi and Mirsepasi (2010) are adopted.
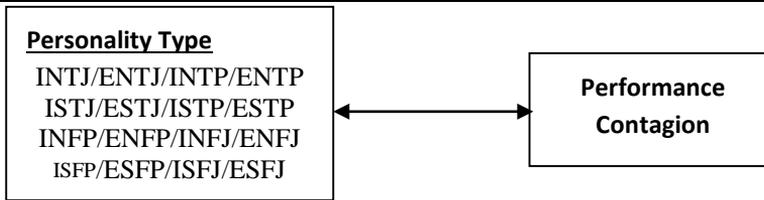
Figure 1-1. The Conceptual Framework (researcher-constructed)

Based on the conceptual framework, the hypotheses of the present study are as follow:

H1: there is a significant correlation between employees' personality type and their performance contagion.

H1-1: There is a significant correlation between Extrovert, Intuitive, Feeling, Judging (ENFJ) personality type and employees' performance contagion.

H1-2: There is a significant correlation between Introvert, Intuitive, Feeling, Judging (INFJ) personality type and employees' performance contagion.

H1-3: There is a significant correlation between Extrovert, Intuitive, Feeling, Perceiving (ENFP) personality type and employees' performance contagion.

H1-4: There is a significant correlation between Introvert, Intuitive, Feeling, Perceiving (INFP) personality type and employees' performance contagion.

H1-5: There is a significant correlation between Extrovert, Intuitive, Thinking, Judging (ENTJ) personality type and employees' performance contagion.

H1-6: There is a significant correlation between Introvert, Intuitive, Thinking, Judging (INTJ) personality type and employees' performance contagion.

H1-7: There is a significant correlation between Extrovert, intuitive, Thinking, Perceiving (ENTP) personality type and employees' performance contagion.

H1-8: There is a significant correlation between Introvert, intuitive, Thinking, Perceiving (INTP) personality type and employees' performance contagion.

H1-9: There is a significant correlation between Extrovert, Sensing, Thinking, Judging (ESTJ) personality type and employees' performance contagion.

H1-10: There is a significant correlation between Introvert, Sensing, Thinking, Judging (ISTJ) personality type and employees' performance contagion.

H1-11: There is a significant correlation between Extrovert, Sensing, Feeling, Judging (ESFJ) personality type and employees' performance contagion.

H1-12: There is a significant correlation between Introvert, Sensing, Feeling, Judging (ISFJ) personality type and employees' performance contagion.

H1-13: There is a significant correlation between Extrovert, Sensing, Thinking, Perceiving (ESTP) personality type and employees' performance contagion.

H1-14: There is a significant correlation between Introvert, Sensing, Thinking, Perceiving (ISTP) personality type and employees' performance contagion.

H1-15: There is a significant correlation between Extrovert, Sensing, Feeling, Perceiving (ESFP) personality type and employees' performance contagion.

H1-16: There is a significant correlation between Introvert, Sensing, Feeling, Perceiving (ISFP) personality type and employees' performance contagion.

3. METHODOLOGY

The present research is an applied study in terms of its goal as the results will be used to solve the problems and issues at Pakshoo Company. In addition, given that this study pursues to identify the phenomena under study and describe the conditions of and relationships among the phenomena using a questionnaire, it is carried out within a descriptive-survey design. Also, the data is collected in specific area and time period this research is a cross-sectional study.

The population of the present study is 354 employees at Pakshoo Company. The sample size was 185 employees as calculated using the Cochran formula. To collect data on the participants' personality types the Myer-Briggs (19885) Type Indicator (MBTI) test was used. After collected the completed tests, 10 employees did not respond. Then, given the goal and objectives of the study and having carried out a thorough literature review, a questionnaire with 64 items was constructed to measure performance contagion. The content validity of the questionnaire was determined through expert opinion and Confirmatory Factor Analysis both of which demonstrated that the questionnaire is reasonably valid. To determine the reliability of the questionnaire, first 30 questionnaires were distributed among the population members and the completed forms were collected and the reliability coefficient (Cronbach's Alpha) was calculated to be 92% indicating the high reliability of the instrument. After making the necessary modifications as necessary for reliability and validity considerations, in a field operation, the questionnaire was presented to 175 employees with different personality types. The data from the completed questionnaires were analyzed using a One-Way ANOVA in SPSS software program and the results were presented.

4. RESULTS

The results of the demographic information analysis show the majority of the respondents are middle-aged (between 30 to 45 years old) male employees, holding a B.S. /A. who work at the Expert organizational level. Their tenure was 5 to 10 years at Pakshoo Company.

Table 1. Demographic Data (%)

Age (Years)			Organizational Level						
> 45	30-45	< 30	Deputy	Director	Head	Supervisor	Expert	Technician	Clerk
9.7	74.9	15.4	1.1	6.9	9.1	18.9	46.9	9.1	8
Tenure (Years)					Education Level					Gender	
>20	15-20	10 - 15	5 - 10	<5	Ph. D.	M.A./S.	B.A. /S.	Associate	Dimploma	male	Female
6.9	1.45	2.96	2.79	2.11	1.7	24	51.4	11.4	11.4	61.7	38.3

Source: Author

Regarding the correlation between personality type and performance contagion, as the results from Table 1 shows, the significance level of comparing means (the Once-Way ANOVA test) across the sample population subgroups for the respondents' performance contagion according to their personality types is smaller than 0.05. Therefore, the null hypothesis that assumes no significant correlation between personality type and performance contagion, is rejected and indicates that there is a significant correlation between performance contagion and personality type.

Table 2. One-way ANOVA-comparison by personality types

		Sum of Squares	df	Mean Square	F	Sig.
Performance Contagion	Between Groups	6.457	15	.430	2.908	.000
	Within Groups	23.535	159	.148		
	Total	29.993	174			

Source: Author

Considering the results from Table 1 above, Pakshoo Company employees' personality types have an effect on their performance contagion. Thus, the post hoc test results (Tukey) should be taken into consideration. The results of the post hoc test are presented in Table 3.

Based on the test comparing means of the sample population subgroups, individuals with ISTP personality type demonstrate less performance contagion compared to those with ESTP, ENTJ and ENFP types. Individuals with ISTP type are quiet and independent people who do not need much to talk and socialize and they may face difficulties in terms of interpersonal skills. These individuals prefer to work alone. Therefore, their performance contagion is lower than other personality types.

Table 3. Comparing performance contagion means by personality types

Dependent Variable: Performance contagion Tukey HSD							Comparison Results
(I) Type	(J) Type	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval		
					Lower Bound	Upper Bound	
ENFP	ENFJ	1.11719	.38473	.225	-.2224	2.4568	Individuals with ENFP personality type have more performance contagion compared to those with ISTP
	ENTJ	.46734	.28761	.961	-.5341	1.4687	
	ENTP	.82936	.29083	.252	-.1833	1.8420	
	ESFJ	.56250	.33319	.947	-.5976	1.7226	
	ESFP	1.03906	.38473	.340	-.3005	2.3786	
	ESTJ	.69560	.27860	.479	-.2745	1.6657	
	ESTP	.39986	.29575	.993	-.6299	1.4296	
	INFJ	.71875	.38473	.886	-.6208	2.0583	
	INFP	1.14063	.38473	.196	-.1990	2.4802	
	INTJ	.83988	.28761	.217	-.1615	1.8413	
	INTP	.68224	.38473	.922	-.6573	2.0218	
	ISFJ	.83025	.32189	.421	-.2905	1.9510	

(I) Type	(J) Type	Mean Difference (I-J)	Std. Error	Sig.	Lower Bound	Upper Bound	Comparison Results
	ISFP	1.07201	.35121	.160	-.1508	2.2949	
	ISTJ	.73924	.27790	.366	-.2284	1.7068	
	ISTP	1.23906*	.32189	.015	.1183	2.3598	
ENTJ	ENFJ	.64984	.28761	.654	-.3516	1.6512	Individuals with ENTJ personality type have more performance contagion compared to those with ISTP⁾
	ENFP	-.46734	.28761	.961	-1.4687	.5341	
	ENTP	.36201	.13885	.401	-.1214	.8455	
	ESFJ	.09516	.21380	1.000	-.6493	.8396	
	ESFP	.57172	.28761	.828	-.4297	1.5731	
	ESTJ	.22825	.11098	.789	-.1582	.6147	
	ESTP	-.06749	.14887	1.000	-.5858	.4509	
	INFJ	.25141	.28761	1.000	-.7500	1.2528	
	INFP	.67328	.28761	.594	-.3281	1.6747	
	INTJ	.37253	.13196	.267	-.0869	.8320	
	INTP	.21490	.28761	1.000	-.7865	1.2163	
	ISFJ	.36291	.19573	.892	-.3186	1.0444	
	ISFP	.60467	.24093	.470	-.2342	1.4435	
	ISTJ	.27190	.10920	.484	-.1083	.6521	
	ISTP	.77172*	.19573	.011	.0902	1.4532	
ESTP	ENFJ	.71733	.29575	.532	-.3124	1.7471	Individuals with ESTP personality type have more
	ENFP	-.39986	.29575	.993	-1.4296	.6299	
	ENTJ	.06749	.14887	1.000	-.4509	.5858	

Dependent Variable: Performance contagion Tukey HSD							
(I) Type	(J) Type	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval		Comparison Results
					Lower Bound	Upper Bound	
	ENTP	.42950	.15501	.297	-.1102	.9692	performance contagion compared to those with ISTP⁾
	ESFJ	.16264	.22464	1.000	-.6195	.9448	
	ESFP	.63920	.29575	.722	-.3905	1.6689	
	ESTJ	.29574	.13064	.651	-.1591	.7506	
	INFJ	.31889	.29575	.999	-.7109	1.3486	
	INFP	.74077	.29575	.474	-.2890	1.7705	
	INTJ	.44002	.14887	.201	-.0783	.9584	
	INTP	.28238	.29575	1.000	-.7474	1.3121	
	ISFJ	.43039	.20751	.778	-.2921	1.1529	

	ISFP	.67216	.25059	.351	-.2004	1.5447
	ISTJ	.33938	.12913	.387	-.1102	.7890
	ISTP	.83920*	.20751	.008	.1167	1.5617
	ESFJ	-.15625	.33319	1.000	-1.3164	1.0039
	ESFP	.32031	.38473	1.000	-1.0193	1.6599
	ESTJ	-.02315	.27860	1.000	-.9932	.9469
	ESTP	-.31889	.29575	.999	-1.3486	.7109
	INFP	.42188	.38473	.999	-.9177	1.7615
	INTJ	.12113	.28761	1.000	-.8803	1.1225
	INTP	-.03651	.38473	1.000	-1.3761	1.3031
	ISFJ	.11150	.32189	1.000	-1.0093	1.2323
	ISFP	.35326	.35121	1.000	-.8696	1.5761
	ISTJ	.02049	.27790	1.000	-.9471	.9881
	ISTP	.52031	.32189	.963	-.6005	1.6411
ISTP	ENFJ	-.12188	.32189	1.000	-1.2426	.9989	
	ENFP	-1.23906*	.32189	.015	-2.3598	-.1183	
	ENTJ	-.77172*	.19573	.011	-1.4532	-.0902	
	ENTP	-.40970	.20044	.797	-1.1076	.2882	
	ESFJ	-.67656	.25809	.392	-1.5752	.2221	
	ESFP	-.20000	.32189	1.000	-1.3208	.9208	Individuals with ISTP personality type have less performance contagion compared to those with ENFP, ESTP, ENTJ
	ESTJ	-.54347	.18225	.189	-1.1780	.0911	
	ESTP	-.83920*	.20751	.008	-1.5617	-.1167	
	INFJ	-.52031	.32189	.963	-1.6411	.6005	
	INFP	-.09844	.32189	1.000	-1.2192	1.0223	
	INTJ	-.39919	.19573	.799	-1.0807	.2823	
	INTP	-.55682	.32189	.936	-1.6776	.5639	
	ISFJ	-.40881	.24333	.949	-1.2560	.4384	
	ISFP	-.16705	.28097	1.000	-1.1453	.8112	
	ISTJ	-.49982	.18117	.304	-1.1306	.1310	

Source: Author **Table 4. Hypotheses testing results**

Number	Hypotheses	Result
	Major Hypothesis	
1	There is a significant correlation between employees' personality type and their performance contagion.	Confirmed

Minor Hypotheses		
1-1	There is a significant correlation between Extrovert, Intuitive, Feeling, Judging (ENFJ) personality type and employees' performance contagion.	Rejected
1-2	There is a significant correlation between Introvert, Intuitive, Feeling, Judging (INFJ) personality type and employees' performance contagion.	Rejected
1-3	There is a significant correlation between Extrovert, Intuitive, Feeling, Perceiving (ENFP) personality type and employees' performance contagion.	Confirmed
1-4	There is a significant correlation between Introvert, Intuitive, Feeling, Perceiving (INFP) personality type and employees' performance contagion.	Rejected
1-5	There is a significant correlation between Extrovert, Intuitive, Thinking, Judging (ENTJ) personality type and employees' performance contagion.	Confirmed
1-6	There is a significant correlation between Introvert, Intuitive, Thinking, Judging (INTJ) personality type and employees' performance contagion.	Rejected
1-7	There is a significant correlation between Extrovert, intuitive, Thinking, Perceiving (ENTP) personality type and employees' performance contagion.	Rejected
1-8	There is a significant correlation between Introvert, intuitive, Thinking, Perceiving (INTP) personality type and employees' performance contagion.	Rejected
1-9	There is a significant correlation between Extrovert, Sensing, Thinking, Judging (ESTJ) personality type and employees' performance contagion.	Rejected
1-10	There is a significant correlation between Introvert, Sensing, Thinking, Judging (ISTJ) personality type and employees' performance contagion.	Rejected
1-11	There is a significant correlation between Extrovert, Sensing, Feeling, Judging (ESFJ) personality type and employees' performance contagion.	Rejected
1-12	There is a significant correlation between Introvert, Sensing, Feeling, Judging (ISFJ) personality type and employees' performance contagion.	Rejected
1-13	There is a significant correlation between Extrovert, Sensing, Thinking, Perceiving (ESTP) personality type and employees' performance contagion.	Confirmed
1-14	There is a significant correlation between Introvert, Sensing, Thinking, Perceiving (ISTP) personality type and employees' performance contagion.	Confirmed
1-15	There is a significant correlation between Extrovert, Sensing, Feeling, Perceiving (ESFP) personality type and employees' performance contagion.	Rejected
1-16	There is a significant correlation between Introvert, Sensing, Feeling, Perceiving (ISFP) personality type and employees' performance contagion.	Rejected

Source: Author

In addition, the analysis of the correlation between personality types with each component of performance contagion including the contagion of work quality, work quantity, work accuracy, sympathy with organization, creativity, teamwork, adopting new methods, job opportunity, attempt at getting promoted, customer service, learning new things, and peers' misbehavior shows that employees with ISTP personality type have higher levels of work quality contagion compared to those with ESTP and ENTJ personality types. Employees with ESFJ personality type have higher levels of wok quality contagion compared to those with ENFJ personality type. Employees with ISTP personality type have lower work accuracy contagion compared to employees with ENFP, ENTJ, ENTP, ESFJ, ESTJ, ESTP, INTJ, ISFFJ, and ISTJ personality types. Employees with ENTJ personality type have lower creativity contagion than those with ESTJ personality type. Employees with ENTJ personality type have higher contagion of adopting new methods than those with INFP and ISTP personality type. Employees with ISTP personality type have lower customer service contagion compared to those with ENFP, ENTJ, ESFJ, ESTJ, ESTP, and ISTJ personality types. Employees with ISFJ personality type have lower customer service contagion than those with ENTJ and ESTP personality types. Employees with ISTP personality type have lower attempt at learning contagion compared to those with ENTJ and ESTP personality types. Employees with ISTP personality type have lower misbehavior contagion than those with ENFP personality type.

