

# **INTERNATIONAL REVIEW**

## **Special Issue No.3 Part I.**

# **THE CONTEMPORARY SOCIO- ECONOMIC IRANIAN THOUGHTS**

**Round Table, 15. June 2017, Tehran**

**Guest Editor: Prof. Dr Zvonko Brnjas, Institute of  
Economic Science, Belgrade, Serbia**

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# **THE CONTEMPORARY SOCIO- ECONOMIC IRANIAN THOUGHTS**

**ROUND TABLE**  
**June, 2017, Tehran, Iran**

**Guest editor:**  
**Prof.Dr Zvonko Brnjas**  
**Institute of Economic Science, Belgrade, Serbia**

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## FORWARD

The book “The Contemporary Socio-Economic Iranian Thoughts” is revealing contemporary work of researches and scientists in the socio-economic areas from Iran. After number of years of isolation, this is a rare opportunity to get certain insight into socio-economic environment of the country which now for years has been inaccessible and hidden for outsiders. The essays in the book cover very diverse topics. In the area of macro-economics the Iranian authors have dealt with governmental development policies, the role of cultural industries in Iran, the impact of crude oil price volatilities, the political and economic factors impacting export of agriculture products and other. In the area of mezzo-economics (and management) the topics include specific strategies for trading at Forex market, feature of Tehran Stock Exchange, number of management issues (bank customer loyalty, quality management) etc. In the social area the elaborated topics encompass issues such as civic culture in the metropolitan areas in Iran, the urban management issues, Sport Institutionalization among Students, the problems of active and passive people with disabilities, and other.

Having this said, we are confident that the book will be interesting for both, the readers who are interesting to find out what researchers and scientists in Iran in socio-economic are focusing at, and the readers interesting in some very specific topics in the above mentioned areas.

June, 2017.

Prof. Dr Zvonko Brnjas



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# STATISTICAL ANALYSIS OF THE TECHNICAL STRATEGY OF TURTLE TRADERS IN THE FOREIGN EXCHANGE MARKET (FOREX MARKET)

Masoumeh Akandeh<sup>1</sup>

Mahdi Khodayari<sup>2</sup>

## Abstract

*In this research the technical strategy of turtle traders was statistically analyzed. In other words, in this research it was tried to discover whether using said strategy yields a higher return compared to random (chance-based) transactions. The purposes of this research included achieving a beneficial strategy for trading in the Forex market within a 1-hour time frame and investigating the performance and testing the profitability of the strategy of turtle traders. Non-random-judgmental sampling was used for sampling and the sample comprised of 4 major currency pairs. Next, the cycle where the back test takes place was specified and in some trading software, the diagram of each currency pair was executed and the corresponding indicator was implemented on it and based on said strategy, we started to perform transactions and calculate the return. That way, the price of the entry, exit, maintenance cycle and return of each position was identified. Next, by performing a simulation process in the MATLAB software, some n-cycle permutations (80 permutations) were specified for one specific currency pair and extracted in the study cycle and we considered buying and selling positions for each one of them, in this case, by considering 80 permutations, we will have 80 returns for a specific n-day cycle where the arithmetic mean of these 80 numbers will represent the return of n-day cycles in a specific currency pair which became the basis for statistical calculations. The results showed that in each 4 currency pairs investigated in the study cycle, the strategy of turtle traders significantly outperformed the random status (at a confidence level of 95).*

**Keywords:** strategy, Forex, technical analysis, turtle

JEL: G10

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## Introduction

### Problem statement

After the emergence of financial markets and the issue of earning an income from these markets and after some people earned massive profits or losses, the activists in these markets faced the question of what leads to profit and loss in these markets, and in fact, one of the most important and major questions that the players of the world's markets face is what and when some assets should be traded and at what price? should the desired assets be bought or sold? And finally, when and at what prices, should we close our position and exit those assets to increase our profit and return. With the use of a strategy it becomes possible to have a trading discipline and avoid behavioral biases so an investor can enter profitable deals based on his own strategy without being affected by market excitements, rumors and unconfirmed news. Also, having a strategy gives the investor this position to optimize and improve his strategy over time after several deals. Traders believe that via fundamental analysis, it is possible to be informed about the foundation of a company and discover whether the desired company is suitable for investment, but this branch of analysis cannot help identify two main and important principles in investment, in other words, it cannot be identified where and at what price is it best to enter a pair currency. Traders in financial markets rely on foundational and technical views (or a combination of both) to analyze the market and make decisions on investment. In fact, a challenging topic in this field is how to change these analyses into a "deal". Does every analysis lead to a deal? Are the elements in the analysis and deal (despite an undeniable correlation) the same?

### The importance of the subject

The profitability of transactional strategies based on a technical analysis is still a topic of discussion in academic societies. On the one hand, in academic societies, technical analysis is not based on strong scientific foundations and is challenged and is more difficult to accept among them, and on the other hand, this science is vastly used by the participants of financial markets, while few studies have been performed which show the profitability of this method.

Also since these tools are commonly used in Iran, it is necessary to pay more attention to them and discover whether technical analysis-based transactional strategies are sufficiently efficient or not.

Moreover, with the development of technical analyses, the diversity of its strategies were significantly increasing and most traders combine different tools to create their personal strategies. But before these strategies get to be used in the real market space and some investment be made based on them, the previous data of the market must be tested and evaluated (back test<sup>3</sup>). After this stage, the results of the evaluations must be tested using statistical methods and their profitability must be discovered so it becomes possible to enter a deal by relying on a strategy.

Having a strategy is like having a roadmap which every investor must select or create if possible and proceed based on it. Without the strategy, the investor will make a mistake in selecting his appropriate currency pair (due to the multiplicity of currency pairs) and incur heavy losses and may abandon investing in financial markets which can lead to economic prosperity altogether (in international markets these losses whose fluctuation range is unlimited and uncontrolled can in case of not using an appropriate strategy lead to heavy losses). Therefore, it is necessary to perform some studies in this field and obtain a roadmap so not only the investor will escape the financial market in general and the Forex market in particular, but will also be encouraged to enter international financial markets.

However, the level of the world's financial markets is not measured with the value of daily or weekly transactions and or the number of companies accepted into them but also the number of their participants and also their knowledge level which lead to the efficiency of the capital market are also important for the professional level and class of the market. This research provides its results to the activists of Iran's financial market and so significantly helps with this matter.

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<sup>3</sup> Back Test: it means to extract signal based on the desired strategy in a past time frame

## Research literature and background

### Foreign backgrounds

Shi Chen et al. (September 2016) in their article titled the predictive power of the Japanese candlestick charts in the Chinese stock market, investigated the predictive power of 4 pairs of commonly used two-day ascending and descending patterns in the Chinese stock market. There, they specified and presented the details of the candles in a qualitative manner, something that had never been done before. In order to test the predictive power of the candlesticks in the short term, they defined the average returns to reduce the effect of correlation between the commonalities of the time range of stock returns in a statistical test. They discovered that the predictive power of an average valued stock is stronger than the predictive power of a stock with a higher market value.

Robert Crolu et al. (2015) in their article titled “market trading rules based on pattern recognition and technical analysis”, presented risk-based adjusted trading rules based on technical analysis. During a deal these rules define the appropriate profit of any position and the tolerable loss. They parameterized trading rules by 96 different entities.

Marco Lissandrin et al. (August 2014) in their master thesis titled “statistical test of DeMark indicators in future commodity markets” investigated the profitability of a collection of known DeMark indicators (10 indicators) on 21 future commodity markets over a 10-year cycle. These indicators were used by specifying the entry and exit points and also the profit and loss limit within the frame of a complete strategy and the outcome of this strategy was validated using the Monte Carlo test. The results of this investigation suggest that this collection of indicators has a significant power in predicting the desired markets.

### Domestic background

Nabavi Hashemi et al. (Summer 2011) in a research titled “study of the efficiency of MA index in technical analysis in predicting stock prices” investigated the performance of simple, weighted and exponential moving averages. The results of these strategies were evaluated using two validation indices including Mean Absolute Deviation (MAD) and Tracker Indicator (TS) which in the end, it was discovered that the exponential moving average has a higher credibility and validity in predicting stock prices among validation indicators.

Khadijeh Nasrallahi et al. (Autumn 2013) in an article titled the benefits of Japanese candle patterns in Tehran stock market, investigated the profitability of a group of short term technical analysis patterns called candle patterns. The research data include the time series of daily stock prices of 17 permanent companies in Tehran stock market from 30/3/1995 to 1/12/2011. Using these data, the profitability of 28 candle patterns was evaluated and compared with and without the inclusion of transaction fees. During the research process, the bootstrap simulation method based on the GARCH-M model was used to create random time series of the main price series. The results show that the majority of the study patterns (18 patterns), without the inclusion of transaction fees, significantly yielded a higher profit compared to the method of purchase and maintenance, but with the inclusion of transaction fees, many of these patterns (except for 5 patterns) cannot create profit more than the purchase and maintenance method. In general, it can be said that Japanese candle patterns can predict the future path of price and profitability but these profits disappear with the inclusion of transaction fees.

### Objectives and hypotheses

The ideal objective of the research is to achieve a profitable strategy to deal in the international currency exchange market and the general objective is: to investigate and test the profitability of the strategy of turtle traders.

In this study it was assumed that the strategy of turtle traders has a higher return compared to the random return of trading, and another assumption is the profitability of the strategy of turtle traders at the 95 statistical percent.

### Methodology

In this research we intend to measure the efficiency of the strategy of turtle traders (TT). First, in order to determine the currency pairs which, the strategy must be implemented on, we define a certain path to prepare the sample such that it meets the requirements of the research and provides reliable results. (the complete description of the sampling and that on what basis has it been done is given in this chapter in the section for sampling). After the preparation of the sample, the time frame in which the research took place was specified, this time frame was selected to be as close to the present as possible and include the information affected by recent socio-political events which affect the

information received. The reason for this matter and consideration of the recent information is the high weight that these data have in the research time frame because the results of any specific research are credible in the study cycle and over time they may lose their credibility with reassessment. Based on what has been discussed, the time frame was selected to be from 2016/9/30 to 2016/12/31. Since traders in the Forex market operate in a short term time frame, in this research, the desired strategy was tested in a 1-hour time frame. Therefore, in the desired time frame (which includes 4 months), we will have more than 1600 data related to hourly transactions whose equivalent daily time frame with the data of the 1600 days will be more than 4.5 years.

Next the currency pair selected in the sampling process was called in the MetaTrader software and the TT indicator was drawn on it. The two aforementioned indicator variables are set for 20-day deal entry and 10-day exit cycles, such that if 20 candles can break the previous maximums or conquer the previous minimums, we will obtain a buying and selling position respectively, and to close the position, 10 decreasing candles must be bought to close the buying position or 10 increasing candles must occur to close the selling position, then we will have the ratios (in the Forex market, no price will exist and the ratios which the currency pairs make in proportion with each other are traded) in which we entered or exited a corresponding currency pair, and accordingly, we will have the maintenance cycle (n hours) of each currency pair. After the end of these operations, for each 4 currency pairs, the entry and exit signals and the return from these position takings will be obtained which shows the formation of the first society required for statistical tests.

Now using the Monte Carlo simulation algorithm and for one specific currency pair and also a specific maintenance cycle (e.g. n hours) which is caused by the main signal, we extract an n-hour permutation from the aforementioned currency pair diagram and in each n permutations, we randomly consider buying and selling positions and calculate the return of the desired permutations by holding the ratios in which the entry and exit occurred, therefore, we will have 80 returns whose average will represent the random return of the n-day permutations. After the repetition of this process, for all the permutations, a second required society will be created to perform the statistical test. (it should be mentioned that for one currency pair in the study cycle, there will be different maintenance cycles).

During the use of the currency pair ratios, a 1-hour time frame was used and consequently, the research achievements will only be citable only for this time frame.

## Statistical population

The statistical population of the research consists of all the currency pairs tradable in the international exchange market. The international exchange market provides the trading mechanism for buying and selling currency. Traders use technical analyses (which often in this market, more than one analysis type is used) and or investigate variables such as unemployment rate, industrial development, buildings under constructions and traded buildings and the trading balance of influential countries such as the USA, China and Japan to predict the variations of currency pairs in relation with each other to make a deal.

### Sample and sampling method

In the sampling method it was tried to select a currency pair so that the most globally common currencies would be used in making the currency pair (both currency pairs) and therefore, currency pairs such as the New Zealand Dollar to the Swiss franc which are not generally used have been avoided. Therefore, in the sampling, in order to realize all said demands, the non-random-judgmental method was used to select the four currency pairs of Euro to USD (EURUSD), British Pound to USD (GBPUSD), USD to Japanese yen (USDJPY) and Euro to British pound (EURGBP).

To collect data, the chart related to each currency pair was implemented using the MetaTrader 4 software. In fact, after calling the price chart based on the time of the currency pairs in the MetaTrader software and showing the price diagram in the form of candle, for each hour (given the 1-hour time frame) we will have 4 data types which include the primary price, highest price, lowest price and minimum price. Next, the software will enable us to draw the indicator of turtle traders on the chart so based on what has been given in the research method, we will start to take signals.

In relation with the reliability and validity of the research, it should be mentioned that reliability is related to the fact that under equal conditions, how equal the results of the measurement tool will be. In other words, what is the correlation between a collection of scores and another collection of scores in an equivalent test which is obtained independently on a test group. In other words, if we give the measurement tool to a single group of individuals several times in a short interval, how close the results will be to each other.

More clearly, in this section we are discussing the accuracy of the measurement tools and nothing has been presented about its credibility. Credibility (validity) is an ability to correctly measure the real quantity on average but accuracy (reliability) is a criterion to evaluate variations in observations. In the present research, as was mentioned in the first section, the tools used are the MATLAB and MetaTrader software. Regarding the MetaTrader software it should be

mentioned that since the prices belonged to the past and remained constant in the investigation cycle and the desired strategy has an absolute definition, with every implementation of it and with the extraction of the desired data, we will obtain completely equal results which suggest the high reliability of this tool.

The other tool was MATLAB which was used to create random conditions which consequently, with every implementation, the results were less similar and this is due to the nature of the research method and no interruption was made in it.

## Data analysis

In order to test the research hypotheses including:

$H_0$ : said strategy yields a higher return compared to random buying and selling.

$H_1$ : said strategy does not yield a higher return compared to random buying and selling.

Parametric and non-parametric analytical statistics (when necessary) were used. This way, regarding the analytical test of the research hypotheses, first, the Kolmogorov-Smirnov test was used to investigate the normality of the data of each stock where the null and opposite hypotheses are defined as follows:

$H_0$ : the data have normal distribution.

$H_1$ : the data do not have normal distribution.

If the data are normal, we can use statistical parametric methods to perform the hypothesis testing, but if the data are not normal, we will use non-parametric test to test the hypothesis. In this research, since we discovered the abnormality of the data via the Kolmogorov-Smirnov test in the three currency pairs of USD (EURUSD), British Pound to USD (GBPUSD) and Euro to British pound (EURGBP), in the following, the non-parametric sign test has been used and for the currency pair of dollar to Japanese yen where the returns followed normal distribution, to test the research hypothesis, we used the test specific to this distribution. In this regard:

In this test the null and opposite hypothesis are presented as follows:

$H_0: \mu_1 \geq a$  (1)

$H_1: \mu_1 < a$

Where  $a$  represents the average return of random positions in different maintenance cycles. Also, it should be mentioned that this was a one-way left tail test and the critical area will be placed on the left side. The error level of the tests was adjusted at 5% where the acquired information and results will have a 95% confidence level. The numbers related to the p-value are given to test each currency pair and can be compared with 5% to ensure the results obtained from the MATLAB software to test the hypothesis.

## Findings

The data and signals taken from the indicator under investigation (turtle traders) on the four currency pairs of GBPUSD, EURGBP, EURUSD and USDJPY are given in the following tables.

EURUSD currency pair

In table 1, the signals taken from the EURUSD strategy are given.

Research case for the currency pair

Table 1: Signals taken from the turtle traders indicator for the EURUSD currency pair

Position	Entry date	Hour	Entry price	Exit date	Hour	Exit price	Maintenance cycle (N)	Return (R)
Selling	9/30/2016	10:00	1.12244	9/30/2016	16:00	1.12173	6	0.06
Buying	9/30/2016	18:00	1.12127	10/3/2016	17:00	1.12048	24	-0.07
Selling	10/3/2016	17:00	1.12263	10/7/2016	16:00	1.12042	95	0.2
Buying	10/7/2016	16:00	1.11163	10/10/2016	10:00	1.11807	19	0.58
Selling	10/10/2016	16:00	1.11607	10/13/2016	23:00	1.10555	79	0.95
Selling	2016/10/14	10:00	1.10267	10/17/2016	8:00	1.09891	23	0.34
Buying	10/18/2016	3:00	1.10007	10/18/2016	14:00	1.09998	11	-0.01
Selling	10/18/2016	16:00	1.10126	10/20/2016	14:00	1.09868	46	0.23
Buying	10/20/2016	14:00	1.09868	10/20/2016	16:00	1.09344	2	-0.48
Selling	10/20/2016	16:00	1.10386	10/24/2016	11:00	1.08923	44	1.34
Buying	10/24/2016	11:00	1.0874	10/25/2016	3:00	1.08676	16	-0.06
Selling	10/25/2016	16:00	1.0874	10/25/2016	18:00	1.08945	2	-0.19
Buying	10/25/2016	21:00	1.08869	10/27/2016	4:00	1.08915	31	0.04
Selling	10/27/2016	19:00	1.09193	10/28/2016	9:00	1.09178	14	0.01
Buying	10/28/2016	15:00	1.0915	10/31/2016	10:00	1.09552	20	0.37
Buying	11/1/2016	11:00	1.09727	11/3/2016	13:00	1.1086	50	1.03
Selling	11/3/2016	14:00	1.10917	11/4/2016	18:00	1.11221	28	-0.27
Buying	11/4/2016	18:00	1.11063	11/7/2016	0:00	1.10534	7	-0.48
Selling	11/7/2016	0:00	1.10659	11/8/2016	11:00	1.10661	35	0
Selling	11/8/2016	20:00	1.10473	11/9/2016	5:00	1.11695	9	-1.09
Buying	11/9/2016	5:00	1.10109	11/9/2016	12:00	1.10677	7	0.52
Selling	11/9/2016	17:00	1.10357	11/11/2016	5:00	1.09129	36	1.13
Selling	11/11/2016	19:00	1.08774	11/15/2016	10:00	1.07803	41	0.9
Buying	11/15/2016	11:00	1.07673	11/15/2016	16:00	1.07529	5	-0.13
Selling	11/16/2016	11:00	1.07302	11/17/2016	11:00	1.07268	24	0.03
Buying	11/17/2016	12:00	1.07084	11/17/2016	18:00	1.06734	6	-0.33
Selling	11/17/2016	19:00	1.0684	11/18/2016	14:00	1.06245	19	0.56
Buying	11/21/2016	11:00	1.06175	11/21/2016	21:00	1.05905	10	-0.25
Buying	11/22/2016	12:00	1.06271	11/22/2016	18:00	1.05967	6	-0.29
Selling	11/23/2016	16:00	1.06228	11/24/2016	12:00	1.05771	20	0.43
Buying	11/25/2016	10:00	1.05702	11/28/2016	13:00	1.05944	30	0.23
Selling	11/28/2016	17:00	1.05931	11/29/2016	20:00	1.06341	27	-0.39
Buying	11/29/2016	21:00	1.06246	11/30/2016	17:00	1.05875	20	-0.35
Selling	11/30/2016	17:00	1.06532	12/1/2016	8:00	1.06134	15	0.37
Buying	12/1/2016	22:00	1.0627	12/2/2016	13:00	1.06359	15	0.08
Selling	12/5/2016	1:00	1.06574	12/5/2016	11:00	1.06602	10	-0.03
Buying	12/5/2016	14:00	1.06329	12/6/2016	9:00	1.07431	22	1.04
Selling	12/6/2016	20:00	1.07384	12/7/2016	17:00	1.0726	21	0.12
Buying	12/7/2016	17:00	1.0726	12/8/2016	16:00	1.07235	23	-0.02
Selling	12/8/2016	17:00	1.07417	12/9/2016	10:00	1.06268	17	1.08
Selling	12/9/2016	15:00	1.05982	12/12/2016	5:00	1.05679	17	0.29
Buying	12/12/2016	12:00	1.05616	12/13/2016	10:00	1.06283	23	0.63
Selling	12/14/2016	22:00	1.06544	12/16/2016	13:00	1.04716	39	1.75
Buying	12/16/2016	13:00	1.04339	12/16/2016	17:00	1.04117	4	-0.21
Selling	12/19/2016	14:00	1.04394	12/21/2016	5:00	1.04178	38	0.21
Buying	12/21/2016	5:00	1.03864	12/27/2016	4:00	1.04386	96	0.5
Selling	12/27/2016	5:00	1.04436	12/27/2016	18:00	1.04576	13	-0.13
Buying	12/27/2016	19:00	1.04526	12/28/2016	11:00	1.04495	16	-0.03
Selling	12/28/2016	11:00	1.04536	12/29/2016	2:00	1.04222	14	0.3
Buying	12/29/2016	7:00	1.04525	12/31/2016	0:00	1.05138	40	0.59

The numbers in the above table are interpreted as follows:

Correlation (R,n)=45% (2)

There is a weak relationship (45%) between the amount of maintenance and the return caused by that trade, meaning that with increased or decreased maintenance cycle, a higher or lower yield has not been obtained. Also, between the maintenance cycle and the magnitude of the return number (in terms of absolute value) no relationship can be discovered. The important point is that if we deduct the three long term maintenance cycles obtained in this currency pair including the 95, 75 and 96 cycles from the data and then investigate the relationship between the return and maintenance cycle, the correlation of these two variables will significantly increase and reach 60%. In fact, by reviewing the numbers related to the variable under discussion it can be concluded that the best return numbers have been obtained for the average maintenance cycles (from 25 to 45 days). In figure 1, the chart of said currency pair along with the turtle traders indicator is shown.

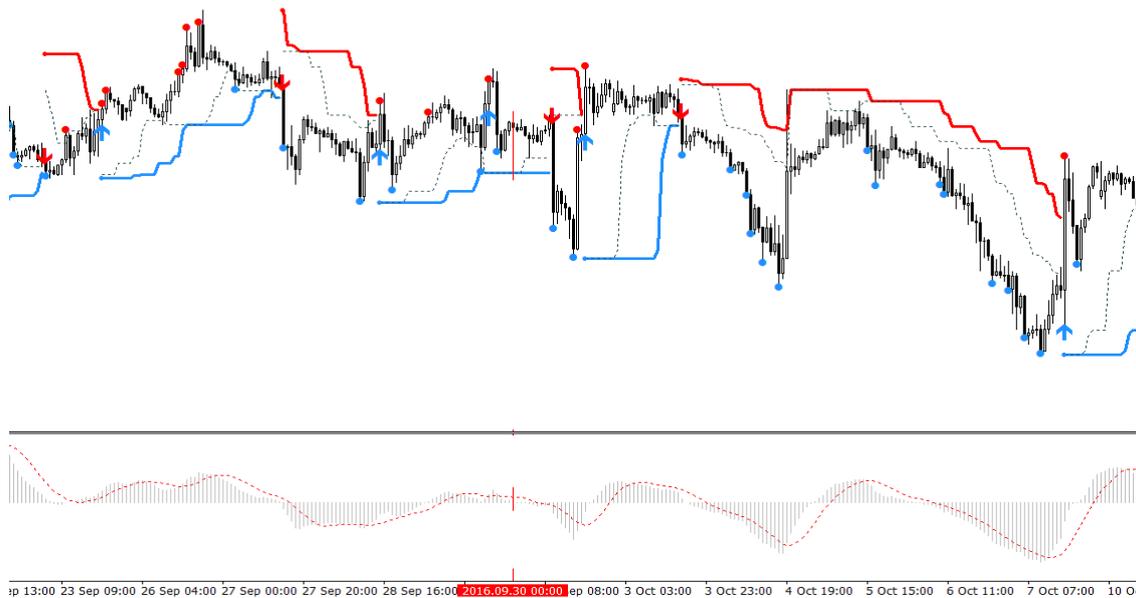


Figure 1: the EURUSD currency pair and the turtle traders indicator

### EURGBO currency pair

In table 2, signals taken from the EURGBP are given.

Table 2: Signals taken from the turtle trades indicator for the EURGBP ratio

Position	Entry date	Hour	Entry price	Exit date	Hour	Exit price	Maintenance cycle (N)	Return (R)
selling	11/3/2016	12:00	0.9001	11/7/2016	9:00	0.89071	46	1.05
buying	11/7/2016	9:00	0.88959	11/8/2016	10:00	0.88945	25	-0.02
buying	11/8/2016	17:00	0.89074	11/8/2016	21:00	0.88889	4	-0.21
buying	11/9/2016	5:00	0.88953	11/9/2016	15:00	0.88912	10	-0.05
selling	11/9/2016	17:00	0.89107	11/15/2016	4:00	0.86155	85	3.43
buying	11/15/2016	11:00	0.86192	11/15/2016	22:00	0.86075	11	-0.14
selling	11/17/2016	19:00	0.85849	11/18/2016	15:00	0.85842	20	0.01
buying	11/18/2016	16:00	0.85478	11/18/2016	18:00	0.85828	3	0.41
buying	11/21/2016	12:00	0.86151	11/21/2016	14:00	0.86003	2	0.17
selling	11/21/2016	16:00	0.85841	11/22/2016	12:00	0.85313	21	0.62
buying	11/22/2016	13:00	0.85204	11/23/2016	16:00	0.85286	27	0.1
selling	11/23/2016	18:00	0.85337	11/24/2016	12:00	0.85012	18	0.38
buying	11/25/2016	10:00	0.84895	11/26/2016	1:00	0.84792	15	-0.12
buying	11/28/2016	13:00	0.85285	11/28/2016	17:00	0.85125	4	-0.19
selling	11/29/2016	13:00	0.85152	11/30/2016	0:00	0.8526	12	-0.13
buying	11/30/2016	14:00	0.8532	11/30/2016	16:00	0.85139	2	-0.21
selling	11/30/2016	19:00	0.85267	12/5/2016	14:00	0.84279	69	1.17
buying	12/5/2016	20:00	0.84343	12/6/2016	10:00	0.84163	14	-0.21
selling	12/6/2016	17:00	0.84276	12/6/2016	18:00	0.84479	1	-0.24
buying	12/7/2016	4:00	0.8458	12/8/2016	16:00	0.84749	36	0.2
selling	12/8/2016	16:00	0.85704	12/9/2016	10:00	0.84463	18	1.47
selling	12/9/2016	14:00	0.84304	12/12/2016	12:00	0.8415	24	0.18
buying	12/12/2016	12:00	0.83853	12/12/2016	15:00	0.83838	3	-0.02
selling	12/13/2016	12:00	0.83744	12/13/2016	18:00	0.8389	6	-0.17
buying	12/14/2016	10:00	0.84033	12/14/2016	11:00	0.83853	1	-0.21
buying	12/16/2016	4:00	0.83877	12/16/2016	21:00	0.83561	18	-0.38
buying	12/19/2016	16:00	0.83993	12/19/2016	22:00	0.83911	6	-0.1
buying	12/21/2016	20:00	0.84366	12/24/2016	0:00	0.85048	52	0.81
selling	12/26/2016	16:00	0.84993	12/27/2016	2:00	0.85269	8	-0.32
buying	12/27/2016	15:00	0.85222	12/28/2016	15:00	0.85005	24	-0.25
selling	12/28/2016	15:00	0.85212	12/29/2016	7:00	0.85322	16	-0.13
buying	12/29/2016	8:00	0.85288	12/30/2016	17:00	0.85286	33	0
selling	12/30/2016	17:00	0.85629	1/4/2017	14:00	0.85169	61	0.54

The numbers in the above table are interpreted as follows:

Correlation (R, n) =77% (3)

As is seen in the numbers related to the return (R) and maintenance cycle (n) for the EURGBP currency pair, there is a relatively strong relationship between the return and maintenance cycle, meaning that with increased maintenance cycle, the return will increase with a relative probability and with its decrease, the return decreases. For example, signal number 5 can be mentioned which with the maintenance cycle 85, it created a 3.83 percent return. Also, by investigating the relationship between the maintenance cycle and the quantity of the return number (absolute value of the return) we obtained the number of a 70% relationship which suggests that apart from the return sign, with increased maintenance of the currency pair, a higher number for the return will be obtained.

From the combination of the first and second paragraph of the interpretation of the EURGBP table we conclude that with increased maintenance cycle, the trade risk increases which also increases returns. (this result matches the risk and return law).

## GBPUSD currency pair

In table 3 the signal taken from the GBPUSD are given.