5. CONCLUSION

- The results of the present study show that there are significant correlations between ESTP, ENTJ, ENFP, and ISTP personality types and performance contagion. This finding corroborates extant studies that concluded the positive correlation between Extroversion (E) and social skills, openness to new ideas and experiences, and behavioral assimilation with others (Berr et al, 2000). These factors also played a part in creating balanced team performance, a finding which indicates personality types with higher levels of extroversion are more likely to demonstrate performance contagion. In the present study, the results of the means comparison test indicated that individuals with ISTP personality type have lower performance contagion when compared to those with ESTP, ENTJ, and ENFP personality types. This result is consistent with that reported by Clinebell and Stetcher (2003) who show team members' personalities have a considerable effect on group processes and performance. They also assert that individuals with introverted personality types are less willing to cooperate with and learn from other individuals. T explain these results it could be said that extroverts may demonstrate higher performance contagion due to the ease with which they listen and speak, and also their willingness to assimilate with other people. While working in a group, extroverts gain experience and become more aware of individual differences. Ultimately, because of their awareness of individual differences, extroverts prefer communicative and interactive style which have positive effects on the behavior and cooperation of their colleagues.

- Based on the findings of the present research it is suggested that:

- Individuals with ESTP, ENTJ, ENFP personality types and higher performance contagion be considered as synergic contagion centers. They should be considered as necessary tools for the management to guide and direct employees towards organizational goals. Tus, they should be placed in appropriate positions according to the goals and strategies of the organization.

- At lower levels of organizational hierarchy, such as workers or service providing levels where physical work is performed, working methods are routine and there is not much need to transfer a new method of doing things. Therefore, at these levels performance contagion could probably lead to conflicts and tensions among employees and placing individuals with high performance contagion at these levels may more likely lead to increased misbehavior contagion among the workers at these levels. Particularly, employees with ENFP personality type, according to the

results of this study, have higher misbehavior contagion. Therefore, managers had better use more ISTPs at these levels, as they have lower performance contagion.

- The results of the present study indicated that employees with ENFJ, ENFP, ENTJ, ENTP, ESFJ, ESTJ, ESTP, INTJ, INTP, ISFP, and ISTJ have better contagion of respecting clients and solving customers' issues. Therefore, it is better to select more employees of the customer service department from people with these personality types.

- According to the results of this study, it is suggested in communications and advertisement, human resources, and research and development departments where higher work quality is needed, a number of employees at these departments should be selected from individuals with ESTP and ENTJ personality types as they have higher work quality contagion. Employees of ENTJ type, based on the results of this study, have higher creativity contagion and are essential to the aforesaid departments where creativity is to be motivated, new ideas to be challenged, and new things to be created.

- In other departments of the organization such as sales and marketing where optimal use of time and constant follow up to achieve goals are of high importance, employees with ESFJ personality type should be employed who transmit work quantity.

- In finance, engineering, and production planning where work accuracy is of high importance, employees with ENFP, ENTJ, ENTP, ESFJ, ESTJ, ESTP, INTJ, ISFJ, and ISTJ should be employed who have higher work accuracy contagion than other types.

- In acquisitions and mergers rapid coordination and performance transfer among the merged companies is vital for the success of such strategic moves. Thus, it is suggested in such cases the correlation between personality type and performance contagion should be taken into account so that changes and reorganizing teams can be directed at maximum contagion of desired performance between the merged units.

- Creating and establishing a system to motivate people along with an atmosphere of trust and job security can play a major role in facilitating performance contagion.

- Based on the results of the present study individuals with ENFP personality type can transfer their behavior to other employees and individuals with ENTJ, ESTJ, and ESTP personality types are influenced by others' behavior and performance. Therefore, it is better to arrange human resources in teams in way that individuals with ENFP personality are present in teams to transmit their appropriate performance to others. Also, people with ENTJ, ESTJ, and ESTP should be put to receive how to execute work properly.

- When change management is necessary, and organizational culture or work performing methods changes, individuals with ENTJ and ESTP who are more risk-taking in adopting new ideas and methods and take advantage of learning opportunities should be used.

Future researchers are suggested to complete the efforts in this research area by studying and working on the following issues:

- Creating an observable group of various personality types to study the behavior and performance contagion among them,

- Perform similar studies in other organizations and compare the results with those from the present one,

- Perform similar studies n other provinces of the country an compare the results with those from the present one,

- Identify factors that have an effect on employees' performance contagion along with the effect degree for each factor,

- Replicating this study with other psychometric personality tests such as NEO to identify personality types, and

- Carry out similar studies in different periods of time.

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RELATIONSHIP BETWEEN ERROR IN EARNING FORECAST AND PRECISION IN EARNING FORECAST (CASE STUDY: COMPANIES ENLISTED AT TEHRAN STOCK EXCHANGE MARKET)

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Abstract

The present research studies the relationship between the earning in forecast error and precision in the forecast, and the forecast error. The forecast error could be considered as a scale of uncertainly of the management with respect to identifying the future earnings. The present research is post-event research and has employed correlation method. This research took place at the companies enlisted at Stock Exchange of Tehran during 2008 and 2013. The research hypothesis studies whether the relationship between precision in earning forecast of the companies and their negative unanticipated earning is higher than the relationship between the precision of forecasting the companies' earnings and the positive unanticipated earning. The results show negative and significant relationship between precision in forecasting companies' earnings and unanticipated earning (positive and negative) and since the coefficient of unanticipated negative earning variable is larger than the coefficient of positive unanticipated earning variable, it could be said that the hypothesis has been confirmed.

1. INTRODUCTION

The empirical evidences have shown that investors need information such as forecast of the earning of each share and reliability and they use it in pricing the stocks.

There have been studies on the precision of forecast by some companies in the United States, Australia, Hong Kong, Canada and Singapore. The findings of those studies showed that the forecast of some companies are more optimistic than other companies. Researchers have studied the relationship between the precision in earning forecast and the characteristics of the company such as the size of the firm, the reliability of the auditing institute and the title deed of stocks. Determining the precision of earning forecast is not sufficient; especially in newly enlisted companies in stock exchange market, that due to historical data and experiences, the matter becomes more difficult. Furthermore, foreign factors that are beyond control (such as inflation, oil price, political factors, foreign currency exchange rate and…) are effective in earning forecast. Brown et al (2000) found that sudden changes in those factors increase the ambiguity and make the forecast more difficult. Li et al. (1993) found that management always attributes its negligence and flaws in attaining the forecasted earning to the changes in the economy factors. Therefore, the importance of

forecasting the earning led the researchers to study the elements of earning forecast and the factors effective on it (Gang, 2009).

Today, one of the most common and popular methods of investment in the society is buying stocks of different companies by natural persons and legal entities; therefore, benefitting from proper and on time information is one of the essential needs in having confidence on the investment and its profitability especially in future year. Managers of companies need a tool to share their information and future goals with shareholder and investors. One of those methods is to release the forecasts related to the earning of each stock. Investment includes a variety of activities, purchasing properties and real estates, purchasing securities and bonds, making bank deposits, purchasing stocks. In adopting decision to invest in stock exchange market and purchasing stocks, the first and most important factor before the investor is the price and studying the process of changes in stock prices is the most customary point of start in time of buying the stocks. For this reason, knowledge on the factors effective on price of stocks is highly important (Meshki et al., 2011). The forecast of earning per stock should be known as the most important factors effective on stock price among all other factors. By expansion of investors' use of the forecasted earning and its increasing importance, research on the factors effective on earning forecast, the factors that affect the accuracy of forecast and the factors that lead to the errors in forecast increased eventually. Among factors that are effective in the accuracy of earning forecast, one may note the size of company, the life of company, the leverage ratios, the profitability ratios and.

Precision in earning forecast whether in the companies already enlisted in the stock exchange and those companies in their first offer phases has attracted the attention of researchers across the world; for, this issue is effective on the decision making of investors, the value of the company and pricing the stocks. (Ferth, Smith, 1992; Jelic et al., 1998; Freth, 1998; Cheng, Freth, 2000)

If managers issue forecasts with unanticipated news (that is, with higher unanticipated earnings), the investors will be entitled to lodge claims based on that issue as management failed in revealing information based on the timetable. By presenting the legal consequences of the issuance of unanticipated earning, we expect managers to issue less precise forecasts in the event of having unanticipated earnings (for example, when their anticipation of income is higher than the current expectation of analyst); for the importance of this unanticipated earning in time of issuing the less precise forecasts become less noticeable by the investors (Meshki et al., 2011).

The present research studies the relationship between the earning of forecast errors, the forecast precision and forecast error. The forecast error could serve as a scale of uncertainty of management with consideration of identifying the future incomes.

Forecasting the earning per share

The company managements present their forecasts from EPS of next year in the beginning of each fiscal year. To calculate the forecasted earnings per share, the net earnings forecasted for ordinary stocks is divided into the number of ordinary stocks (as published by the company and is owned by stockholders) Mehrani, Hesarzadeh, 2011).

Error in forecasting the earning of each stock:

The difference between the actual earning of each stock and the first earning forecasted per stock divided into absolute value of the forecasted earning per stock (Meshki et al., 2011).

2. THEORETICAL AND PRACTICAL LITERATURE REVIEW OF THE RESEARCH

EARNING FORECAST

Major investors have access to much information and they even expect to receive information to which the minor investors have no access. Minor investors shall rely on brokers. The US Securities and Stocks Commission constantly encourage companies to reveal better information for the best interest of minor investors. In 1973, the Securities and Stocks Commission for the first time required the companies enlisted in stock exchange to present forecasted earning. The next plan was proposed in 1975. In that plan, companies were required to publish the forecasted earning revealed along with financial reports. These requirements make the management information to be almost equal to the information available to public.

In Iran, Tehran Stock Exchange Organization (SEO) is the most important and core of the capital transactions. The SEO was established in 1987. According to the law, the broker is obliged to present this information to the Organization:

- The reports and annual financial statements which have been audited, the companies and summary of annual statement of broker's activities which have been audited by charter auditor of the SEO maximum within four months after termination of the fiscal year.

- Any changes in the terms declared to the Organization for receiving the permit.

- Other documents and information demanded by the Organization as well as the entire reports stipulated in the approved by-laws in the template of the law. This procedure continued to 1978 and after that, to 1991, the stock exchange was practically in suspension situation. Between 1991 to 1996, the statistics of monthly production and sale, the forecast of annual purchase and sale and the statistics of actual production and sale of the previous year year service as the basis of pricing as well as providing useful information for the investors' decision making.

Tehran SEO in 1997 issued a circular that required the companies to present the report of actual earning as well as the annual estimated earning per stock in addition to the previously mandatory information. In 2000, Tehran Stock Exchange Organization, in light of the importance of interim financial reprots in users' decision making, for the purpose of legalization the reporting method and improving the reliability of companies, required the companies to present the six-month interim information which had been studied in standard forms. Obviously, by presenting information in this template, the issue of submitting the statistics of monthly production and sale by the companies was no longer required. Presenting information on earning forecast per stock; however, remained in the current procedure. Clause C of article 5 of the By-law on Information Revelation by companies enlisted in Stock Exchange, passed in 2002, required the companies to present the forecast of earning per stock at the end of each 3-month interval, within 40 days after the expiry of the 3-month period (Jahankhani, 2003).

USEFULNESS IN FORECAST

Usefulness in forecast is one of the characteristics of accounting information and is used in developing the theory as well as selecting the accounting procedures. The board of developing the standards of financial accounting (1980) in its manifest number 4 has stated assisting in the forecast of future earning of the business unit as one of the goals sought by the financial statements. In Troblad's report, 12 goals have been mentioned in preparing the financial statements, in six of which, the usefulness on the forecast (potential cash flow, profitability power, economic exchanges and other events and financial information have been emphasized. In tenth goal, too; it has been specified that one of the goals in preparing financial statements is to provide useful information for the forecasting process.

In the text proposed on the theoretical fundamentals of accounting and financial reporting of Iran, usefulness in forecast has been set as the goal of reporting as well. The quality characteristics of the information have

been also considered (Accounting Standards, 2002). The financial information of the past events is usually a suitable basis in forecasting the current and future results.

Since future is always ambiguous, as much as the presented financial information can help in reducing the ambiguity on a situation and lead to making more reliable forecast, it will have more suitability. The criteria of forecasting value are related to the probable connection between the economic events which are interested by the decision maker and the relevant forecasting variables. Forecasting accounting profits and its changes as an economic event has been long desirable for investors, managers, analysts…

In addition, accounting profit and cash flow are two variables that have attracted the attention of researchers and theorists to their abilities in effecting the forecast and assisting investors in their decision making (Ahmadpour et al., 2010, quoted by Rapport, 1983).

FORECAST OF EARNING PER STOCK

In an efficient market, the value of securities reflects the entire information available and the new information affect the price of securities immediately, and the investors make decisions by considering the information available to them and the anticipation they have developed on the outputs of securities in future. Many researches have been already carried out on this topic by Bal, Brown (1968), Brown, Foster (1977), Miles (1981), Clark, Wright, Robert, Dorsey (1980), Mey (1970), Freeman, Spelions (1992) and… The results of almost all those researches showed that financial statements and profit statement contain information load for capital market (Nikumaram, 2009). If the assessed earning contains information, it can affect the behaviors of users, especially the potential and actual shareholders and lead to changes in the price and volume of stocks transactions. The information contents mean that by an event such as statement on stock earning, it can affect the price of the stocks simultaneously, as an event will be considered as having information content if it has not been already recognized.

Based on row 7 of clause C of the manager's affidavit in the companies enlisted at Stock Exchange market of Tehran, companies are obliged to submit to the Management for Supervision over the Companies at Stock Exchange Organization of Tehran, their earnings forecast per stock in quarterly and annual form maximum within 40 days after the expiry of the three-month period. In the meantime, in special cases or in important events which might have significant effects on the financial status, particularly in the earning of each stock, such as changes emerged by price of products, rate of raw materials for manufacturing new products and other relevant cases, the necessary information must be presented to the Stock Exchange immediately. Nevertheless, the first forecasts of stock earning per share are for March 1995 and before that year, the companies merely sent their production and sale reports. Since declaring the assessed earning per share is an effective factor in the decision making of investors on purchase, sale and keeping the stocks, the earning forecast per stock must contain minimum bias from the actual figure; however, due to not enforcing the desirable policies by Tehran Stock Organization, there were considerable differences between the forecasted and actual figures before 1997 (Jahankhani, 2003).