Research case for the currency pair

Table 3: Signal taken from the turtle traders indicators for the EURGBP company

Position	Entry date	Hour	Entry price	Exit date	Hour	Exit price	Maintenance cycle (N)	Return (R)
buying	11/3/2016	13:00	1.24463	11/7/2016	0:00	1.24512	36	0.04
selling	11/7/2016	8:00	1.24633	11/8/2016	10:00	1.24165	26	0.38
selling	11/8/2016	17:00	1.23925	11/9/2016	5:00	1.24859	13	-0.75
buying	11/9/2016	6:00	1.24122	11/10/2016	13:00	1.23771	31	-0.28
buying	11/10/2016	17:00	1.2423	11/14/2016	4:00	1.25077	36	0.68
selling	11/14/2016	4:00	1.25574	11/15/2016	23:00	1.25137	43	0.35
buying	11/17/2016	12:00	1.24464	11/17/2016	22:00	1.24124	10	-0.27
selling	11/18/2016	4:00	1.24141	11/21/2016	10:00	1.23645	32	0.4
buying	11/21/2016	15:00	1.23443	11/22/2016	10:00	1.2464	19	0.97
selling	11/22/2016	13:00	1.24945	11/23/2016	20:00	1.24654	31	0.23
buying	11/23/2016	20:00	1.2419	11/25/2016	3:00	1.24296	31	0.09
buying	11/28/2016	3:00	1.24639	11/28/2016	13:00	1.24187	10	-0.36
selling	11/28/2016	13:00	1.24908	11/29/2016	12:00	1.24329	23	0.47
buying	11/29/2016	13:00	1.24286	11/30/2016	5:00	1.24814	16	0.42
selling	11/30/2016	14:00	1.24752	11/30/2016	19:00	1.25126	5	-0.3
buying	12/1/2016	3:00	1.25075	12/6/2016	18:00	1.27177	89	1.68
selling	12/6/2016	19:00	1.27296	12/8/2016	1:00	1.2631	30	0.78
buying	12/8/2016	12:00	1.26318	12/8/2016	17:00	1.2591	5	-0.32
selling	12/8/2016	18:00	1.26301	12/9/2016	9:00	1.25952	15	0.28
buying	12/12/2016	15:00	1.2603	12/14/2016	4:00	1.26397	37	0.29
selling	12/14/2016	4:00	1.26859	12/14/2016	11:00	1.26756	7	0.08
selling	12/14/2016	22:00	1.27204	12/16/2016	11:00	1.24501	37	2.17
buying	12/16/2016	15:00	1.24131	12/19/2016	7:00	1.24676	18	0.44
selling	12/19/2016	14:00	1.2461	12/24/2016	0:00	1.22861	106	1.42
selling	12/27/2016	15:00	1.22636	12/27/2016	21:00	1.22725	6	-0.07
buying	12/28/2016	4:00	1.22735	12/28/2016	11:00	1.22507	7	-0.19
selling	12/28/2016	13:00	1.22475	12/29/2016	7:00	1.22568	18	-0.08
buying	12/30/2016	3:00	1.22497	1/2/2017	13:00	1.22941	26	0.36
selling	1/3/2017	0:00	1.2285	1/3/2017	7:00	1.23065	7	-0.17
selling	1/3/2017	12:00	1.22849	1/4/2017	9:00	1.22529	21	0.26
buying	1/4/2017	20:00	1.22906	1/5/2017	11:00	1.22895	15	-0.01
buying	1/5/2017	19:00	1.23499	1/6/2017	8:00	1.23749	13	0.2

The numbers in the above table are interpreted as follows:

Correlation (R ,n)=69% (4)

As the correlation of the return and maintenance cycle for the GBPUSD currency pair shows, there is also an interpretation similar to the EURGBP currency pair.

## USDJPY currency pair

In table 4, the signals taken from the USDJPY case's strategy are given.

Research for the currency pair

Table 4: Signals taken from the TT indicator for the USDJPY ratio

Position	Entry date	Hour	Entry price	Exit date	Hour	Exit price	Maintenance cycle (N)	Return (R)
buying	11/3/2016	11:00	102.891	11/9/2016	5:00	102.022	91	-0.84
selling	11/9/2016	5:00	105.138	11/9/2016	16:00	104.25	11	0.85
buying	11/9/2016	21:00	105.145	11/11/2016	13:00	106.121	40	0.93
buying	11/14/2016	0:00	106.849	11/17/2016	1:00	108.903	73	1.92
selling	11/17/2016	2:00	108.944	11/17/2016	9:00	109.339	7	-0.36
buying	11/17/2016	21:00	109.599	11/18/2016	15:00	110.032	18	0.4
buying	11/21/2016	0:00	110.943	11/22/2016	3:00	110.26	27	-0.62
selling	11/22/2016	3:00	110.801	11/22/2016	10:00	111.23	7	-0.39
buying	11/23/2016	16:00	111.138	11/25/2016	10:00	112.828	42	1.52
selling	11/25/2016	11:00	113.186	11/25/2016	20:00	113.3	9	-0.10
selling	11/28/2016	4:00	112.597	11/28/2016	15:00	112.523	11	0.07
buying	11/29/2016	15:00	112.54	11/30/2016	3:00	112.053	12	-0.43
buying	11/30/2016	15:00	113.071	12/1/2016	8:00	113.869	17	0.71
selling	12/2/2016	3:00	114.138	12/5/2016	11:00	114.098	34	0.04
buying	12/5/2016	13:00	113.961	12/5/2016	21:00	113.153	8	-0.71
buying	12/7/2016	10:00	114.239	12/7/2016	18:00	113.662	8	-0.51
selling	12/7/2016	18:00	114.079	12/8/2016	16:00	114.094	22	-0.01
buying	12/8/2016	16:00	113.356	12/12/2016	20:00	115.079	54	1.52
selling	12/12/2016	20:00	115.581	12/13/2016	9:00	115.395	13	0.16
buying	12/14/2016	22:00	115.063	12/16/2016	19:00	117.499	82	2.12
selling	12/16/2016	19:00	118.422	12/20/2016	8:00	117.738	39	0.58
buying	12/20/2016	8:00	117.447	12/21/2016	5:00	117.595	21	0.13
selling	12/21/2016	6:00	117.707	12/27/2016	2:00	117.247	93	0.39
buying	12/27/2016	4:00	117.206	12/28/2016	21:00	117.429	43	0.19
selling	12/28/2016	22:00	117.449	12/30/2016	11:00	117.116	37	0.28
buying	12/30/2016	11:00	116.708	1/4/2017	16:00	117.219	70	0.44
selling	1/4/2017	3:00	117.425	1/6/2017	10:00	116.271	31	0.99

The interpretation of the numbers in the table is as follows:

Correlation ( $R_{,n}$ )=44% and correlation( $|R|_{,n}$ )=51% which has an analysis similar to that of the EURGBP currency pair. Also, by removing long term cycles such as the 91 and 73 day cycles and re-investigating the correlation between the return and maintenance cycle, we acquired a 77 percent correlation. In fact, by re-investigating the numbers related to the two variables under discussion it can be concluded that the best return numbers were obtained for the average maintenance cycles (from 25 to 45 days).

In the following, in order to test the hypothesis, the tables related to the return caused by the strategy under discussion and random returns and statistical analyses are given.

## EURUSD

Returns caused by the strategy under discussion and the returns caused by simulation for performing the analyses and investigating the research hypothesis are given in table 5.

Table 5: The numbers required for testing the hypothesis related to the EURUSD currency pair

Maintenance cycle	Random return	Signal return (TT)
6	0.0121	0.06
24	0.0018-	-0.07
95	0.042	0.2
19	0.0093	0.58
79	0.0023	0.95
23	0.0141-	0.34
11	-0.0051	-0.01
46	0.0963	0.23
2	0.0037	-0.48
44	0.1434-	1.34
16	-0.0292	-0.06
2	0.0037	-0.19
31	0.0941	0.04
14	0.0109	0.01
20	0.0208-	0.37
50	0.0824	1.03
28	0.0468-	-0.27

<sup>4</sup> Maintenance cycle correlation and the absolute value of the return

7	0.0182	-0.48
35	0.0392	0
9	0.0099	-1.09
7	0.0182	0.52
36	0.1045	1.13
41	0.1411	0.9
5	0.0059	-0.13
24	0.0018-	0.03
6	0.0121	-0.33
19	0.0093	0.56
10	0.0169	-0.25
6	0.0121	-0.29
20	0.0208-	0.43
30	-0.1174	0.23
27	0.0127	-0.39
20	0.0208-	-0.35
15	-0.0336	0.37
15	-0.0336	0.08
10	0.0169	-0.03
22	0.004	1.04
21	0.0874-	0.12
23	-0.0141	-0.02
17	0.0583	1.08
17	0.0583	0.29
23	0.0141-	0.63
39	0.0155	1.75
4	0.023	-0.21
38	0.0794-	0.21
96	-0.1021	0.5
13	-0.0233	-0.13
16	-0.0292	-0.03
14	0.0109	0.3
40	-0.0532	0.59
6	0.0121	0.06
24	0.0018-	-0.07
average) $\mu$ (	<b>0.00086</b>	<b>0.2133</b>

The Kolmogorov-Smirnov test was performed in the MATLAB software at a 95% confidence level and the h parameter in it showed the number of 1 which means that the hypothesis<sup>5</sup> is rejected. Also, the p-value in this test equals  $1.5205 \cdot 10^{-4}$ . Since  $p\text{-value} < \alpha$ , therefore the null hypothesis will not be accepted, therefore the returns caused by the signal do not enjoy a normal distribution.

In the following, in order to test the research hypothesis:

$$H_0: \mu_1 \geq 0.00086$$

$$H_1: \mu_1 < 0.00086$$

We have used the sign-test. This test was also implemented in the MATLAB software whose results are given below:

The h parameter equals zero which shows the non-rejection of the null hypothesis and the p-value equals 0.9368 which by comparison with the value of 0.05, approves the test result. Therefore, it is proven that the TT strategy in the EURUSD currency pair had a more desirable performance compared to the random status.

## EURGBP

The return caused by the strategy under discussion and the returns caused by the simulation used to perform the analyses and investigate the research hypothesis are given in table 6.

Table 6: Numbers required to test the hypothesis related to the EURGBP currency pair

Random return	Signal return (TT)
0.00001212	0.22

Same as the Kolmogorov-Smirnov test, the data do not have a normal distribution and the null hypothesis cannot be accepted (the parameters in this test are: the h parameter equals 1 and the p-value in it equals  $3.6762 \cdot 10^{-4}$ ).

The research hypothesis is:

<sup>5</sup> Data normality

$$H_0: \mu_1 \geq -0.00001212$$

$$H_1: \mu_1 < -0.00001212$$

The h parameter in said test equals zero which shows the non-rejection of the null hypothesis and the p-value equals 0.2434 which given the significance of the test at the confidence level of 5%, confirms the test result. Therefore, it is proven that the TT strategy in said currency pair had a more desirable performance compared to the random buying and selling status.

## GBPUSD

The averages of the returns caused by the strategy under discussion and the returns caused by the simulation used to perform the analyses and investigate the research hypothesis are given in table 7.

*Table 7: The average return caused by the strategy under discussion and random statuses related to the GBPUSD currency pair.*

Random return	Signal return (TT)
-0.0027	0.28

Same as the Kolmogorov-Smirnov test, the data do not have a normal distribution and the null hypothesis cannot be accepted (the parameters in this test are: the h parameter equals 1 and the p-value in it equals 0.0014).

The research hypothesis is:

$$H_0: \mu_1 \geq -0.0027$$

$$H_1: \mu_1 < -0.0027$$

The h parameter in this currency pair equals zero which shows the non-rejection of the null hypothesis and the p-value equals 0.9749 which given the significance of the test at the confidence level of 5%, confirms the test result. Therefore, it is proven that the TT strategy in said currency pair had a more desirable performance compared to the random buying and selling status.

## USDJPY

The returns caused by the strategy under discussion and the returns caused by the simulation used to perform the analyses and investigate the research hypothesis are given in table 8.

*Table 8: the average return caused by the strategy under discussion and random statuses related to the USDJPY currency pair.*

Random return	Signal return (TT)
0.0047	0.34

By performing the Kolmogorov-Smirnov test for the returns caused by the strategy using the MATLAB software, the h parameter equals 0 which shows the normality of this data and since the data are normal, in order to test the research hypothesis which is as follows:

$$H_0: \mu_1 \geq 0.0047$$

$$H_1: \mu_1 < 0.0047$$

We used the Z-test. In this test, the h parameter is equal to zero which shows that the null hypothesis is not rejected and this shows the better performance of the TT strategy compared to the random status (the p-value is 0.9875 which verifies the test result).

## Findings

As is given in the section of statistical analyses, use of the strategy under discussion has an acceptable performance and can be considered as the basis of the trades for the 1-hour time frame and can be used to make deals in the Forex market.

## Conclusion

Given the information obtained from testing the hypotheses for the 4 currency pairs under discussion and the experiences of the researcher gained during the pre-test and random positions, the following financial analysis is presented with a technical approach and based on theoretical foundations:

The TT strategy has the best performance when the price chart of a currency pair in an ascending or descending trend makes new prices (meaning that it should not be within a range or a marginal movement), therefore, before using said strategy, we should wait for the formation of an order, such that:

For example, in an ascending trend (figure 2), we ensure the creation of this trend such that by finding the bottom of the descending trend, we allow that with some candles, the price takes an ascending trend and creates a ceiling, then, the price will have a correction due to the growth it had, if said correction is less than 100% fibonacci retracement of the previous ascending wave and the growth continues, such that the previous ceiling breaks and a peak higher than the previous peak is created, the ascending trend will begin and now by drawing the TT indicator, we should wait for the realization of the conditions and the changing of the color of said indicator to blue. Moreover, in addition to these conditions, it is best that the MACD indicator has a positive value during buying and some bars of it better be ascending before giving the buying signal by the strategy. The reverse of this status is true for the buying status.



Figure 2: drawing and showing the trend

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# IDENTIFICATION AND CLASSIFICATION OF INTERNAL FACTORS AFFECTING LACK OF IDEAL FUNCTIONING OF NATIONAL DEVELOPMENT POLICIES

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## Abstract

*Over the past decades, through the formulation of policies and development programs, Islamic Republic of Iran has sought to accelerate the development and promotion of public welfare. However, important indices of development do not report favorable trends in this period. In the process of formulating and implementing development programs, both internal and external factors can cause failure in achieving the pre-determined desired goals. In this research, first, the key components of policies and developmental programs of the country with a national study of the periods are measured and their success has been measured by analyzing results and performance. Then based on the research model, researchers collected and sorted internal factors affecting the lack of ideal functioning of policies in the sphere of implementation in public and private categories. These factors such as the lack of feedback system, a task overlap of organizations of enforcement of national policies, lack of knowledge and information on enforcement, policies conflict with other national policies, lack of scientific and theoretical basis, and so on. These factors can be summarized in the form of structural inefficiency in particular, public administration and administrative procedures, lack of theoretical strength and knowledge, lack of coordination, lack of civic engagement and factional viewpoints. The results highly recommend forming an institution composed of representatives of the three powers under the supervision of Expediency Discernment Council for rooting of extracted factors and setting a program to address them. These programs will include solutions for getting away from traditional defective structures and promotion of planning and coordination methods. Obviously, the establishment of the learning mechanism by feedback is required for the effectiveness of this fundamental action.*

**Key words:** Overall developmental policy, development programs, development indices, economic growth

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## Introduction

It has been a while that Iran tries to improve pace and process of development of the country in the form of developmental programs. Moreover, in line with the vision outlined in the Vision 1404, development feature is of great importance: "Iran is a developed country with the first economic, science and technology in the region." However, it seems that the rate of acceleration of progress to achieve the vision outlined in the document is not enough. With a focus on economic growth index (as one of the most important development indices) and according to the official reports published, the country's GDP during the first decade of the twenty-year vision (2005 to 2015) has reached to more than 400 billion dollars from \$ 220 billion (TradeEconomics, 2017).

However, in the same period, the rate of economic growth has faced many vicissitudes and regardless of the period 2012-2015, the average growth rate was -2%, an average of about 3%. Over the past 8 years and regardless of the volatilities, index of per capita gross domestic product and per capita purchase power have been around 5950 and 16,500 dollars respectively. Comparing these figures with the two major countries of the region, Turkey and Saudi Arabia, shows that the country's current growth rate (after a decade from the twenty-year horizon), regardless of the two above-mentioned countries, at best brings us closer to Turkey. Indicators in Saudi Arabia are now more than three times that of Iran. Survey shows that in Iran does not follow the right track of development at least in terms of national wealth. Now the question arises. Now the question raises that despite the necessity of development, document requiring excellent vision and the formulation and implementation of various development programs, why we do not see the necessary improvements in this area.

Path towards development in Iran is drawn based on the five-year development programs, which includes policies and procedures for the implementation of national development goals. In pathology of realization of the program, as a whole, we can consider internal and external factors (imposed). The present research seeks to answer the question that in the general development, implementation and evaluation of general policies of the field of development, what internal factors have influenced the failure of policies in the formation and implementation.

## Theoretical basics and literature

Factors affecting implementation of policies: Golipour divides the factors affecting implementation of policies into two categories: internal and external (Gholipour, 2008). In their valuable study, Abbasi et al. used the results of more than 15 researchers on the factors affecting the implementation of policies and managed to validate and categorize these factors in form of dimensions, elements, and indices (Abbasi et al., 2016). As their research does not focus on a particular area, one can identify the factors recognized by general factors. Table 1 shows indices (factors) collected in that study.

*Table 1: Aspects, elements, and indices affecting implementation of policies*

Dimension	Components	Indices
The drafters	Performance evaluation system	National performance measurement system acting as island
		Lack of feedback system
	Connections	Lack of communication channels with the public <sup>8</sup>
		Lack of communication channels between government agencies together
		Functional overlap of enforcement agencies of national policies
	Detailing	Discrimination and inequality in the distribution of resources across the organization
Ministry self-interest for the promotion of sectorial performance by violation of implementation of other policies		
Enforcers of policy	Behavioral characteristics	Lack of collective spirit
		The lack of a sense of responsibility
		Shirk from work by some of the executives
		Expecting respect from clients by some of the executives
	Expertise	Lack of knowledge and skills of executives
		Mismatch of responsibilities entrusted with enforcement expertise
		Lack of update knowledge of executives
	Users	Failure to comply with culture policies
		Lack of culture among people for seeking answers
The nature of policy	Targeting	Policies conflict with other national policies
		Lack of scientific and theoretical basis
	Legal	Instability of laws and regulations related to policy
		Numerous laws and regulations in the implementation of policies

<sup>8</sup> In my opinion, it is likely that the meaning is non-using public participation and civil society in the formulation of policies.

Dimension	Components	Indices
	Inflexibility	Lack of enforcement and legal authorities
		The changing nature of public issues
		Inflexibility of policies towards new issues
Enforcement agency	Bureaucracy	Centralized and uncompromising administrative structure
		Lack of timely training and awareness of executives
		Non-active R & D centers in the public sector
	Resources and tools	The use of outdated and traditional methods of execution
		Long duration of the procedures and work processes
		Lack of necessary technologies for the implementation of national policies
		The lack of efficient use of resources and capacities available
Time	Insufficient time to implement policies	
	Ignoring the value of time has elapsed and opportunities in the implementation of policies	
Types of action	Administrative and political action	Appointment of inefficient managers on the basis of political criteria
		Acceptance of the policy recommendations of the administrative system
		Instability of management in the public sector responsible for the implementation of national policies
	Administration and community action	Lack of authorities to deal with public complain
		Lack of public confidence
	Pressure groups	The influence of social distinctive character referred
Political or policy-making process is influenced by the political climate and based on the power of influential groups and beneficiaries		
Organizational environment	Cultural	Development of the phenomenon of corruption in some staff
		Public sector culture of resistance to change policies on the path
	Political	Type of diplomacy of the government in the international arena
	Economic	Sanctions
		Dependence of foreign currency fluctuations resulting from the sale of oil
	Physical	Internal and external crises affecting the implementation of national policies
Unexpected incidents		

**History of development program in Iran:** Iran before the 50s lacked any organized system of planning for the development of the country and few construction projects used to be implemented largely by individual preferences of officials by foreign companies. By accelerating of development ideas, the necessity for planning became more and more evident and *Planning and Budget Organization* (PBO) of the country was founded (Analysis of the development of the country before and after the Islamic Revolution, 2015) (Qadiri Masoom, 2003).

PBO can be considered as one of the cornerstones of IRAN's economic and development system in the years after 1958. After the revolution, this organization underwent several organizational and structural changes and was dissolved at the end, and continued to its work as one of the deputies of presidency in a dependent way.

PBO and in other words, *Management and Planning Organization* (MPO) has been the origin of developmental programs implemented in the years before and after the revolution in the country.

**The emergence of development planning in Iran:** The foundation of commission of economics in in 1924 by the National Islamic Assembly can be considered as the first official step towards the emergence of planning thinking and attention to the social and economic development of the country. The commission headed by Hassan Taghizadeh and membership of 7 of the fifth term of the House of Representatives was formed to coordinate the implementation of programs of economic development. After the fifth parliament's economic commission, once again, the idea of planning was introduced in 1933 by Ali Zahedi. In this regard, he prepared and published a fairly detailed treatise called *Necessity of industrial program*.

Next continuing efforts began in 1937 by Abolhasan Ebtehaj. He began his career of former Royal Bank and lacked a college education inside and outside the country.

Nevertheless, as he was interested in the issue of economic development, he studied books on economic and introduced the concepts of development and planning. After familiarity with the thinking of planning, to fit it into Iran's disorganized society, Ebtehaj promoted this idea and used it as program and that, we should have a program i.e. we must be purposeful and planned. His purpose was to identify the goals and needs of the community, estimate funding requirements estimated portfolio credit available to it and to establish a balance between the budget and credit, organize operational activities be, so that funds are spent in the best way and community benefit from its results.

Finally, Ebtehaj efforts and consultations with the Gavam (Prime Minister) led to the formation of the Supreme Economic Council meeting, which had no activity for a long time. The meeting was convened on March 30, 1946, and Ghavam emphasized on the necessity of continuing the work of the Supreme Economic Council and drafting an economic program in a statement explaining the country's uneasiness and sadness after declaring its government's economic policies.

Two days after the speech of Ghavam, the Finance Ministry proposed a suggestion for drawing up development programs submitted to the Cabinet. The proposal led to the issuance of an act to elect members of the Supreme Council of mapping multi-year reform and development of the country headed by the Minister of Finance. In the first

session of the Supreme Council dated August 27, 1946, in the presence of Prime Minister, the generalities of the *first proposed seven-year program* and other proposals for providing reforms and development program presented by the commission, were handled. After handling the received information, the commission set a program including two economic and social parts. Since the government did not have enough money to implement programs within predicted time, requested \$ 250 million loan from the World Bank. World Bank raised questions to approve loans, and before sending any responses, the government decided to review the programs, so that after review and modification of the projects sent a deliberate and conscious preparation for the World Bank. Following this decision and after reviewing by three American Engineering Institutes, on December 17, 1946 a deal was signed with American "Morrison Knudsen Company."

Since 1937 when thought of planning was formed to the day that the program was legally recognized, and first 7-year program began, it took 12 years and 17 cabinets changed due to political and economic instability. This was because a long time it was necessary, so that Iranian government officials and bureaucrats got an understanding of the importance of planning and became familiar with it. The first 7 years of the program (1948-1955), which was initially forecast at around 62 billion riyals, according to a lack of financial capacity and a lack of work force was reduced to 21 billion riyals, and implementation of the development program was stopped in September 1955. Second 7-year law of development of the country (1955-1962) was approved in a meeting on February 27, 1956 by parliament. After coup on August 18, 1953, this program was prepared and implemented by oil exports and in the four major sectors of agriculture, telecommunications, Industries and Mines and social and urban services.

In the framework of the objectives of the second 7-year program, with the efforts made, the government got relatively satisfactory results. The results such as the construction of large reservoir dams of Karaj, Sefidrood and Dez, 22,500 hectares of testing irrigation network of Dez, the program of sugarcane of Haft Tapeh, the studies of comprehensive program of Khuzestan including the construction of 13 dams on the rivers of Khuzestan, completing Golpayegan, Bapur and Karkheh dams, completing nearly 900 km Central railway of Tabriz and Mashhad, Shahrood-Mashhad, completing nearly 2,700 km of paved road and construction of airports in Shiraz, Abadan and Isfahan, establishing big textile and weaving factories, creating beet sugar and cement factories and other measures for economic development.

The main objectives of the Third Development Program (1967-1972) were not the same with the second seven-year program targets.

Developing the third Development Program was by the expert group of the Program Organization in consultation with Harvard consultants as a comprehensive and balanced economic program to attract participation of the public with the aim to break down traditional structures of the economy and to create a suitable private sector growth, substitution of imports and industrialization of the country. National income growth to average 6 percent, job creation and equitable distribution of income, and providing the development of creativity were among the goals of the Third Program. Land reform, the participation of women in elections, profit sharing, the Office of Program in the provincial capitals and governments of the continued development in Qazvin Plain and Kohgiluyeh were of other measures that were out of the third program, but ran simultaneously.

The fourth Development Program (1968-1972) covered a larger part of the third program. Growth rates of important part of the country's economy were relatively harmonious. Growth rate in agriculture reached 4-5%, industry and mining sector 7-14%, service sector 1-13%, oil 5-14% and consumer spending to 11%. If the economy had continued with the same trend, a bright future was predicted for it. In this program, it continued fast investments in public and private sectors, the country's annual economic growth of about 10 percent. The rise of prices, except in 1969 reached about 3-5% in the third, and did not exceed 2%.

The fifth Development Program (1973-1977) was adopted on February 10, 1973 with a promising landscape for social development and equitable distribution of wealth and greater share in international trade. The formation of independent Planning Program offices in provincial capitals and promoting a decentralized way of planning, and formulating geographic ID - natural resources - population - the talents and needs of the provinces were of the most important developments in the fifth program. A short time after the adoption of the program, changes emerged in the global economy. The price of oil on world markets went up and made a significant increase in revenues of Iran.

The Fifth Program was posed to the government with two completely different scenarios: one was not to spend surplus of oil revenue and save it to invest wisely and the other scenario was setting expenditure for all the revenues despite the lack of economic and human potentials, where the latter was implemented and the country was plunged in deep trouble. In the first 3 years of the program (i.e. the years 1973, 1974, and 1975), according to accounts of the time, GDP growth without oil prices to fixed prices was 16.6, 16.7, and 18.6%, respectively, which was although distanced from growth envisaged in the program, which was 25.9, was not little growth. In reviews after revolution, in the five-year program, the average GDP growth in 5 non-oil years was 15% and with oil 8.3%.

Experts prepared sixth program (1978-1982) with respect to the land use program that was ignored with the revolution of 1978 and inflammation after the revolution. The sixth program stopped coupled with the revolution in 1978 and was not implemented. However, because it was backed by the experiences of the first five programs, the most comprehensive development program known did not get the opportunity to be implemented.

**Developmental programs of the country after the Islamic Revolution:** With the victory of the revolution, revolutionary fervor and heat of development proposal led to proposals of hundreds of Iranians from across the country and abroad to the program flow. Experts of PBO prepared new programs in accordance with the developments, needs of the country and in May 1979, and gave to authorities as the most urgent problems of the country. In the next step, a set including analyzing the past and current situation and a series of recommendations and warnings about avoiding the elimination of private-sector experts, including Prime Minister seminar were proposed from September 16 to 21 1979. Then in the detailed and analytical reports of November 1979 with the council planning regulations to define the scope of participation of the public and private sectors, the conflicts and contradictions between the various groups mentioned in power in the interim government. Integral and unsystematic regulatory environment of the country made the efforts of numerous experts and those in charge of planning in the years 1979 and 1980 futile.

Finally, the 5-year program for the period 1983 and 1987 was prepared in September 1982 and in July 1983 was passed and approved by the Economic Council, but never passed by the Parliament. In the next step, PBO set forth the quantitative goals and overall twenty year socio-economic-cultural development policies of the Islamic Republic of Iran (1982-2002) in Economy Council based on the guidelines prepared by Economic Council in June 1982. In fact, the overall objectives of long-term prospects of the Islamic Republic were seen in a triangular form: "Triangle of economic development, economic independence and social justice." The program did not end after the review and at the end of this period as head of the Guardian Council did not approved of the Minister title for Planning and Budget as illegal, so the Ministry of Planning and Budget changed to Planning Organization. Following the consultations and activities of experts, detailed discussions were raised in January 1983 in the Management and Planning Organization to design a better method for the preparation of the reform program of the development of economic, social and cultural do's, and Planning Organization was founded in January 1983 and the reform program of the first five years were discussed. After successive and long efforts and meetings and debates in detail on the model development strategy, basic directions program legislation of objectives and strategies for the development of Iran's Islamic Republic were submitted to the parliament commission on December 30, 1984. However, various problems after the revolution and imposed Iraq war led to creation of non-providing of conditions for socio-economic development activities according to the program. Thus, the development program was postponed until the end of the war. Finally, the first five-year program (1989-1993) was proposed in five chapters in November 1988 with the program of socio-cultural-economic development of the Islamic Republic of Iran by the Office of macroeconomics, Economic Affairs Department of the Ministry of Planning and Budget and Economic Council. Finally, the development program was approved by parliament in 1990.

**Important indicators of development:** Development is a process during which production and service capacities of a community increase by using, developing, and making endogenous modern scientific-technical achievements and while the redistribution principles and logic to national wealth between classes and between different phenomena of unfavorable social (such as poverty and deprivation, illiteracy, unemployment, homelessness, crime, etc.) to minimize (Association of Accounting Research and Development, 2012). In another definition, development is quantitative increase in production (economic growth) as well as an increase in the quality of social, economic, political, and environmental (Khoshchehreh, 2016). Moreover, the healing process and move towards community development can be seen as desirable (ibid.). Several factors have been placed during the formative years of development theories in the basket indices mainly economic content. In this evolution, by changing the prevailing paradigms and shift to the wider propellants such as human development, social and scientific capitals (in addition to financial capital), they have experienced changes in development indicators.

The main application of sustainable development measures is to support and modify policies and decision making at various levels, particularly in the adoption of national policies and international (Mohammad Alipour, Beata). Gillis et al. stated indices of purchasing power parity, per capita GDP, per capita energy consumption, the share of rural population, life expectancy at birth and adult literacy as an important factor for the development of stated (Gillis et al., 2000). Gharehbaghian in the main economic indicators has used economic growth rather than purchasing power parity (Gharehbaghian, 2013). Gillis also considers generated income important for development. This index is measured by the Lorenz curve and Gini Concentration Ratio.

An indicator of later development (presented by the Human Development Report Office dependent affiliated to UNDP) is Human Development Index that is in fact a combination of indicators of life expectancy at birth, mean years of schooling, expected years of schooling (hoped to study), and GDP per capita (United Nations Development Program, 1999). In this paper, the intended indicators include economic growth, purchasing power parity, and Gini concentration ratio. These indices promote prosperity and social justice.

**A review of development programs:** The first five-year program of economic, social, and cultural development started in the period 1989-1993 with the selection of the strategy of "economic liberalization." The main goal of this program was to change the government's negative economic trends in favor of economic growth in the country with the state's investment in rebuilding the losses of the imposed war and exploiting the maximum of existing capacities and provide a platform for continued growth in the future. Hence, the first development program became known as "constructive program" that was the focus of the program (step five-year national development, Beta).