PRECISION IN FORECASTING COMPANIES' EARNINGS

The amount of information revealed for market participants affects the precision of earning forecasts of analysts. For example, Lang and Landholm (1996) concluded that the amount of precision increases by the increase in revealing the information about the company. These findings have expanded to revealing information on management analysis (Baron, Kael and Akthif, 1999), accounting policies, etc. In sum, these findings indicate the companies that release more information for the outsider users have better precision in forecasting the earning. (Malekian, 2010).

There are theories that indicate the company's capital structure affect the precision in earning forecast. Precision in earning forecast is important for investors, as investors' decisions on purchase, sell or keeping stocks are based on this information. There are theories that claim capital structure of the company affects

the precision in earning forecast. There are authors that showed that managers and stockholders' benefits might not be aligned since managers might conceal parts of information from owners and might not be effective for investors (Khaleghi, 1998)

There are different factors that affect the precision of forecast of company's profits; some of them are as follows:

1. **Size of the company:**   In large companies, due to the establishment of careful control and supervision systems, employing specialized employees and managers, answering a large range of investors, creditors and employees require showing more precision and care in earning forecast. A positive relationship is expected between the size of company and precision in earning forecast (Khaleghi, 1998)

2. **Financial leverage:** The financial leverage means the proportion of debt to the sum of assets and the market value of the stock. As the proportion of the financial leverage is higher, the company is exposed to higher financial risk and the existence of risk reveals lack of possible means in forecasting the earnings. Therefore, it is expected to observe a negative relationship between the leverage and precision in earning forecast.

3. **Forecast time scope:** By time scope it means the interval between company's enlistment in the stock market and termination of fiscal year. It is expected to have a negative relationship between time scope and precision in earning forecast.

4. **Age of company:** Compared to younger companies, old companies have more experiences on earning forecast. The existence of a positive relationship between the age of company and precision in earning forecast is expected.

5. **Earning variations:** This indicates fluctuations in historical earnings of the company prior to being enlisted in stock. It is expected to see a negative relationship between changes in the profit and precision in forecasting earnings per new stocks; for, anticipating the earnings of such companies is difficult due to their high risk (Ashtab, Sarbanha, 2008)

There are many empirical evidences that show investors rely on information such as earning forecast per stock and use them in pricing the stocks. These forecasts express the management's anticipations on the events that might happen in future; therefore, precision in forecast is highly important for investors; for, investors make decisions on purchase, sell and or keeping shares based on that information (Jack, Maccnomy 2003).

Researches show when managers decide to release earning forecast, they adopt a level of precision based on the benefits of publishing forecasts with the costs of their release. Managers release earnings in low precision only when they want to reduce the market reactions to the good news on forecast, when there is bad news. (Baginski, Hassell 1997)

Beginski et al. (2004) made a research on why managers analyze their forecasts of earning. In this research, they attributed the forecast act and its credit to a series of internal and external factors. The factors that help investors to interpret the forecasts through knowing the relationship between those factors and their forecasts. The factors include the size of company, forecast sign (positive and negative forecasts), range and scope of forecasts and their volume, the existence of industrial regulations and the extensiveness or at least, minimum and maximum and/or net qualities of the forecasts. The results showed positive relationship between the size of companies and the quality of forecasts.

In another word, as the size of companies is bigger, the quality of their forecasts improves. There is a negative relationship between forecast signs and interpretation of investors. It means, in forecasts that involve decrease in earning, more confident is gained than in forecasts that claim increase in earning. In

addition, when the forecasts are long term and ranged, they are better interpreted by the investors and appear to them more reliable. On the factors related to the time scope, the same result was gained that forecasts in shorter time span appear more trustable. At the same time, for companies that have special regulations, providing explanations on the management forecasts has less attribution. In another word, the existence of those regulations improves the creditability of companies' forecasts.

Neg et al. (2006) in a research titled, Management Forecast, studied the quality of reveal and market efficiency, and the reaction of stocks outputs following the management forecast, as well as the effects of quality of reveal on the volume and magnitude of that output. According to their research, the unnatural output of stocks has direct relationship with the news of management forecasts, and at the same time, the magnitude of this unnatural output is higher in companies that contain much higher positive news than companies that carry bad news.

Hirst, Koonce (2006) studied the effects of the characteristics of earning forecast by management on the validity of those forecasts. They also tested he effects of breaking down the profit elements on the relationship between the management mortification and the validity of their forecasts. The results of this research showed that breaking down the elements of profit into different levels of profit is followed by more reaction in stock price than presenting the earning forecast as a total and general item.

Choy et al. (2011) claim that managers publish earning forecasts in low precision and investors are unable to make a good interpretation of the information in forecasts, and understanding the meanings related to the future profit. As a result, their lack of trust to the managers' forecasts of earning intensifies. Increase in lack of confidence to managers by investor's leads to lowered reaction to managers forecast and reducing the coefficient of reactions to the future profits.

Table 1: Summary of researches conducted in other countries

Row	Topic	Year	Researcher	Results
1	The impact of conservation in earning forecast by management is studied.	2009	Wi Hoi et al	Using conservative accounting serves as an alternative for management forecast and leads to reducing information asymmetry In the market, potential reduction in number of judiciary cases through on time report of undesirable news.
2	The role of precision in management forecast in assessing the error in management forecast of earning is studied	2009	Fang	There is an important and negative relationship between forecast precision and management's error in forecast.
3	The characteristics of forecasts registered by the company and the quality of the effects in previous earnings forecasts in response to the investors to future earning forecast.	2009	Haten & Stocken	The behavior of previous forecasts of the company establishes validity and credit for the forecasts.
4	Quality of earnings forecast of management fully attributes on the reflection of accrual items on the next year earnings.	2009	B Hong Zu	Improper price of accrual items attributes to the companies that release the forecasts scopes and does not attribute to companies that release the forecast points.

| 5 | Role of unanticipated earning and forecast error is studied | 2010 | Joy, Mires, Zang and Zibart | Careful forecast has negative relationship with unanticipated earning. This negative relationship is more significant in forecasting bad news than good news. In addition, it shows careful forecast has negative relationship with forecast errors and this negative relationship is stronger in the negative contents of the forecast error. |
| 6 | Role of careful forecast by management in assessing the earning forecast error 2011 | 2011 | Joy et al | Managers issue earning forecast with less precision and the investors will be unable to interpret the information related to the forecast or perceive the meanings related to the future profit. As a result, their lack of trust to the managers intensifies. Lack of confidence of investors reduces their reactions to managers' forecast and lowering the reaction coefficients towards future earnings. |

Source: Authors

Table 2: Summary of researches conducted in Iran

Row	Topic	Year	Researcher	Results
1	Study the precision of earning forecasts by company's managers and	2007	Seyedeh Samaneh Shahrokhi	There exists a significant difference between error in managements' forecast and error in forecast based on the
Row	Topic	Year	Researcher	Results
	the effective factors on them			random steps.
2	Effective factors on the precision of earning forecast in the newly enlisted companies at Stock Exchange Market	2008	Ashtab	There is a reverse relationship between the profitability and earning forecast error during the period of study. Other independent variables of the research showed no significant relationship with the error in forecasting the earnings of the new stocks.
3	The relationship between management's error in earning forecast and the accrual items	2010	Soltani	There is a significant relationship between the error in management's forecast of earning in an extent that increase in current year accrual items leads to increase in forecast errors in next year and their stronger relationship in the uncertain business environment was also confirmed.

| 4 | Study the relationship between the amount of error in forecasting the earning of each stock and the cash earnings per share with increase in shares output | 2010 | Talebnia and Hosseinpour | The results showed reverse and significant relationship between the amount of the forecast of earning per stock, the cash earning and stocks output. In addition, the findings showed the intensity of the relations and/or the effects of errors of both variables to the stocks outputs are the same. |
| 5 | Study the relationship between the error in management' earning forecast and the unnatural output of stocks and the systematic risk | 2011 | Maleki & Asirabani | The results of the research indicate the existence of presence of a significant positive linear relationship between the two factors of error in forecasting the earning and the unnatural output of stocks; and absence of linear relationship between earning forecast error and systematic risk. |

Source: Authors

3. RESEARCH METHODOLOGY

The present research is a post-event study and the method applied is correlation. In the present research, the two methods of literature review and field study have been used. The information on the history of the research and developing the theoretical framework have been performed by literature review, searching electronic journals and publications, and the information on the financial statements of the companies and the earnings forecasted by the management has been collected from software that contained financial information of the companies (such as Rahavard Novin and Tadbirpardaz) as well as the internet bases.

Subject scope of this research: This research is in the scope of financial accounting studies.

Time scope of this research: 2008 to 2013.

Territory of the research: The companies enlisted in Stock Exchange of Tehran.

Since the variable subject of study is the common characteristics of the companies enlisted in Stock Exchange of Tehran, the research population consisted of companies enlisted in Stock Exchange of Tehran the stocks of which were transacted in Stock Exchange market during 2008 to 2013.

Following limitations were considered in taking samples:

1.   Those companies the fiscal year of which terminates on March 20.

2.   Financial companies (investment companies, banks…) and the enterprises whose information which was required was not correct were eliminated.

3.   It must be possible to obtain the data needed for careful calculation of the earnings of those companies.

4.   They must have been enlisted in Stock Exchange market to 2007.

5.   They must have released their annual assessed profit for the period subject of study.

82 companies are included in the time scope of the research and their information has been collected to be used as research samples.

Resrach hypothesis: In forecasting, bad news to good news, the negative relationship between precision in forecast and unanticipated earning is stronger.

In the research hypothesis, it was studied whether or not there is a relationship between the precision in forecasting companies' profit and their negative unanticipated earning. By considering statistic F and the error level obtained for it, the acceptance or rejections are made in 95% certainly levels. In addition, with respect to the modified determining coefficient which is obtained for the model, it could be concluded whether or not the independent variable is able to explain the dependent variable. Furthermore, by considering Durbin Watson statistics which is obtained, it could be said whether or not there exists a serial auto-relation among the statements remained from the research.

For precise calculation of earnings forecast, the data of actual net profit of the company (realized) in the earnings forecasted by the company (managers). In this way, the absolute value of the actual profit of each share is subtracted from the forecasted earning of each stock, divided into the actual earning, which is calculated by following formula:

$$\text{PRECISION} = \left| \frac{AE_{it} - FE_{it}}{AE_{it}} \right|$$

Precision= Deviation

AE_{it} = actual net earnings of each stock

FE_{it} =The net earnings forecasted per stock

4. ANALYSIS OF RESEARCH FINDINGS

Table 3: The descriptive statistics of the research

Variables	Average	Mean	Maximum	Minimum	Criteria bias
Error in earning forecast	-0.15	-0.0008	9.2	-8.6	0.017
Development opportunities ratio	3.66	3.41	8.93	0.86	0.71
Size of the company	26.95	27.04	29.42	23.56	1.52
Age of company	2.46	2.48	3.73	0.69	0.64

Source:Authors

The results of the descriptive statistics presented here show that all variables of the research have in sum suitable statistical distribution as per proximity of average and mean in them.

Studying the normalization of independent variable distribution

The normality of the output distribution has been studied by using Kolmogrov –Smirnov tests.

The significance levels values with less than 5 percent will lead to rejecting the hypothesis zero in 95 percent certainty.

Table 4: Results of quartile tests on (Jarque-Bera) independent variable (precision of earning forecast

Statistics	5059.91
The p-value (significance level)	0.421

Source:Authors

As it could be seen in the above table, the significance level is more than 5 percent, showing the normality of the distribution of this variable.

Testing the first hypothesis This hypothesis studies whether the relationship between precision in forecasting companies' earnings and their negative unanticipated earning is higher than the relationship between precision of companies' profit precisions and their positive unanticipated earnings. By considering the results obtained from assessing the models and coefficients of variables (unanticipated earning one X unanticipated negative earning one) and (unanticipated earning two X unanticipated negative earning two), and (unanticipated earning one X unanticipated positive earning one) and (unanticipated earning two X unanticipated positive earning two) that showed the figures 0.176,   -0.005, -0.0002 and -0.0001; respectively, with respect to the error levels obtained for them, that is, 0.84, 0.000, 0.000 and 0.000; respectively, that was more than acceptable level of error for the variable (unanticipated earning one X unanticipated negative earning one), and for other variables, it five percent is less than the acceptable error level; in sum, the results indicate the existence of negative and significant relationship between the precision of earning forecast and unanticipated earning (positive and negative).   Then, the significance coefficient tests results showed that the coefficient of the variable of negative unanticipated earning was larger than the coefficient of the variable positive unanticipated earning, as a result, it could be stated: The relationship between precision of earning forecast for companeis and their unanticipated negative earning is more than the relationship between precision of earning anticipation of companeis and their unanticipated positive earnings.

5. CONCLUSION

In the research hypothesis, it was studied whether or not the relationship between precision in earnings forecasts of companeis and their unanticipated negative earning is more than the relationship between precision of earning forecasts of companeis and the unanticipated positive earnings. With respect to the results obtained from assessing models (3-1) and (3-2) as well as the variables coefficient (unanticipated earning one X unanticipated negative earning one), (unanticipated earning two X unanticipated negative earning two) and (unanticipated earning one X unanticipated positive earning one) and (unanticipated earning two X unanticipated positive earning two), with respect to the error levels obtained for them which for variable (unanticipated earning one X unanticipated negative earning one) is higher than the acceptable level of error, and for other variables, the value obtained is less than the acceptable level of error, 5 percent, in sum, the results indicates negative and significant relationship between precision in forecasting the companies' earning and their unanticipated earning (positive and negative); and as the coefficient of the variable of unanticipated negative earning is bigger than the coefficient of unanticipated positive earning, it could be therefore claimed that the hypothesis has been confirmed.

 In another word, in the research hypothesis too, the results indicate the existence of negative and significant relationship between the precision of forecasting the companies' earning and their unanticipated earnings (positive and negative). And, as the coefficient of the variable of unanticipated negative earning is bigger than the coefficient of unanticipated positive earning, it could be therefore said the hypothesis has been confirmed.

This research encountered following restrictions:

1.   The most important restriction in this research is the specific characteristics of the researches in social sciences discipline. In another word, the effects of other variables that controlling them were beyond the researcher's power and their possible effects on the research results could not be ignored. Variables such as the variable in the company's management, the undesirable effects of inflation on the financial information of the companies (that could be effective in genera or the company's earning in partial), the education and experiences of the companies' managers could be a number of variables that might have been effective.

2. In the researches, it is better to use the analysts' forecast; however, due to the absence of analysts in Tehran Stock Exchange Market, the management forecast was used.

With respect to the findings of the research, followings are suggested:

1- To establish analyst institutes to evaluate the information presented to the market (for studying management's forecast on earning and earning forecast by using time series) as well as determining its effects on stock price.

2- The role of financial analysts and specialist investors in the behavior of stocks market could not be denied. Mere attention to the earning forecast and its constituent elements; and lack of attention to the quality of earning could lead to mistake in interpreting the situation of a company. Employing variables such as precision of earning forecast per share which contain information for interpreting of the status of a company could be effective in formation of reasonable behavior of the market and controlling the future unnatural output fluctuations of stocks.

3- Presenting earning forecast in a suitable time helps the investors to reflect the future period earning in the stock price. For this reason, it is suggested the managers pay more attention on the time of releasing the forecasts and their quality characteristics.