The main objectives of the First Development Program were (ibid) (the five-year program of economic, social and cultural development of Islamic Republic of Iran, 1989) are mobilization of investment, generative employment, economic growth with emphasis on reducing reliance and self-sufficiency of strategic agricultural crops and inflation, reduction in the population growth rate and reducing the rate of mortality, increasing literacy rates and educational coverage, trying to ensure social justice of Islam; quantitative expansion and qualitative improvement of general culture with particular attention to the younger generation, rehabilitation and equipping of defense capability and production capacities and damaged infrastructure, the reform of the organization and the executive and judicial administration of the country, and the organization of the spatial and geographic distribution of the population and activities in proportion to the relative advantages of each region except for those cases where political and military considerations require. In order to achieve the objectives, some policies are applied, the most important of which were (ibid, pp. 24 to 38) strengthening the national currency and control of inflation by reducing the budget deficit, reducing state's costs through people's participation in the creation and management of educational institutions and health, changing the system of rationed commodity in such a way that the subsidies they found people with low income, a change in policy rating of goods and services, so that equilibrium of prices of economic resources are created, breaking the state monopoly of foreign trade in some cases, according to the first program law, deleting and exclusive organizations in the production and distribution of goods, and supporting cooperative companies. Of the main events of this period were the temporary increases in country's oil revenues resulting from the invasion of Kuwait, the rapid infusion of foreign loans in the national economy, and consequently, the debt maturity of crisis. In addition, during the implementation program was changed. Among the revisions non-use of existing capacities, giving priority to encouraging export strategy, policy of single currency and freedom of pricing and rapid privatization can be noted.

The first program was an important achievement in the field of social development. These achievements include reducing the rate of population growth (from 3.5% to about 2%), decreasing mortality, increasing literacy rates and increasing educational coverage. First Development Program was not successful in creating legal infrastructure commensurate with the strategic policies announced, so the strategy of privatization, exchange liberalization policies, and foreign trade were not efficiently carried out. Moreover, due to the problems, they causes price inflation in one last couple of years of the first program whose increasing trend continued to the beginning of the second program. Figure 1 shows changes in the economic growth rate and purchasing power parity index in the period indicated. It should be noted that considering expecting to begin the impact of economic policies at least one year after the beginning of the program in the study of any term of one year after the start of the program are given. The Gini coefficient in the period reduced from 0.436 to 0.43.<sup>9</sup>

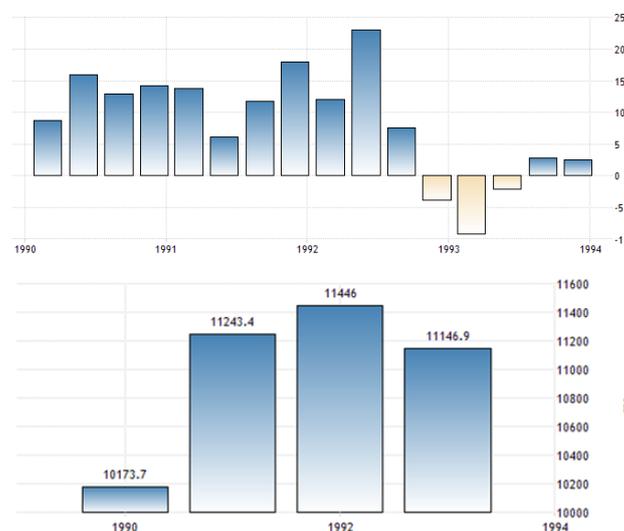


Figure 1: Economic growth rate (right) and equality of purchasing power in the period from 1990 to 1994 (TradeEconomics, 2017)

Second Development Program (1995-1999) did not differ much from the first one in the structure and nature of the program. This program was based on economic freedom and privatization. Overall, and despite the efforts taken, the second program for various reasons, including ineffectiveness of the government in achieving the objectives of the program was not successful (Analysis of the development of the country before and after the Islamic Revolution, 2015). The main strategy of the Second Development Program was consolidation of the achievements of the first

<sup>9</sup> World Bank official statistics

development program, stabilizing the economy, and reducing the heavy burden of economic trends on society. This program was not different from the first program in terms of structure and nature of the program and was based on economic liberalization and privatization. The second program considered growth and economic development of its main goals and put special emphasis on sustainability. “Economic stability program” has been the other title for second development program. The main goals of the second development program were (five-year step of national development, Beta) (the Law of the Second Economic, Social and Cultural Islamic Republic of Iran, 1995) efforts to achieve social justice, development of virtues based on Islamic ethics and promotion of popular culture. Moreover, it included efforts to rule of law and protecting the population and promote a culture of respect for the law, social order, and a work ethic, guiding young people in various fields and their participation in areas of economic, social, cultural and political principles of wisdom, honor and interest of the country's foreign policy, strengthening the country's defense, sustainable growth and development with a focus on the agricultural sector, increase in productivity, protecting the environment and efficient use of resources of the country; and efforts to reduce the economy's dependence on oil revenues and development of non-oil exports. For this purpose, the most important policies were (ibid, pp. 79 to 119) encouraging exports due to the relative merits of the competition with the outside world for qualitative and quantitative development of domestic technology, completing and developing markets of money, capital, labor and services. Other policies were efficiency of fiscal policy through review and formulation of planning and budgeting and increasing the share of tax revenues in the fund, creating sensible balance between revenue and costs, delegation of affairs people and reducing the formation of the government during the program and activities of the government undertakings controlling the population through increased awareness by individuals. Furthermore, it included projects in order to be aware of demographic and the labor market changes, creating employment by strengthening the network of labor market information collection and processing, development and support of small businesses, industries, etc., and reform of the pricing system. Crisis of foreign currency liabilities at the beginning of the second program and the need to save exchange costs, currency instability in monetary and fiscal policy and currency, lower oil prices than anticipated in 1997 and more severe reduction in 1998, a drought in most of the region and political developments in the country made the achievement of the objectives envisaged in the program problematic. In other words, in the implementation of the second program, a basic shift occurred in strategy announced. Exchange control, pressure of foreign debts, rising inflation and rising inflation expectations and the pressure of demand for goods and currency led to a series of control mechanisms in economy, including currency system, re-establish price controls, import controls and implement monetary policies. Due to this, investment by the private sector in the second program had an average annual growth 13.7%. It can be stated that the role of the private sector in the economy compared with the first program was higher. Performance of the second development program in terms of creating job opportunities and unemployment rate was not in accordance with the goals set, so that according to the objectives of the second development program, the unemployment rate should have reduced to 12.6% while its performance showed 13.1%. In addition, the new jobs created in the second program were approximately 263 thousand that according to the program goal, 404 thousand new jobs should have been created. In monetary area and inflation, the objectives could not be achieved, so that the average yield rate of growth of liquidity during the Second Development Program was equal to 25.5 percent, while it should have been 12.5 based on the predicted goals.

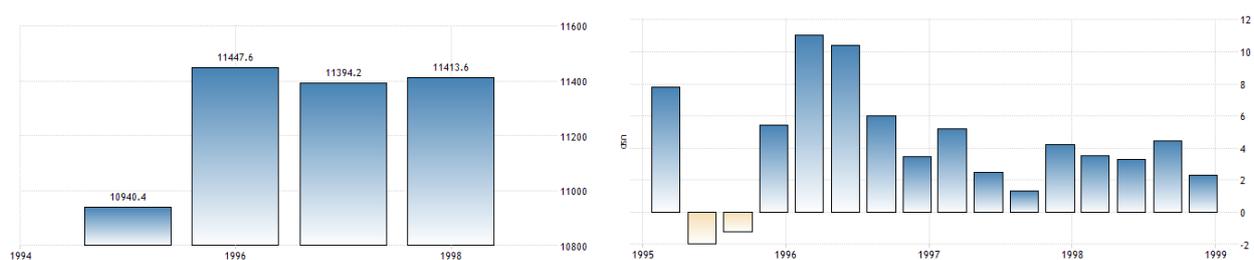


Figure 2: Economic growth rate (right) and equality of shopping power in the period 1995-1999  
(TradeEconomics, 2017)

In addition, average inflation rate during the second program was about 25.6% that was about 13.2% units more than the target of the program of about 2.13 percentage points higher. During this period, the Gini coefficient rose again to 0.441.<sup>10</sup>

Structural problems of the first and second development programs, social view at economic issues inside Iran and détente policy in international relations and improving relations in OPEC and presenting economic organization program in 1998, caused forming a model of economic reform with internal approach in the third development program. Therefore, the most important feature of third development program was to try to provide requirements of fulfilling sustainable development. Accordingly, third program was designed to provide private sector partnership

<sup>10</sup> World Bank official statistics

and to decrease government's role with strategy of economic reforms based on "competitive economic development" approach through moving to economic liberalization along with forming comprehensive social security system and legal and organizational reforms and abolition of the monopolies. Therefore, third development program was famed for "structural reform program". The main orientation of this program was organizational and structural reforms in order for liberalization and privatization. Some strategies of this program included, reforming business environment, deregulation of the investment process, and strengthening competitiveness through moving to price liberalization and price control based on the market mechanisms as a tool for resource allocation. Equalizing exchange rate, trade liberalization and removing nontariff barriers, competitive allocation of bank resources, establishment of bank by non-governmental sector, forming sovereign wealth fund and removing energy subsidies were considered as one of the price control issues which have been focused on them in third development program. The main orientation of third development program was the rule of third five-year economic, social, and cultural development program of Islamic Republic of Iran (2000): organizational and structural reforms in public sector to increase the performance of the government and to raise the efficiency of national resources; review and arrange the financial, foreign exchange, trading, business, and production policies along with expanding social security system with emphasis on organizing supportive policies; increase generating business; privatization and reduce the government's role; reduce dependency on revenues from crude oil exports; abolition of monopolies include monopoly of sugar distribution and monopoly of tobacco; mutation in non-oil exports; remove non-tariff barriers; separation of policy from involvement; appropriate use of domestic products abilities and improving local contractors and consultants; establishment of pro-raising venture capital associations; reformation of direct taxes and duties; decentralization of official and economic structures; the growth of human values, the promotion of intellectual capacity of society and improvement of religious beliefs in order for country's cultural development; supplying rights and legitimate freedoms for all citizens and create a safe and legal place for all the activities.

One of the main problems in this period was delay in implementing of constructing projects in unpredicted schedule and the most important reason of this delay were also credit factors such as insufficiency of credits in form of lack of full allocation of credits and then the weakness of executive agencies and inability of some contractors were of this kind. (The rule of third five-year social, cultural, economic development program of Islamic Republic of Iran, 2000)

During the third program, the resulting efforts were achievement of average annual economic growth of 1.6% and the investment growth was 7.10% which was most of the goals of program. Labor market performance in the Third Development Program of the Second Development Program was in a better position in a way that nearly 76% of new job opportunities were fulfilled and at the end of program, unemployment rate less than the target was reached. As a whole, this program was more successful than other programs and led to improve general business conditions. The average annual inflation growth in the third development program was targeted at 15.9% and according to its 1.14% performance, it can be said that this program has been successful in achieving this goal. Third development program failed in some of its goals, which can be a slow process of privatization, continued heavy subsidies to the energy sector and the country's production, failed in deregulation and abolition of monopolies and spread smuggling market and non-official market. During this period, the Gini coefficient was: 0.3985, 0.4191, 0.4156, 0.3996, and 0.4023. (Central Bank of Iran, Economic time series, 2016)

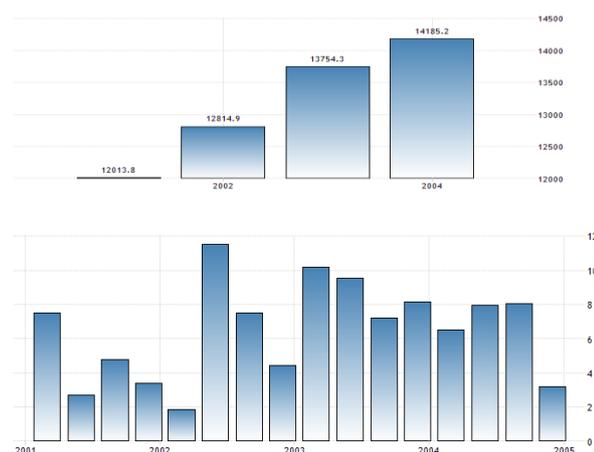


Figure 3: Economic growth rate (right side) and equality of purchasing power from 2002 to 2006

The main feature of the fourth development program is its preparation and approval within twenty-year vision program and after notification of general policies by the Supreme Leader of Islamic Revolution. The goal of the planning is the active and forward-looking issues that need to look at this type of move based on management's outlook. In terms of vision, planning and personal and social movements are in line with future making. In this context, all areas of economic, social, cultural, and environmental are considered as a whole. The fourth development program was designed in the form of country's vision document in 2025 with the overall direction of continuous and rapid growth.

Forth development program in accordance with its main theme is well known as "sustainable development program with global approach". Notably, after the notification of the aforementioned document, the general policies of the forth development program was approved and notified by the Supreme Leader of Islamic Revolution in order to develop the forth development program. The general policies of the forth development program was developed in four areas: 1) cultural, scientific, and technological affairs 2) social, political, defensive and security affairs 3) affairs related to political relations and foreign affairs 4) economic affairs. The main themes of the forth development program include: infrastructure for rapid economic growth; active interaction with the global economy; economic competitiveness; development based on wisdom; environmental protection; spatial planning and regional balance; health promotion and improve the quality of life; human security and social justice; cultural development; national security; judicial affairs development; modernization of state and enhance the effectiveness of governance. In the fourth development program, some objectives are discussed in terms of national and provincial geographical coverage. The comparison of performance and predicted goals in the fourth development program show that average annual economic growth in the first three-year of fourth development program has been 6.7% which was less than average annual growth of program for this three year, i.e. about 7.4%. During the aforementioned period, the average annual growth of investment was about 6 percent. Analyzing three other factors such as new business, unemployment rate, and inflation rate show that according to the goal of fourth development program, unemployment rate should have been reduced to 10.1% at the end of the third year, while its performance became 12.7%. New business performance in the mentioned first three-year has been 725 thousand people per year and according to objectives of the program should be corresponding to 848 thousand people. The inflation rate has increased from 10.4 % in 2005 to 18.4% in 2007. In this period, the Gini coefficient was: 0.4004, 0.4045, 0.3859, 0.3939, and 0.3813. (Central Bank of Iran, Economic time series, 2016)

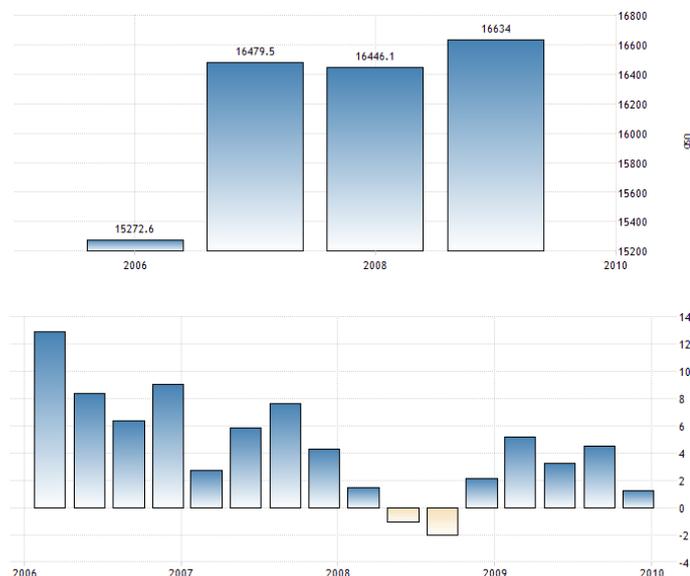


Figure 4: Economic growth rate (right side) and Equality of purchasing power from 2007 to 2011

The role of the fifth economic, social, and cultural development program in Islamic Republic of Iran was approved by Islamic Consultative Assembly on January 15, 2011 and it was applied officially after notification in 2011. The rise of the eleventh government due to deep differences of policies and its look at social, cultural, and economic areas arouse some doubts about ninth and tenth government about how to proceed this program (step five-year national development, Beata). The most important notified policies of the Supreme Leader which should be the basis of the fifth development program include: 1) to achieve sustained and rapid economic growth of at least 8% annual growth rate of gross domestic product (GDP) 2) to promote productivity in economic growth to one third at the end of program 3) to strength and develop national standards system 4) to change the look at oil and gas and its revenues from "the source of public funding" to "generating economic capital and resources" and to establish national development fund by its approval at Islamic Consultative Assembly in the first year of fifth program 5) to deposit at least 20 percent of profits from the exports of oil, gas, and petroleum products to National Development Fund 6) to provide facilities by national development fund resources to private, cooperative, and public (non-governmental) sectors in order to produce and develop investments inside and outside the country regarding the competitive conditions and economic efficiency 7) to cut dependencies of the government's expenses to oil and gas revenues until the end of program 8) to reform banking system by applying the role of Islamic banking 9) to support competitive markets 10) to maintain strategic reserves of foreign exchange 11) to focus on export development strategy specially in high-tech services.

The fifth program is considered as the second development program for Iran's twenty-year vision and the first and the only development program of Ahmadinejad's government which had many problems and deficiencies. According

to what experts are saying, "everything is inconclusive" and the lack of transparency at the end of this program is not possible. In this program, the sentence "*the government is allowed to*" is used in 80% of its paragraphs not the "*the government is responsible*" that had been brought in the fourth development program. In general, government budgets were not in line with objectives of the fifth development program in recent years and Islamic Consultative Assembly will analyse the government's weakness in attaining some of the objectives of the fifth development program. In industry and mine section, there are many deviations in the fifth development program. One reason is that after the years of implementing subsidies, 30% portion of industry were not paid in a way that today some industries are about to be closed or may work with the lowest capacity. Also, economic and social sector's portion such as water and electricity power, **communications and telecommunications**, industry and mine, agriculture, roads and urban development...etc; also social sector's portion such as culture, higher education, education system...etc are not identified by executive organizations to achieve expected growth rate and required resources and credits (Who is the guilty of not reaching the development program? 2017). According to performance report of the fifth development program, urbanization which was 71.4% in the first year of program in 2011, after census records in 2013, it became 72.1%. Most of urbanization took place in Tehran, Alborz, and Qom with 90% urbanization and the least of urbanization took place in Golestan, Hormozgan, and Sistan Baloochestan with 50 to 52 percent. Unemployment rate index of the whole country which was 12.3% in the first year of the fifth development program, decreased to 10.4% in 2013. During this period, Gini coefficient was: 0.375, 0.3834, 0.3952, and 0.3999. (Central Bank of Iran, Economic time series, 2016)

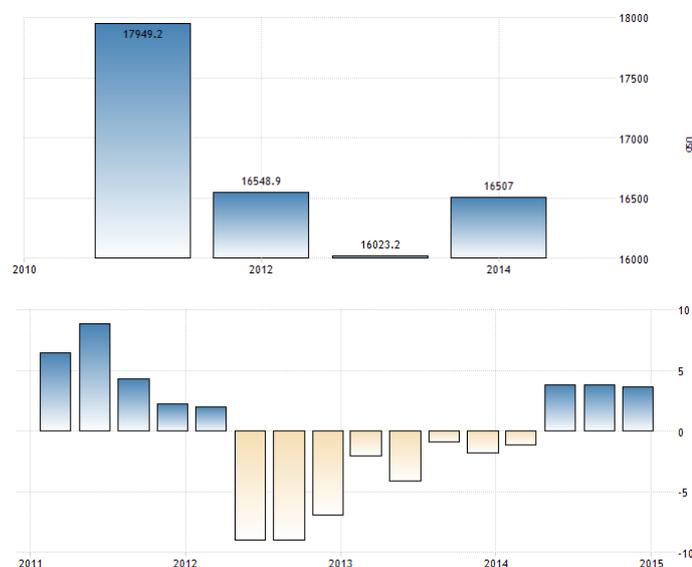


Figure 5: Economic growth rate (right side) and Equality of purchasing power from 2012 to 2016

Samimi in his analysis related to pathology of development programs, has analyzed, controlled, applied, and detected the factors of this area. These areas are as follows:

Table 2: Dedicated effective factors on the policies of development program

Unreal analysis of the current situation of the country as input of the program
The lack of a systematic relationship between upstream and downstream application documents
Unrealistic objectives of the program
Priority of retrospection to f
Lack of separation in long-term, mid-term, and short-term objectives
The regulations for public and private sector
Lack of attention to requirements to achieve the goals of the program
Lack of guarantees for the implementation of the provisions of the program
The budget approach to the program ( the budget of program was supposed to be economic program during a year but it became five-year program)
Lack of proportionality in political calendar and planning calendar
Lack of proportionality in institutions and instruments phases and stages of development programs
Sector-oriented approach in government
Region-oriented approach in Islamic Consultative Assembly
Lack of consensus on the concept of development
The density of the laws, regulations and policies
Concentrate on implementation
Lack of participation of all people
The high volume of informal economy (which is not operational in development program)
The interventionist government instead of the sponsor, guide, and leader government
Lack of required scenario planning and flexibility
The politicization of civil projects

The long life time of civil projects
Low rate of return in civil projects
Delayed return of construction projects to national production cycle
Lack of a comprehensive monitoring strategy (before, during and after the run)
Injustice to social justice and capital
To empower regional imbalances and parallelisms
Presence of quasi-governmental sector and the public sector, independent and parallel from government
Shares, the size, and the volume of the government
Presence of large areas of exclusive and semi-exclusive for government
The large enterprises and governmental companies' withdraw from country's financial capacities
To increase the government's debt to banking system
Lack of consensus mechanisms on the method of governing the country

## Research Methodology

### Research Conceptual Model

It seems that development process in country is under the influence of three main steps: "policy", "implementation", and "assessment and treatment". You can categorize the effective factors of lack of success in two categories: internal and external. These factors can directly effect on two mail phase "policy" and "implementation". Figure 7. shows these factors:

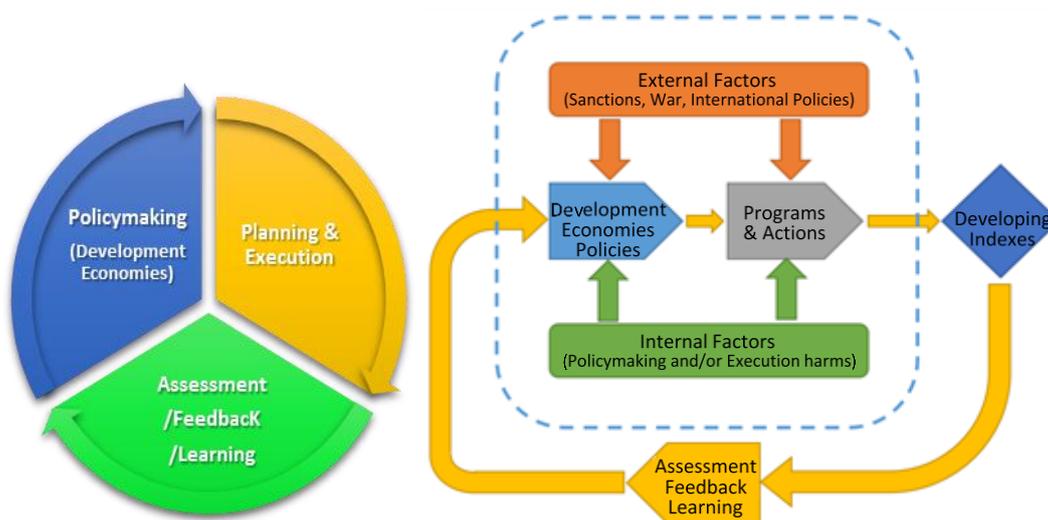


Figure 6: The impact of factors on processes    Figure 7. The policymaking process in the development economics

Conceptually, it is attempted that the effect of these dual factors on country's development can be explained through the combination of vectors (figure 8). If a direct and linear path is assumed, then at any time, the vector of policies and actions based on this path should takes the country one step forward and it will be at a higher level. But what actually happens is that the vector of internal and external factors (internal and external factors is that the resultant of two vectors), will effect on mentioned vector. Most of this effectiveness is on policy and marks the first deviation from the desired path (vector "policy"). Another part effects on the "implementation of policies' and it cause the second deviation approach. Finally, the resulting vector can be considered as a real vector of the country's progress.

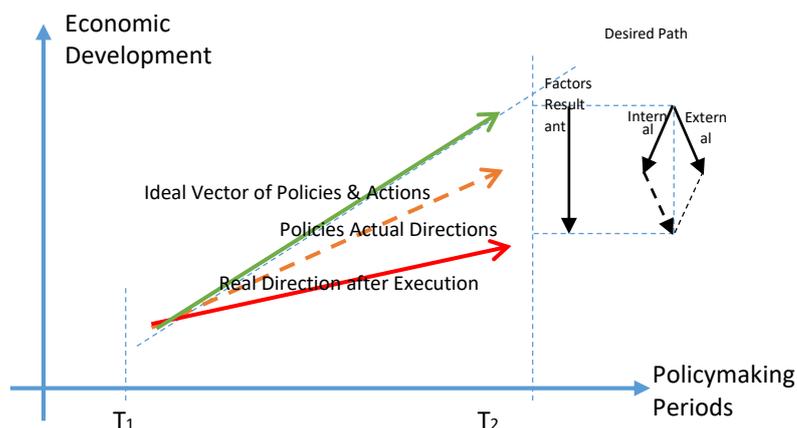


Figure 8: Conceptual model-the effect of internal and external factors

## Research Analysis Model

Internal factors affecting the lack of an ideal set of policies and actions are categorized into two areas of damage in policy, implement, coordination, and integration. This research is focused on the internal factors affecting policy of development and improvement of the country. Accordingly, it is assumed that the damages of this area are divided into public damage and private damage. In other words, some damages are relevant in all policy areas and return to country's policy in a form of a three branch model of structure, setting, and process; and some others are allocated to economic development policy which may include areas such as lack of scientific theories support from policies, lack of policy coordination in consecutive periods policy, limited look at development components, weakness in peering the issues.etc. Thus, the researcher tries to prioritize the internal effective factors into public and private by studying Iran's development policy in different periods of policy, related economic analysis, and the use of expert's idea. For this purpose, first the internal factors of public and private are gathered based on background study and then the closed interview is done with economic and policy experts. Finally, the factors are prioritized.

## Research Findings

The tables of public and private factors were reviewed. In this review, the common items of public and private factors were removed from the first group and if needed, the related factor was added to the second factor. Also, in the second group, the factors which were unrelated to the area of development or were not among the external factors (such as sanction) were removed. The resulting tables along with policies, programs, the results of development program were given to some experts. After interviews about the subject of research, any factor was taken in a form of 1 to 9 Likert scale. Having gathered all the opinions, the normal scores were calculated and then the main effective factors were prioritized according to tables (3) and (4).

Table 3: The general factors affecting on lack of implementing policies of development program

1	Lack of feedback / lack of a comprehensive monitoring strategy (before, during and after the run)
2	Long duration of the procedures and work processes / centralized administrative structure and uncompromising
3	Lack of enforcement authorities and legal and judicial/ lack of guarantees for the implementation of the provisions of the program
4	Presenters were not updated in terms of their knowledge/ the appointment of inefficient managers according to political criteria
5	The policies' conflict with other national policies
6	Lack of theoretical and scientific basis
7	Lack of group work
8	Lack of responsibility
9	The lack of efficient usage of available resources and capacities
10	Instability of management in public sector is responsible for performing national policies
11	The task overlap of executive organizations of national policy
12	Policy making of political processes or under influence of political space based on the power of influential groups and beneficiaries.
13	The increasing development of corruption among some staff
14	The self-serving of a ministry to promote the performance of a section in order to violate implementation of their policies/ island operates a national performance measurement system/ the lack of communication channels between government agencies together
15	Lack of communication channel between people/ lack of participation of all people

*Table 4: The specific factors affecting on lack of implementing policies of development program*

1	The politicization of civil projects
2	The long life time of civil projects
3	Delayed return of construction projects to national production cycle/ Low rate of return in civil projects
4	The interventionist government instead of the sponsor, guide , and leader government/ Shares, the size, and the volume of the government/Presence of large areas of exclusive and semi-exclusive for government/ The large enterprises and governmental companies' withdraw from country's financial capacities
5	Region-oriented approach in Islamic Consultative Assembly
6	Sector-oriented approach in government
7	The high volume of informal economy (which is not operational in development program)/ Presence of quasi-governmental sector and the public sector, independent and parallel from government
8	Unreal analysis of the current situation of the country as input of the program
9	The lack of a systematic relationship between upstream and downstream application documents
10	The regulations for public and private sector
11	Lack of attention to requirements to achieve the goals of the program

## Conclusion and Suggestions

In **development Economics**, governmental, social, and economic inefficient structure are factors that are repeatedly emphasized as a cause of development of countries. The accuracy of the factors recognized by these factors shows the presence of such factors in development of country according to what experts have said.

Specifically, inefficiency of structure and management methods especially public management, lack of theoretical knowledge, lack of collaboration and cooperation, lack of civil partnership and sectoral and partial views, are clear examples of the causes and roots of achieving an acceptable rate of development.

It is suggested that,

First, in a similar study, the reliability of the results of the present study should be assessed and

Second, an organization consist of three main systems in Islamic Republic of Iran is established under the supervision of Expediency Discernment Council to find the different extracted reasons and then set a program for them. This program is under supervision of Expediency Discernment Council and its achievements should be evaluated. This program includes Strategies for overcoming the traditional faulty structures and upgrade procedures of planning and coordination. Something that certainly is synonymous with a deep surgery structure and process.

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# DETERMINING THE LINK BETWEEN RELATIONSHIP MARKETING TACTICS AND CUSTOMER LOYALTY (CASE STUDY: IRANIAN BALANCED DEVELOPMENT COMPANY)

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## Abstract

*Increasing competition, the dynamism and complexity of the environment, the highlighting of the private sector, the growth of customers' expectations and the emergence of new innovations in the country service industry have created a lot of changes in the organizations' attitude towards the customer, and have given information to organizations about the importance of the customer and the benefits that customer can have for the organizations. The issue of retaining and enhancing customer loyalty and the factors affecting it has been considered as a strategic challenge for companies that are concerned with the maintenance and development of their competitive position in the market and has cost a lot to understand and recognize this important issue and to achieve practical solutions to reinforce it. One of these solutions is the well-known method of "relationship marketing" that decrease unsatisfied customers and increases the number of loyal customers. In this research, it is tried to "investigate the relationship between relationship marketing tactics and customer loyalty" at Iranian Balanced Development Company. Data were collected through a questionnaire and analyzed using SPSS software.*

**Key words:** relationship quality, customer loyalty, relationship marketing tactics

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## Introduction

Nowadays, customers are the survival factor of the organization in the global economy, and organizations cannot be indifferent to customers' expectations. In today's competitive market, organizations tend to retain their customers according to loyalty plans. Their ultimate goal is the success in retaining repeat purchase (Egbelu et al., 2011). Because customer retention cost is less than new customer absorption (Richard and Jones, 2008). The concept of customer loyalty includes three dimensions of behavioral, attitudinal and combined. The behavioral dimension of loyalty emphasizes customer behavior in the repeat purchase. Then, attitudinal dimension means a favorable and desirable trend towards a service provider. Finally, the combined dimension of loyalty combines the definitions of behavioral and attitudinal dimensions of loyalty (Zins 2011). The marketing process is a set of human and economic activities to meet the needs and desires of individuals through exchanges. The main factor in marketing is the knowledge of the customers' potential needs and their meet those needs through the provision of goods and required services (Esmailpour, 1993).

## Statement of the problem

Nowadays, companies with superior performance in the various industries are moving towards customers' retention and attracting their loyalty, because most markets are in their maturity, competition is increasing, and the cost of new customer absorption is also drastically increasing (Kotler, 1884). Customer retention and attracting loyalty are essential to the continuation of the business (Ethigie, 2006). Enterprises should investigate the effective factors on customers' satisfaction and their return to improve customer satisfaction and loyalty and achieve their loyalty through customer satisfaction (Law, Hui, and Zhao, 2004). Nowadays, in addition to developing strategies of new customers' absorption and trade with them, companies try to retain current customers and make a permanent relationship with them. In fact, the most loyal customers are the best customers. In general, it can be said that today the efforts of most large companies are trying to develop the customers' loyalty and consider it as a strategic goal for themselves (Shojaee, 2010). One of the reasons for this tendency is an increase in the cost of customer absorption, which makes the cost of new customer absorption 5 to 6 times the cost of implementing the strategies of customer retention (Tajzadeh, 2010). Relationship marketing is a part of marketing strategies seeking customer absorption and customer retention through providing them services with high quality and thus has become one of the secrets of success in turbulent markets (Andalib, 1996). In other words, relationship marketing tactics are the ways of implementing relationship marketing in practice (Tseng, 2007). Relationship marketing, focusing on creating loyalty in customers as a final goal, calls for value creation for both sides to exchange (Peng and Wang, 2006).

## Importance and necessity of research

Nowadays, the era of loyalty includes customer loyalty, employee loyalty, management loyalty, community loyalty, and principles. Many studies have shown that satisfaction is not the ultimate key to success and profit. In fact, market concepts that have emphasized this issue have not recognized it anymore, but today, only customers who feel a sense of belonging to the organizations are regarded as profitable and long-term capital (Haghighi Kafash et al, 2010). Loyalty is a moderating variable between service quality and customer satisfaction and economic performance. Loyalty is the extent to which customers want to retain their relationship with a supplier, and it is usually the case that to what extent the customers believe that their receiving from this supplier is more than the others (Faghihi, 2008). The most important features of successful global companies are the accurate recognition of customers, the proper definition of the target market, the ability to persuade employees to improve the quality and emphasize the importance of customers. Producing and delivering high quality and affordable services plays an important role in the service industry. In fact, nowadays customer satisfaction and service quality are considered as critical issues in most service industries (Haghighi Kafash et al. 2010).

## Review of literature

Creating trust, commitment to employee service, continuous relationship with customers and the proper management of conflicts, can be considered as the most important foundations of relationship marketing (Mohsan and Nawaz, 2011). Successful companies try more than unsuccessful companies to implement a relationship marketing strategy and build a long-term relationship with their customers (Adamson and Chan, 2008). Trust, relationship, shared values, empathy, and mutual effort has been identified as the most important foundations of relationship marketing (Sin and Tse, 2005). Relationship quality (RQ) is a branch of relationship marketing (R M). Due to the importance of relationship marketing in today's business world, the relationship quality is necessary to assess the strength of the relationship and the degree of satisfaction to meet the demands and expectations of the customer (Crosby et al., 1990; Smith, 1998). A good relationship quality can increase customers' reliability and develop long-term relationships

(Crosby et al., 1990; Li and Ho, 2008). In other words, higher relationship quality makes the interaction between the service providers and customers and creates long-term stable exchanges and both sides can gain common interests (Singh, 2008). The first attempt to measure the relationship quality was made by Crosby et al., (1990) and they investigated the relationship quality from two dimensions of satisfaction and trust Morgan and Hunt, 1994). Commitment Theory - Trust is suggested by demonstrating that trust and commitment are two main aspects for measuring the relationship quality. By integrating the perspectives of different researches, quality is measured in terms of trust, commitment, culture, interdependence, and contact. Although there is no agreement on the components of the relationship quality, generally, satisfaction and trust have been accepted as two important factors for measuring the relationship (Chakrabarty et al, 2007). Service providers can make long-term and stable relationships with their customers through customer satisfaction and trust and ultimately attract their loyalty. Therefore, in this research, the focus is on trust and satisfaction from the customer's perspective and the relationship quality. Creating customer loyalty is the most important goal of conducting relationship marketing activities. Oliver (1997, p. 3) defines customer loyalty as "a profound commitment to a product or service that leads to repeat purchase of brand or the set of the brand in the future, surely with situational factors and marketing efforts that potentially lead to "Changes in behavior." Customers are the driving forces for profitable growth and customer loyalty can lead to profitability (Hayes, 2008). For a customer, loyalty is the tendency and positive behavior towards the commitment to repeat the purchase of a brand in the future (Chu, 2009). Loyal customers are very likely to turn into a competitor only for the sake of price, and they even buy things more than non-loyal customers (Bowen and Shoemaker, 2003). Therefore, it is necessary for sellers to retain loyal customers involved in long-term profits from business organizations (Tseng, 2007). An attempt to force existing customers to increase their purchases is a way to improve financial growth for a company (Hayes, 2008). Competent managers should understand that growth is achieved not only by new customer absorption but also by retaining existing customers because they can be encouraged to buy more and recommend the company's products and services to others. Keiningham et al., 2008). Customer loyalty is generally divided into attitudinal loyalty and behavioral loyalty (Aydin and Özer, 2005). Attitudinal loyalty describes the customer's attitude towards loyalty by measuring customer's taste, intention to purchase, supplier's priorities and the desire to introduce, on the other hand, behavioral loyalty is related to the share of the purchase, the purchase frequency. Evidence suggests that a commitment to stronger relationships leads to repeat purchasing. (Wulf et al., 2001) defined the concept of behavioral loyalty as a general scale based on the frequency of customer's purchases and the spent cost on a retailer compared to the spent cost in other retailers that the seller purchased from them.

*Table 1 :Summary of researches related to the study*

Results and related explanation	title	The researcher and the year
The results indicate that, through relationship marketing, consumers undertook less cognitive dissonance and customers are satisfied with the previous purchase. Thus, as consumers faced less cognitive dissonance, they represented more satisfaction and thereby behavioral and attitudinal loyalty. Additionally, the study confirmed the mediating role of trust and cognitive dissonance.	The impacts of Relationship Marketing on Cognitive Dissonance, Satisfaction, and Loyalty	Sharifi and Esfidani (2014)
They concluded that there is a positive and significant relationship between relationship marketing tactics and the relationship quality as well as between components of the relationship quality (including commitment and satisfaction) and customer loyalty.	Investigation the Impact of Relationship Marketing Tactics on Relationship Quality and Customer Loyalty	Vazifehdoost et al. (2012)
The perceived service quality and perceived price have a positive relationship with customer satisfaction, and customer satisfaction has a positive and significant relationship with customer loyalty.	Investigation the Impact of Relationship Marketing Tactics on Customers Loyalty from Irancell Customers' Perspective	Haghighi et al. (2012)
If a company seeks customer loyalty, customer satisfaction must be obtained before anything. They also state that relationship marketing tactics through satisfaction and commitment significantly affects customer loyalty.	Investigation the Impact of Relationship Marketing Tactics on Customers Loyalty	Rizan et al. (2014)
The results of their research show that the relationship marketing tactics has positive and significant impact on customer loyalty.	Investigation the Relationship between Relationship Marketing Tactics (perceived Price, Value Proposition, Service Quality and Brand Mentality) and Customer Loyalty in the Mobile Industry in Ghana	Gadford et al. (2013)

## Research purposes

The general purpose of this study is to determine the relationship between relationship marketing tactics and customer loyalty in Iranian Balanced Development Company. Specific purposes are explained below:

- A) Determination of the relationship between perceived service quality and satisfaction of the customers of Iranian Balanced Development Company
- B) Determination of the relationship between the perceived price by customers and the satisfaction of the customers of the Iranian Balanced Development Company
- C) Determination of the relationship between brand mentality and satisfaction of the customers of Iranian Balanced Development Company
- D) Determination of the relationship between the value propositions to customers and the satisfaction of the customers of Iranian Balanced Development Company
- E) Determination of the relationship between the perceived service quality by Customers and the trust of the customers of the Iranian Balanced Development Company
- F) Determination of the relationship between the perceived price by customers and the trust of the customers of the Iranian Balanced Development Company
- G) Determination of the relationship between the brand mentality and the trust of the customers of the Iranian Balanced Development Company
- H) Determination of the relationship between the value proposition to customers and the trust of the customers of the Iranian Balanced Development Company
- I) Determination of the relationship between customer satisfaction and loyalty of the customers of Iranian Balanced Development Company
- J) Determination of the relationship between customer trust and loyalty of the customer of Iranian Balanced Development Company

## Research hypotheses

The main hypothesis

There is a positive and significant relationship between marketing relationship tactics and loyalty of the customers of the Iranian Balanced Development Company.

Sub-hypotheses

- A) There is a positive and significant relationship between the perceived service quality by customers and the satisfaction of the customers of the Iranian Balanced Development Company.
- B) There is a positive and significant relationship between the perceived price by the customers and the satisfaction of the customers of Iranian Balanced Development Company.
- C) There is a positive and significant relationship between brand mentality and satisfaction of the customers of Iranian Balanced Development Company.
- D) There is a positive and significant relationship between value proposition to customers and satisfaction of the customers of Iranian Balanced Development Company.
- E) There is a positive and significant relationship between the perceived service quality by the customers and trust of the customers of Iranian Balanced Development Company.
- F) There is a positive and significant relationship between the perceived price by the customers and the trust of customers of Iranian Balanced Development Company.
- G) There is a positive and significant relationship between the brand mentality and the trust of the customers of the Iranian Balanced Development Company.
- H) There is a positive and significant relationship between the proposed value for customers and the trust of the customers of the Iranian Balanced Development Company.
- I) there is a positive and significant relationship between customer satisfaction and the loyalty of the customers of Iranian Balanced Development Company.
- J) There is a positive and significant relationship between the customers' trust and the loyalty of the customers of Iranian Balanced Development Company.

## Conceptual Model of Research

Figure 1 shows the framework or conceptual model used to organize the research and identify the measured variables.

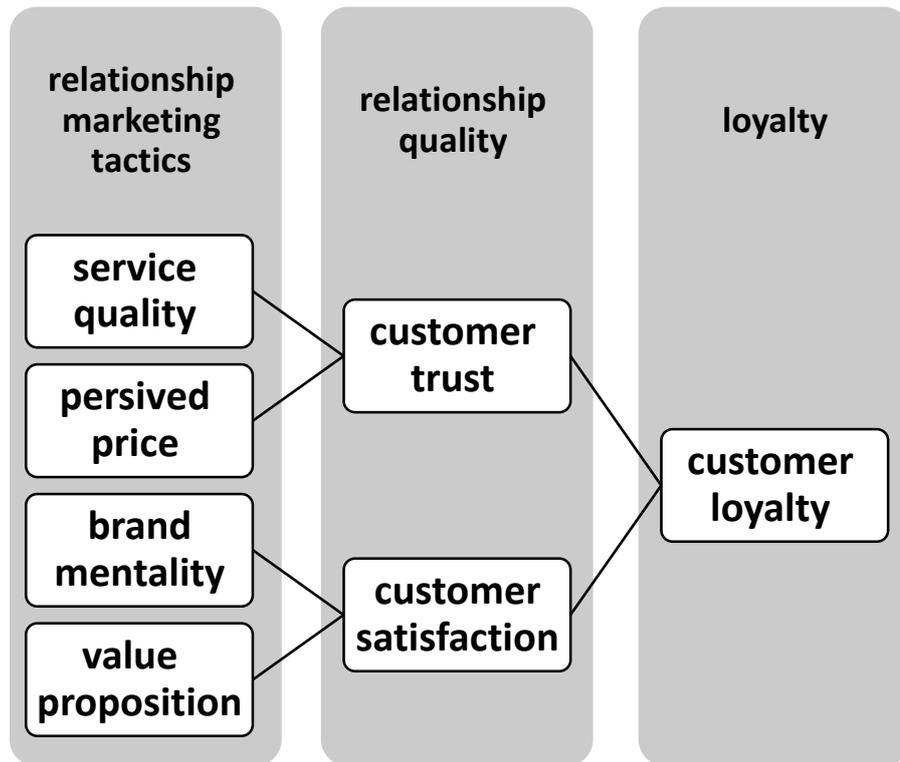


Figure 1: Conceptual Model of Research

## Research Methodology

The present research is descriptive applied research in terms of general classification and it is a field study in terms of data collection. Applied research tends to describe phenomena than to explain it. Also, in this research less control over the behavior of variables is used. In this research, simple random sampling method was used based on the availability rate. The simplest and most commonly used formula to determine the sample size is Cochran formula. This formula was proposed for simple random sampling. A questionnaire is used to collect information for testing and analyzing the research question. The designed questionnaire in this research was adopted from standard questionnaires that were designed based on research components and were based on five Likert scales. The research hypotheses are examined regarding the results of the survey, the obtained data, and using the necessary statistical tests such as Pearson correlation coefficient, structural equation modeling using Spss and Amos software.

### 2-1 statistical population and sample

In the present research, all 750 customers of Iranian Balanced Development Company were selected as the statistical population of the research. If the population is large, the researcher has to select a certain number of individuals as a sample and study the characteristics of this limited population and calculate its indicators and statistical sizes (Hafeznia, 2008). Cochran formula was used to determine the sample size and finally, the sample size was determined 155, it means that at least 196 completed questionnaires should be received. Therefore, 205 questionnaires were distributed among the customers of the company and 200 questionnaires were fully received. 196 questionnaires were used and examined based on the results of the Cochran formula.

### 3. Findings

#### 3-1 Descriptive statistics

In this section, the characteristics of the statistical sample population are described.

The table below shows the gender variable in the statistical sample.

*Table 2. Sexuality status*

Frequency percentage	Frequency	sex
76.02	149	man
23.98	47	woman
100	196	total

The following table below describes the marital variable in the population.

*Table 3:Marital Status of the population*

Frequency percentage	Frequency	marital
79.59	156	married
20.40	40	single
100	196	total

The following table below describes the education variable in the population.

*Table 4:Educational status of the population*

Frequency percentage	Frequency	education
15.81	31	Diploma
21.42	42	Post diploma
39.79	78	Bachelor
22.95	45	Master
100	196	Total

The table below describes the age variable in the population.

*Table 5:Age status in the population*

Frequency percentage	Frequency	Age
6.12	12	To 30
18.88	37	31-40
57.65	113	41-50
10.20	20	51-60
7.14	14	61-70
100	196	Total

#### 3-2 inferential statistics

##### Test of Normality

The Kolmogorov-Smirnov test (K-S) has been used to show normal and abnormal distributions (variables). In determining this test, if the sig is greater than 0.05, a normal distribution is used and parametric tests can be used for analysis. Otherwise, non-parametric tests will be used.

*Table 6: Kolmogorov-Smirnov variable test*

Test result	p-value	variables
Non normal	0.000	service quality
Non normal	0.000	Brand mentality
Non normal	0.000	price Perception
Non normal	0.000	value Proposition
Non normal	0.000	Customer satisfaction
Non normal	0.000	Customer trust
Non normal	0.000	Customer loyalty

Because in all research variables sig is <0.05 (sig <0.05) it can be concluded that the variables under examination are abnormal.

## Reliability of the questionnaire

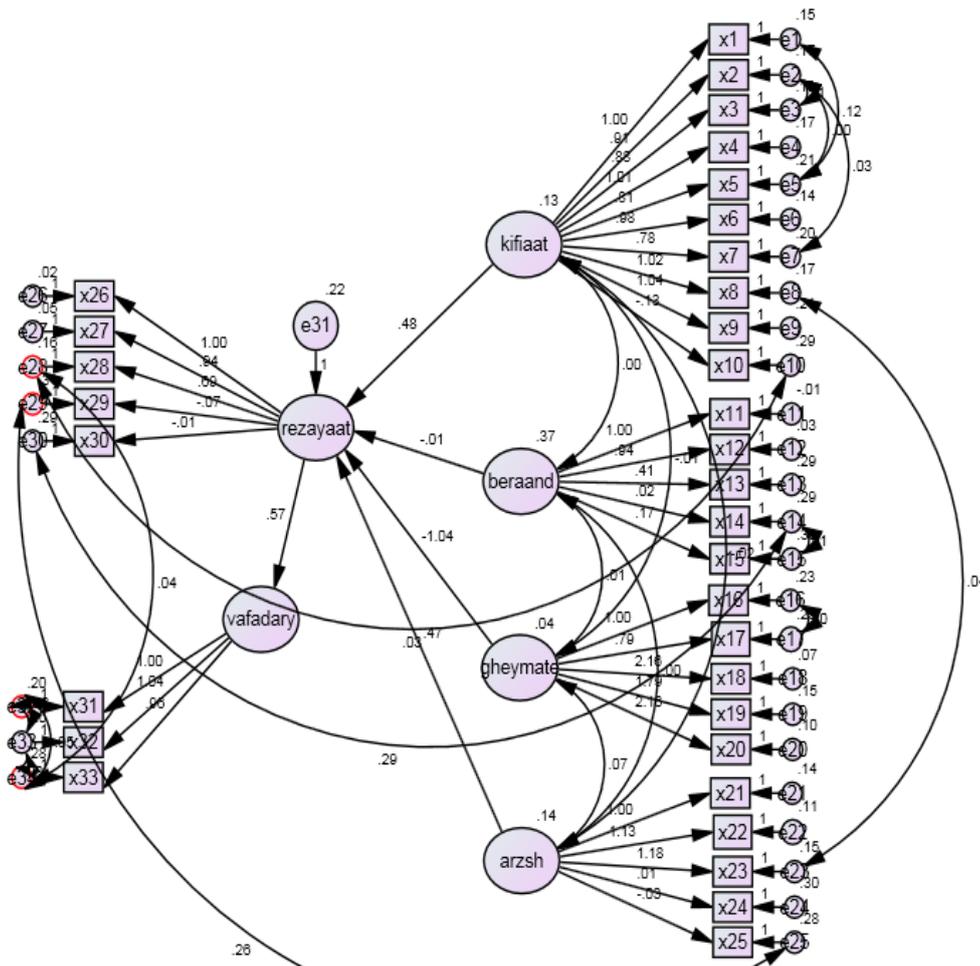
To calculate the reliability of the questionnaire as a measuring tool, different methods are used. In this research, Cronbach's alpha method has been used. Cronbach's alpha method is used to calculate the internal coordination of measuring tools such as questionnaires.

Table 7: Cronbach's alpha calculation

alpha	dimension	row
0.825	service quality	1
0.714	Brand mentality	2
0.797	price Perception	3
0.724	value Proposition	4
0.704	Customer satisfaction	5
0.712	Customer trust	6
0.730	Customer loyalty	6
0.804	Total Questions	

## Structural Equation Modeling

In this section, a variety of probable models were considered and compared for how the questionnaire items should be placed on the factors, based on the theoretical foundations of the past and the results of the exploration factor analysis. In this model, because all errors in a model are rarely corresponding to actual data, the inclusion of such errors in the confirmatory factor analysis models will not reduce factor validity of the questionnaire and it provides a more realistic representativeness of the data. Therefore, it was decided to use this method to better fit of the model of the confirmatory factor analysis of the questionnaire, which ultimately accepted as a final model with 6 factors and 33 items and the release of two covariance errors between the materials of 6-factor model with 33 items and the release of 12 covariance errors between the items for the values of the obtained indices.



Absolute Indices			
AGFI	GFI	CFI	
0.775	0.811	0.907	
Adaptive Indicators			
IFI		TLI	
0.908		0.895	
PNFI		Believable indicators	
0.731		PCFI	
		0.809	
RMSEA	X2/DF	DF	X2
0.066	1.857	471	874.682

If the chi-square ( $\chi^2$ ), which is an absolute fit index of the model, is greater than zero, the model's fit becomes less. When the sample size is between 75 - 200, the chi-square ( $\chi^2$ ) is a reasonable size of fitness, but for models with a larger N, the chi-squared ( $\chi^2$ ) is almost statistically significant (Hooman, 2005), and this causes the chi-square statistic ( $\chi^2$ ) to reject the model (Bentler et al., 1990). Significant chi-square ( $\chi^2$ ) obtained in the study marks the proper fit of the model, but since the chi-square ( $\chi^2$ ) is very sensitive to sample size, many researchers measure chi-square to its degrees of freedom ( $\chi^2 / DF$ ). The ratio of this index minimizes the size of the sample size in the chi-square ( $\chi^2$ ) (Viton et al, 1977). Some researchers argued that if this index is less than 2, the fitness is excellent and if it is between 2 and 5, the fitness is a good, and if it is greater than 5, it shows a weak and unsatisfactory fitness of the pattern (Viton et al., 1977; Fidel et al, 2007); Fit indices, like the comparative Fit Index (CFI) and Incremental Fit Index (IFI), are indicators that compare the fit of a given model with the base model, which does not believe the existence of covariance among variables (Bentler et al., 1990). The closer these indicators to one, the better fit of the model. Of course, this value should be at least 0.90, so that the model will be accepted (Hooman, 2005). The Root Mean Square Error of Approximation (RMSEA) (RMSEA) is another fit index which is the second root of the remaining mean squares and it is interpreted as a function of the covariance value (Hooman, 2005). Brown and Kodak (1993) determined the values higher than 0.10 for models with weak and poor fitness, between 0.08 and 0.10 for models with medium fitness, between 0.05 and 0.08 for models with suitable fitness and less than 0.05 for models with excellent fitness. Also, Mac klum et al. (1996) and Hugh and Bentler (1999) believed that the values between 0.05 and 0.08 show a good fitness. Loelin (1987) considers the values of less than 0.10 a sign of good fitness.

## The examination of research hypotheses

### The examination of the main hypothesis

H0: There is not a positive and significant relationship between relationship marketing tactics and the loyalty of the customers of Iranian Balanced Development Company

H 1: There is a positive and significant relationship between relationship marketing tactics and the loyalty of the customers of Iranian Balanced Development Company

Statistical hypothesis:  $H_1: \rho \neq 0$        $H_0: \rho = 0$

p-value	$\alpha$	Spearman Coefficient	Number of respondents	Variables
0.000	0.05	0.561	196	Relationship marketing and customer loyalty

The results show that the correlation between two variables of relationship marketing tactics and customer loyalty is  $R = 0.561$ , which shows a direct correlation between the two variables. And sig is ( $\text{sig} < 0.05$ ), therefore the zero hypothesis is rejected and H1 is confirmed. This means that there is a positive and significant relationship between the relationship marketing tactics and the loyalty of the customers of Iranian balanced development company.

Examination of the first sub- hypothesis

H0: There is not a positive and significant relationship between the perceived service quality by customers and the satisfaction of the customers of Iranian Balanced Development Company.

H 1: There is a positive and significant relationship between the perceived service quality by customers and the satisfaction of the customers of the Iranian Balanced Development Company.

Statistical hypothesis:  $H_1: \rho \neq 0$        $H_0: \rho = 0$

p-value	$\alpha$	Spearman Coefficient	Number of respondents	variables
0.000	0.05	0.304	196	perceived service quality by customers and customer satisfaction

The result shows that the correlation between the perceived service quality by customers and customer satisfaction is  $R = 0.304$ , which shows a positive and direct correlation between the two variables. And because sig is ( $\text{sig} < 0.05$ ),

therefore H0 is rejected and H1 is confirmed. This means that there is a positive and significant relationship between the perceived service quality by customers and the satisfaction of the customers of Iranian Balanced Development Company.

Examination of the second sub-hypothesis

H0: There is not a positive and significant relationship between the perceived price by customers and the satisfaction of the customers of Iranian Balanced Development Company.

H 1: There is a positive and significant relationship between the perceived price by customers and the satisfaction of the customers of Iranian Balanced Development Company.

**Statistical hypothesis:**  $H_1: \rho \neq 0$   $H_0: \rho = 0$

p-value	$\alpha$	Spearman Coefficient	Number of respondents	variables
0.508	0.05	-0.455	196	perceived price by customers and the customer satisfaction

The result shows that the correlation between the two variables of the perceived service quality by customers and customer satisfaction is  $R = -0.455$ , which shows a negative and direct correlation between the two variables. And sig is ( $\text{sig} > 0.05$ ), therefore the H0 is not rejected and the H0 is confirmed. This means that there is not a positive and significant relationship between the perceived price by the customers and the satisfaction of the customers of the Iranian Balanced Development Company.

Examination of the third sub-hypothesis

H0: There is no positive and significant relationship between brand mentality and the satisfaction of the customers of Iranian Balanced Development Company.

H1: There is a positive and significant relationship between brand mentality and the satisfaction of the customers of Iranian Balanced Development Company.

**Statistical hypothesis:**  $H_1: \rho \neq 0$   $H_0: \rho = 0$

p-value	$\alpha$	Spearman Coefficient	Number of respondents	variables
0.000	0.05	0.455	196	brand mentality and customer satisfaction

The result shows that the correlation between two variables of perceived service quality by customers and customer satisfaction is  $R = 0.455$ , which shows a positive and direct correlation between the two variables. And sig is ( $\text{sig} < 0.05$ ), therefore H0 is rejected and H1 is confirmed. This means that there is a positive and significant relationship between the brand mentality and the satisfaction of the customers of Iranian Balanced Development Company.

Examination of the fourth sub-hypothesis

H0: There is not a positive and significant relationship between the value proposition to customers and the satisfaction of the customers of Iranian Balanced Development Company.

H1: There is a positive and significant relationship between the value proposition to customers and the satisfaction of the customers of Iranian Balanced Development Company.

**Statistical hypothesis:**  $H_1: \rho \neq 0$   $H_0: \rho = 0$

p-value	$\alpha$	Spearman Coefficient	Number of respondents	variables
0.000	0.05	0.119	196	value proposition to customers and the customer satisfaction

The result shows that the correlation between the two variables of the perceived service quality by customers and customer satisfaction is  $R = 0.119$ , which shows a positive and direct correlation between the two variables. And sig is ( $\text{sig} < 0.05$ ), therefore H0 is rejected and the H1 is confirmed. This means that there is a positive and significant relationship between value proposition to customers and the satisfaction of the customers of Iranian Balanced Development Company.

Examination of the fifth sub-hypothesis

H0: There is not a positive and significant relationship between customer satisfaction and the loyalty of the customers of Iranian Balanced Development Company.

H 1: There is a positive and significant relationship between customer satisfaction and the loyalty of the customers of Iranian Balanced Development Company.

**Statistical hypothesis:**  $H_1: \rho \neq 0$   $H_0: \rho = 0$

p-value	$\alpha$	Spearman Coefficient	Number of respondents	variables
0.000	0.05	0.491	196	customer satisfaction and customer loyalty

The result shows that the correlation between the perceived service quality by customers and customer satisfaction is  $R = 0.491$ , which shows a positive and direct correlation between the two variables. And sig is (sig <0.05), therefore  $H_0$  is rejected and  $H_1$  is confirmed. This means that there is a positive and significant relationship between customer satisfaction and loyalty of the customers of Iranian Balanced Development Company.

Examination of sixth sub-hypothesis

$H_0$ : There is no positive and significant relationship between the perceived service quality by customers and the trust of the customers of Iranian Balanced Development Company.

$H_1$ : There is a positive and significant relationship between the perceived service quality by customers and the trust of the customers of Iranian Balanced Development Company.

**Statistical hypothesis:**  $H_1: \rho \neq 0$                        $H_0: \rho = 0$

p-value	$\alpha$	Spearman Coefficient	Number of respondents	variables
0.000	0.05	0.360	196	the perceived service quality by customers and the customer trust

The result shows that the correlation between two perceived quality service variables by customers and customer trust is  $R = 0.360$ , which shows a positive and direct correlation between the two variables. And sig is (sig <0.05), therefore  $H_0$  is rejected and  $H_1$  is confirmed. This means that there is a positive and significant relationship between the perceived service quality by customers and trust of the customers of the Iranian Balanced Development Company.

Examination the seventh sub-hypothesis

$H_0$ : There is no positive and significant relationship between the perceived price by customers and the trust of the customers of Iranian Balanced Development Company.

$H_1$ : There is a positive and significant relationship between the perceived price by customers and the trust of the customers of Iranian Balanced Development Company.

**Statistical hypothesis:**  $H_1: \rho \neq 0$                        $H_0: \rho = 0$

p-value	$\alpha$	Spearman Coefficient	Number of respondents	variables
0.000	0.05	0.560	196	the perceived service quality by customers and the customer trust

The result shows that the correlation between two variables of perceived price by customers and customer trust is  $R = 0.560$ , which shows a positive and direct correlation between the two variables. And sig is (sig <0.05), therefore  $H_0$  is rejected and the  $H_1$  is confirmed. This means that there is a positive and significant relationship between the perceived price by customers and the trust of the customers of Iranian Balanced Development Company.

Examination of eighth sub-hypothesis

$H_0$ : There is no positive and significant relationship between brand mentality and the trust of the customers of Iranian Balanced Development Company.