4- Based on the results obtained, the investors, analysts and other users of financial information are recommended to consider categories such as comparing the current period earning and the last period earning, the time of releasing the earnings forecasts which had been employed and withdraw from meter reliance on the figures of the forecasted earning.

5- Bad news is one of the undesirable characteristics of the earning forecast per stock which has negative relationship with the coefficient of reaction to next earnings. The managers are suggested to modify and eliminate this characteristic.

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ORIGINAL RESEARCH PAPER

EVALUATING EFFECT OF COMMUNICATION BETWEEN JOB AND EMPLOYEE (FIELD OF STUDY) ON RESPONSIBILITY AND JOB PRODUCTIVITY CASE STUDIES (PERSONNEL OF FINANCE GENERAL DIRECTORATE OF TEHRAN MUNICIPALITY)

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Abstract

There is a direct relation between productivity of human forces and amount of using people's potential and actual abilities. The target of this research is evaluating of relation of proportionality of job and employee (field of study) and amount of productivity of personnel in Finance General Directorate of Tehran Municipality. The research methodology is comparative descriptive and its target is practical. The tool of collecting information is questionnaire that after confirming its validity through specialists and determining reliability trough Cronbach's alpha and split-half the resulted coefficients were calculated higher than 70 percent for all parts of the questionnaire. Testing hypotheses (independent t test) has been conducted through SPSS software on a 30-people sample. Results of the research indicate that first personnel's fields of study unrelated to their jobs in the activity field lead to reduction of working efficiency and reduction of responsibility of personnel in Finance General Directorate of Tehran Municipality. Also, personnel's fields of study unrelated to their jobs in the activity field cause to reduction of job motivation, reduction of meritocracy, increase of people's dissatisfaction form performance of personnel in Finance General Directorate of Tehran Municipality and increase of financial corruption in this organ and reduction of personnel in Finance General Directorate of Tehran Municipality to work in this organ.

JEL classification: J50, J80
Keywords: *Field of Study, Branch of Job Activity, Finance General Directorate of Tehran Municipality, Questionnaire Method*

1. INTRODUCTION

Since the management and organization science was developed rapidly in the early 1900, a transition was appeared about nature and obligation of organizations and criterion of organizational performance and effectiveness, today's world is the world of organizations and the human forces as the most valuable organizational resources are considered authorities of that (Dalvar, 2009). Although organizations are organized and established in various forms and based on diverse purposes but without doubt all of them are managed and directed based on physical and mental efforts of the human forces who are considered its main bases so people's lives in new world are strongly influenced by universe and behaviors of organizations and

this reason alone is trying to identify nature and mutual relations of them more and better and more scientific and it justifies the human force and also makes it necessary. Achieving targets and strategies of each organization or institution requires having specialists and efficient human forces and this matter will be not possible unless each one of people to be employed compatible with his field of study and specialized field. Nowadays various organizations and publics annually spend major costs to educate skilled human force to see its effects and benefits in long-term through increase of efficiency, reductions of costs, creation of creativity and innovation by educated people. Management is a difficult and complex phenomenon in the present world, Problems facing us in societies and organizations are more complex to be solvable by non-specialists. Nowadays organizations have become more specialized through growth of population, reduction of natural resources, growth of technical knowledge and information and they cannot make important decisions optimally without participation of specialized personnel and experts and to be sure about correct execution of them. Therefore, given that specialized personnel of each organization are considered the most important properties of that, their knowledge and abilities should be used in a way that in addition to respect for sublime human values to realize targets of organization effectively (Lunderberg, 2008).

Human has thought about useful, efficient and effective use of his abilities, available resources and facilities since long time ago. In the present area, this matter has been considered seriously more than any other time, productivity has been raised as a culture with work and life and its improvement is the main origin of economic development, numerous factorsare effective on promotion and improvement of productivity and performance, but in opinion of most of experts, the human resource is considered the most valuable and prominent factor of achieving to organizational targets (Radnasab, 2010).

In the present era, the sustainable development cannot be achieved without considering amount of productivity in production and without awareness about mechanisms and effective factors on increase if that. Managers of organizations (including publicly and private) and scientists have paid great attention to science and practice of management seriously and scientifically in industrial and developing countries since a long time ago and especially in early of the twentieth century, because this new approach has helped them a lot to deal with complex problems and great social crises in the present era. The issue of human strategic resources is a very important topic in this science and process that human force and productivity have more important place than this factor meantime proportionality of job and employee is a very effective part in supplying favorable efficiency of human force. Skilled and educated human force is considered as the most important factor of economic, social and cultural development and growth of each country. From another hand, scientific labor division and specializing jobs which has been started since scientific management movement are developing and without doubt nowadays those organizations are more successful that have moved towards specialism more, because development of the information technology and creation of strong competition in various economic, social and cultural aspects in the world has been developed so that organizational survival will be possible considering their abilities and specialties (Abtahi, 2008).

Maintaining communication between higher education or specialty and job is requisite of each society and forms infrastructure of cultural, social, political and economic development of that and in fact it is origin and source of development and advancement of societies, knowledge and its specialized application in related jobs so societies that neglect about correct use of specialties will be condemned to arrears of development and civilization (Radnasab, 2010). The relation of proportionality of employees' fields of study with their job and productivity is evaluated in this research.

2. STATING THE PROBLEM AND THE NECESSITY OF CONDUCTING THE RESEARCH

Authorities and experts in each country use all their attempts and efforts to educate skilled and specialist human forces as future managers to make future of society. The central role of universities and higher education system is undeniable in great transitions at the end of the twentieth century and predication of

scientific, informational and management revolutions in the twenty-first century and hope of the world is again to universities and higher education centers for formulation and correct access to a suitable future.

Billion riyals are allocated to this matter each year in budgeting and providing financial bills to legal centers and on top of it parliament of each country, because economic, cultural, political and social development of each country depends on having specialist and efficient human forces. In this process, discussion and component of proportionality of field of study with society's needs and in another word, proportionality and specialty of job with field of study has especial place. Specialization of job means that an employed person concentrates all his attempt and effort on a limited and clear duty and knows all specialized experiences and information related to that job through scientific studies and updating to be able to response all questions related to that job in addition to conduct assigned affairs and responsibility.

In this article, communication of personnel's fields of study related or unrelated to their jobs in their activity fields in Finance General Directorate of Tehran Municipality and necessity of accordance of fields of job and study are evaluated and damages of unrelated field of study to work field in Finance General Directorate of Tehran Municipality are identified.

We will understand role and importance of human capital and increase of productivity through a little thinking and paying attention to the Adam Smith's division of labor theory as economic theorists. Increase of unemployment in society is the first terrible damage of disproportionality of job with field of study means that if a person is employed for a job that has no specialty and skill for that not only his work output will be zero but also a type of "hidden unemployment" has been fomented. Therefore, evaluating communication of personnel's fields of study related or unrelated to their jobs in their activity field has high importance especially in sensitive organs such as of Finance General Directorate of Tehran Municipality.

3. EXPRESSING TARGETS OF THE RESEARCH

THE FIRST MAIN TARGET

THE SECOND MAIN TARGET

Evaluating effect of communication between job and employee (field of study) on job productivity of personnel with their activity fields in Finance General Directorate of Tehran Municipality **Subsidiary targets**

Evaluating effect of communication between job and employee (field of study) on amount of personnel's interest in their jobs in Finance General Directorate of Tehran Municipality

Evaluating effect of communication between job and employee (field of study) on amount of administrative corruption in Finance General Directorate of Tehran Municipality

Evaluating effect of communication between job and employee (field of study) on people's satisfaction of personnel's performances in Finance General Directorate of Tehran Municipality

Evaluating effect of communication between job and employee (field of study) on meritocracy among personnel in Finance General Directorate of Tehran Municipality

Evaluating effect of communication between job and employee (field of study) on amount of job motivation of personnel in Finance General Directorate of Tehran Municipality

THEORETICAL PRINCIPLES AND LITERATURE OF THE RESEARCH JOB PRODUCTIVITY

First and fore most productivity is an intellectual viewpoint that always tries to improve what is currently available. Productivity is based on this belief that human can conduct his works and duties better and

achieving better results than the day ago (Benjani, 2010). Paying no attention to productivity of human force and just paying attention to other factors not only cause to reduction of efficiency and effectiveness in organization but also cause to increase of losses and events and creation of in human force, so to increase productivity in human source first deterrent and facilitator factors should be identified in increase of efficiency and then attempted to reduce deterrent factors and strengthen facilitator factors (Rezaeiyan, 2010). Several definitions are provided for concept of productivity to identify it better and comprehensively.

1. Oxford Dictionary defines productivity the rate of produced goods to consumed resources.

2. Many specialized dictionaries of organization and management have defined productivity "the rate of output to input".

3.Stephen P. Robins knows productivity a set of efficiency and effectiveness. Therefore, it's hold be acted effectively or efficiently to achieve productivity. If organization can achieve those targets which are about amount of achieving client satisfaction, organization is efficient but if organization achieves the same target (client satisfaction) through reducing number of personnel, will have higher than efficiency than before. As we see in above example the productive is a combination of being effective and efficient (Do, 2011).

4. RESPONSIBILITY

From another hand, responsibility of personnel is a very important factor in survival of organization. Responsible and loyal personnel cause to dynamism and growing movement of organization and in opposite irresponsibility of personnel without doubt will cause to comedown of organization. Social behavior of each person such as responsibility or irresponsibility is a function of his psychological and characteristic features. Before evaluating many factors (cultural, social and etc.) of irresponsibility of personnel, we evaluate the most important grounds that have determinant roles in occurring this type of behavior:

Personality of each person consists of unified totality of his existence. Psychologists in discussion of personality pay attention to individual differences more than anything else; means those features that distinguish a person from others (Etin, 2011).

People's physical and psychological needs from birth specify line of evolution of the human personality. A triangle which has been suggested by Abraham Maslow shows evolution stages of human's needs. Maslow who is one of leaders of developing the human-oriented psychology has released an interesting way to classify human's motivations. Maslow presented a hierarchy of needs which begins from biological basic needs and at higher levels reaches to more complex psychological motivations that only have important roles after meeting the basic needs. Maslow's hierarchy provides an interesting way to look at relation between human's motivations and those opportunities that environment provides (Etin, 2011). Based on Maslow's triangle, whatever we approach to base of the triangle; range of needs are developed more. Therefore, low level needs are seen in more people and higher level needs are respectively and gradually decreased so that need to self-actualization which is the highest human need appear in few number of humans (Azadikhah, 2011).

A human who has been stabilized in the level of physical needs in terms of personality in the work environment also he tries for material purposes, he works for his subsistence and impatiently he waits for the end of the working hours. A person who has been stabilized in the level of social needs in terms of personality tries to meet social needs. He tries to meet those needs which can be met through human connection. For example, he wants in the work or education environment to some peoples belong to him and also, he belongs to some people. Also, he would like to behave in a way to arouse others' praise and encouragement (Azadikhah, 2011).

So, he wants as long as he is working others pay attention to him and appreciate him. Otherwise, he escapes from his responsibility with some excuses and leaves his duties to others. Excusing is one of features of such people. But a person who his personality has been stabilized is constantly trying to actualize and manifest

his talents, capabilities and values. This stage is the self-actualization stage. Rogers believes that the most driving force of human is self-actualization. Responsibility is one of behaviors that leads to self-actualization; meanwhile strengthens the responsibility feeling in person. People who have reached the self-actualization stage conduct their duties and obligations correctly, always they are ready for new works and suggestions and look for growth, evolution and development (Azadikhah, 2011).

5. THEORETICAL PRINCIPLES AND HISTORY OF THE RESEARCH:

INTERNAL RESEARCH

Zaki's research was conducted at (2008) with topic of evaluating researches of the job satisfaction in Iranian publican universities. Target of this research has been providing a model relying on researches conducted by Kay Nicky (2002), Tesing (2004), and Bowling and Hamoon (2008) and through results of the job satisfaction researches in Iran. Based on this, this research analyzed contents of 238 theses of postgraduate education in Iranian publican universities during 1979-2007. Type of the research is content analysis and secondary analysis. Data of the research has been extracted and collected through referring to website of the research center of
Iran's scientific documents and in for motion affiliated to the Ministry of Science, Research and Technology. Statistical methods were used including descriptive analysis (univariate and bivariate). Eight variables of the research include gender, number of pages, having abstract, educational level, field and branch of study, type of university, research organization and time of thesis defense. Research branches of the job satisfaction have been considered as dependent variable which have been classified in frame of four main orientations and subsidiary issues. Final results have been adjusted and concluded in frame of five important parts: sex participation, being inter-field, being inter-organizational, time growth and quadruple orientations of job satisfaction.

Khosravi's research was conducted at (2009) with topic of personnel's job satisfaction and their nonfeasance in the training section of Trade Promotion Organization of Iran to evaluate relation between job satisfaction and nonfeasance of training the personnel in Trade Promotion Organization of Iran. The methodology of this research was descriptive (correlation). Required data was obtained through two questionnaires of nonfeasance and job satisfaction on 150 personnel of Trade Promotion Organization of Iran. Obtained data was analyzed through descriptive and inferential statistics (Pearson correlation coefficient). Results indicated that there is no significant relation between job satisfaction (total score) and nonfeasance of personnel. But there is significant relation between three aspects of job satisfaction: behavioral features, colleagues, rights and benefits and promotion opportunity with nonfeasance.

Kazemiyan et al in a research at (2005) evaluated relation between the job satisfaction and performance of nursing staff in hospitals in Chaharmahal and Bakhtiari Province. This research is a descriptive analytical research which was used in order to measure the job satisfaction from list of the job description and in order to measure job performance from the performance evaluation form which has been prepared by experts of Medical Science University based on explaining duties of nursing staff. After collecting information, statistical analysis was conducted through SPSS software and through Pearson correlation tests and analysis of one-way variance. Results of this research indicated that there was no significant relation between the job satisfaction and performance of nursing staff through Pearson correlation coefficient.

FOREIGN RESEARCH

In opinion of Kritener et al (1999) the job satisfaction consists of an affective or emotional response which is given to various aspects of a person's job. In another word, job satisfaction is not a unified and interconnected concept because a person as much as he can be satisfied about an aspect of his job; he can be dissatisfied about one or some other aspects of that.   Existence of proportionality between personality and job leads to increase of person's job satisfaction. Therefore, it is necessary to consider personnel's competences and skills in professions that are delegated to them. Researches of Tatsko and Sekin (2013),

Giri et al (2013) and Kritener et al (1999) about this issue indicate that if people to be proportional to their jobs or professions in terms of personality, they will understand that have required talents and abilities to conduct duties which have been delegated to them so they will be more successful. From another hand, this success will lead to their job satisfaction.

[13] One of important factors in job satisfaction is fair and equitable look among personnel in order to promote and encourage and give especial benefits so that in job benefits and encouragements a judgment based on justice should be applied among personnel since they may not reveal their complaints due to observe administrative hierarchy but this issue affects their spirits and continuing this way leads to frustration and loss of motivation. In this way, personnel may think that organization considers no value for their competencies, skills and performances.