$H_1$ : There is a positive and significant relationship between brand mentality and the trust of the customers of Iranian Balanced Development Company.

**Statistical hypothesis:**  $H_1: \rho \neq 0$                        $H_0: \rho = 0$

p-value	$\alpha$	Spearman Coefficient	Number of respondents	variables
0.000	0.05	0.430	196	brand mentality and the customer trust

The result shows that the correlation between two variables of brand mentality and customer trust is  $R = 0.430$ , which shows a positive and direct correlation between the two variables. And sig is (sig <0.05), therefore  $H_0$  is rejected and  $H_1$  is confirmed. This means that there is a positive and significant relationship between the brand mentality and the trust of the customers of Iranian Balanced Development Company.

Examination the ninth sub-hypothesis

$H_0$ : There is no positive and significant relationship between the value proposition to customers and the trust of the customers of Iranian Balanced Development Company.

$H_1$ : There is a positive and significant relationship between the value proposition to customers and the trust of the customers of Iranian Balanced Development Company.

**Statistical hypothesis:**  $H_1: \rho \neq 0$   $H_0: \rho = 0$

p-value	$\alpha$	Spearman Coefficient	Number of respondents	variables
0.000	0.05	0.350	196	value proposition to customers and the customer trust

The result shows that the correlation between the two variables of value proposition to customers and the customer trust is  $R = 0.350$ , which shows a positive and direct correlation between the two variables. And the sig is (sig <0.05), therefore  $H_0$  is rejected and  $H_1$  is confirmed. This means that there is a positive and significant relationship between the value proposition to customers and the trust of the customers of Iranian Balanced Development Company.

Examination the tenth sub-hypothesis

$H_0$ : There is no positive and significant relationship between customer trust and loyalty of customers of Iranian Balanced Development Company.

$H_1$ : There is a positive and significant relationship between customer trust and loyalty of customers of Iranian Balanced Development Company.

**Statistical hypothesis:**  $H_1: \rho \neq 0$   $H_0: \rho = 0$

p-value	$\alpha$	Spearman Coefficient	Number of respondents	variables
0.000	0.05	0.580	196	customer trust and customer loyalty

The result shows that the correlation between two variables of customer trust and customer loyalty is  $R = 0.580$  which shows a positive and direct correlation between the two variables. And sig is (sig <0.05), therefore  $H_0$  is rejected and  $H_1$  is confirmed. This means that there is a positive and significant relationship between customer trust and loyalty of customers of Iranian Balanced Development Company.

## Discussion and conclusion

In the customer service industry, customer retention is one of the key issues in relationship marketing. Relationship marketing tactics is one of the key tools in creating a long-term relationship that provides mutual benefits. Although relationship marketing tactics are widely implemented by service providers, customers still tend to competitors. Therefore, in this research, the effect of relationship marketing tactics (service quality, price perception, brand mentality and value proposition) on customer satisfaction and loyalty of the customers of Iranian Balanced Development Company in Tehran has been investigated. The results show that price perception has a positive and significant effect on customer satisfaction. This is the result of Oliver (1997)'s claim that customers judge the price based on service quality and provide satisfaction or dissatisfaction by the principle of equality. If a customer knows that the price is fair, he wants to make a relationship with the service provider. Many researchers have pointed out that price perception is effective in the customer's satisfaction and trust. So based on this result and the importance of price perception, the Iranian Balanced Development Company should provide quality appropriate to price so that their customers eager to retain the relationship with this company. The value proposition has a positive and significant effect on customer satisfaction. This result confirms the research result of Rivald and Grunus (1996); service companies with better suggestions that can lead to customer satisfaction provide more value, and by increasing the benefits and decreasing the customers' lost value, they retain them and eventually motivate customers to repeat purchase. In a long-term relationship, the value proposition received by customers depends on customers' expectations. When customers' expectations are met, they feel secure, credibility, and assurance and all of these feeling lead to the growth of trust and, ultimately, customer loyalty. According to the results of this research, it is suggested that companies should provide some suggestions to customers that will satisfy them, and retain their long-term and loyal customers. Satisfaction has a positive and significant effect on customer loyalty. This result confirms the results of a research by Fariborz Rahimnia et al, (2012). According to the positive impact of customer satisfaction on customer loyalty, it is suggested that by creating trust in customers, the companies can increase their relationship quality with their customers and make them more loyal to them. Trust is the main factor that leads to loyalty. When the customer trusts the service provider, he constantly uses its services and recommends it to others. Trust reduces customers' fear of risk at the time of trading, and it is the most important variable is the relationship quality (Aydin and Ozer, 2005).

## Suggestions

- 1) Investigation the relationship between relationship marketing tactics and customer loyalty in similar organizations and comparison of the results with the results of this study.

- 2) Classification of customers of the Iranian Balanced Development Company according to the type of services provided to customer and further examination of the relationships.
- 3) Using fuzzy logic to increase the accuracy of the analysis
- 4) Investigation the effect of relationship marketing on customer loyalty using customer extended relationship marketing model (ERM).
- 5) Investigation the effect of relationship Marketing Tactics on customer loyalty
- 6) Creating a comfortable and decorated environment because the appearance of the organization as well as the type of employees' clothes can affect the attitude of clients from the organization.
- 7) Possibility of providing electronic services: This will facilitate the customer relationship with the company, and will enable both customers and company to communicate more easily and more quickly, and to meet their requirements and needs.
- 8) Providing more documents and documentation related to services and availability of this information: Proper and comprehensive information and the use of general information tools to inform employees about how services are received also reduce the customer's personal presence in the organization to ask questions about receiving services. This affects both the customer's satisfaction and reduces the amount of time, and energy.
- 9) Generating motivation and commitment for organization managers, especially top managers, to make changes appropriate to the systems of service quality in the organization in order to increase the effectiveness of service delivery.
- 10) Undoubtedly, the availability of advanced and modern equipment and the use of new technology by company's staff can greatly effect on the process, which can enhance the level of customer satisfaction.
- 11) Providing services to customers at assigned time, and if the organization cannot reasonably provide services to its customers on time, it should be notified to the customers and apologize them.
- 12) Organizing training courses for employees to properly perform their job.
- 13) Receiving customer feedback periodically on how to provide services and receive their suggestions.

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# THE ROLE OF MESSAGE MANAGEMENT POLICY MODEL IN IMPROVING CHILDREN'S SOCIAL SKILLS

Marzieh Faravardeh<sup>14</sup>

## Abstract

*This study aimed to design a message management policy model in order to promote children's social skills. To this end, it was firstly attempted to identify the current strategies in the IRIB TV2, volume of produced programs, programming structures to promote children's social skills in Iran and its comparison with the CBBC. Content analysis, elite questionnaires and text mining were the primary data collection tools in this study. Then, the theoretical literature on the concerned subject was browsed in the realm of Mead's Theory of Socialization and Growth Characteristics Theory (childhood). Next, it was tried to make use of descriptive method and comparative study in order to analyze the research data. The results showed that the IRIB TV2 primarily benefited from direct instruction approach (76%). Also, it was indicated that the CBBC had a specific strategy and its media organization moved towards fulfilling the concerned strategy. As such, it was argued that its performance was consistent with the organization's strategy. The research results indicated that the CBBC made appropriate use of the management model. However, the media organization of the IRIB TV2 was embedded with a vivid mismatch between the organizational strategy and performance and that no specific model was used in teaching skills in the form of content. Having compared the characteristics of CBBC, the results of Growth Characteristics Theory, Mead's Theory of Socialization and comments and views of the elites helped researchers to develop a suitable policy model in order to promote children's social skills.*

**Key words:** Policymaking, promoting social skills, message management, child, model

JEL:J24

## Introduction

In recent decades, watching TV has been considered as one of children's major activities and the concerned programs have occupied a large part of leisure time in this age group. This medium has complex and multiple functions, including informing, entertaining, teaching, educating and introducing intellectual, emotional and behavioral patterns, and thus it plays a vital role in various dimensions of children's lives (McQuail, 1994). Television abilities have made it the most effective tool for shaping public opinion. In the same vein, television is seen a powerful tool in socializing and teaching social skills because it can mold the tastes and worldviews of individuals, and especially children (Mousapour, 2008, p. 49 as quoted by Biryukov 2001, p. 79). This has made the educators and media professionals to use this powerful medium for a variety of purposes. There are many theories about the mutual relationship between the media and the child and a lot of literature has been produced in this area. It denotes the importance of a handful of media audiences called "children and teenagers." It should be noted that the identity and social character of individuals are formed during childhood and they are strengthened during adolescence. Today, it is possible to do this through mass media, especially television. Actually, researchers should now examine the diverse content of media messages exposed to children during long hours (Freud, 2014, p. 1891). In this regard, the present study aimed at understanding the experiences of international channels, such as CBBC children's specialized channel, that are characterized with high standards in the world. Besides, volume of produced programs as well as broadcast schedule of CBBC and IRIB TV2 was juxtaposed so that a suitable model for policy-making in the message management process might be proposed in order to socialize children in the IRIB TV2 (Iran Nejad Parizi, 2012, p. 69). The World Health Organization has defined the life skills as follows: "the ability to perform adaptive and positive behaviors in such a way that one can cope with the challenges and necessities of everyday life" (WHO, 2014, p. 63). To determine the type of skills which must be taught to children, one should determine the general set of criteria that are identified by various experts as the necessary behaviors for a competent child in the present society. Besides, some specific behavioral criteria for competent children should be duly considered in this line. Teaching social skills often resembles the teaching of educational behaviors. Tyler (2012) discusses the curriculum design and argues that the goals of education should come from the following three sources: learners, current society and specialists/experts in the field of education. These three sources are related to the selection of social skills. Other features, such as the age of the child, his/her growth, the lack of specific skills, cultural and social environment and the findings of researchers and practitioners in the field of social skills training, should all be taken into account (James, Jenks and Prout, 1998, p. 35). Besides, interactions with peers have an important

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role in the growth of children. Actually, friends create a sense of belonging and support. They pave the way for participating in collective recreational activities and they are important for the development of children's social skills. Through interaction with peers, children learn to join the group, find new friends and find ways to solve conflicts and collaborate with others (Moyes and Reynolds, 1998, p. 131). The most productive environments for developing children's social skills are of course classroom and playground (Severin and Tankard, 2001, p. 11). Television is a comprehensive medium and it is almost accessible to all children. A vast majority of children watch TV on a daily basis and they may spend an average of three to four hours a day watching television. Although they may initially face difficulties, they quickly learn how to follow their plans and how to comment on what they watch. Finally, children learn how to judge the realistic and unrealistic issues (Roshandel Arbatani, 2007, p. 91).

Often, children's learning of television happens accidentally. Here, we mean an entertainment form of learning which takes place when watching television and the spectator learns the information or contents automatically. In practice, children always use television as entertainment. Undoubtedly, children will be introduced to the mass media as a tool to entertain, to tell them story, to make them happy or to watch their favorite performer or actor (Schramm, Lyle and Parker, 1960, p. 118). There is no doubt that the producer of a television program can in part control what children should learn from his/her program because he/she controls all the contents of the program. For example, he/she has the opportunity to emphasize and reiterate some of the thoughts and issues in the program or relate them to favorite characters of spectators. However, most children's programs focus more on fun and entertainment than on education. Interestingly, children are by no means incontinent audiences. Their tastes vary considerably from one another and even while watching a program, they are attracted to completely different things. In fact, the diversity of children is more than the diversity of programs. Given these conditions, it seems that accidental learning should be primarily directed towards children themselves (Krcmar, Vieira and Edward, 2010, p. 288). The level of conjugation with one of the TV characters is another factor that affects the level of TV-related accidental learning. There is no doubt that learning and memorizing behaviors and beliefs can be made easier through imaginably experiencing them with the favorite actor or character. Besides, if children watch a fun program and they are confronted with something useful to know, these materials or contents are more likely to be selected and remembered on the part of children. This is where the needs of children become apparent (Gunter and McAleer, 1990, p. 115).

Previous studies have shown that few researches have been done on the research subject at home and abroad. Sarookhani (2009), Fathollahpour (2011) and Schramm, Lyle and Parker (1960) are among the studies conducted in this domain. In general, they believe that children, from the first steps of their life, face the media and these media, especially television, greatly affect the formation of social roles in children as well as modifying the attitudes of children towards social roles. It should be noted that the impact of television is not independent from the impact of other environmental factors such as family and peer groups. Therefore, the main issue of the present research was to find out the model of policymaking structure in the process of promoting the social skills of Iranian children in the IRIB TV2 and the programming structure of CBBC and its strategies in promoting the social skills of British children. In this line, it was attempted to develop a conceptual model for policy-making in the message management process in order to create and promote social skills in children.

## Methodology

The present study was a non-experimental and applied research. The content analysis and survey were used to collect the desired information. The statistical population of the study included children programs produced in the IRIB TV2 in the second half of 2014, the active elites in the Iranian children's community and the CBBC website. Given the first step in determining the sample size, it was attempted to select programs (produced in the IRIB TV2) that dealt with a variety of skills (common skills shared in the CBBC):

- 1) My Girl (structure: real-animation)
- 2) Kara Kusha (structure: puppetry)
- 3) Uncle Pourang's Library (structure: combinatorial)
- 4) Fitileh (structure: combinatorial)
- 5) Simple like a letter (structure: puppetry).

Regarding the second step, it was decided to select 20 experts and elites active in the field of children. As such, elite questionnaires and text mining were used:

Text mining: it was attempted to scrutinize the documents on the CBBC website, the documents on the website of the IRIB TV2, the broadcast schedule of CBBC and IRIB TV2 and reviews of the CBBC's programs. Also, respondents were evaluated using judgmental and purposeful sampling methods. Besides, the collected data were analyzed using descriptive and comparative methods (Khaki, 2012, p. 128). In order to assess the validity of the variables, it was attempted to elicit the opinions of the professors and experts as well as respondents in the pretest phase. In this pretest, 10 elites active in the domain of children answered the questions. The analysis of the pretest findings revealed some of the deficiencies in the questionnaires. It should be noted that the aforementioned

deficiencies were resolved and, thus, the final questionnaires were developed. The reliability analysis of existing items was gauged on the basis of internal reliability and Cronbach's alpha. Given the reliability analysis of data collection tools, it was decided to make use of Test-Retest and Spearman statistic. Also, the reliability of the questionnaires was determined through distributing the developed questionnaires among the aforementioned experts in order to present their views on the comprehensibility, comprehensiveness and consideration of all aspects of the criteria, strength of questions, the logical relationship between questions and the proportion of designed items in terms of convergence or any other criteria. After the experts announced their opinions and necessary corrections were made, it was decided to publish the final questionnaires.

## Findings

At first, demographic characteristics of the research sample were described. Then, the broadcast schedule of IRIB TV2 was analyzed and volume of produced programs in terms of programming form, animation broadcasting and production of puppetry programs in the second quarter of 2014 were depicted (Figure 2 to Figure 4). Table 1 showed some demographic characteristics of the research sample.

*Table 1: Percentage distribution of some of the demographic characteristics of respondents in the research*

Characteristics	Frequency	Frequency percentage
Age groups		
40-42	6	30.0
43-44	5	25.0
45-46	3	15.0
46 and older	6	30.0
Gender		
Female	8	40.0
Male	12	60.0
Level of education		
M.A.	6	30.0
Ph.D.	14	70.0
Service records		
1 to 10 years	8	40.0
More than 10 years	12	60.0

The data extracted from Table 1 indicated that most respondents were in the age groups of 40-42 and 46 years old and older. Regarding the gender, it was indicated that the number of women and men in the research sample were 8 and 12, respectively. Having examined the level of education, it was declared that 70% of the respondents had doctoral degrees or they were studying in doctoral degrees and about 30% of respondents had master degrees. Regarding the respondents' service records, it was indicated that 60% of the respondents had more than 10 years of service experience and about 40% of them had 1 to 10 years of service experience. Next, the researcher attempted to examine the broadcast schedule of the IRIB TV2.

*Table 2: Distribution of children programs to a variety of skills*

Skills	Frequency	Frequency percentage
Dialogue spirit	57	15.7
Technology Application	76	21.0
Questioning spirit	33	9.1
Problem solving	30	8.3
Risk-taker	10	2.8
Patient	16	4.4
The spirit of collective participation and workgroup	49	13.5
Promoting creativity and innovation	52	10.8
Punctuality	362	14.4
Total		100

According to the findings of Table 2 and regarding the skills depicted in children program of IRIB TV2, the skill of technology application, which referred to communicating through sending SMSs, contacting the program, participation in TV tournament, etc., received the highest percentage (21%). Next, dialogue spirit (15.7%), punctuality (14.4%), the spirit of collective participation and workgroup (13.5%), promoting creativity and innovation (10.8%), questioning spirit (9.1%), problem solving (8.3%), patience and teaching patience (4.4) and risk-taking skill (2.8%) received the next frequency percentages. Accordingly, it was indicated that the children programs of IRIB TV2 paid due attention to promoting social skills among children. Then, the manner of teaching skills to children was scrutinized.

*Table 3: The manner of teaching skills to children*

Manner of teaching	Frequency	Frequency percentage
Direct	275	76
Indirect	87	24
Total	362	100

Table 3 indicated that the children programs of IRIB TV2 have presented 76% of their programs directly and 24% of their programs indirectly. As such, its major concern and emphasis has been directed towards direct presentation of educational content.

*Table 4: Analysis of children programs in IRIB TV2*

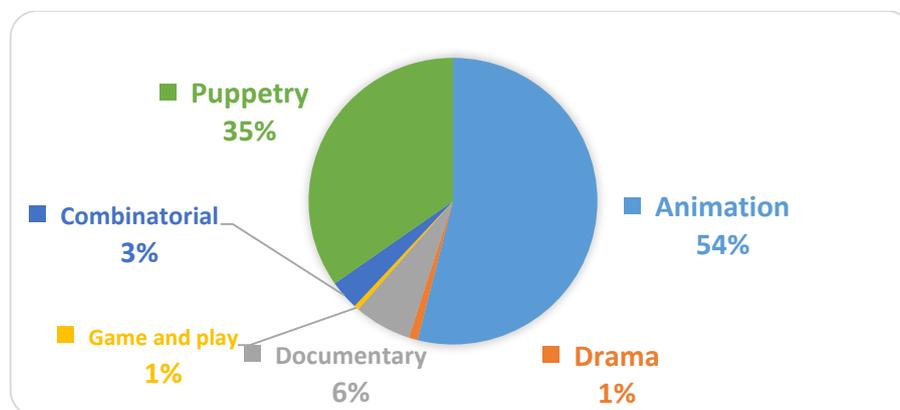
Program	Frequency	Frequency percentage
My Girl	29	8
Kara and Kusha	87	24
Uncle Pourang's Library	89	24.6
Simple like a letter	61	16.9
Fitileh	96	26.5
Total	362	100

The findings of Table 4 showed that among the analyzed children programs in the IRIB TV2, the highest and lowest rates were related to the Fitileh (26.5%) and My Girl (8%), respectively. Next, the broadcast schedule of the IRIB TV2 in terms of programming form in the second quarter of 2014 was depicted (Figure 2 to Figure 4).

*Table 5: Frequency distribution of volume of programs produced in the IRIB TV2 in terms of programming form in the second quarter of 2014*

Program	Minute(s)	Frequency percentage
Animation	25301.5	54
Drama	468	1
Documentary	3015	6
Game and play	260	1
Combinatorial	1560	3
Puppetry	16291	35
Total	46895.5	100

The results of Table 5 indicated that the highest and lowest percentages of production were related to animation (54%) and drama and game and play (1%), respectively. Next, puppetry programs (35%) allocated up to 16291 minutes as the most voluminous program in the second quarter of 2014. In the following section, the results of Table 5 have been shown in the form of a diagram.



*Figure 1: The volume of programs produced in the IRIB TV2 in terms of programming form in the second quarter of 2014*

*Table 6: The volume of animations broadcasted in the IRIB TV2 in the second quarter of 2014*

Program	Minute(s)	Frequency percentage
Domestic animations	7855.5	31
Foreign animations	17446	69
Total	25301.5	100

The results of Table 6 indicated that the highest and lowest broadcasting percentages were related to foreign animations (69%) and domestic animation (31%), respectively. So, it could be said that foreign animations were broadcasted twice as domestic animations. The results have been shown in the form of a diagram.

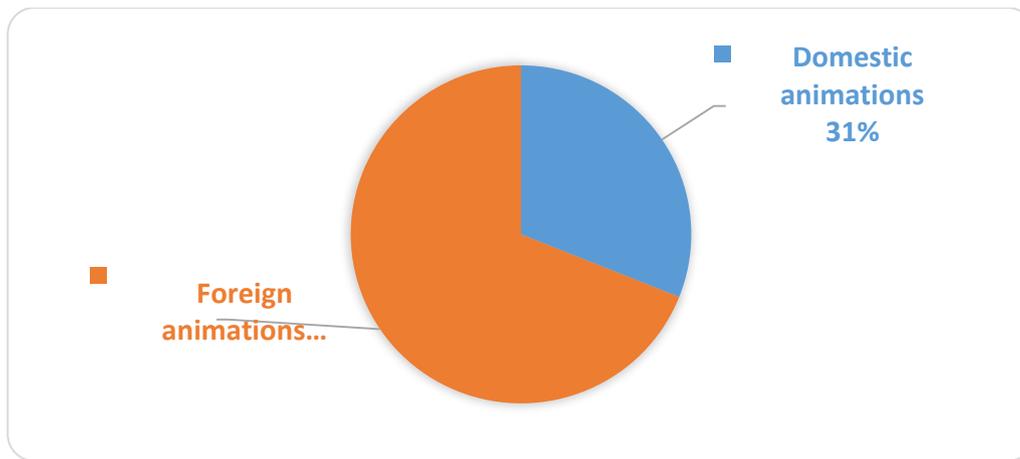


Figure 2: The volume of animations broadcasted in the IRIB TV2 in the second quarter of 2014

Table 7: The volume of puppetry programs produced in the IRIB TV2 in the second quarter of 2014

Program	Minute(s)	Frequency percentage
Domestic puppetry	15370	94
Foreign puppetry	921	6
Total	16291	100

The results of Table 7 indicated that the highest and lowest production percentages were related to domestic puppetry (94%) and foreign puppetry programs (6%), respectively. So, it could be said that domestic puppetry programs were produced 15 times more than the foreign puppetry programs. The results have been shown in the form of a diagram.

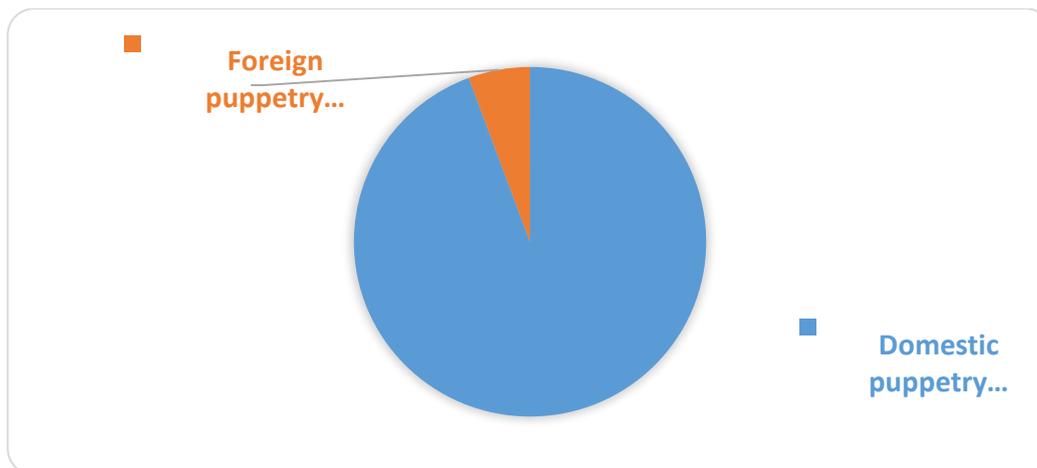


Figure 3: The volume of puppetry programs produced in the IRIB TV2 in the second quarter of 2014

### Examining the broadcast schedule of CBBC<sup>15</sup>

Some of the strategies employed by CBBC in production and provision of programs included providing a wide range of high-quality and top contents such as drama, entertainment, animation, news and documentaries and the right global contents for children aged 6 to 12 years. Besides, most of these contents should be produced in England. Accordingly, the focus was on providing informal education and encouraging participation. Programs needed to be innovative, collaborative, original and challenging and, thus, they must boost and nurture individuals' talent in England.

<sup>15</sup>. <http://www.bbc.co.uk/iplayer/cbbc> <http://www.bbc.co.uk/cbbc/programmes>.

Table 8: The volume of programs produced in CBBC in terms of programming form

Program	Minute(s)	Frequency percentage
Animation	27192	18
Drama	40992	28
Documentary	51774	35
Game and play	23970	16
News	3822	3
Combinatorial	756	1
Total	148506	100

Having examined the broadcast schedule of CBBC, it was decided to depict the volume of programs in terms of programming form and animation in Figure 4 and Figure 5, respectively. As seen, the highest and lowest percentages of produced programs were reported in documentaries (35%) and combinatorial (1%), respectively. Furthermore, the drama programs gained up to 28 percent in this domain.

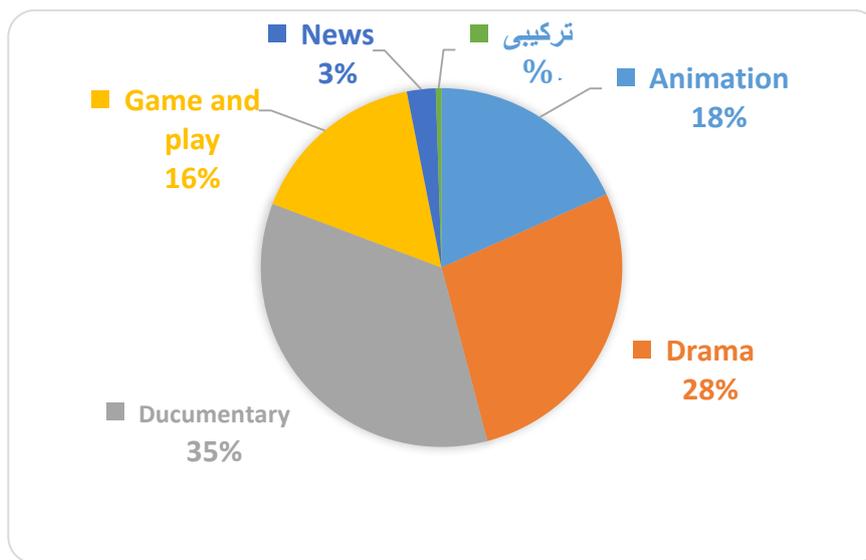


Figure 4: The volume of programs produced in CBBC in terms of programming form

Table 9: The volume of animations produced in CBBC

Program	Minute(s)	Frequency percentage
Domestic animations	14340	53
Foreign animations	12648	46
Joint products	204	1
Total	27192	100

As seen, the highest percentage of produced animations was related to domestic animations (53%). Besides, foreign animations and joint-production animations gained up to 46 and 1 percent, respectively. Thus, the production of domestic animations exceeded the production of foreign animations.

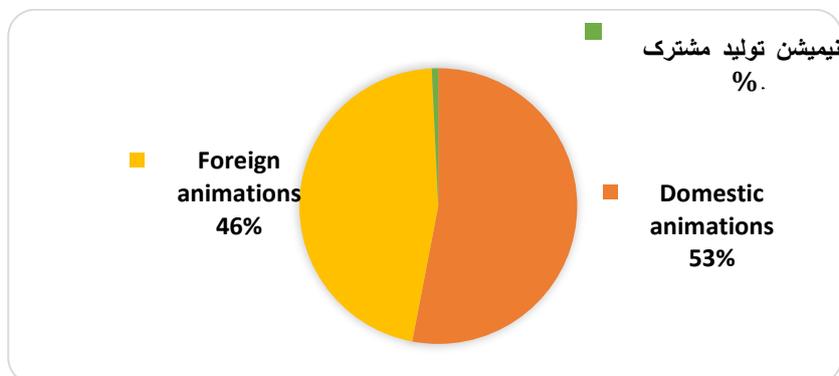


Figure 5: The volume of animations produced in CBBC

### Comparing the programming form of IRIB TV2 and CBBC

Compared to broadcast schedule of IRIB TV2, it was shown that the programming structure priorities were devoted to animations (54%) and puppetry programs (35%), respectively. Interestingly, CBBC made appropriate use of all programming structures, except puppetry (Figure 6).

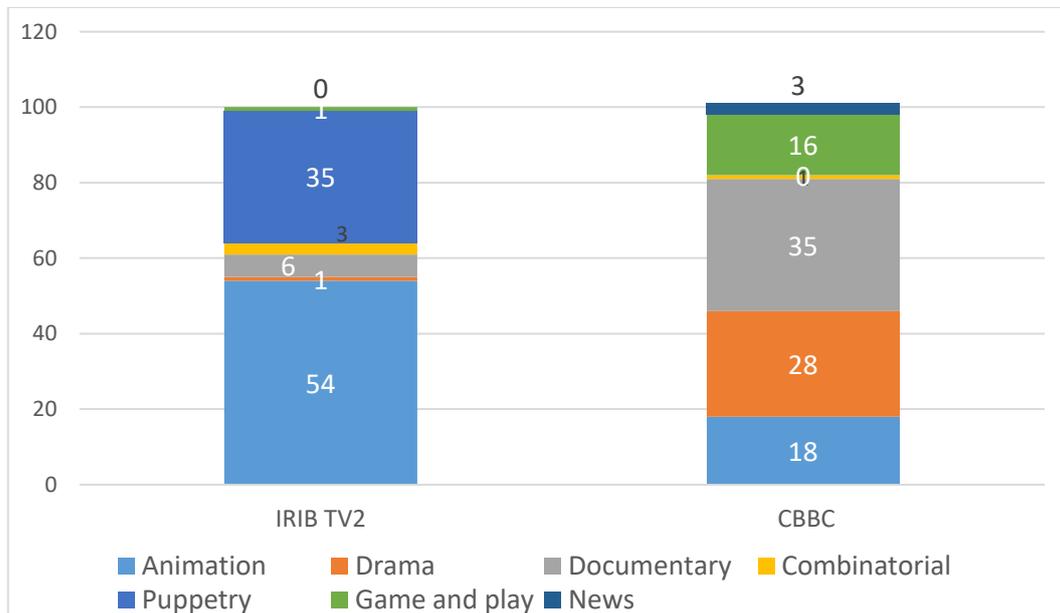


Figure 6: Comparison among programming form of IRIB TV2 (percentage)

According to the findings of this research, 31 percent of animations produced in the IRIB TV2 were devoted to domestic animations and 69 percent of animations produced in this channel were related to foreign animations. Conversely, the CBBC allocated more of its broadcasting time to domestic productions. As such, it made more use of domestic animations that the animations produced in abroad (53% vs. 46%) (Figure 7). Besides, 1 percent of produced animations in this channel was related to joint-production animation (England-Australia).

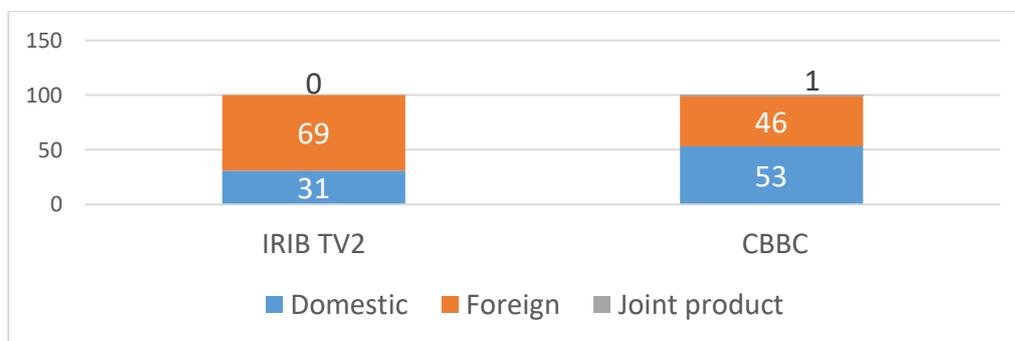


Figure 7: Comparison between domestic and foreign animation production in the IRIB TV2 (percentage)

### Discussion and Conclusion

Figure 8 depicts the skill taught by the IRIB TV2 in the second quarter of 2014 which have been examined in terms of combinatorial, puppetry and animation, respectively. As seen in the Figure, the IRIB TV2 attempts to provide the following programs in order to equip children in this domain: dialogue spirit, punctuality, the spirit of collective participation and workgroup, promoting creativity and innovation, questioning spirit, problem solving, patience and risk-taking.

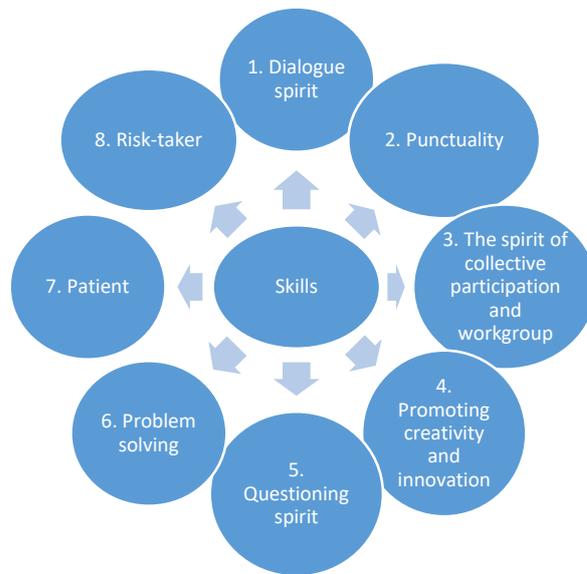


Figure 8: Skills taught by the IRIB TV2 in the second quarter of 2014

According to the data extracted from the analysis of the elite questionnaires, it is indicated that the children programs should have the following features:

- 1) The theme-based approach to entertainment and fun
- 2) More volume of domestic productions
- 3) Emphasis on indirect learning
- 4) Emphasis on participation-seeking approaches
- 5) Emphasis on playing, recreating and developing children's creativity
- 6) Emphasis on dreaming to stimulate children's thinking
- 7) Avoiding a patriotic, dry and formal outlook
- 8) Participation in the program with an emphasis on up-to-date technology
- 9) The right time of the programs (between 10 and 30 minutes)
- 10) Using puppet characters in the programs
- 11) Emphasis on the presence of peers in the programs
- 12) Using interactive TV services and mobile live broadcasting
- 13) Emphasis on teaching social and global skills
- 14) Emphasis on the production-based broadcasting
- 15) Least rate of repetition/replay
- 16) Emphasis on news format in children programs.

Having reviewed the opinions of the elites, CBBC and IRIB TV2, the following results have been achieved: According to the principles and outcomes extracted from elites' opinions, it can be claimed that more domestic children programs should be produced. However, the larger part of children programs in the IRIB TV2 are provided in form of foreign-external animations. Since animations are considered children's favorite content formats, it is necessary to pay attention to the cultural synergy between the cultural product and the social context in which children receive the products. The latter is due to this fact that children do not have the necessary media literacy. It is clear that Iranian animations are produced on the basis of Iranian society and culture and, thus, the contents of such products do not expose children to dual socialization. In other words, when children watch Iranian cultural products, they do not face cultures that conflict with their own culture. This issue is more closely respected in the CBBC and, consequently, the principles of content production in this channel emphasize on more volume of domestic products. Given the broadcast schedule of IRIB TV2, it is clear that puppetry occupies the second major structure in programming. However, CBBC has not made use of such a programming structure. According to the principles and rules governing the CBBC as well as the results of the elite questionnaires, it is indicated that children programs must be characterized with the interactive TV services and mobile live broadcasting. Unfortunately, the programs produced

in the IRIB TV2 do not include this feature and audiences may only communicate through phone and SMSs. Interestingly, the strategies of CBBC emphasize on the application of indirect education. Regarding the results of elite questionnaires, it is shown that 76 percent of IRIB TV2's programs are based on direct education. Here, direct education is considered partly without the participation of the child or the audience in experiencing a given skill in which no real opportunity is given to child to experience and learn the concerned skill. According to the Growth Characteristics Theory, the dependency of children to parents is gradually diminished during this period and children spend their energy on learning and exploration. Besides, the child's self-awareness increases, socialization becomes central in the context of the peer groups and the child gets better skills to solve the problems. According to the principles and rules governing the CBBC as well as the results of the elite questionnaires, the IRIB TV2 needs to implement more peer-centric programs so that children can resort to conjugation and command in learning different skills. Having integrated the results of the present research, it has been tried to develop a message management policy model for promoting children's social skills on television, as shown in Figure 9. The results of a study conducted by Karimar and Vieira (2005) indicate that children's behavioral patterns are derived from parents and TV characters; this adaptation may be direct in that the children take a direct picture of the television programs or it may be indirect in that parents have watched television programs and, then, they have behaved similarly and these programs and behaviors have become the children's model. The results of the study indicate that there is a direct relationship between watching television programs and parents' and children's behaviors. If children watch violent television programs and, then, the family patterns confirm them, these behaviors will become realistic behaviors at a faster pace. It is also clear that the ethical arguments of children exposed to television violence are strongly influenced by the programs watched on the television. Besides, content providers on the television try to offer their practical skills in the form of educating entertainment programs to their audiences, especially children. This issue is also rooted in children's cognitive growth processes. According to Mead's Theory, if children pass three stages of imitation, individual games and collective games, they can gain a better understanding of themselves and social life. Actually, watching TV programs leads to improved social skills. Although children, when first faced with such a skill as punctuality, do not have any idea about it, they become familiar with the idea after some times. Then, children hear and understand the concept in others' conversations and comprehend its application. This begins from the first stage, imitating television characters or imitating parents, and continues to education phase and eventually ends with the application. The process of changing from the subject to the object is similar to the gap between understanding and operating out a given skill. However, this process does not have a starting point or an endpoint. According to research findings, the CBBC has a clear strategy and the media organization is moving towards fulfilling the concerned strategy. As such, it is argued that its performance is consistent with the organization's strategy. This reflects the correct application of the management model in the organization. However, there is a clear discrepancy between organizational strategy and performance in the context of programs produced in the IRIB TV2 and, thus, no definite model is followed in teaching skills neither in the structures nor in the contents. Given the aforementioned results, the following suggestions are proposed thereof:

- 1) The systematic and continuous impact assessments of produced contents can help the media organization to find out how much and during which time it has achieved its goals in production. In addition, it discovers the audience's need for managers and enables managers to plan in line with the needs of their audiences and to maintain them thereof.
- 2) Given the impact of global events, processes and technologies on micro and macro societies or Glocalization (global phenomenon and native adoption and application), it is recommended that social and cultural changes in society should be monitored through such changes so that social anomalies may be understood and the concerned barriers may be resolved through fostering culture in the media.
- 3) The skills that have been addressed in the content analysis are global skills as well as those skills introduced by the World Health Organization in relation to the CBBC and life skills. However, the skills needed to be considered in each country must be prioritized according to the culture of that society. For example, since laws have been institutionalized in developed countries, they do not mention them throughout programs. However, it is perhaps one of the most important social skills in our country. Besides, learning other skills such as respecting others' rights, ethics and religiosity occupy a very sublime status in this regard. Planning in the animation section for collaborative productions with other countries based on the commonalities of value systems is the other important domain.

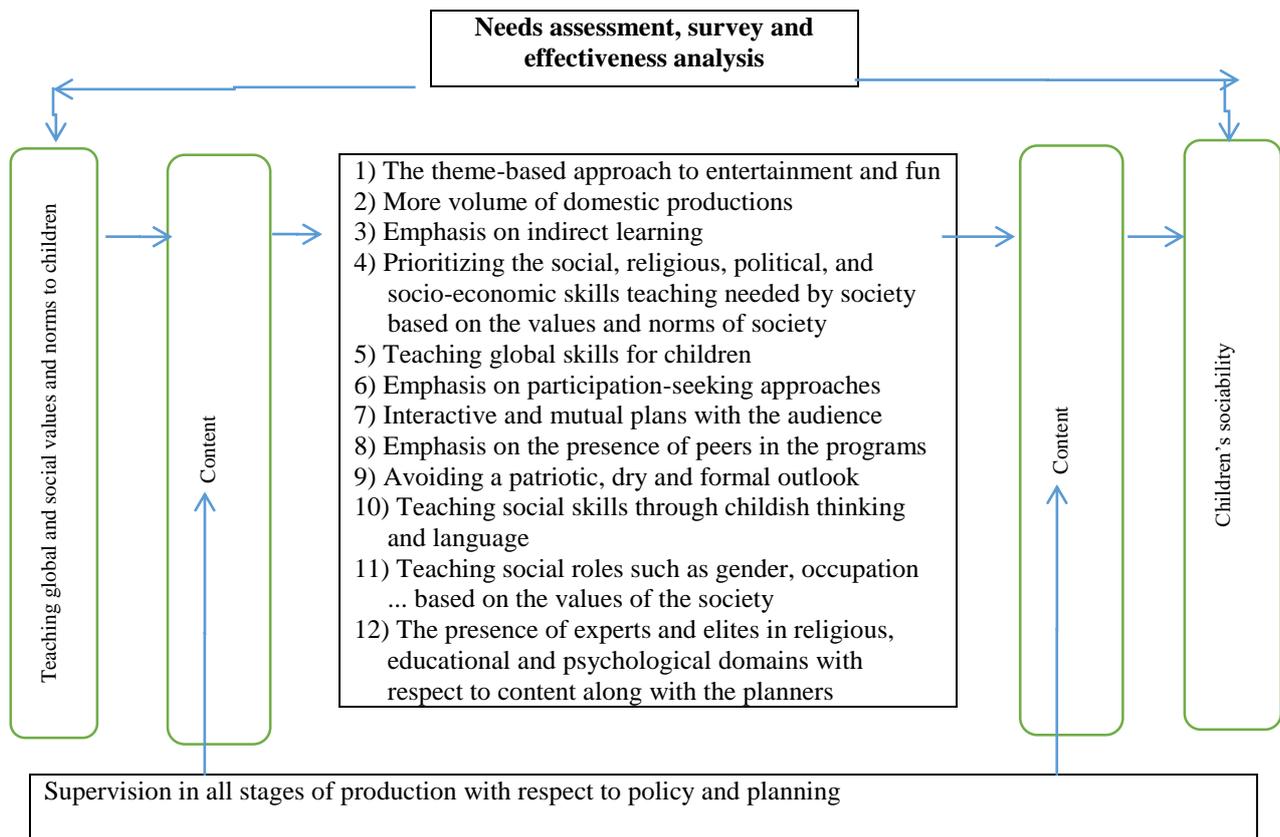


Figure 9: The message management policy model for creating and promoting children's social skills

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# AN ANALYSIS OF CIVIC CULTURE IN ARAK METROPOLITAN

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## Abstract

*To solve urban problems, urbanization crises and modification of citizens' behaviors, an appropriate citizenship and urbanization culture is of essence. These are the basic components of urban life style. For all components of urban life style, the role of culture in the social relations, urban utilities, transportation system, city structure and urban applications should be considered to create the required balance. Therefore, it can be noted that the main function of citizenship is to manage the society based on observing the rights of others and to commit to perform duties in order to preserve ethics and rights. In this study, to explore the dimensions of the civic culture development, three dimensions (namely participation, rule of law and accountability) were examined and analyzed. The indices separately addressed urban dimensions for five urban districts in order to provide solutions for the development of the civic culture in each district, tailored to their specific needs.*

**Key words:** Civic culture, citizen, participation, accountability, rule of law

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## Introduction

Over the past few decades, the development issues have focused on social capital, in addition to the human, physical and economic capitals raised in traditional development perspectives. Social capital is an interdisciplinary concept in humanities, which addresses the role of social factors in the development of societies. The economists and sociologists consider this concept in economy and social investigation of developed societies.

Social capital has also benefited from cultural developments in the social sciences. Along with the increasing attention to the cultural aspects of social behavior, there has been a significant increase in the tendency toward what is called micro-level of behavior and individual experience. Some sociologists like Pierre Bourdieu regard social capital as one of the dimensions of cultural capital. He initially puts forward and examines the metaphor "cultural capital". Then, he refers to the concept "social capital" and uses the metaphor "cultural capital" to point out that the cultural preferences make some groups superior to other groups. Cultural capital contains tendencies, habits and attitudes that give people the ability to use their potential abilities to add to their cognitive aspects.

Both cultural capital and social capital collaborate to employ the scattered potential and talents possessed by individuals of a community, i.e., human and cultural capitals, in a collective way to overcome the interpersonal and social problems of human relations. It may be said that the combination of these two capitals in the urban area is manifested in the concept "civic culture", in whose formation and sustainability different domains are involved.

Citizen is a person having a foundation in a community and enjoys some relevant rights and obligations. The specific attribute provided by this foundation for citizens is the ability, movement and dynamism in various fields of society (private, public and state) (Fatemi Niya, 2007).

Citizenship and behavior of citizens are among the fundamental variables and factors expanding social capital and, consequently, developing human societies and culture, which are of particular importance in recent social studies (Fathi and Sabeti, 2012). The notions 'citizen' and 'citizenship' are concepts that have been considered by the thinkers and theorists in various social, legal, moral, philosophical, political and other spheres since the advent of civilization due to their association with the concept development. Given the effective role of citizenship in the development of cities, especially metropolitan cities, the civic culture has been studied as a critical factor.

In the contemporary era, urbanization and citizenship are manifestations of civilization and many governments have prioritized urbanization and citizenship and its relevant topics to consolidate their social and political status.

The main function of citizenship is the administration of society in accordance with the principles of observing the rights of others and commitment to perform tasks in order to preserve the common institutions establishing and maintaining these rights (Taghizadeh, 2005).

In the present age, citizenship is a social necessity and, as a social construct constructed by social and cultural contexts in the society together with the diversity of cultures, forms different meaning in the society (Ameli, 2001).

In this study, the citizenship indices are investigated in Arak metropolitan area in order to provide solutions for promoting the civic culture, urbanization and urban development.

## Research literature and conceptual model

Urbanization has a long history in the world, especially in the East. Since then, the growth of civilization has been accompanied by the development of urban life. However, the urbanization and the size of cities in previous eras have been different from the modern cities and metropolitan area at the present time. Everyone believes that today's city cannot be summed up in its entirety and its facilities; however, the important point is the permanent accumulation of humans in a certain space that is formed as a complex social center. In fact, the city is not just a gathering of individuals but it also involves different groups such as families, social classes, workshops and factories, different gangs and associations and so on.

One of the characteristics of large cities is the size of their populations, which creates a great deal of diversity as gathering a large number of people together increases their potential differences. With the migration of different groups to the city, there is a need for formal control of structures, which can be referred to as legal systems. Population density is another characteristic. Also, the heterogeneity of the population combined with the social interaction of personality traits leads to the collapse of tribal boundaries and complex class structures, and thus increases the social mobility.

The above-mentioned social realities undoubtedly have important consequences for cultural phenomena and collective thoughts so that one can mention a kind of urban spirit or civic culture that is different from the characteristics of dissimilar communities. In other words, the lifestyle, thinking methods and the emergence of the needs and emotions formed according to the communities and regions -with the city being part of them- varies according to the history and characteristics of the cities.

The city is composed of affiliated people who interact with each other. Every single citizen acts as an actor of a cultural city. In one of the definitions presented for the city, it is a large and dense phenomenon having permanent and public residential, which is socially and culturally heterogeneous; therefore, the urbanization is a function of population density, size and heterogeneity. However, the urgent need of today's major cities is the existence of a common culture in terms of daily interactions and living in the city and public places to achieve the desired level of urbanization and urban development. What is certain is that the existence of a civic culture is one of the basic and essential requirements for today's urban development and growth. In fact, a set of social values such as citizens' egalitarianism, freedom, individualism, democracy and civic responsibility should be mentioned in the domain of the civic culture. These parameters are considered as the cultural rights of the citizens in an urban community.

Since the 19th century, the civic culture has emerged as a kind of process in line with civil society and national governments. With the seriousness of the globalization problem in recent decades, this phenomenon has become one of the most important contemporary social issues. In this process, "citizenship and civic culture" are considered to be the most dynamic social and cultural concepts of the modern world. In other words, the foundation of civil society is formed based on the social institutions of the civic system and its dominant culture. Hence, the main foundations of the civil society as the political and social system are founded by civic institutions such as the legislative body, institution of the public political governance in the form of democratic systems (Ameli, 2001: 168). In fact, a citizen with the help of a collection of their rights and obligations in the form of cultural teachings finds a way to justly distribute and administer resources through sharing the interests and responsibilities of social life (Kousha, 2008: 14).

In the civic culture, there is no legal norms and predetermined and strict forms such as citizenship rights; however, there is a set of norms and values with high flexibility, which is the result of the diversity and differences of urban culture or subcultures. This accompanies the methodology of studies on the civic culture with a kind of adaptation that allows for a comparison between differences and variations in the civic culture of a city. According to Turner, cultural citizenship "... refers to the cultural participation of individuals in the community. And the cultural citizen is one who commits himself to participate in issues related to the general culture of the society" (Naghizadeh, 2006). Reviewing the studies conducted in the field of civic culture shows that all sociologists agree on the key parameters and variables of the civic culture. These key concepts are "urban accountability, the rule of law and normality of urban patterns" which can be called citizenship dimensions. The internalization of all these concepts among the citizens forms the identity of the civic culture and the lack of any of these concepts in an urban community hinders the emergence of a civic culture. Citizenship, on the one hand, belongs to a city with an urban identity and, on the other hand, has a direct relationship with the political, social, cultural and economic identity (Castells et al., 2003; Roch 2002; Grossman, 2000; Jonuski et al., 2002). The historical course of the concept civic culture also shows this fact. Culture is an acquired, transitive, dynamic and educational phenomenon. Due to these characteristics, the civic culture can be defined as the acquired capability and non-innate ability of human beings, which forms one's general lifestyle and directs one's interactions with others. If culture was only tied to the concept 'past' in the past, culture now becomes meaningful with time; therefore, culture can no longer be viewed solely from a historical point of view (Hernandez and Mayer, 2008 since the technological achievements of the third millennium has transformed the status of the civic culture with concepts such as technology, media literacy, globalization and multiculturalism and formulated a new interpretation of the civic culture. Thus, the civic culture cannot be limited merely to preserving cultural heritage because, in addition to the commitment to the previous generation, educating the future generation is also obligatory (Ghaedi, 2006). Understanding the needs and priorities of human life on the one hand, and the total dependence of the country's internal development and transformation on human development, on the other hand, have made the civic culture, which is a man-made and man-making product, the most important challenge for nations to educate the future generation. This is an issue which can create and expand individual and collective identities in various human life aspects (Shah Talabi et al., 2010). Because culture is a dynamic process which is continuously developing and changing, humans are able to change the culture in a way that it leads to human excellence (Ghalthash, 2009).

To solve urban problems and urbanization crises and modify the behavior of citizens, the existence of an appropriate culture of citizenship and urbanization is of essence. These are one of the basic and permanent bases of urbanization. For all components of urban life style, the role of culture in the social relations, urban utilities, transportation system, city structure and urban applications should be considered to create the required balance. The foundations of citizenship, by designing the demand that all individuals should be treated equally, can eliminate the roots of social tension that threaten the social order. a citizen with the help of a collection of their rights and obligations in the form of cultural teachings finds a way to justly distribute and administer resources through sharing the interests and responsibilities of social life (Kousha, 2008: 14). With the onset of the urbanization revolution, the concept of citizenship studied the concept of civic culture as a process of national government in a coherent manner caused by a bottom-up legitimate political power. From the 20th century onward and with the formation of the idea of expanding welfare and urbanization and lifestyle provision in metropolitan cities, the civic culture has involved mechanisms to be trained to citizens for urban participation. According to this historical and theoretical course, the civic culture should be considered as a set of social laws and conventions which should be implemented by citizens and executives to have coordination and a life style without tension and to pave the way for a comprehensive and sustainable development of the cities, which would provide a way for transition from the current unfavorable status to the right place along with a gradual growth for future generations. Fig. 1 shows the conceptual model used to implement this research.

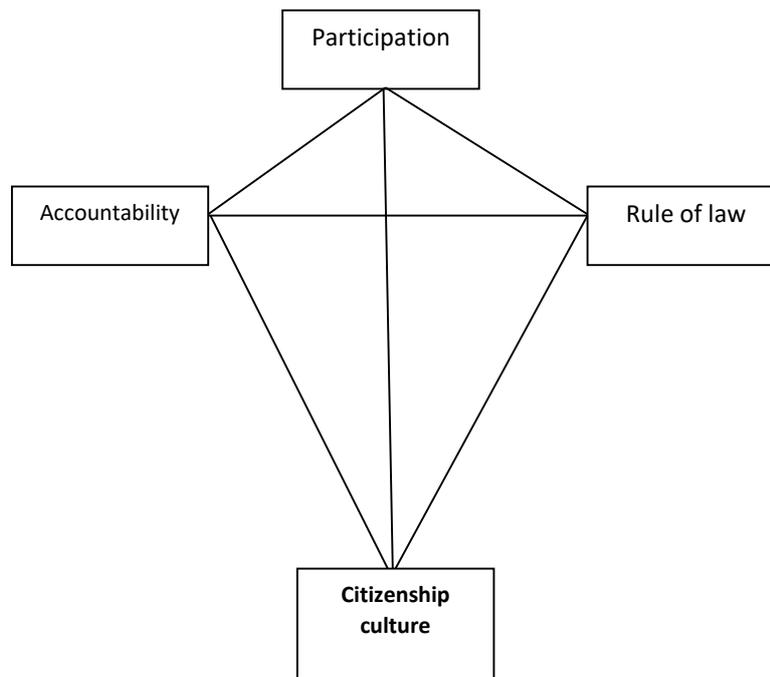


Figure 1: Conceptual model of citizenship index in Arak

## Demographic characteristics of respondents

The demographic information of the respondents questioned was as follows: Gender, age, level of education, field of study and occupation.

### *Sample distribution by gender*

In this study, there were 138 (81.2%) male and 32 female participants. Thus, the frequency of men is four times greater than that of women.

### *Sample distribution by age*

The highest and lowest sample sizes regarding the respondents' age were 30.4% of individuals aged 30 to 40 years old and 1.4% of individuals aged between 15 and 20 years old, respectively.

### *Sample distribution by level of education*

A majority of the participants (31.4%) had undergraduate education. Then, there were 24.2% of individuals with education above and below diploma level and with associate degree, 17.1% of undergraduates and postgraduates, 14.2% individuals with undergraduate education. The lowest sample size was allocated to individuals with associate degree.

### *Sample distribution by field of study*

According to the above table and figure, the largest number of respondents ( $n=62$ ) were majored in mathematics and engineering, accounting for 29.5% of the total sample. The lowest sample size was attributed to those majored in the experimental sciences, accounting for 11.4% of the total sample.

### *Sample distribution by occupation*

The largest numbers of the participants (more than a quarter of the total sample) were clerks and experts, accounting for 23.8% of the total sample. The smallest sample size accounted for 2.8% of the participants in the arts.

## Structure equation modeling

Structure equation modeling was used to test the hypotheses and analyze the data. To this end, the AMOS software version 20 and SPSS software version 22 were used. To run the structure equation modeling, it is necessary to verify the adequacy of the data. Hence, the formula  $5q \leq n \leq 15q$  was used to ensure the structure equation modeling using maximum likelihood in the present study, where  $q$  is the number of questions and  $n$  is the sample size. Given that there were a total of 28 questions and 210 questionnaires available for analysis, the adequacy of the model for

structural equation modeling was confirmed by the maximum likelihood method. The research model, in total, has three main variables: Accountability (12 items), rule of law (7 items), and participation (9 items).

In the structure equation modeling, there are three common methods: Maximum Likelihood (ML), Generalized Least Squares (GLS), and Unweighted Least Squares (ULS). Each method evaluates a solution with the best fit and assesses the model fitness (Shomaker & Lomax, 2009, p. 124).

## Maximum likelihood method

Byrne (2010) states that data should meet some prerequisite to be used in the maximum likelihood method: Normal distribution, continuous data, or continuous measurements. In this research, the skewness and kurtosis were used to test the first prerequisite (Table 1). Using the Likert scale for the research scale, the second prerequisite was met.

Table 1: Data normality

Variable	Mean	Standard deviation	Skewness	Kurtosis
Accountability	4.317	0.797	-0.511	0.053
Rule of law	4.152	0.865	-1.024	1.085
Participation	3.322	1.054	-0.229	-0.540

Byrne (2010) suggests that the kurtosis value below 7 and skewness values between -3 and +3 indicate the normality of the data. Based on Table 6, the skewness values ranged from -1.024 (rule of law) to -0.299 (participation) and -0.511 (accountability) and the kurtosis values ranged from -1.085 (rule of law) and 0.540 (participation), indicating that the data is normal. Since these two prerequisites were met, the maximum likelihood method was used in this study.

## Confirmatory factor analysis

As it can be observed, three categories of fit indices were considered for the structure equation modeling: Absolute fit indices, incremental fit indices and parsimonious fit indices. According to Byrne (2010), the model is fitted if three indices are at least an acceptable level.

Table 2: The model fit indices

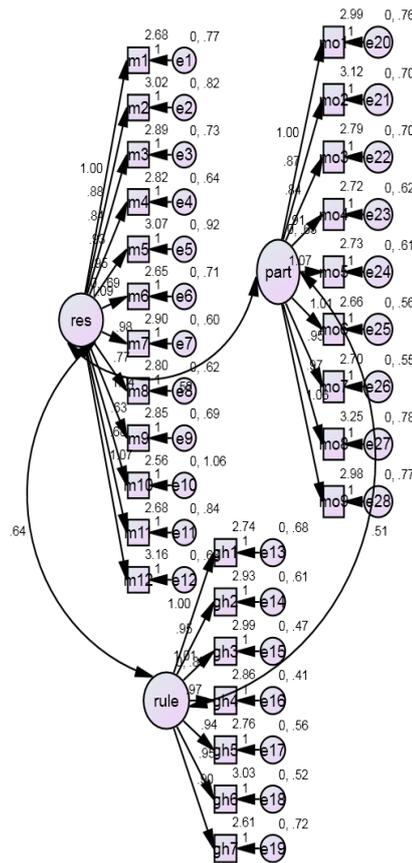
Index	Abbreviation	Acceptable level
Absolute Fit Measures		
Chi-square statistic	$\chi^2$ (df, p)	$p \geq \alpha$
Goodness-of-Fit Index	GFI	Minimum of 0.9
Root Mean Square Error of Approximation	RMSEA	Maximum of 0.8
Root Mean square Residual	RMR	Maximum of 0.8
Incremental Fit Measurement		
Tucker-Lewis Index	TLI	Minimum of 0.9
Normed Fit Index	NFI	Minimum of 0.9
Comparative Fit Index	CFI	Minimum of 0.9
Parsimonious Fit Index		
Normed Chi-square	$\chi^2 / df$	$5 \chi^2 / df = <$

Source: Hair et al. (2006); Byren (2010); Ho (2006) and Shomaker and Lomax (2009)

## Research Measurement Model

The measurement model was designed as below.

Chi-square (df) = 151,009 (74); Pvalue ( $\geq 0.05$ ) = ,000;  
 Relative Chi-Sq ( $\leq 5$ ) = 2,041; RMR ( $\leq 0.08$ ) = ,049;  
 GFI ( $\geq 0.9$ ) = ,910; CFI ( $\geq 0.9$ ) = ,933; IFI ( $\geq 0.9$ ) = ,934;  
 RMSEA ( $\leq 0.08$ ) = ,070.  
 (Standardized estimates)



## Dimensions of citizenship

In this study, three dimensions of citizenship including participation, rule of law and accountability were studied and analyzed to explore different aspects of the civic culture development. In this section, citizenship dimensions were examined and categorized according to the respondents.

### 1. Accountability

As the table below suggests, a majority of respondents moderately feel accountable to family, society, friends, and others.