Hagnot et al (2007) express that: in first years of the 1990s considering to those researches that have been conducted in this field, some results can be obtained about relationship between these two. The first viewpoint that exists about relation between job satisfaction and performance can be summarized in this sentence: efficiency of cheerful and happy worker or employee is high. Another point about job satisfaction and efficiency is cause and effect relationship. Higher efficiency causes to job satisfaction. [1] Many researchers have tried to specify various aspects of job satisfaction because measuring each one of aspects of job satisfaction and evaluating and its effect on personnel's productivities have high importance.

Tat so and Sin in a research at 2013 have evaluated "some facts in the field of job satisfaction with evaluating status of job satisfaction in the world". The main target of this research has been "how much aspects of job satisfaction help to global job satisfaction", the used research methodology in this research has been practical in terms of target and survey in terms of information collection. The statistical method used in the research has been multiple logistic regression analysis. Results obtained from execution of the research indicated: some of aspects of job satisfaction which have mostly helped to global job satisfaction are: interests and skills involving in work and way of skills used in those sections which are being executed, colleagues, work perspective, physical conditions and payment.

Another research was conducted by Vijay, Giri and Kumar in India at 2013 with topic of effect of organizational connections on sob satisfaction and job performance. Results of the research indicated organizational connections have a considerable effect on job satisfaction and performance of personnel. More analysis indicated personnel's job satisfaction is different in various levels, so it can be deducted din this way that in Indian organizations, job satisfaction and job performance (efficiency) depend on organizational behavior a lot. [7]

6. AREA OF THE RESEARCH:

SUBJECT AREA OF THE RESEARCH:

In this research, we attempt to evaluate relation between components of job stress and organizational commitment in organization (municipality) which is one of discussions of behavioral sciences and human resources.

LOCAL AREA OF THE RESEARCH

The present research has been conducted among personnel of Finance General Directorate Municipality in Tehran city.

TIME AREA:

The present research was beginning since the early fall at 2016 and it was finished until middle of winterat2016.

Conceptual model and hypotheses of the research

In this research, the structural equations modelling method has been used to model and determine relations between variables. The structural equations modelling is a comprehensive statistical approach to test some hypotheses about relations observed variables and current variables. In fact, multivariate analysis or structural equation modeling is one of the most suitable and strongest analysis methods in researches of behavioral sciences and social sciences. Conceptual model of the research is based on the following figure.
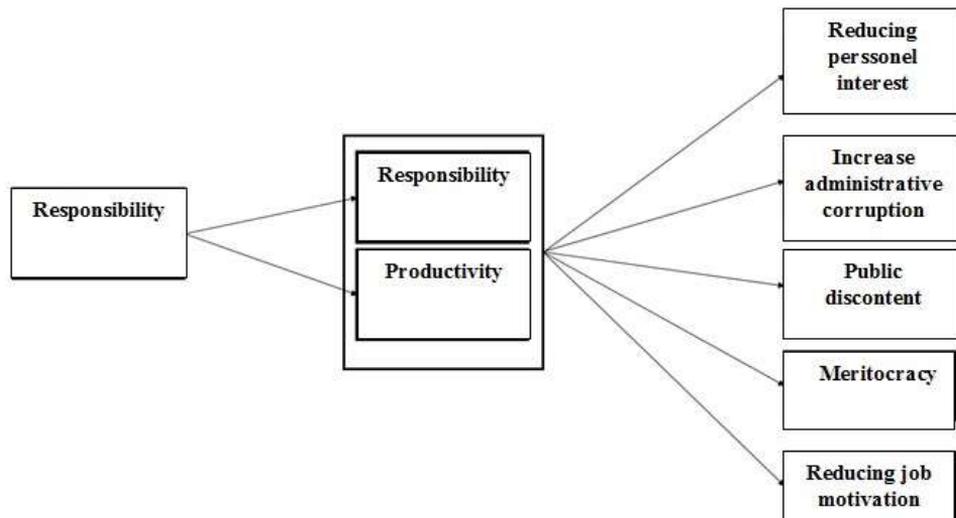
Figure 1: Conceptual model of the research (researcher-made)

7. HYPOTHESES OF THE RESEARCH

THE FIRST MAIN HYPOTHESIS

Personnel's fields of study unrelated to their jobs in the activity field cause to reduction of personnel's responsibility in Finance General Directorate of Tehran Municipality.

THE SECOND MAIN HYPOTHESIS

Personnel's fields of study unrelated to their jobs in the activity field cause to reduction of personnel's efficiency in Finance General Directorate of Tehran Municipality.

Subsidiary hypotheses

Personnel's fields of study unrelated to their jobs in the activity field cause to reduction of personnel's interest to their jobs in Finance General Directorate of Tehran Municipality.

-        Personnel's fields of study unrelated to their jobs in the activity field cause to increase of administrative corruption in Finance General Directorate of Tehran Municipality.

-        Personnel's fields of study unrelated to their jobs in the activity field cause to people's dissatisfaction from personnel's performances in Finance General Directorate of Tehran Municipality.

-        Personnel's fields of study unrelated to their jobs in the activity field cause to reduction of meritocracy among personnel of Finance General Directorate of Tehran Municipality.

-        Personnel's fields of study unrelated to their jobs in the activity field cause to reduction of personnel's job motivation in Finance General Directorate of Tehran Municipality.

Tool of data collection

Library and field methods have been used in order to collect information in this research. We used library studies as a foundation for the theoretical framework and we utilize the field method in order to receive information through questionnaire. Therefore, questionnaire is tool of information collection in this research. Questionnaires have some advantages to other types of survey methods such as they are cheap like telephone and language surveys, they don't need high effort of asker and often they have standard responses that make possibility of data collection easier. But such standard responses may disappoint users. One of serious limitations of questionnaires is that they should be set in a way that people to be able to read and response them easily. Therefore, using questionnaire to collect data may be not suitable in some demographic groups. Also as a type of survey, questionnaire has many same problems related to structure and wording of question that the same can be found in other polls.

It can be distinguished between questionnaires that measure separate variables and questionnaires that their questions have been gathered in a scale or list. The first type questionnaires are often a part of polls but the second type questionnaires are mostly raised as a part of tests.

In this research, a questionnaire including 21 questions was used to evaluate hypotheses which through that connection of personnel's fields of study related or unrelated to their jobs in their activity fields are evaluated. 3 questions of 21 questions in the questionnaire have been designed to evaluate the first main hypothesis and 3 questions to evaluate the second main hypothesis and also 3 questions have been considered for each one of subsidiary hypotheses.

Statistical population and sample

The statistical population of the research is personnel of Finance General Directorate of Tehran Municipality. Available number of this personnel is 30 people to distribute questionnaires related to this research and also in this research the questionnaire is distributed among 30 people.

Structure of the questionnaire and evaluating reliability and validity

Reliability is one of technical features of measuring tool. Reliability evaluates this issue that how much the measuring tool provides same results in same conditions. In another word, reliability indicates stability and consistency of the measured concept (Sarmad et al, 2004). Several reliability criteria can be used to create reliability of a measuring tool which consist of:

1. **Test-Retest Method**

2. **Equivalent forms**

3. **Bisect method**

4. **Internal consistency method**

Among the mentioned methods, the internal consistency method needs one-time execution and usually it is the most widely used especially in field studies (Sarmad et al, 2004). However, this method is considered as the most general form of estimation.

In this method, reliability is operated as the internal consistency which is value of the internal correlation that forms a scale. The internal consistency is calculated through a reliability coefficient named Cronbach alpha. An alpha with value of 0.6 and 0.7 is considered a good criterion to indicate the internal consistency of a new scale. Results related to reliability of the research tool have been explained in continue.

Results obtained from Cronbach alpha for questions in the questionnaire have been mentioned:

Table 1: Results obtained from Cronbach alpha for the questionnaire

Items	Alpha coefficient

Items related to the first main hypothesis	0.84
Items related to the second main hypothesis	0.96
Items related to the first subsidiary hypothesis	0.92
Items related to the second subsidiary hypothesis	0.96
Items related to the third subsidiary hypothesis	0.98
Items related to the fourth subsidiary hypothesis	0.98
Items related to the fifth subsidiary hypothesis	0.98

Source: Author

Statistic of Cronbach alpha is indicator of suitability of reliability and validity in all items of the present questionnaire.

Also, variables of the research and related questions have been specified in the following table:

Table 2: Hypotheses and questions of the questionnaire

Number of hypothesis	Intended item	Number of questions	Questions no.
First main	Effect of personnel's fields of study unrelated to their jobs in the activity field on reduction of personnel's responsibility in Finance General Directorate of Tehran Municipality	5	5-1
Second main	Effect of personnel's fields of study unrelated to their jobs in the activity field on reduction of personnel's working efficiency in Finance General Directorate of Tehran Municipality	5	6-10
First subsidiary	Effect of personnel's fields of study unrelated to their jobs in the activity field on reduction of personnel's interest to their jobs in Finance General Directorate of Tehran Municipality	4	11-14
Second subsidiary	Effect of personnel's fields of study unrelated to their jobs in the activity field on increase of administrative corruption in Finance General Directorate of Tehran Municipality	4	15-18
Third subsidiary	Effect of personnel's fields of study unrelated to their jobs in the activity field causes to people's dissatisfaction from personnel's performance in Finance General Directorate of Tehran Municipality	4	19-22
Fourth subsidiary	Effect of personnel's fields of study unrelated to their jobs in the activity field on reduction of meritocracy among personnel in Finance General Directorate of Tehran Municipality	4	23-26
Fifth subsidiary	Effect of personnel's fields of study unrelated to their jobs in the activity field causes to reduction of personnel's job motivation in Finance General Directorate of Tehran Municipality	4	27-30

Source: Author

Evaluation of hypotheses

T test evaluates test of hypothesis about location of the average of the population. This test may be executed in this way that first we assume a number for average of the population. Then we determine this hypothesis is true or not through t test. This test also can be used to compare average of a sample with a constant number or claim. After forming null hypothesis and contrary, this test includes following stages:

1. Calculation of t for collected data.

$$t = \frac{\bar{x} - \mu}{S_{\bar{x}}}$$

$$S_{\bar{x}} = \frac{S}{\sqrt{n}}$$

$$S = \sqrt{\frac{\sum (x - \bar{x})^2}{n - 1}}$$

2. Calculation of freedom degrees through formula of

3. Determination of confidence level or being significant level

4. Referring to t tables that exist in various references and extraction of t of table

5. Comparison of calculated t and t of table

6. Making decision about rejecting or confirming null hypothesis

The significance level to reject or accept statistic of t test has been mentioned in following table:
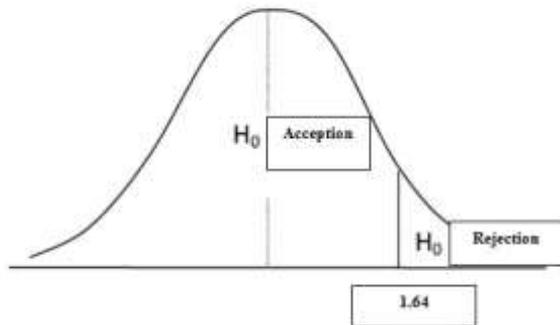
Figure 2: Value of statistic of the test in H_0 in t distribution

Five-points Likert spectrum has been used to design this part which is considered one of the most common scales of measurement. Considering selection of five-point Likert spectrum, t test with comparison of averages with number three will be conducted to evaluate hypotheses. Total form and rating of this spectrum for questions are as following:

Table 3: scores of the questionnaire based on Likert spectrum

Overview	Very low	Low	Medium	High	Very high

Rating	1	2	3	4	5

Source: Author

The first main hypothesis

H_0: Personnel's fields of study unrelated to their jobs in the activity field don't cause to reduction of personnel's responsibility in Finance General Directorate of Tehran Municipality.

H_0: Personnel's fields of study unrelated to their jobs in the activity field cause to reduction of personnel's responsibility in Finance General Directorate of Tehran Municipality.

Evaluation of the first main hypothesis has been summarized in the following table.

Considering to confirmation of the first main hypothesis it can be said:

Personnel's fields of study unrelated to their jobs in the activity field cause to reduction of personnel's responsibility in Finance General Directorate of Tehran Municipality.

The second main hypothesis:

H_0: Personnel's fields of study unrelated to their jobs in the activity field don't cause to reduction of personnel's efficiency in Finance General Directorate of Tehran Municipality

H_0: Personnel's fields of study unrelated to their jobs in the activity field cause to reduction of personnel's efficiency in Finance General Directorate of Tehran Municipality

Evaluation of the second main hypothesis has been summarized in the following table. **Table 4: Evaluation of the first main hypothesis**

T statistic	Significance level	Result
25.72	0.000	confirmation of the first main hypothesis

Source: Author

Table 5: Evaluation of the second main hypothesis

T statistic	Significance level	Result
26.38	0.000	confirmation of the second main hypothesis

Source: Author

Considering to confirmation of the first main hypothesis it can be said:

Personnel's fields of study unrelated to their jobs in the activity field cause to reduction of personnel's efficiency in Finance General Directorate of Tehran Municipality.

The first subsidiary hypothesis:

H_0: Personnel's fields of study unrelated to their jobs in the activity field don't cause to reduction of personnel's interest to their jobs in Finance General Directorate of Tehran Municipality.

H_0: Personnel's fields of study unrelated to their jobs in the activity field cause to reduction of personnel's interest to their jobs in Finance General Directorate of Tehran Municipality.

Evaluation of the first subsidiary hypothesis has been summarized in the following table. **Table 6: Evaluation of the first subsidiary hypothesis**

T statistic	Significance level	Result
22.65	0.000	confirmation of the first subsidiary hypothesis

Source: Author

Considering to confirmation of the first subsidiary hypothesis it can be said:

Personnel's fields of study unrelated to their jobs in the activity field cause to reduction of personnel's interest to their jobs in Finance General Directorate of Tehran Municipality

The second subsidiary hypothesis

H_0: Personnel's fields of study unrelated to their jobs in the activity field don't cause to increase of administrative corruption in Finance General Directorate of Tehran Municipality.

H_0: Personnel's fields of study unrelated to their jobs in the activity field cause to increase of administrative corruption in Finance General Directorate of Tehran Municipality.

Evaluation of the second subsidiary hypothesis has been summarized in the following table. **Table 7: Evaluation of the second subsidiary hypothesis**

T statistic	Significance level	Result
24.30	0.000	confirmation of the second subsidiary hypothesis

Source: Author

Considering to confirmation of the second subsidiary hypothesis it can be said:

Personnel's fields of study unrelated to their jobs in the activity field cause to increase of administrative corruption in Finance General Directorate of Tehran Municipality.

The third subsidiary hypothesis

H_0: Personnel's fields of study unrelated to their jobs in the activity field don't cause to people's dissatisfaction from personnel's performances in Finance General Directorate of Tehran Municipality.

H_0: Personnel's fields of study unrelated to their jobs in the activity field cause to people's dissatisfaction from personnel's performances in Finance General Directorate of Tehran Municipality.

Evaluation of the third subsidiary hypothesis has been summarized in the following table.

Considering to confirmation of the third subsidiary hypothesis it can be said:

Personnel's fields of study unrelated to their jobs in the activity field cause to people's dissatisfaction from personnel's performances in Finance General Directorate of Tehran Municipality.

Table 8: Evaluation of the third subsidiary hypothesis

T statistic	Significance level	Result
25.41	0.000	confirmation of the third subsidiary hypothesis

Source: Author

The fourth subsidiary hypothesis

H_0: Personnel's fields of study unrelated to their jobs in the activity field don't cause to reduction of meritocracy among personnel of Finance General Directorate of Tehran Municipality.

H_0: Personnel's fields of study unrelated to their jobs in the activity field cause to reduction of meritocracy among personnel of Finance General Directorate of Tehran Municipality.

Evaluation of the fourth subsidiary hypothesis has been summarized in the following table. **Table 9: Evaluation of the fourth subsidiary hypothesis**

T statistic	Significance level	Result
23.10	0.000	confirmation of the fourth subsidiary hypothesis

Source: Author

Considering to confirmation of the fourth subsidiary hypothesis it can be said:

Personnel's fields of study unrelated to their jobs in the activity field cause to reduction of meritocracy among personnel of Finance General Directorate of Tehran Municipality.

The fifth subsidiary hypothesis

H_0: Personnel's fields of study unrelated to their jobs in the activity field don't cause to reduction of personnel's job motivation in Finance General Directorate of Tehran Municipality.

H_0: Personnel's fields of study unrelated to their jobs in the activity field cause to reduction of personnel's job motivation in Finance General Directorate of Tehran Municipality.

Evaluation of the fifth subsidiary hypothesis has been summarized in the following table. **Table 10: Evaluation of the fifth subsidiary hypothesis**

T statistic	Significance level	Result
24.53	0.000	confirmation of the fifth subsidiary hypothesis

Source: Author

Considering to confirmation of the fifth subsidiary hypothesis it can be said:

Personnel's fields of study unrelated to their jobs in the activity field cause to reduction of personnel's job motivation in Finance General Directorate of Tehran Municipality.

8. CONCLUSION

The main target in this research is evaluating connection of personnel's fields of study related or unrelated to their jobs in their activity fields. Nowadays it is clear for everyone that educational and training centers and on top of them the Higher Education Center of each country have important role in educating and training sciences and techniques.

In this article, it was concluded that firstly personnel's fields of study unrelated to their jobs in the activity field cause to reduction of personnel's working efficiency and responsibility in Finance General Directorate of Tehran Municipality.

And, personnel's fields of study unrelated to their jobs in the activity field cause to reduction of job motivation, reduction of meritocracy, increase of people's dissatisfaction from personnel's performance in Finance General Directorate of Tehran Municipality and increase of administrative corruption in this organ and reduction of personnel of Finance General Directorate of Tehran Municipality to work in this organ.

It is obvious that one of problems of developing countries in this issue is employing graduates and managers in jobs unrelated to their professions and fields of study that in addition to force major costs on society cause to slow down or even stop movement and growth of society. Now in current conditions and while we are in certain economic situation and even authorities of our country remind and present the resistive economy as one of main conditions to exit this situation. Therefore, it is necessary to revise seriously in distribution and arrangement of human force in the big decision-making centers especially those centers which are considered as an engine and driving of the country's economy.

Also considering to the statistical population of the society and also considering to identified damages, it is suggested to Finance General Directorate of Tehran Municipality in addition to regulate most of its job headings with university fields during employment of new forces pay especial attention to their fields of study to be related to the intended jobs to obtain satisfaction of clients and citizens in addition to increase of efficiency and job motivation through profession of its personnel.

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INVESTIGATING RELATIONSHIP BETWEEN ORGANIZATIONAL JUSTICE AND POSITIVE ORGANIZATIONAL BEHAVIOR OF EMPLOYEES OF HEALTH EMPOWERING OFFICE IN TEHRAN CITY

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Abstract

Recent studies about organization and its knowing leads to attract attention of many managers and researchers to concepts of organizational behavior. Also, organizational justice increases efficiency and productivity of organization and helps understanding of employees toward professional ethic. The aim of the present research is determining relationship between organizational justices with positive organizational behavior of health empowering office of Tehran. Research method is descriptive- correlative. Research population is including all employees of health empowering office of Tehran and research sample is including 237 cases that were selected from these employees by simple random method in 2016. To data collection, questionnaire was used. Data analysis was done by descriptive method and SPSS software. The fi9ndings of the present research indicated that there is a significant and positive relationship between organizational justice and positive organizational behavior, since the relationship between organizational justice and positive organizational behavior were determined appropriately, so it is necessary to use organizational justice and its using method to increase positive organizational behavior.

1. INTRODUCTION

Regarding to this that organizational justice and positive organizational behavior are of most important and most effective factors in human force of each organization, so organizations have management approaches and optimum approaches to provide activity motivation and effective working, because access to this important factor in each organization has relationship with progress and reach to aim in every organization. Attention to these factors is effective for behavior and mechanism of employee performance. Regarding to importance of positive organizational behavior in developed countries and regarding to effect of these behaviors on organizational performance, organization efficiency, organization success, satisfaction, loyalty and service quality, so it is necessary to identify organizational deeds that leads to provide these behaviors among employees. Regarding to previous studies on organizational civic behavior, we find that organizational justice was ignored as one of the factors that leads to positive organizational behavior. Although in some studies the role of justice as a factor of positive organizational behavior was referred but there is no a research about the effect of justice on each of dimensions of positive organizational behavior among employees of an institution. Also because of this that majority of previous studies were about positive organizational behavior in foreign organizations with their specific culture, so the necessity of the present research in inner organizations with national culture is a reason to necessity of doing the present research.

The present research can be useful for employees of Tehran and also it can be a step to study about organizational justice and organizational civic behavior and its findings can be considering as a research base of management for other organizations and it can provide the field of raising positive organizational behavior and its related factors with indicating new theories to organization. Regarding to newness of present subject and usefulness its findings in health empowering office of Tehran, it is necessary to analyze the effect of organizational justice on positive organizational behavior.

2. REVIEW OF PREVIOUS STUDIES

Naami and Shekarkan (2005) investigated simple relationship and also multiple relationship of organizational justice and civic behaviour among employees of an industrial organization in Ahvaz city. Their findings show that variable of organizational justice and its three dimensions have positive correlation with organizational civic behaviour and its dimensions such as task, kindness, humanity, loyality and ethic. The findings of analysing multiple regression show that three kinds of organizational justice have multiple correlatiojn with organizational civic behaviour.

Amirkhani et al. (2007), investigated relationship between organizational justice and organizational commitment among employees of medical sciences university of Isfahan. Their findings indicated that thiose employees that thing there is no justice, they have lower level of organizatiomnal commitment and in contrast, high level of commitment , guide organization toward determined aims and purposes.

Shirvani, SiSakhti (2011) investigated tge role of work ethic on positive organizational behaviour based on model of Fered Lotanse in group 22 of Shahreza. The findings show that there is a significant relationship between five dimensional components of positive organizational behaviour and work ethic.

Mottavalizadeh, Zakiani (2014) deed a research titled investigation relationship between organizational justice and organizational civic behaviour in health ministry. Their findings indicated that there is a significance correlation between organizational civic behaviour and organizational justice among employees, also with increasing awareness about organizational justice as one of the factors of professional ethic, civic behaviour is increased among employees.

Keyvanara et al. (2013) indicated a research titled relationship between organizational justice and job happiness and positive organizational behaviour of nurses with intermediate role of job purposes . the findings of the study indicate that organizational justice is related to positive organizational behaviour by doing individual job purposes and job satisfaction, so hospital managemnts can use all advantages that leads to positive organizational behaviour and job satisfaction.

Abbas zadeh et al. (2014) investigated positive organizational behaviour and its effect on relation of civic behaviour and loife quality of employees of metero company of Tehran. Its findings show that positive organizational behaviour and organizational civic behaviour have significant and positive effect on life quality of employees of Tehran Metero company and ikmproving positive organizational behaviour and organizational civic behaviour of them cvan lead to raise in quality of work life of employees.

Mosavi, Amniri (2015) deed a research titled the effect of positive organizational behavior on work deviation with intermediate role of ethical atmosphere of organization. Their findings indicated that positive organizational behavior has vice effect on working deviation behavior of employees of hospital of shahid Motahhari of Isfahan. But positive organizational behavior has direct effect on organizational ethical atmosphere.

Miarkalani et al. (2015) deed a study titled the role of organizational justice and its components on developing civic behavior and organizational civic behavior by inductive method. The findings indicate that there is a significant and positive relationship between organizational justice and organizational civic

behavior. Also, this relationship is present in dimensions of organizational justice and organizational civic behavior.

Losane et al. (2008), investigated the effect of positive psychological capital on output of employees. The research findings indicate that psychological capital has positive relationship with performance, satisfaction and commitment. Also, psychological capital can mediate relationship between support atmosphere and performance.

Researches of Cock (2013) indicated that attention to abilities and talents of employee's leads to improve performance, increase satisfaction, self-m confidence, self-esteem, flexibility, energy and happiness, job performance, aim access, more developing, developing positive ethic characters and decreasing in ethical behaviors.

Researches of Pol, Garg, (2014) show that positive organizational behavior is by attention to abilities of employees, also by empowering employees we can decrease presenting inappropriate behaviors in employees that are work deviation behaviors.

3. REVIEW OF LITERATURE

Justice is the highest human value and it is a valuable diamond for human rights. Justice is one of the most beautiful and honest terms of human rights and it is a concept all people consider it as a good term and its presentation is basic of all governments (Poorezat, 2002). Justice is a vital factor in all social cooperation's and membership of people in groups is related to their awareness about justice. The more awareness of people about justice, more commitment is there to cooperation and development (Poorezat, 2002). It is clear that all people like justice naturally and anyone can deny this factor. This likeness is rooted in a natural need. People have various needs and are seeking to satisfy them and justice is including those standards that people use it to satisfy their needs (Falger, Cropanzano, 1998). Justice studies revived their data from Adams researches in 1965 but these studies were bloomed since 1990 and recently it was cleared that likeness toward organizational justice has many followers and it reached to top of studies. (Gholipoor, Pirannegad, 2007). Organizational justice means that the behavior toward employees must be in a way that they realize justice. Justice is the first factor of organizations health and professors of social sciences realized the importance of organizational justice as a basic for efficiency of organizational mechanisms and satisfaction of employees. Organizational justice is a variable that describe justice directly and with job positions. In organizational justice, it is indicated that how we can operate justice among employees. Organization justice is including three dimensions of distributive, procedural and cooperation (Shekarrkan, Neami, 2005). Another subject in field of organizational justice studies is various types of equanimities, pretexts and outputs of them. Regarding to this that justice is a multiple concept and in different branches has a philosophical concept, so in the present research, organizational justice was investigated in three dimensions.

Distributive justice: it has referred to job outputs such as income, job program and job authorities. (Neami, Shekarkan, 2003). Because of emphasize of distributive justice on outputs of this justice, it is confronted with emotional and behavioral reactions. So, when a result is realized without justice it must affect on people senses, awareness and behaviors. When employees of an organization have judgment about appropriateness of results, they judge distributive justice of them. (Falger, Cropanzano, 1998). In other words, distributive justice has referred to rights of distributions and other factors of organization in compare to their performance and advantages of employees. (Lombert, 2003). Distributive justice is based on exchanges and people compare their inputs to organizations and output of them. (Zakiani, 2007). Distributive justice is indicating people awareness about justice in distribution of sources and assets. (Rezaeean, 2004).

Procedural justice: it has referred to justice in used approaches to determine job results. (Neami, Shekarkan, 2003). The researches show that procedures are realized well, when they are used without considering

individual advantages and are based on exact data and consider likeness of all parts of cooperated organizations and standards and ethical factors were considered. (Lombert, 2003). In those organizations that employees believed that decision making is not justified they have less commitment about their heads and their thoughts to leave job are increased and so their performance are decreased and have less responsibility about their organizations. (Falger, Cropanzano, 1998). This can lead to angriness of employees more than other outputs. (Lombert, 2003). Reaction of people about procedures is related to their real identity because psychologically human is not working based on reality but he behaved based on his understanding from reality. (Rezaeean, 2004).

Communicative justice: it is a justified contact that is toward an employee of formal position. (Neami, Shekarkan, 2003). Indeed, communicative justice is including some aspects of communications such as honesty, respect between source and receiver. (Chen, Spector, 2001). In recent decades that some terms with negative approaches such as absence, job dissatisfaction and so on had higher growth in compare to positive terms such as self- confidence and self-esteem, hopeless, optimistic, mental relax, EQ and so on, so it is clear that in field of organization, positive subjects were ignored in compare to negative ones. Usefulness of positive psychology in organization and management lead to create a new approach in this field:

-positive organizational behavior has emphasized on mini aspects of organization and extensible positive behaviors of human characters.

-positive organizational researches have emphasize on macro aspects of organizational behavior and positive organizational behavior is affected by positive psychology.

Knowing positive organizational behavior and growing positive thoughts leads to increase performance of employees, efficiency, improving effectiveness, satisfaction, economic and social development and raising wealth level. (Shirvani, Sisakhti, 2011). Contemporary organizations are described by some concepts such as innovation speed, change and future changes, quality, customer satisfaction and creativity. In these features, the concept of intangible assets that called human capital is observable. Human capital is potential force of knowledge and behavior of person. It means that knowledge as a potential power to success is a necessity and a competitive advantage. Beside to build human capital, one of other present challenge in organizational behavior is creating and empowering social capital. Although social capital has populated features but it is because of individual attempts of people to provide confidence and relations. Social capital and human capital are related. Karle Rogers and Mazola believed that psychology beside to improve sick people must pay attention to health people. Positive psychology has no emphasized just to individual level, but has emphasize on civic virtue, Taqwa, civic behavior responsibility, charity and ethic in level of organization and society. Positive psychology looks at following features during time: 1-satisfaction from past

2-happiness onetime

3-hope to future

Lozano et al consider optimal combination of positive psychology, human capital and social capital as unavoidable necessity of positive organizational behaviors. (Lotanze et al., 2006). Factors that composed positive organizational behaviors are as following:

Social capital

Human   ca
positive psychology

Positive
organizational
behavior

Figure 1: Factors that
organizational behavior   compose positive

Providing hope, increasing self- confidence and self-esteem are different in Lotanze theory, because he has emphasized on measuring the positive factors that are related to work environment. Lotanze indicated 5 basic dimensions of positive organizational behavior that are including:

1-Self-confidence and self- esteem: believe of person to do works successfully

2-Hope: determine purpose to future and identify some ways to reach them

3-Optimistic: hope to positive outputs, attention to positive reasons and emphasize to attempts

4-Mental relax: mental wealth, good life and satisfaction

5-EQ: ability to identify and management of senses

Since positive organizational behavior understands and using potential abilities of human sources that are measurable so they are manageable to improve performance. (Lotanze et al, 2007). Nowadays regarding to increased role of organizations in social life, the role of justice in organizations was clear more than past. So nowadays, organizational justices like other important variables in organizational behavior such as organizational commitment, job satisfaction and so on has special position in management texts. Managers in organizations cannot ignore this subject because it is indicated as a need such as other human needs and if managers are seeking to progress and increasing efficiency in organizations they must provide justice in their organizations. So, in the present research by considering organizational justice as independent variable and positive organizational behavior as dependent variable, our aim is determine relationship between organizational justice and dimensions of self-confidence, self-esteem, hope, optimistic, mental relax and EQ of employees of health powering office of Tehran. Regarding to review of literature, following model and hypotheses were indicated:
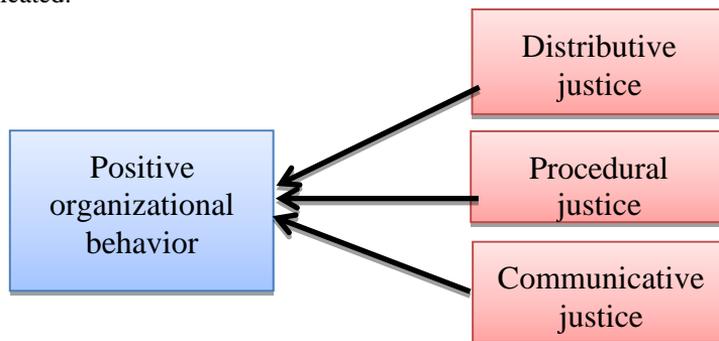

Figure 2: Conceptual model of the study

Research hypotheses

1-There is a significance relationship between total organizational equanimity and positive organizational behavior.