Table 3: Classification of respondents based on the degree of accountability

Accountability	Absolute Frequency	Relative Frequency	Cumulative Frequency
20-10	28	14	14
30-21	44	24	36
80-31	88	44	80
90-81	28	14	94
95-91	12	6	100
Total	200	100	

2. Rule of law

According to the table below, many respondents (by an average of 36.5%) are obliged to observe the laws.

Table 4: Classification of respondents based on the level of rule of law

Rule of law	Absolute Frequency	Relative Frequency	cumulative Frequency
20-10	22	11	11
30-21	47	23.5	34.5
70-31	73	36.5	71
90-71	43	21.5	92
95-91	15	7.5	100
Total	200	100	

3. Participation

Most respondents with an average about 38% moderately participated in social issues.

Table 5: Classification of respondents based on the level of participation

Participation	Absolute Frequency	Relative Frequency	Cumulative Frequency
20-10	26	13	13
40-21	45	22.5	33.5
75-41	76	38	3.57
90-76	38	19	92.5
95-91	15	7.5	100
Total	200	100	

4. Dimensions of citizenship

According to Table 6, most respondents (an average of 45.5%) were committed to the citizenship principles.

Table 6: Classification of respondents based on the citizenship index

Dimensions of Citizenship	Absolute Frequency	Relative Frequency	Cumulative Frequency
20-10	20	11.5	11.5
40-21	35	20.2	31.7
80-41	79	45.6	77.3
90-81	31	17.9	95.2
95-91	8	4.6	100
Total	173	100	

5. Consideration of urban districts to examine citizenship dimensions

According to the results presented below, the respondents, except for those in District 1, moderately revealed citizenship behaviors.

Table 7: Classification of respondents based on urban districts

Highest frequency	Accountability	Frequency	Rule of law	Frequency	Participation	Frequency
District 1	Very low	13	Low	14	Very low	11
District 2	Moderate	15	High	19	Moderate	19
District 3	Moderate	18	Moderate	16	Moderate	14
District 4	Moderate	15	High	13	Moderate	13
District 5	Low	18	Moderate	13	Moderate	12
Historical texture	Moderate	13	Moderate	12	Moderate	9

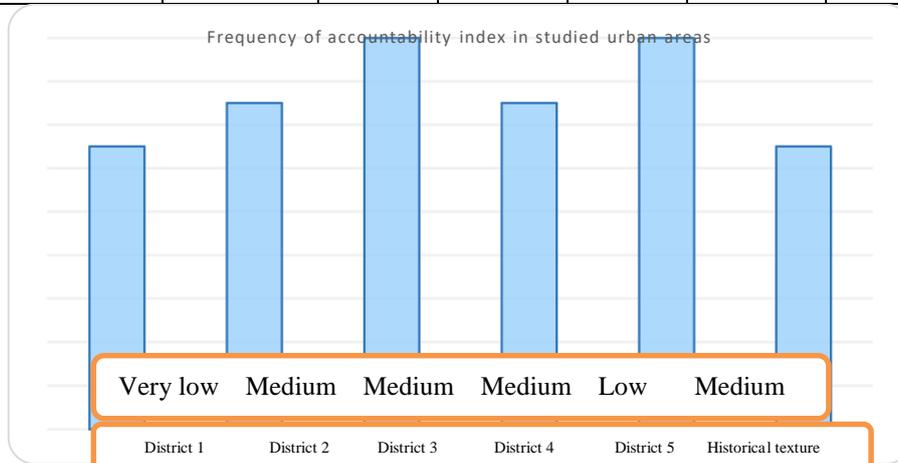


Figure 2. Frequency of accountability index in studied urban areas

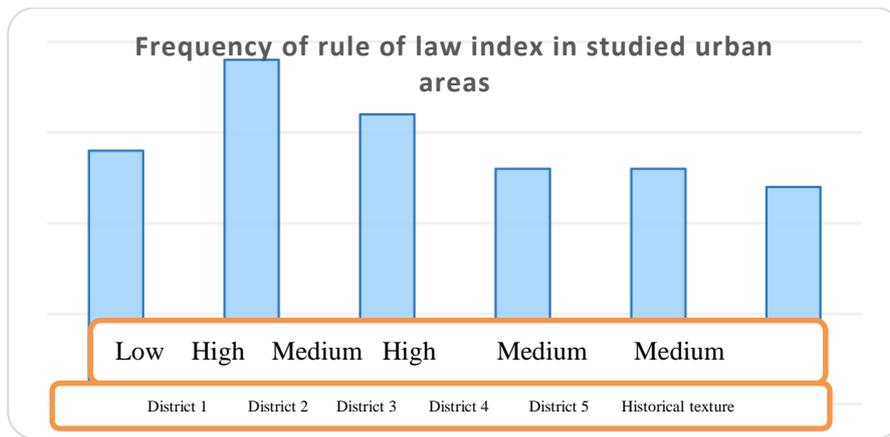


Figure 3: Frequency of rule of law index in studied urban areas

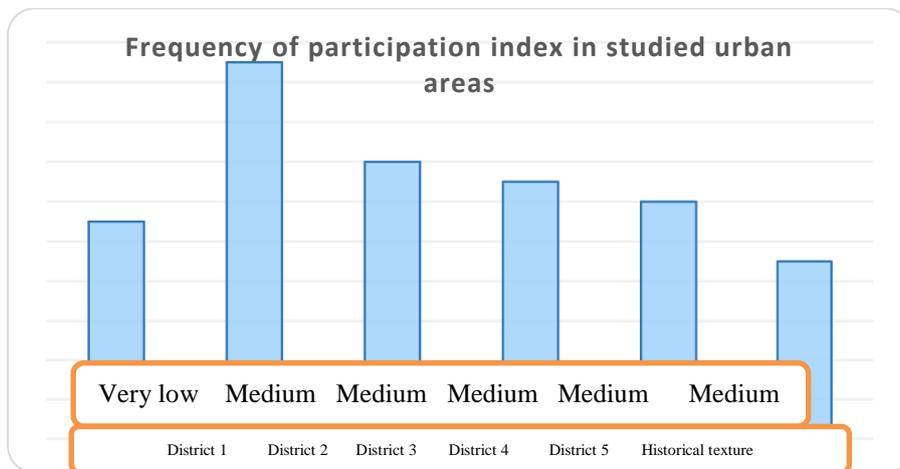
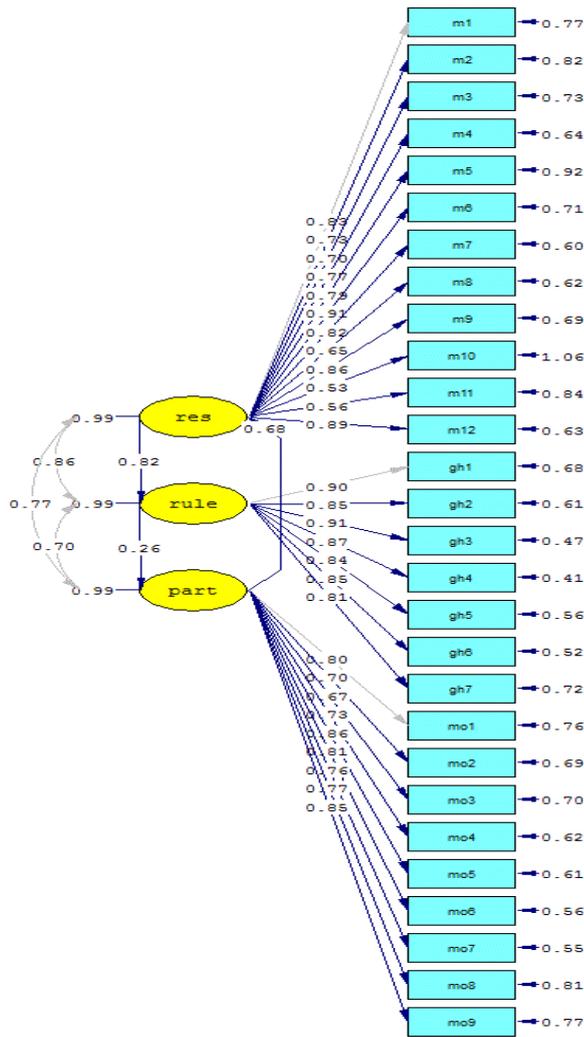
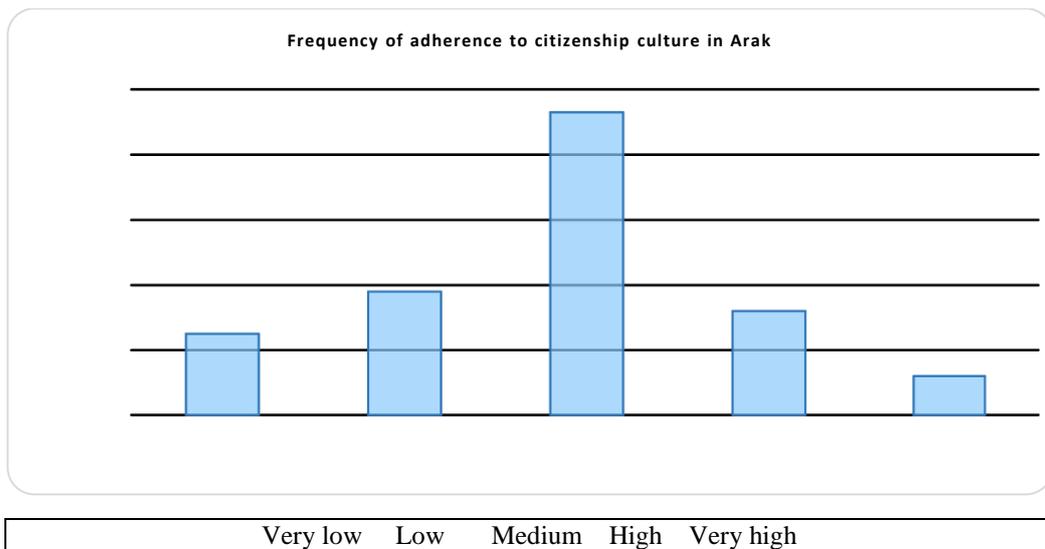


Figure 4: Frequency of participation index in studied urban areas

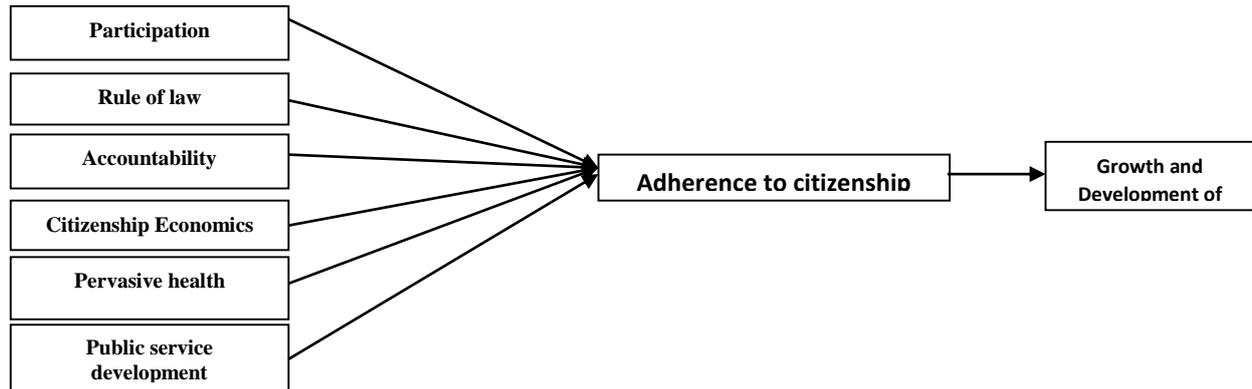
Final diagram of the study model



A summary of the research results



Proposed model for future research to provide strategies for the development of civic culture in the Islamic Republic of Iran



## Discussion and conclusion

Given that citizenship is a concept that is almost universally accepted and embraces individual and social principles and with regard to the fact that citizenship is a right and active citizens are considered as a key element in the development of a civic culture; therefore, citizens must be present in different social fields in order to appeal for their rights. One of the most critical factors in achieving the civic culture is to hold a conscious and universal attitude towards participation. The effect of public and non-governmental institutions, such as the municipalities, in explaining and developing the civic culture is confirmed. The civic culture which is formed through the combination of the cultures and norms internalized in the cities and is under the influence of multiple transnational cultures should be considered by the municipalities in order to create an appropriate ground for the citizens who are the key members to have a bilateral communication from top to bottom (i.e., creating opportunities for active participation by the urban management structure) and from bottom to top (i.e., active participation presence of citizens in various areas of the society, especially the public sphere). Since the city and the civic culture is one of the basic necessities in increasing and expanding social capital in each society, having knowledge of its quality and quantity at different times is essential for the comprehensive development of societies. The empirical results of this research showed that the citizens residing in Arak city are at a moderate level regarding the three dimensions of citizenship (namely participation, accountability and rule of law and commitment to the principles of citizenship). This finding in comparison to other surveys carried out in metropolitan areas in this regard is remarkable since Arak city compared to other metropolitan areas has no long historical background. This city also contains a greater number of industrial immigrants with relevant educational background; ultimately leading to the significant growth of the civic culture index in Arak. Hence, Arak, in spite of its historical background, has been accepted as the cities possessing long historical background. It should be noted that the non-observance of the laws by citizens is caused by some factors as follows: Lack of awareness of citizenship rights, lack of transparency in terms of the positive effects of rule of law, including the municipalities' laws on the quality of city management, lack of incentives to encourage, observe and enforce the timely implementation of tax laws in urban management, lack of adequate training for citizens to become aware of the benefits of law governance on the quality of life and human community, ambiguity of some laws, applying law in a spectrum and according to preferences in society, bypassing the law and avoiding its implementation by particular individuals and thus creating a sense of distrust to the city's custodians, the possibility of various interpretations of the laws for personal gain and so on. Furthermore, the citizens' low level of accountability can be caused by the lack of appropriate conditions for attracting citizens to accept responsibility, lack of a precise social control system and the absence of a proper reward and punishment system, lack of adequate training at lower levels of education to define the citizens' social responsibilities. Also, participation, which is one of the main dimensions of the civic culture, has been observed by the citizens of Arak at a moderate level, implying no desirable finding. The lack of participation can be attributed to lack of motivation and training in terms of citizen participation strategies and the citizens' social indifference and reluctance to engage in public activities in Arak. Citizens' acquaintance with the NGOs and services of the benevolent in the community can be effective in encouraging citizens for further participation. Providing appropriate grounds by the municipality in order for the benevolent and entrepreneurs to interact with each other to increase the presence of the public in the development of public participation in the field of urban management is also of great impacts.

The research findings revealed a significant relationship between the citizens' socioeconomic status and their participation in various social affairs; that is, the more empowered the citizens' social and economic bases are, the higher their participation in higher social affairs would be and vice versa. In general, it can be claimed that the internalization and development of the civic culture in the Islamic Republic of Iran, including Arak with regard to its existing potentials and transitional structure, can be approached from various educational approaches. The only point to be considered in addition to traditional classroom education is that training is effective only when the educators and practitioners, and in general, the authorities of the community themselves are committed and adhere to these laws; otherwise, it would bring the least effect.

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## THE CIVIL LIABILITY IN IRAN'S LAW AND STUDYING THE ABSTRACT CAUSES

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### Abstract

*Compensating the damage to the victim and the liability of cause or causes of a damage are among the matters arising from all communities which covers some laws including civil liability law, the civil law, the former IPC in Iran's law to comply with the law and Shariaa. When the damage is occurred influenced by the act of only one cause, the judgment shall be clear Intellectually, religiously and legally and there will be no ambiguity to make the judgment controversial. But, when the damages is occurred by more than one cause, making a rather fair judgment shall be difficult due to the complexity of the matter. For this reason, apparently the legal judgments only covered some forms of criminal cases. Today, by passing the new IPC and resolving some Ambiguities, the law has considers attributing the criminal act to the behavior and the act of the causes as the basis for sharing the liability. In fact, the most important difference between the new IPC and other laws regarding combination of the cause and perpetrator and the civil liability is attributing the crime to the cause. In other words, unlike former laws, regarding some ambiguities, the new law helps in how to determine each of the causes and, attributes each cause or perpetrator reliable and make them to compensate and to the extent of his / her involvement and effect in the crime . Having said this, other solutions have been predicted regarding the abstract and ambiguous causes or the factors that noone can determine the attribution of criminal to them.*

**Keywords:** civil liability, the civil law, the IPC, abstract causes

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## Introduction

The article 332 of the Civil code addresses the combination of the cause and perpetrator, and attributes liability to the perpetrator in principle and attributes liability to the cause if the cause is more responsible than the perpetrator. In the former IPC, the articles 363 to 366 address the combination of the cause and perpetrator, the combination of some causes in committing crime and predict the same decree as the civil code. The explanation of the above-mentioned articles is based on the fact that : because the perpetrator is directly involved in committing the crime or wasting a property, he / she is more responsible than the cause who is indirectly involved in committing the crime or wasting a property and the crime or the loss shall be attributed to the perpetrator and shall be known as the liable person. But, the article 526 of the new IPC enacted in 2013, through changing the previous basis, states: where two or more perpetrators, some of them directly, some by causality contribute to occurrence of a crime, the perpetrator to whom the crime is attributed shall be liable, and where the crime is attributable to all perpetrators, they will be liable equally, save where the impact of the action of perpetrators differ, in which case each perpetrator shall be liable to the extent of contribution of his action. Where the direct perpetrator of a crime lacked free will or was ignorant, undiscerning minor, insane or the like, only the direct perpetrator or the cause shall be liable. The causality of modes subject has different forms like: the combination of the cause and perpetrator, the cases in which there is no perpetrator or the cause is more responsible than the perpetrator, and the modes in which the causes are linear or transversal. In the mentioned modes, determining the liable person and determining who is responsible and liable for the criminal act is not an easy work, but one of the most difficult and challenging issues in law and jurisprudence and causing the dispersion of views in this area. In fact, the above-mentioned issue consists of two parts. The first part is that both the cause and perpetrator play a role in committing the crime and the second part is that only the cause commits the crime and makes the incident. Considering the modes and forms which have been mentioned, the main question of this study is that : what is the role of causality in criminal liability? In other words, From the perspective of jurisprudence and law, what is the role and the place of causality in criminal liability? To answer the question and to find the role of cause in criminal liability, There have been many different opinions. For example, the liability of perpetrator theory, the equality of causes theory, the more responsible cause theory, the theory of precedent cause with respect to existence, and the theory of precedent cause with respect to the effect ..... and most of the legal and religious scholars and also legislators choose the theory of precedent cause with respect to the effect. With respect to these modes, this research studies the role and the place of causality in civil liability.

## First section: provisions of law

### a) From the civil liability law

Article 11. State and municipal employees and also the employees of their affiliated institutions make damage to people intentionally or as a result of negligence on duty, they shall be liable to compensate by person. But, when the occurred damage is not attributed to their act and to the defective equipments of the departments and institutions, that department or agency shall be in charge to compensate. In the case of exercising the state authority, when the necessary measures which is taken to provide social benefits according to the law, leads to another loss, the state government shall not be forced to compensate.

Article 12. Employers who are working are liable to compensate the damages which are occurred by their administrative staff and workers on duty. Unless it is proven that all necessary precautions are taken to prevent from any damage, or in the case that occurring the damage is inevitable despite the fact that all necessary precautions are taken. In this case the employer can address the one who make the damage to compensate if the law has legally known him as liable.

Article 13. Employers covered by Article 12 can shall put insurance for their administrative staff and workers against damage to third parties.

Article 14. Regarding the article 12, when some people collectively make damage, all of them shall be liable. In this case, the extent of their liability shall be determined by the court just according to the manner of their interference in making the damage.

Article 15. When someone makes physical or financial damages to another person in self-defense, he / she shall not be liable to compensate provided that the damage to be happened normally by self-defense.

### b) from the civil code

Article 328. Someone who wastes someone else's property whether intention or unintentionally, Whether the same or interest, he shall be liable and to give the like or pay its price to the owner of the property. And if he makes damage and defect to that property, he shall liable to pay its price.

Article 329. If someone destroys someone else's house, he shall be liable to rebuilt the house as its first made or to pay its price.

Article 330. If someone kill the animal of someone else without the permission of its owner, he shall pay The price difference between its living and dead. If killing the animal was due to the self-defense, then he shall not be liable.

Article 331. Someone who wastes someone else's property, he shall give the like or pay its price to the owner of the property. And if he makes some defects to the property, he shall be liable to remove the defect or pay its price.

Article 332. When someone makes the arrangements for wasting a property (cause), and someone else who is directly involved is the perpetrator of this act, the perpetrator shall be liable. Unless the cause is more responsible than the perpetrator so that wasting the property can be customarily attributed to the cause.

Article 333. The owner of a wall or a building or factory shall be liable to compensate the damages that are made by destroying them provided that the damage is due to the defect that the owner knew about it or due to the not taking care of it.

Article 334. The owner or possessor of the animal shall not be liable to compensate the damages that the animal makes, unless the damage has been made to keep the animal (alive). Anyway, if the animal makes damage due to the act of a person, that person shall be liable to compensate.

Article 335. In the case of the crash between two ships or two trains or two cars and like these, the liability shall be attributed to the party that the crash or accident was happened due to his deliberate act or negligence, and if both parties have deliberate intention or negligence in committing the accident, both shall be liable.

#### **c) From the former IPC**

Article 363. In case of the Perpetrator and Cause Combination, the perpetrator is liable unless the cause is more responsible than the perpetrator.

Article 364. Where two or more persons, doing an unauthorized act, are involved in committing a crime by causing it in sequential order, the one whose effect preceded the effect of others or other causes shall be liable. For example, where one of them had dug a well, and the other put a rock beside it, and a passerby fell into the pit by hitting the rock, the one who placed the rock shall be liable, and the one who dug the well shall not be liable.

#### **d) From the new IPC**

Article 334. Where reasonable suspicion exists as to commission of a crime by two or more persons on probable basis, should the complainant require compurgation, each shall undergo compurgation. Should all or some of them refuse to take oath, wergild shall be payable by any person who has refused. Should those refused be numerous, each will be required to pay an equal share thereof. Should all take compurgation, wergild will be paid out of the treasury in case of murder

Article 492. Commission of a crime shall be punished by talion or wergild, if the yielded result is attributed to the act of the perpetrator, whether committing the crime is the act of perpetration or causality, or both

Article 494. Being perpetrator in a crime means that the crime was committed directly by the perpetrator in person

Article 506. Causation in a crime is that someone provides the caused for wasting and destroying a property or hurting another one and that person is not directly committed the crime so that in case of lacking his/ her wisdom, no crime will be done, is like someone digs a well, and someone else falls into it and gets hurt

Article 526. Where two or more perpetrators, some of them directly, some by causality contribute to occurrence of a crime, the perpetrator to whom the crime is attributed shall be liable, and where the crime is attributable to all perpetrators, they will be liable equally, save where the impact of the action of perpetrators differ, in which case each perpetrator shall be liable to the extent of contribution of his action. Where the direct perpetrator of a crime lacked free will or was ignorant, undiscerning minor, insane or the like, only the direct perpetrator or the cause shall be liable.

Article 533. When two or more persons cause perpetration of a crime of infliction of damage upon another by collaboration in such manner that the crime or damage could be attributed to both or all of them, they shall be equally liable

Article 534. Where two or more persons collide as a result of making a barrier or a cause and are damaged or killed owing to the collision, the causer shall be liable

Article 535. Where two or more persons, doing an unauthorized act, are involved in committing a crime by causing it in sequential order, the one whose effect preceded the effect of others or other causes shall be liable. For example, where one of them had drug a well, and the other well a rock beside it, and a passerby fell into the pit by hitting the rock, the one who placed the rock shall be liable, save where all of them had the mens rea to commit the crime, in which case it will constitute joint criminal enterprise in crime

Article 536. Where in respect of article 535 of the present law, the act of either person is unauthorized and that of the other is authorized, such as where a person wells an instrument or something beside a road, which is a permitted act, and the other digs at the side of it, which was an unauthorized act, the person whose act was unauthorized shall be

liable. Where an act of a person was committed after that of the first one, knowing that creation of that cause beside the first cause will result in injuring others, the second person shall be liable.

Article 537. In all of the cases mentioned in this chapter, where the crime is exclusively attributed to the deliberate act or the fault of the victim, no liability shall be engaged. In the cases where the perpetration of the principal crime has been attributed to the deliberate act or fault of the perpetrator, but its spread was attributed to the deliberate act or fault of the victim, the perpetrator shall not be liable for the spread thereof.

## **Second section: comparison of laws**

### **I Comparing the Article 334 of the new IPC and the Article 14 of the civil liability**

Sometimes, two or more persons may be involved in a damage, and the resulted damage can be attributed to their action as a whole. In Judicial procedure and Legal doctrine theories, there are some disagreements regarding how to divide the liability between the causes. It should be noted that the discussion is about the transverse causes in damages not the linear causes. Another worth noting point is that, regarding the article 335 of the Civil law and the 334 of the new IPC and some laws have decisions about joint liability which this research aims not to study them. What this research aims to study is review the decree generally, and the result is adjusted if it does not conflict with their own provisions.<sup>39</sup> The Article 334 of the new IPC contains: where reasonable suspicion exists as to commission of a crime by two or more persons on probable basis, should the complainant require compurgation, each shall undergo compurgation. Should all or some of them refuse to take oath, wergild shall be payable by any person who has refused. Should those refused be numerous, each will be required to pay an equal share thereof. Should all take compurgation, wergild will be paid out of the treasury in case of murder. In this case, the extent of liability of each of them will be determined by the court regarding how they involved in the crime. These two articles appear to have some conflicts that analyzing and correct conclusions from them will help us to reach the goals which are finding the best ways to share the liability among the causes and accessory (cause). Regarding the Article 14 of the Civil Liability we have to consider two points: the article 12 that has been referred by the article 14 of the Civil liability is related to the employee and employer liability toward the damaged person. Whereas, it is unlikely that the employee and employer relation toward the damaged person to make such a decree. Therefore, the Article 14 should be considered a general article which extends to the same cases in this regard (Ansari, 2005). The second point is that in Article 14, liability has not been predicted in the relation between the damaged person and the causes of the damage. Whereas, what is meant by sharing the liability according to their involvement in the following of the is the final sharing of the liability among the causes and the writing style of the article should not be considered as having conflict with the provisions of the article (Sadeghi, 1999).

The question that is stated regarding the conflict of the mentioned articles is that does the partnership liability exist in the shared causes? No decree can be inferred from the Article 334 of the new IPC which indicates the partnership liability. On the contrary, Article 14 of the Civil liability law explicitly stated this issue. Some legal experts argue that, as the Article 334 is posterior, it abrogates the Article 14. Therefore, they choose the lack of partnership liability which is in accordance with the article. But, it should be noted that Articles 14 and 334 can be collected together and so, it is not reasonable to abrogate the Article 14. When the Article 334 has no decree regarding the partnership liability, issuing the partnership liability decree cannot be the direct violation of the Article, we can use other Articles like the Article 14 and other related articles. In other laws, the legislator issues a partnership liability decree regarding the similar cases: such as the Article 316 of the Civil liability law regarding usurpation and the Paragraph (c) of the Article 165 of the Maritime Law or the Clause 2 of Article 1 of the Implementation of the former financial convictions law.

When the aim of the compensation is to restore the victim to the former healthy point, the partnership liability will provide the steps to the aim more easier and it is more preferred. Therefore, the decree of the partnership liability is more consistent with the logic of law and the decree of equally being liable in the article 334 of the new IPC concerning the final liability among causes should be considered a principle.

But, regarding the conflict between these two articles, the main question is about how to share the final liability among the shared causes. The Article 334 generally issues the decree of equality of involvement in the crime, and the article 14 accepts sharing the liability according to the extent of the involvement in the crime. How does this conflict can be solved? As mentioned, some voted to abrogate the article 14 of the Civil liability law, since the Article 334 of the new IPC is posterior. But, these two articles can be collected and the stronger view is to accept that the article 334 expresses a principle, the is, to make the judge's job easier, it assumes that both parties have the same share and the same extent of involvement in the damage and it is up to the causes to prove the contrary and to prove that the impact of their action is not the same.<sup>42</sup> Therefore, if the judge finds out that the extent of involvement and how each of the causes involve in the crime is different, the decree that is the causes to compensate equally will be unlike the legal logic, fairness and justice. Accordingly, by these statements, we take a step towards fairness and justice and also no violations can be posed upon articles 14 and 334. In support of this interpretation, we can refer to

the Advisory Opinion 7/1652 of The Legal De partnership of the Judiciary passes on 2<sup>nd</sup> October 1991: as it is derived from materials 212,215 and 334 of the new IPC, when the involvement of two or more causes is obvious in the assault and battery, but the type and the extent of the assault and battery attributed to each cause is not obvious, the decree will be paying the wergild equally. Now we find out what is meant by “the manner of involvement” in article 14? In the procedures of the courts, usually to determine the liability of each of the causes, the judge determines the extent of fault of each cause by the opinion of the experts and it will be the yardstick to judge. But this procedure cannot be confirmed. the manner of involvement is different from the extent of fault. In fact, the manner of involvement includes the extent of fault. That is, the extent of fault is one of the factors to calculate the extent of involvement. But besides that, the judge should consider other circumstances such as the heaviness of the vehicle of the parties in the incidence, physical condition of the causes and trying to reduce the amount of damage. Surely, if the meaning of article 14 was the extent of the fault of each of the causes, it would explicitly be stated. Hence, this should be considered in sharing the shared liability (boushehri, 2010).