2-There is a significance relationship between distributive equanimity and positive organizational behavior.

3-There is a significance relationship between procedural equanimity and positive organizational behavior.

4-There is a significance relationship between communicative equanimity and positive organizational behavior.

4. RESEARCH METHODOLOGY

The present research by considering aim is an operational study and also research method is survey that its validity is better. By considering method and relationship between variables including dependent and independent, the present research is correlative. In the present re Honarmand search organizational equanimity is predicted as independent and organizational behavior is dependent variable. Research population of the present study is including all employees of health empowering office of Tehran in 2016 that 237 cases of them were selected by simple random method. In the present research, a three-part questionnaire was used: first part is including questions that measured individual, job and social characters. These characters are including age, gender, married conditions, and job and education level. In the second part, questions of organizational equanimity were indicated that were built by Teyhoof and Moorman (1993) and it was translated by Shekarkan et al (2000) and it is including three dimensions of distributive equanimity, procedural one and communicative equanimity. The third part is including questions of positive organizational behavior that was built by Lotanz (2007). Both questionnaires are based on 5 scales of Likert. In the present research face validity was used and alpha crone bag was used to measure reliability that this factor was .85 for organizational equanimity, .83 for distributive equanimity, .80 for procedural equanimity and .74 for communicative equanimity and finally is .79 for positive organizational behavior. Descriptive and inferential statistics were used to data analysis. So, frequency distribution tables and percentage of each question were used and then to test relationship between variables correlation coefficient of Pearson and K-S test were used.

5. RESEARCH FINDINGS

In the present research, 62.4 percent of respondents are male and 37.6 percent are female. 65.5 percent of them are married and 49 percent of them have B.A degree. (Table 1).

Table 1: Demographic data of respondents

Married/ single	Education	Age	Gender	

Married	Single	M.A and up to it	B. A	Above Diploma	Diploma	and up to it	to 50	31-40	to 30	Male	Female	
155	82	95	116	17	9	46	86	91	14	148	89	number
65.5	34.5	40	49	7	4	19.4	36.2	38.4	6	62.4	37.6	percent

Source: Author

In data distribution test (K-S), it was determined that for all three variables, the rate of error is more than .05. So, both variables are normal distributed. (Table 2).

About hypothesis 1, there is a positive relationship between total organizational justice and total positive behavior and its dimensions; it was shown in table 3 that organizational justice has correlation coefficient of .61 with organizational civic behavior that is meaningful in level of .001. also, correlation coefficient of total organizational justice with five dimensions of self- confidence, hope, optimistic, mental relax, EQ, is between .43 to .64 and all are positive and significant, so the first hypothesis was confirmed.

About hypothesis 2, there is a positive relationship between distributive justice and positive organizational behavior; it was shown in table 3 that distributive justice has correlation coefficient of .57 with positive organizational behavior that is meaningful in level of .001. Also distributive justice has positive and significant relationship with five dimensions of organizational behavior that is .35 to .52 and all are positive and significant, so the first hypothesis was confirmed. **Table 2: K-S test to measure normality of variables**

Organizational justice questionaire			
Communicative justice		**Procedural justice**	**Distributive justice**	index
1.675		1.935	2.354	K-S test
0.0763		0.054	0.621	Significance level
Normal		normal	normal	Test result
Positive organizational behavior questionnaire					Index
EQ	Optimistic	Mental relax	Hope	Self confidence	

1.263	1.672	2.048	1.302	1.274	K-S test
0.082	0.058	0.093	0.067	0.078	Significant level
normal	normal	normal	normal	normal	Test result

Source: Author

About hypothesis 3, it was shown that procedural justice has correlation coefficient of .48 with positive organizational behavior that is meaningful in level of .001. Also has positive and significant relationship with five dimensions of organizational behavior that is between .29 to .56 and all are positive and significant, so the first hypothesis was confirmed.

About hypothesis 4, it was shown in table 3 that communicative justice has correlation coefficient of .51 with positive organizational behavior that is meaningful in level of .001. Also, communicative justice has positive and significant relationship with five dimensions of organizational behavior that is between .24 to .43 and all are positive and significant, so the first hypothesis was confirmed.

Table 3: Correlation coefficient of Pearson between components of organizational justice and components of positive organizational behavior

EQ		Mental relax		Optimistic		Hope		Self confidence		Positive organizational behavior		Positive organizational behavior / Organizational justice
p	r	p	r	P	r	p	r	p	r	p	r	Organizational justice
/0010	0/43	/0010	0/64	/0010	0/50	/0010	0/56	/0010	0/47	/0010	0/61	Total organizational justice
/0010	0/35	/0010	0/49	/0010	0/32	/0010	0/52	/0010	0/37	/0010	0/57	Distributive justice
/0010	0/41	/0010	0/29	/0010	0/39	/0010	0/44	/0010	0/56	/0010	0/48	Procedural justice

EQ		Mental relax		Optimistic		Hope		Self confidence		Positive organizational behavior		Positive organizational behavior / Organizational justice
p	r	p	r	P	r	p	r	p	r	p	r	Organizational justice
/0010	0/37	/0010	0/34	/0010	0/41	/0010	0/24	/0010	0/43	/0010	0/51	Communicative justice

Source: Author

6. CONCLUSION

Organizational justice and its various aspects can predict most of organization variables such as absence, job leaving and organizational commitment, but relationship between organizational justice and positive organizational behavior are new subjects that were investigated in the present research. The findings of the present research show that total organizational justice and its various dimensions have positive relationship with positive organizational behavior and its dimensions. The findings of the present research are in agreement with previous studies. Based on theory of organizational justice it can be predicted that employees react against justice or lacking it in organization. One of these reactions is increase or decrease output. Its means that if employees believed that there is no justice in their organization, they have negative reaction and so they decrease their cooperation in organization and it may lead to decrease positive organizational behavior. In contrast, if employees believed that there is organizational justice in their offices, they are motivated to increase their cooperation in the organization. Based on mutual contract relationship theory of Van Dapen and Geraham (1994), there is a contractive relationship between employees and organization. Organizational justice in organization indicates importance of employees. In this condition, employees have more commitment about organization and there is a mutual relationship between employees and organizations that lead to present positive organizational behaviors in the organization. Also, findings of the present research indicated that lacking justice in organization leads to despair and pessimistic of employees and these findings are in agreement with findings of Webs and Cropanzo, (1996), Baron and Keni, (1986), Winaldson and Co, (2010), Kivanara et al (2014). Lacking justice in an organization as a negative mental event have effect on view of employees and management and it decreases the rate of hope and optimistic among employees. The most important suggestion of the present research is that managers pay more attention to organizational justice (in distributive dimension and financial sources, in procedural dimension and allocating sources and in communicative dimension and individual relationship) and provide a field to increase organizational justice.

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ORIGINAL RESEARCH PAPER

EPC DESIGN AND BUILDING CONTRACTS AND ANALYZING THEM IN LEGAL TERMS

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Abstract

"Engineering, Procurement, and Construction" EPC contract is one of the contracts increased over the years to implement civil projects. In Iran, Executive Regulations Divertive on Industrial Construction Projects (5490 Journal) and Executive Regulations Directive in Design and Building (DB) contracts is codified and published based on provisions of FIDIC Journals. In this kind of contract, contractor is responsible for 3 stages of engineering, procurement, and construction and quality control and monitoring all stages of the project life cycle. In this study, the main purpose is to investigate legal analysis of EPC design and building contracts, FIDIC Regulations and the ways of resolution of relevant disputes. The results obtained from this study can be helpful in field of reducing disputes and claims, acceleration of project dispute resolution and codification of unit procedure in field of EPC project dispute resolution.

JEL *classification: K10, R30*
Keywords*: EPC contract, FIDIC, dispute resolution, executive regulations*

1. INTRODUCTION

EPC is the acronym of three words (Engineering, Procurement and Construction); whereby the employer of design affairs can assign affairs such as material preparation engineering, project management and getting required permissions, construction and project installation to the general contractor. In these contracts, contractor promises to be responsible for affairs including design, material preparation engineering, staffing storage, technology transfer machinery, and training manpower of employer and construction operations. Mutually, the employer promises to provide the place for project, provide current regulations and information in place like environmental regulations or regulations on land use and submitted documents by the contractor in due course. Hence, the contracts include 3 agents including employer, contractor and consultant engineer. Hence, the most important issue here can be advantages of EPC contracts including 1) reducing manpower of employer 2) integration of implementing project and transfer of all risks to contractor 3) reducing responsibility of employer 4) reduction of costs 5) reduction of completion time 6) facilitation of project finance 7) reduction of administrative formalities 8) ensuring of project performance during utilization of mines have gained attention of governments to sign such contracts due to mentioned advantages (Tavassoli, 2002).

HISTORY OF EPC CONTRACTS

Need to rapid utilization of projects, creating possibility of using executive knowledge and experience of contractors and modern technologies has made feeling need to use other executive methods except conventional project implementation method. Implementation of DB projects has been existed in ancient times too. In some ages, the only or the most important method for experienced architects has been Master

Builder Responsibility for completion of projects.

Big and magnificent buildings like churches, palaces and mosques used to be built using this method in ancient times.

European countries, private sector, selected other implementation methods for some projects and each method had some advantages. Through identifying the advantages of the methods, the regulations of the public projects gained gradually the permission to use unconventional and inflexible methods in framework of some limitations. Although still major part of public and private sector projects is being implemented using conventional and common methods, using unconventional methods, especially EPC, has been developed and the methods are possessing larger portions gradually.

GENERAL DESCRIPTION OF EPC CONTRACTS

One novel method for implementation of projects is Engineering, Procurement and Construction (EPC) method, which is also known as "Turnkey" method. In this type of contract, the contractor company is responsible for engineering, preparing all equipment for construction independently or with help of entities in deal with the said company (Mincks, Johnston,2004). In Turnkey or EPC contracts, the contractor is responsible for design, preparation and construction and the other party (employer), receives a completed project based on contractual provisions (Huse, 2002). In EPC, the contractor should have the ability to act based on desired parameters by buyers of their services. In general, it could be mentioned that EPC contracts present 3 stages of engineering, procurement and construction of project at the same time in a contract. In this implementation method, with the existence of some limitations for the employer, the employer would be exonerated from the responsibility through assigning all project activities such as design, material preparation, and construction and installation actions to the contractor (Huse, 2002).

Concept of EPC contract

In EPC contracts, 3 stages of engineering, procurement and construction of project are agreed in same contract and the contractor is responsible for providing all services. In EPC method, the employer assigns all stages of project implementation of design to setting up stage to the qualified contractor in same contract (Huse, 2002).

Another advantage of EPC is preventing scatter of responsibility and disintegration of work. This is because of demanding for being responsible for all stages of project from same organization. As a result, acting based on the mentioned regulations, testing efficiency and accuracy and health of equipment and quality control are absolutely assigned to the contractor. Hence, one main responsibility of contractor is having perfect supervision on process of project implementation and can't present majority of common claims in other civil contracts. Because of mentioned reasons, implementation of industrial infrastructural projects using EPC method is being increased over the years in developing countries and the industrial authorities have tendency to work with these contracts as much as possible (Tavassoli,2002).

Legal nature of EPC contract

One division of contracts is dividing contracts to specific and non-specific contracts (Tavassoli,2002). Specific contracts are defined as follows: contracts with specific title in law and with specific and determined conditions and effects by legislator like Sale (Bai'), lease, loan, liability money orders, and powers of attorney. Non-specific contracts are also defined as contracts with no specific and certain title in law and their conditions and effects can be also determined based on general provisions of contracts and the principle of autonomy. However, sometimes several specific legal acts are changed into specific contract, so that some non-specific contracts can be result of mixing two or more specific contracts titled "mixed contract".

An overview of the contract and general provisions of the contract shows that the contract between employer and contractor can't be certainly based on one of the said specific contracts in Civil Code (Tavassoli, 2002). This is because; the relations of contractual parties prevent considering it in form of one of the said contracts. However, some obligations and powers of contractual parties are codified in such manner that are like some

conditions and effects of specific contracts, so that it seems sometimes that the parties have tended to adjust their relations with one of these contracts (Akhlaghi, Emam, 2006). For example, maybe commitment of contractor to protect workshops can be explained by deposit contract (Vadi'a) and powers of employers to collect receivables from location of an asset with contract of mandate. However, construction contracts contain conditions, provisions and effects that can never be summated with specific contracts of Civil Code and there is no similarity between the conditions and effects of specific contracts; e.g. necessity of implementing the contract due to technical information, supervision and training supervision system and supervisor engineer and so on.

According to the mentioned, construction contract can't be regarded as a mixed contract, in which parties have tended to realize several compositions in a single document; because firstly (Daneshfar, 2012). the contract in its generality can be dissolved to several aspects. Here, two main aspects that are more related to construction contracts are explained:

a)   In terms of necessity and license (to be binding or permitted)

b)   In terms of signing manner (to be simple or procedural)

Paragraph 1- construction contracts in terms of permission and to be binding

Whereby provisions of articles 10 and 219 of Civil Code, the principle is on basis of binding nature of construction contracts (Contracts made according to law are binding on the parties or their substitutes, unless they have been cancelled by agreement or for some legal reason). Moreover, Contract General Conditions Booklet that is dominated on all pubic construction contracts has confirmed the cases of termination of contract in article 46 and has limited them to 15 cases. Hence, no one of parties can terminate a contract, except for the said cases, and this is nothing other than binding nature of contract (Daneshfar, 2012).

Something that is common process taken by the legal scholars is that they refer firstly to traditional frames in civil code such as Bai', Lease and other frames to determine legal nature of a new institution and if they fail to adjust the institution with the said contracts, they use article 10 of Civil Code: " Private contracts shall be binding on those who have signed them, providing they are not contrary to the explicit Provisions of a law". However, the author in this study has used no one of these ways to determine legal nature of EPC contracts, since the author believes that article 10 of Civil Code shall be used for this purpose when the discussed institution is adjusted with no one of specific contracts on one hand; on the other hand, the author believes that the aim by specific contracts is not only the said traditional contracts in Civil Code, but also the aim is a contract, which its name, effects and specific provisions are mentioned in law generally. Hence, as name, effects and provisions of EPC contract are mentioned in some Iranian Laws like The Code on maximum use of the technical and production, executive and industrial engineering; The Code on Supervision of Parliament on Signing Contracts in Executive Systems and article 85 of Third Development Plan (2000); it can be considered among specific contracts in regard with explaining its legal nature. However, article 10 of Civil Code can be also used to meet silence of law or agreement of parties against law where the provisions of law are not imperative (Goodarzi, 2004).

Advantages and disadvantages of EPC

From perspective of experts, disadvantages of EPC projects are as follows (FIDIC,2005).

•   EPC contractors may supply less services compared to tender procedure to preserve their range of interest and implementation expenditures are not competitive

•   When savings and design changes are determined by EPC contractors, hidden reduction in quality may be occurred.

•   Executive documents would not be completed until the time that obligations are not met and disputes may be emerged about quality of work and design in future.

- Interference of views and opinions as designer and constructor

- Probability of destruction of usual controls and balance between designers and constructors ☐

  If the contracts are not integrated, they may lead to turbulence and inefficiency in project.

The most important advantages of EPC contract that attract employer and contractor to use this method are as follows ((FIDIC, 2005):

- Usually, it can be the fastest method for implementation of project.

- It is a package responsible for design and building.

- Saving time and money

- Improvement of risk management for employer

- Need to less coordination and management by the employer

- Promotion of constructability inside the country and innovation

- Having initial certain price of project completion and initial schedule

- Expertise interferences become in-project interferences and prevent involvement of employer ☐

  Trust of employer in final amount and the definitive end

- Speed is high in these projects and with fast completion of project, the desired payments should be also done on time

- Use of finance in this method is more facilitated than other methods.

Claim management and resolution

Use of the term "claim" leads to creation of a kind of emotional confrontation that is usually along with accusation and retaliate. The consequences of these claims in many cases are in form of destruction of relations and referral to judicial procedure with all delays and costs. The term "claim" is considered as an equivalent for "Edde'a" in Persian.

The first step to overcome the problem of claim is identification of claim. Understanding these events seems useful to predict future claims and to minimize their effect on similar future projects through taking some solutions. Considering criteria of civil projects, common claims in construction contracts can be mainly in one of the following cases:

1. Claims related to scope of work: in this claim, contractor claims for changing the scope of project because of disagreement on real scope of project and its difference with time of signing contract and such claim can naturally lead to increased time and cost. For example, claim on changing workshop conditions after signing the contract is one of the common claims in this group.

2. Time claims: these claims are usually presented with the aim of reconsidering duration of contract.

3. Cost claims: in these claims, contractor gains loss because of imperfection in performance of employer or forcibly because of change in environmental conditions and asks for loss compensation. For example, the contractor claims that he is unable to provide required materials and equipment of project in predicted price because of sanctions and demands for increase in cost in contract.

4. Qualitative claims: in these claims, contractor claims for example that the equipment and facilities provided by the employer have not the quality and efficiency mentioned in contract .

Emergence of dispute in International Trading Relations is unavoidable. Factors such as cultural disputes, geographical distance, weak control and other factors lead to such disputes. On the other hand, because of specific nature of legal conditions of International Trade like costly nature of courts and arbitrations and time-consuming nature of the courts and damaging trade relations of parties has made the arbitration in these trades to be abnormal and be always with some problems. Hence, it is tried to make proper contractual decisions to prevent such disputes and settle them informally if such disputes are happened (Tavassoli, 2002).

Selected law by parties

A unit contract in different legal systems can lead to different rights, obligations and results; since national legal systems have basically no uniform regulations. Selecting the law dominated on contacts enables parties to predict effects of contracts more reliably and avoid undesirable and expectable results and effects. The principle of Contractual Freedom as a fundamental principle is accepted by majority of national systems and this is because of trade requirement and because of providing more reliable conditions to take transactions. As parties recognize the selected law and confirm it, they have agreement on the dominant law. Some national legal systems apply some limitations to determine dominant law and when the disputes are referred to courts, they apply the said limitations (Katuzian, 2001).

On the other hand, if the disputes are referred to arbitration, the arbitrator recognizes selected law by parties and performs arbitration on basis of that law. The arbitrators usually refuse to apply specific rules on dispute resolution and investigate the disputes based on selected law by parties.

Standard contracts and dominant law on contracts:

The aim by standard contracts is sample contracts in International Trade Law. Using these contracts is common in International Trade. Many trade companies use standard contracts instead of preparing and setting contracts with each single party, since the standard contracts contain all required items including rights and obligations of parties in contracts. Although standard contracts may be comprehensive, they can't predict all aspects and items in contracts and this causes need to dominant law on contracts. Hence, standard contracts also need dominant law, since the dominant laws can fill the gaps in standard contracts and can also complete intention of parties in non-protested cases (Katuzian, 2001).

Law of arbitration

Along with development of international trade and globalization of economics, arbitration has been developed rapidly as a method to settle international trade disputes. Although arbitration is not free from imperfections and defects and is sometimes criticized, its priority to jurisdiction at courts has made it acceptable in field of resolution of disputes in international trade. As there is no international court to settle international trade disputes for businessmen and merchants to settle their disputes there, they have to present their claims and lawsuit to one of the national courts. This method and its disadvantages have made arbitration be the most applicable method for dispute resolution in field of international trade disputes (Ansari, 2001).

Warranty of return of deduct in proper implementation of commitment

In EPC contracts, a percentage of receivables of contractor are deducted as a warranty for proper implementation of project; although the contractor can receive the said fees through submitting the warranty. Half of the warranty would be released with temporary delivery of project and confirmation of employer and the other remained half is returned after absolute delivery of the project (Goodarzi, 2004).

Warranty of acting based on commitments

Through signing EPC contract, the contractor submits a warranty to employer to promise to take his contractual commitments, so that in case of violation of commitments and causing loss for employer, the employer can ask for compensation of loss from location of the warranty. The fee of this warranty varies per project; although in most cases, it is more than 5% of project cost. The warranty would be returned with temporary completion of project; unless the parties have agreed on full completion (Ansari, 2001).

Responsibility of EPC contract parties

As employer and contractor are two main parties of EPC contract, responsibility of employer and responsibility of contractor are discussed in two paragraphs (a) and (b) (Ansari, 2001).

a) Responsibility of employer

EPC contract causes some commitments for the employers like providing appropriate place to implement the project, creating adequate economic, political and legal structure (Roohani, 1974). Particularly, when the government is employer, it is responsible for providing exact information and exact plans and technical documents for the contractor and so on. Violation of each of the commitments can result in contractual responsibility of employer in case of causing loss for the contractor. Such responsibility is adjusted with Iranian legal system and can be also derived from general provision of article 226 of Civil Code on "Losses Incurred through Non-fulfillment of Contracts".

b) Responsibility of contractor

The contractor is responsible for fulfilling all commitments accepted explicitly or by the sentence of situation of the case and contractual rules and violating them can cause responsibility for him. However, the limit of responsibility of contractor varies from the time of signing the contract to the time of delivery and from the time of temporary delivery to the time of full completion of project: ☐ **Responsibility of contractor to the time of temporary delivery**

Temporary delivery of project is done after required examinations on performance of the project and achievement of required indices. From the time of starting the project to the time of temporary delivery, the contractor is responsible for every section of the work and in addition to caring about materials and equipment, the contractor should have supervision on implementation. In other words, the contractor is responsible for compensation of the losses during this period. However, the contractor is not responsible for indirect losses and surplus losses in addition to determined cost as maximum responsibility. After buying materials, although the ownership is immediately assigned to employer, the contractor should protect them as a trustworthy party.

☐ **Responsibility from the time of temporary delivery to absolute completion of project**

After temporary delivery of the project and due to lack of dominance of contractor on the project, the caring responsibility of contractor is null and void; although he is responsible for meeting the defects in the project or defects created during the period after a period that is specified in contract; unless the defect is caused by action of employer. Up to here, contractual responsibility was discussed; although it could be mentioned about civil responsibility that to the time of full completion of project, the contractor is responsible for any kind of loss caused for third parties or responding their claims in relevant issues of the contract; unless the losses are caused by act of employer, act of third party or a force majeure.

Dispute resolution

If the trade disputes are divided to two groups of legal and technical disputes in a general classification, some of them like interpretation of provisions of a contract or contractual responsibility are just legal. Instead, in other cases like technical inspection of a device due to its construction plans, technical aspect is more important than legal aspect and commenting on this field is out of expertise and profession of a lawyer.

Moreover, getting help of technical experts in process of decision making can result in elongation of jurisdiction and can be defeating the purpose in the jurisdictions. Perhaps because of lack of knowledge about total subject, the importance of issue may not be cleared to the adjudicating authority and the aspect of expertise may be forgotten in these jurisdictions (Tavassoli, 2002).

Dispute resolution methods can be divided to different types. For example, if the basis for division is the results obtained from the methods, it can be divided to binding results like arbitration and judicial jurisdiction on one hand and compromise and mediation on the other hand. If the criterion is the way of appointing third adjudicating party that is the criterion desired by tis study, one can refer to jurisdiction in national courts that parties play no role in appointment of third party and other methods like arbitration, specialized jurisdiction, specialized committee on dispute resolution and compromise that third party is appointed by parties of a claim (Katuzian, 2001).

In international contracts, there is an article specifying dominant law on contract. If a dispute is created between parties in relation with contract and they refer to the court, the judge makes his judgment according to the contractual provisions between them (Joneidi, 1997).

In relation with determining dominant law, article 968 of Civil Code has specified an obligation, whereby the situation of contracts would be as follows:

1) If the contract is between two Iranian parties, whether in Iran or abroad, the law of Iran is dominant.

2) If the contract is between an Iranian and a foreigner and if the contract is signed in Iran, Iran Law is dominant.

3) If the contract is between an Iranian and a foreigner and is signed out of Iran's borders, the law of foreign country is dominant based on the contract.

In international contracts, it is predicted that in case of disputes, the court or arbitrator handles it. In domestic contracts, there is no need to this article, since in case of disputes, hey refer to Iranian court or appoint an arbitrator and refer to him if they have no tendency to refer to court. In international contracts, the article of dispute resolution shall be existed for sure. Moreover, both parties can appoint an arbitrator and solve their dispute.

In article 139 of the Constitution of Iran, some limitations are considered to adjudicate the disputes of ministries and public companies with other entities. In these cases, no arbitrator can be appointed; unless the board of ministers has approved referral to arbitration and has notified it to the parliament.

In all contracts, an article is given under title of "Termination of Contract", so that in case of dispute and termination of contract, the obligations of the previous measures and remains measures could be specified. Each party tending to terminate the contract shall notify the other party 1 or 2mnths before (in written) (Katuzian, 2001).

Comparison of EPC contract and Islamic contracts

The most applicable participation contracts include corporate contract and Mudarabah (limited partnership). Corporate contract is a permissible contract and the partners shall have portion in profit and loss of company due to their capital and investment. If it is mentioned in corporate contract that entire profit is belonged to one partner, the corporate stipulation and contract is null and void. Moreover, if it is mentioned that one party is responsible for profit and losses of company, the condition and contract is in contradiction (Katuzian, 2001).

Mudarabah is a contract, whereby a person (owner) assigns a property to another party (agent) to trade with the property and the profit could be divided between them to certain proportion. The holder of capital is called owner and the business man is called agent or Mudarab. Mudarabah is a permissible contract and its profit is belonged to agent and owner. Portion of owner and agent from the profit shall be specified at the

beginning of signing contract. The amount of
profit can't be considered fixed. The time of sharing profit is after the end of Mudarabah (Alinejad, Pour, Esfandiari,2009).

This method refers to partnership between two parties in financing on a project. Partnership is a kind of cooperation between two or more people in a business with high risk and all the parties participate in the investment equally. Both parties are responsible for project management. Based on this contract, all partners have a portion in finance for the high-risk project. The portion of profit and loss of partners is divided based on their capital. According to direct participation of risk-taking investment in profit and loss of this fund, the order of Islam on basis of avoidance of usury is provided. The process of financial facilities is provided by Islamic risk-taking investment institute for customers through implementation of financing contract. In participation contract, the parties of transaction agree on a project and invest on it mutually on sharing their capital in a special project

Financing based on contract of mandate: Leasing described in the disclosure is a financing technique that is regarded as combined leasing, in which a financing institute leases some property to the customer; although in field of project financing, the property shall be constructed before being leased. This is the case that financing structure shall be defined again, so that it can remain adequate to its goals in addition to follow Sharia.

According to this process, the company implementing the project is firstly used as the agent or attorney of Islamic financing institute with the contract of mandate (Imanipoor, Kan'ani, 2009). This issue is to provide the conditions for completing project or property whereby the contract of mandate. To ensure of providing properties, Project Company came into sign EPC contract with the contractor (Saleh Abadi, Kazemian,2004). An important point in principle of Sharia is that the fin acing institute shall share the trade and economic risks with the company implementing project. Both contractual parties (both partners) are responsible for any kind of cost and responsible to preserve their property. To compensate any kind of probable risk, the project company came into signing the contract of corporate finance services (Jalili, Ahmadi, 2006).

This issue is because of guaranteeing and protecting properties on behalf of Islamic Facilities Firm. According to contracts of corporate finance services (Islamic Financing Institutes), the Islamic financing firm is appointed as the agent with the purpose of financing. Islamic Financing Institutes enter to property participation contract (Bidgoli, Kazemian, 2005), so that announce their agreement through participating in financing on properties and become responsible for ownership of properties gained through contractor with EPC contract. In this stage, ownership of properties is assigned directly from contractor to EPC of Islamic financing firm. Finally, the Islamic financing firm (through Islamic financial institutes) agrees to lease the properties (Jahandar, 2010).

2. CONCLUSION

According to the study, it could be found that:

EPC contracts are contracts, in which the employer assigns designation, engineering, preparation of materials and equipment, project management, getting required permissions and procurement and construction of project to a general contractor. Moreover, EPC contracts are different from conventional construction contracts due to the scope and provisions of the contract. As the name, provisions and effects of EPC contracts are mentioned in some articles of Iran laws, it should be considered among specific contracts in terms of legal nature and the article 10 of Civil Code can be used just to complete imperfect articles of law. The employer and contractor are the main parties of EPC contract and due to the case, the consultant and technical inspector may take responsibility of representative of employer. Contractor is appointed from qualified people to implement the project. Common warrantees in EPC contracts include warrantees of attending tender, prepayment, return of deduct in proper implementation of commitment and warrantee of fulfillment of commitment. Violation of contractual obligations can result in responsibility of

the offender against other party. Some domestic laws of Iran used in EPC contract like code of maximum use of the technical and engineering power law passed in 1375, in case of necessity of participation of Iranian contractor in assigned projects to foreigner contractor, are clearly contrary to international laws prohibiting foreigners to use domestic powers of host state. To be adjusted with international procedure, the said regulations should be amended and necessity of the amendment would be doubled regarding Iran's accession to the World Trade Organization (WTO). The position of laws of countries in regard with these contracts can be divided to three groups of strict, open and middle positions. As conclusion and implementation of EPC contract in Iran is along with specific state procedures and supervision, the position of Iranian Legal System in this field is in the group of strict positions.

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