## II The liability of the perpetrator in Civil liability and the new IPC

In cases where the liability can be attributed to the perpetrator and the cause creates and the factor to occur the criminal act like the Perjury of some persons Causing an innocent person to be punished, the causes will be attributed as responsible and liable equally. the new IPC states in the article 532 that “when the passengers of two collided vehicle die as result of the collide, the drivers of the two vehicle will be liable to pay the half of wergild of all passengers provided that the crash is *culpa delict*. In case that the incident is culpa fault, the parental kinsmen of two drivers will be liable to pay the half of wergild of all passengers”. The customary impression of The appearance of these events is that the drivers are the perpetrators in the crime, but some lawyers have stated that: Although these two drivers assumed to be perpetrators in the crime, if we consider the vehicles as the physical perpetrator and the main cause, the drivers will be considered as the cause of the crime and it will be one of the examples of the sharing of causes. So, the new IPC decrees to pay the equal wergild (Ardebili, 2007). In addition, when a witness gives a perjury before a judge, and the judge sentences someone else by the perjury, the witness will be liable. And if the judge Sentences the convicted person to death by the perjury of the witness, the witness will be sentenced to death or to pay the wergild. In this regard, Quoted from Masalik, Sahib Javaher stated: even the causes act linear and Simultaneously and their impact is at the same time, this case is one of the cases of the shared causes and all causes are liable and the perpetrator has no liability. as a result, in cases where the perpetrator can be attributed as liable, the cause that are the main factors in occurring the crime will be liable, not the perpetrator (Vahdati Shobeiri, 2006).

## Third section: Solutions of Comparative Law and the new IPC regarding the civil liability of the abstract and unknown causes

### I Solutions of Comparative Law

Because of the comparative study of the subject in some of the formers researches, here we refer, in short, to some of the Famous theories in comparative law and with the aim of better understanding of the solution of the Islamic Penal Code.

#### 1 The partnership liability solution for all abstract causes

To justify the group liability of all abstract causes, several principles is listed.

##### 1.1. The group fault or related fault

When some people cooperate as partners in committing a crime and the partnership is known as the fault, even if the harmful act is done by one of them, the group fault makes us to consider the abstract causes as the shared actors of the damage such as mass hunting in an illegal area Or performing a surgery without the need or without the necessary preliminary tests. In these examples all hunters and the medical team have partnership liability toward the damaged person (Katozian, 2007).

##### 1.2. A group or shared protection

When some persons have the same authority in using, directing and controlling an object, they can be considered as the shared protectors. In French law, According to the clause 1 of Article 1384 of the Civil Code which attributes liability without the fault to the protector, typical and partnership liability of all persons who legally are considered as the protector is accepted. For example, in a complicated surgery in which several Surgeons are working simultaneously, one of the surgical Instruments that is used by all the surgeons is left In the patient's body without the possibility to attribute this act to the negligence of one of the members of the team, then all of the surgeons will be considered as the shared protectors of the surgical Instruments (Mohammadi, 1994).

### 1.3. Legal entity of abstract causes

When a group like a surgical team or a nursing team have enough consistency and follow the same goal, this group constitutes the practical legal entity and also, the law does not deny it. Consequently, the damage caused by one of the members (abstractly) is attributed to the legal entity and all of the members will be attributed to the shared or partnership liability due to the membership in the legal entity (Amid Zanjani, 2003).

### 1.4. Circumstantial evidence of Causality and the theory of sharing the burden of cause

In the Civil liability, the possibility of proving the causal relationship is not provided for the abstract cause not only for the victim, but also it is possible that each of the abstract causes is able to prove to determine the real actor of the damage and the abstract causes as a whole make some ambiguities in the authentication of the causal relationship. Also, there is the possibility of collusion among the abstract causes not to surrender the real actor of the damage. For example, some of the nurses in a work shift refused to give the name of the nurse who injected the wrong Ampoule. So, with the aim of defending the damaged person, the burden of proving the cause will be reversed and it will be assumed that there is casual relationship between the act of each of the abstract causes and the damage incurred, unless they can prove that they had no interference in the event ((Katozian, 2007).

### 1-5 The guardianship of the Governor

In the abstract cause, supporting the damaged person and the need to compensate one hand is a prerequisite, and on the other hand, non-liability of all of the abstract causes or attributing the liability to one of them randomly and by lot does not look fair and can be a source of conflict and chaos. In this case, the judge can interfere by the guardianship of the Governor and determine how to compensate. Therefore, the judge resolves the conflict through sharing and distribution the damage among all of the abstract causes (Mansour, 2001).

## 2 The solution of lot

Regarding the lot principle (lot in every matter is a problem) and the fact the lot is used in objective suspicions subjecting to cases where there is general knowledge and proving it is not possible by the principle or the circumstantial evidence. According to Article 315 of the former Penal Code regarding wergild due to murder and extending it to other cases by the sameness of criterion, some lawyers believe that the liable person can be identified by lot in the abstract causes, because, regardless of considering the lot as the principle or the circumstantial evidence, the shared liability of all the abstract causes is the main opposite of the principle of attributing the liability to one of the causes due to the lack of evidence and surely this is not fair. While, there will be no certainty about overcharging the one who is going to pay the compensation, because it is possible that the real actor of the damage is chosen. Running the principle of the lot in the abstract causes has been criticized on the basis that it is opposed to the distributive justice and distributing the damage and that there is no certainty about liability of the person who has been chosen in the lot as liable. In addition, if only the cooperation in an act makes the fault or makes danger, running the lot will mean disregarding the fault and the danger of all the abstract causes. Anyway, the lot in the abstract causes which is enclosed in a certain group can be run and it is not possible to run the lot in cases where the cause is unknown (Jafari Langrodi, 2008).

## II The solution of the new IPC regarding the abstract and unknown cause

Regarding the lack of evidence in a murder committed by two suspicious persons which one of them is liable, the Article 315 of the former IPC mentions running the lot in paying the wergild. The new IPC lays down the following solutions by distinguishing between the cases where there is confess and the cases where there is not, and in terms of the condition that the reasonable suspicion is established or not and also regarding the unknown cause.

### a) Confession among the abstract causes

According to the article 477 of the new IPC and its note, “in cases where it is generally known (no certainty) that a crime is committed by one of the two or more persons, where the general knowledge is originated from the accused persons’ confessions, the avengers of blood or the victim as the case shall have the option to refer to each of the accused persons for receiving the wergild, and in this respect there shall be no difference between intentional and unintentional crime and between premeditated murder and slaughter” and according to the article 483 of the new IPC: “where a person confessed to have perpetrated a crime punished by wergild, and another person confessed to have committed the same crime, and no detailed knowledge is available to prove that one of the confessions is false, the complainant will have the option to want the wergild only from one of them (Imami, 2009).

### b) Lack of confession among the abstract causes

according to existence or lack of reasonable suspicions, the legislator issues different sentences:

1. If there is reasonable suspicion regarding commission thereof by certain persons whom the general knowledge is available: reasonable suspicion means existence of presumptions and circumstantial evidence that creates

suspicion for the judge in respect of commission of the crime or manner of perpetration thereof by the accused. If the reasonable suspicion is available, the accused person will be required to prove refusing the charge. Because, in blood and wergild due to blood and murder contrary to the property, the plaintiff should take the oath and it is up to the accused to prove that the accused is innocent. In case of submitting reasons and evidence, the accused person, the accused one will obtain acquittal and the compurgation will not be made. But assuming that if the accused person does not have reasons and evidence to obtain acquittal, the plaintiff have the option to make compurgation, that is, the plaintiff can prove the crime or its characteristics by taking oath or want the accused person to make compurgation which means that the accused take oath repeatedly to obtain acquittal. If the plaintiff does not make the compurgation and does not want the accused to make the compurgation, the accused one will be released for three months with obtaining adequate security in premediated crime, and without obtaining adequate security in unintentional crimes . anyway, the plaintiff have the right to make compurgation or want the accused to make compurgation. If the plaintiff wants the accused person to make compurgation and the accused do it, the accused one can obtain acquittal and the plaintiff does not have the right to renew the claim or the compurgation. And if the accused on refuses to make compurgation, he will be sentenced to pay the wergild and the accused person does not have the right to reject the compurgation. Regardless of the reasons of the advocators and opponents, the evidentiary value of the compurgation to prove the crime and regardless of disagreements in respect of talion by compurgation, The dominant view in Imami Jurisprudence and in the Islamic Penal Code accept and issue the compurgation as one of the special reasons to prove the crime and it is established only in cases where the reasonable suspicion is available (Sadeghi, 2009).

The legislator brings two assumptions in cases where there is a general knowledge regarding committing a crime by a some persons:

- 1.1. The assumption that there is a general knowledge regarding commission thereof by certain persons: in this assumption, if there is reasonable suspicion, making the compurgation shall be deemed. That is, the accused to whom there is reasonable suspicion is asked to give reasons to obtain acquittal. And if the accused is not able to give reasons, the accused has to make compurgation and the talion or wergild shall be deemed for the accused or making compurgation will be passes on to the accused in which the accused shall make compurgation and the wergild shall be paid out by the public treasury or the accused refuses to make compurgation and shall pay the wergild and if the accused is more than one, they shall pay the wergild on equal shares. It seems that extending the sentence of talion through making compurgation where there is a general knowledge is in conflict with the need for caution and the reasonable doubt principles ((Farokhinia, 2013).
- 1.2. In case of having reasonable suspicion against two or more people on doubtful basis, the Islamic Penal code brings about three assumptions.
  - 1-2-1 According to the article 997, if there is reasonable suspicion against two or more people on doubtful basis, the plaintiff can want the accused to make compurgation. In this case, if all the accused ones make compurgation, the wergild will be paid out of the public treasury. And if all or some of them refuse to make compurgation, the wergild shall be paid by the one or those who refuse to make compurgation on equal shares.
  - 1-2-2 According to the article 991, if there is reasonable suspicion against two or more people on doubtful basis, the victim or the avenger of blood can identify the accused person who committed the crime, and can prove the crime and the required reasons for issuing the talion or wergild sentence by making compurgation. Assigning the right to choose to the victim or the avenger of blood is an irreparable result that the law has chosen it, despite that the doubt exists about the fact who is the real accused person and about proving the talion and wergild. The lapse of talion and sentencing all of them to pay the wergild on equal shares, along with the principle that major penalty is not given in case of suspicious proof which is established in talion look more fair. in addition, it is assumed that reasonable suspicion exists in respect of commission of a crime doubtfully by two or more persons, how do the sworn persons know that the crime is committed by one of them?
  - 1-2-3 Article 333 of the new IPC mentions: “ where reasonable suspicion exists in respect of commission of a crime doubtfully by two or more persons and sworn testimony has been made against them in the same way, a probable cause will be created regarding perpetration of crime by each of persons, and the judge will require them to compurgate that they are innocent. If all refuses to take the oath, of if some of them take the oath and some not, wergild shall be paid by those who refused. If those who refused are numerous, each shall pay an equal share of the wergild thereof. If all those who took the oath are innocent, wergild shall be paid out of public treasury in case of murder, and shall be paid by all of them in case of other crimes.
2. According to the article 477 of the new IPC, if there is not reasonable suspicion regarding commission thereof by one of the two or more persons whom the general knowledge is available, two assumptions can be inferred:

First assumption: the holder of the right ( the victim or the avenger of blood) wants the accused persons to take an oath and all of them take the oath not to have committed the crime, in the case of the murder, the wergild will be paid out of the public treasury, and in other cases, the wergild will be paid by the accused persons on equal shares.<sup>55</sup>

Second assumption: despite demanding the oath from accused persons, when all or certain individuals in respect of when general knowledge is available refuse from taking oath or making compurgation, the wergild shall be paid on equal shares, and where only one refuses, he, alone, will be liable to pay the wergild. In these assumptions, the talion sentence is unlikely since there is no reasonable suspicion (Faroukhinia, 2013). The article 482 of the new IPC emphasizes on this matter that: “ in the cases where general knowledge is available on attributed the perpetration of the crime to one of two or more persons, and it is impossible to identify the perpetrator, the talion shall be set aside and the sentence shall be paying the wergild if the crime is a premediated crime.

### c) The unknown cause

Unlike the abstract cause in which there a general knowledge regarding the crime among a limited group of potential accused persons and the real accused cannot be determined due to the lack of detailed knowledge to the crime, sometimes there is not even the general knowledge and the real accused is not determined neither generally nor in detail which is called the unknown cause (Farokhinia, 2013).

The article 487 of the new IPC states regarding the unknown cause: when a person is murdered and the murderer is not identified or when he is killed in stampede, the wergild will be paid out of the public treasury. It is obvious that this law refers to a situation where the crime is attributed to someone's action without identifying the accused neither generally nor in detail. Otherwise, where the crime or any damage is not attributed to someone's action or it is caused by natural causes, no liability is engaged.

Similar sentence is mentioned in the modification of compulsory insurance law for motor vehicles and Ground vehicles against third party passed on 2008. According to this article, in order to protect the injured and damage ones from traffic accidents, physical damages to the third party which cannot be paid due to being unknown or escaping of the one who is in charge for the accident... shall be paid out by the body injuries security fund.

## Conclusion

What is meant by the perpetrator is the direct factor affecting the damage and what is meant by the cause is the factor indirectly playing a role in making the damage or wasting a property. Regarding the combination of the cause and perpetrator, the general principle is the liability of the perpetrator in Imami Jurispendence . with consider to the conducted studies and also this study, in analyzing the liability of the perpetrator as a general principle it must be said that the perpetrator is the immediate and direct factor in occurring and making the damage, and everything is taking its natural routine before the perpetrator's action. Also, according to the mentioned articles of the law regarding the combination of the cause and perpetrator and attributing to them, by virtue of Article 526 of the IPC enacted in 2013 and the article 332 of the civil code, the perpetrator is basically known as more responsible and liable and liability of the cause needs proof and reason, because the causality relationship between the act of the perpetrator and the outcome is customarily stronger. In the combination of the cause and perpetrator, the party to whom the crime the attributed is liable even if that factor is the cause (while liability oof the cause is only possible in the case that the cause is more responsible than the perpetrator). In case of equality of the effect of the cause and perpetrator in the damage, they shall be liable on equal basis. Due to the difference in the subject of the two laws (the combination of the cause and perpetrator in wasting properties and committing a crime) the prevalent believe shall be that the decree of each law is exclusive for that subject from now on. That is, regarding the combination of the cause and perpetrator, the article 332 of the civil liability will rule in wasting properties and the article 526 of the new IPC will rule in committing a crime. Given that, many lawyers bind to the decree of the new IPC even for wasting properties other than committing a crime, and there shall no difference between them in jurisprudence, and that implementing the solutions clause 1 of the legal system make it different for one subject having two decrees and also makes it difficult to explain legally, therefore, with regard to the article 728 of the IPC we can abrogate the article 332 of the civil liability. From the article 333 of the former IPC and the article 332 of the civil code we can infer that regarding the combination of the cause and perpetrator, the perpetrator is precedent over the cause, because he is closer to the outcome ( which with taking into consideration that article, includes the equality of the cause and perpetrator). In the case of civil liability , one of the difficulties in compensating the damage to the victim or injured one is proving the interference, and the causality between the act of the committed and the damage which the victim or the injured one shall basically be responsible for. In the fault – based civil liability, where some of the causes of occurring the damage are fault and some are not, only those who have fault shall be liable to compensate and those who have no fault shall not be liable. In some cases where determining the fault and the intentional purpose of the causes of the damage and attributing the crime to these causes is not possible, or there is only suspicion to their involvement in the crime, or there is no way to find the causes of the crime despite its happening, legal and juridical solutions or comparative law will be helpful.

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# THE IMPACT OF CULTURAL INDUSTRIES ON STAGFLATION IN IRAN

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## Abstract

Stagflation is an economic situation that creates both inflation and business activity stagnant along with rising unemployment rate in country. In this regard, it is essential to attend culture issue and cultural industries as creative and leading industries providing production capability, employment, and export for country and develop economy with naturalization and extension of cultural products. This study examines the impact of cultural products on stagflation by a descriptive & analysis approach using data panel quarterly on provincial levels in the year of 1393. F-Limer test is applied due to lack of clarification, and Hausman imperious is used to detect panel data and applying constant effects regression. The results of regression and variable sign estimation show that productions, employment, and export rate would improve stagflation. Also the study results of variable coefficients show that employment of whom working in the cultural industries, would have the most impact and coefficient on stagflation improvement. It is fitted by Eviews software.

**Keywords:** words Cultural industries, stagflation, panel data

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## Introduction

Nowadays, the role of culture in economy is one of the concerning topics for economists and thus, they believe that culture would be effective on economic development (Akbarian, 2006). The term, "industry of culture", was invented for the first time in a session of the book "irradiation Dialectic" by Max Horkheimer and Theodor W. Adorno, two of the most famous representatives of Frankfurt philosophical school (Throsby, 2001). The culture and art sectors have a lot of potential, and also it is expected to enhance the sector contribution in developing economies, and have a valuable role to improve growth indexes and economic well-being, due to horizon of future economic developments such as increasing labor efficiency and thus increasing per capita income and leisure time (Sepehr Niya, 2011).

Cultural industries significantly contribute to information, education, culture, and job creation access and are more effective to provide a cultural image of a country or nation and to make a proper place in international economy (Oskoei, 2003). These are effective in cultural products and services and may cause soci-cultural capital promoting by generating valuable new addressees and use of knowledge and technology quiet purposively (Ebrahimi, 2012).

The cultural industries are those which productions are innovative for either tangible or intangible. These are capable to create wealth through utilization of cultural assets and producing knowledge based commodities and services. It is the common feature among cultural industries that in all of them, the cultural knowledge and intellectual assets are deployed to produce commodities and services which have social and cultural meaningful (Shakeri, 2013). Also, industries may have a significant role in reducing stagflation. The stagflation is a situation where both prices and unemployment increase together at decade 1970 and after the crude oil price shocks, stagflation was seriously discussed in economic literatures. Neo-Classics believe that unemployment is rising as a result of friction and structural unemployment and this rise will cause stagflation, but neo-Keynesians consider the enhancement of domestic and foreign monopolies strength as the main cause of both inflation and recession simultaneously, as well as theorists of business cycle school introduce the technical changes and technology as the cause of stagflation (Khani et al. 2008).

One of the issues which plague developing and developed countries is unemployment and low employment among workable population (Akbarian, 2006), while, according to researchers, cultural industries have essential potential for job creation and exports. One of the conceived ways to exit from the crisis of stagflation and to compensate the lack of foreign exchange earnings, is global markets and penetration to them through export development. In this regard, many researchers have shown if cultural industries produce commodity and services relative to their contacts needs, will increase cultural consumption as well as cultural atmosphere reposition and cultural capital production and thus enhancement of cultural capital in society and may cause economic growth and dynamism of the creative industries in society and also to somewhat, enhance material capital (Ebrahimi, 2012). So due to all above, the main aim of this study is to find how cultural industries influence on economic stagflation in Iran.

## Theoretical

In general, the term 'culture' arise from the Tayler idea which consider the culture as a set of skills, knowledge, beliefs, objects, arts, and laws that each people receive from her/his society. The issue, today, clearly and prominently concern managers and researchers, is the review on care of culture and priority of cultural development.

Many developing countries, need to know culture as their infrastructure of society and their own policies, to benefit from blessings of nature and from industrial and development capabilities as their key and basic competences.

Culture and economic topics can be discussed so that culture affects economy as well as economy affects culture, given to their importance. Hofstede considers culture as a prerequisite for economic growth but not a sufficient one (De Jong, 2002).

Also, the culture may be values and beliefs presentation factor. These are effective on the nature of perception and design of institution and economic actions aim. However, the culture will be effective, whether direct or indirect, on economic behavior and on the results of economic processes and determines the economic performance.

The term 'industry of culture', was invented for the first time in a session of the book "irradiation Dialectic" by Max Horkheimer and Theodor W., two of the most famous representatives of Frankfurt philosophical school, in their view, the culture is transformed by monopolist technology and ideology of capitalism. But, Jean Baudrillard, put culture in the changing world of tangible and intangible social and economic phenomena, as well as, Steven Connor S. pointed the economic or productive domain may not be separated from ideology or culture domain, never more, because artificial, imaginaries, and remarks of cultures, even emotions and mental structures have become a part of economic world. In international organizations like UNESCO<sup>26</sup>, culture is the systematic production of commodities and services which are naturally cultural and cultural and cultural effective on people.

Culture as limitations and culture as priorities are tow means to insert culture in analysis of economy and are interconnected. Many authors when discussing about culture, refer both priorities and limitations; Bowles, S. said,

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<sup>26</sup> United Nations Educational, Scientific and Cultural Organization

priorities must get inner aspect and general restrictions on behavior, and Inglehart with the approach of culture as priorities, writes; 'Cultures determine limitations in system legalization process for masses and elite's behavior.'

Cultural industries are a kind of industry which meet the idea of creation, production and distribution of commodities and services with cultural nature and that their addressees are cultural aspects of individual and society (Sepehr Niya, 2011). Since the production of cultural commodity and services are based on creativity, skill, knowledge, and talent of its producers, the cultural industries also called innovative industries. Albeit from another perspective, cultural industries are all cultural products that arise from an innovative mentality and are based on aesthetic sense and involve a cultural message which influence on people mind with the capability of mass replicating and production (Khani, 2008).

Cultural industries features are studied in two aspects; In cultural aspect, the primary production material received from the feelings and mental seepages of innovative people and culture companions, and what determine the value of cultural products and services, is their content that conveys a cultural message. As respects in industrial aspect, cultural activities must be motivated with economic target. Whereas mass production is one of the major aspects in industry, production in cultural industry must be in bulk like the other manufacturing industries. Also the infrastructure of cultural industries is technology, that must be mentioned (Bourdieu, 1977). Cultural commodities consumption domain is wider than other commodities because it involved unemployed people as well. In a modern economy, individuals such as young people, who are jobless, elders and specially housewives not expected to be economically productive (Sepehr Niya et al. 2011).

Due to change everything about commodities and to provide global market, the culture of cultural commodity use would be universalizing and similarity creator force.

Xie Meng Long Shi et al. (2011), in their study, 'connection analysis among the creative and cultural industries', found that investments in the sector of creative and cultural industries not only effect on the industry itself, but also would accelerate the performance of the other sectors. According to these findings, it is suggested in future investments, the government should prioritize the skill and art sector in the field of creative and cultural industries. The skill and art sector in the field of creative and cultural industries.

Feng Huang et al. (2009), in their study, 'The role of creative industries in Taiwan', concluded that skill, art, and creative design are the largest creative industries in Taiwan introducing in new cultural creation center may increase industries development and return it to prosperity time. Prosperity time is capable for increasing production, employment, and finally development.

Cultural industries are of major means to develop, because their main effect is to increase employment in society. Other aspects of economic development, resulted from cultural industry development including sources exploitation, production and export diversity, value added, merit based competition, and relative advantages recognition at national level.

Cheng Ming (2013), in his study, 'The analysis of Guangxi cultural and creative industries development', met the role of creative industries in production and employment. According to the study findings, not only creative and cultural improve economic development and social competitiveness, but also enhance the level of public awareness in terms of psychology and cities layout formation and this may promote culture and cultural development as well.

On the other hand, stagflation or inflation depression defined as existence of both inflation and depression at the same time. Depression introduced as three months' period of negative growth in a country economy and inflation, in terms of economic science, refer to enhancement of genuine monetary production level, monetary incomes or prices (Akbarian, 2006), Stagflation shows the inflation higher than average and depression as a result of negative economic growth.

Khani et al. (2008), in their study, 'Identifying the causes of stagflation; method of threshold error correction', concluded, by using data from 1977 to 2007, that payments balance factors, oil incomes, budget deficit and liquidity are significant in terms of statics considered from stagflation causes, as well as all none-linear estimated models, in this study, show that in the event of passing growth rate of each causes and origins of stagflation threshold level, their effect on growth of stagflation is different.

Many experts, just consider economic factors as stagflation factors. The origins of stagflation are latent in structural features of each of economy, the effectiveness of monetary and fiscal policies, state budget structures, capability of investment than benefit rate, how forced substitution, consumption modelers, savings and investment, and the extent of government role in economy.

Factors which aggravate or cause these phenomena in some countries, in turn cause opposition and going out from this situation, but there are experts identifying socio-political factors as stagflation resonators. They believe the reasons of depression along with inflation are both economic and socio-political. One of the important and effective industries which can improve stagflation, is the thriving of cultural industry.

Shakeri (2013), analyzed macroeconomic situation and possible effect of sanction on it, mentioned industrial sanctions as the main factor of stagflation in Iran economy. In the study, the continuance of two-digits inflation with the relative limited growth of genuine GPD over the last four decades, are causes of stagflation in the country's economy.

Also, Bastanifar and Mirzaie (1393), in their study, 'Analysis on stagflation origins in economy of Iran and providing its out means', concluded that the low labor efficiency and monetary policy incompatibility are factors of stagflation in Iran and suggested basic review in state policy structures in macroeconomic, especially in monetary policy and structures as its out means.

Cultural industries as an important component of social economy have a basic role not only in economic and employment development, but also in the strength cultural diversity as a cultural nature instrument. In the last two decades, industry and development were more significant for economist, planners, and cultural and statics experts, especially with increasing and fast growth of proper technology, communication, and information (Akbarian, 2006), and since stagflation in Iran economy is because of low labor efficiency, so it is essential to pay special attention to enhancement policy about human labor force (Sepehr Niya et al., 2011).

Roberta, pier Giovanni et al. (2010), in their study, 'Creative industries, new job creation, and regional economic development', found that increasing the number of active manufactures in Italy had have a positive effect on regional employment development a regional development and may develop economy.

## Research Methodology

Due to its target and method, this study is an applied research and due to method of data collection, it is an analytical-descriptive one. Its statics population is Iran and its data collected for the provinces in the year of 1393quarterly, and regular (every three months) as a data panel. Therefore, data are in 31 segment and 4 periods. Eviews 8 software is used to for regression estimation.

There are two general models to estimate data panel model. First, intercept is equal for all segments called panel data, Second, the intercept is deferent in all segments, called panel data.

To identify two above models, F-Limer test (Chow test) was used. Hausman test is for applying constant effect model, unlike random effect model. Hausman test is based on presence or absence of relation between estimated regression error and independent variables model. If this relation exists, random effects model would have applied.

## The model stipulation and estimation

**Hypothesis:** Cultural industries may affect significantly on stagflation in Iran economy. Statics model for research based on the hypothesis is:

$$\text{Misery Index} = \beta_0 + \beta_1 \text{Pro}_{it} + \beta_2 \text{Occupation}_{it} + \beta_3 \text{Export}_{it} + \epsilon_{it}$$

Where Misery Index is curse indicator, Production is cultural production rate, Occupation is the level of cultural products employment rate, Export is cultural products export rate,  $\beta_0$  is intercept and  $\epsilon_{it}$  is error phrase or residual.

To find stagflation amount in each period, alternative indexes must be used to measure it. In this study as well as the study of Khani Qarie Gapiet al. (1392), misery index is used as stagflation amount measurement index in each period in Iran provinces. Misery index is one of these indexes which achieved by combining inflation rate and unemployment rate. This is one of economic indicators which introduced by economists like Robert Barro and Arthur okan in decade 70 a. d. created from combining unemployment rate and inflation rate as a standard linear combination. To estimate the model, it is revealed whether data are panel or pool data, which results shown in figure1.

Test Summary	Coefficient	d.f.	Prob.
Cross-section F	5.367705	(29.163)	0.000
Cross-section Chi-square	102.5061	29	0.000

Figure 1: Limer test for the impact of cultural industries on stagflation

According to figure1, because probe is less than 0.05,  $H_0$  assumption based on data being pool data is rejected. Therefore, due to Limer test, data are panel. Now Hausman test must be conducted which results are shown in figure 2.

Correlated Random Effects – Housman Test			
Equation: Untitled			
Test Cross-section random effects			
Test Summary	Coefficient	Chi-Sq. d.f	Prob.
Cross-section random	31.256325	29	0.0000

Figure 2: Hausman test for the impact of cultural industries on stagflation

According to figure 2, because probe is smaller than 0.05, Hausman test shows that  $H_0$  assumption based on using random effect in data panel, is rejected. So data panel regression must be done by using constant effects. The estimation results of constant effects of data panel are demonstrated in figure 3.

Dependent Variable: <i>Misery Index</i>				
Method: Panel EGLS(cross-section Weights)				
Date: 20/08/16 Time: 22:46				
Sample: 1393				
Periods included: 4				
Cross-sections included: 31				
Total panel (balanced) observations: 124				
Linear estimation after one-step weighting matrix				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
<i>Pro</i>	-1.473	3.11E-08	-4.72192	0.0000
<i>Occupation</i>	-1.662	1.22E-07	1.265962	0.0183
<i>Export</i>	-0.871	1.51E-04	3.563242	0.0071
<i>C</i>	5.894	5.96E-07	9.875711	0.0000
Effects Specification				
Cross-section fixed				
Weighted Statistics				
R-squared	0.862300	Mean dependent var	2.44E-06	
Adjusted R-squared	0.875974	S.D. dependent var	5.02E-06	
S.E. of regression	6.51E-07	Sum Squared resid	1.23E-10	
F-statistic	153.2868	Durbin-Watson stat	2.382649	
Prob(F-statistic)	0.000000			

Figure 3: Estimation for the impact of cultural industries on stagflation

In other words, ultimate estimation of this model are:

$$\text{Misery Index} = 5.89 - 1.47 \text{ production} - 1.66 \text{ Occupatio} - 0.87 \text{ Export} + \epsilon_{it}$$

$$R^2 = 0/86 \quad F = 153/26 \quad D-W = 2/38$$

The results of estimation show optimal regression that violate none of classic assumptions. Due to above  $R^2$ , very convenient F imperious and being equal 2 of D-W imperious, will result very proper regression which are significant regression variable coefficients. Pro. Variable and intercept in level of 99% and Occupation and Export in level of 95% are meaningful. Thus the research assumption would be verified, that cultural industries have negative significant effect on stagflation.

## Conclusion

This study results about sign estimation of independent variable on dependent variable show that production, employment, and export rate of cultural products could improve stagflation. More, people work in cultural industries, not only enhance the cultural products in a country, but also may have positive effects and develop country's economy as well.

Just as recognized from impact coefficient of cultural products manufacturing rate on stagflation improvement, it could improve stagflation. This coefficient is very close to impact coefficient of cultural industries employment rate that both are shown overmuch importance of cultural industries production and employment.

Another positive effects of cultural products, is the rate of export and contribution in payment balance situation in the country. Exports of cultural products would boom economy as well as spreading culture from a country to another.

Exports of cultural products have many positive effects such as: exchange ability into country, increasing the level of all the cultural products demands due to foreign countries demand, increasing inter country productions that brings GDP enhancement, as well as with its export would alone increase the level of production and employment in society which all of them could improve stagflation in the country.

Most of studies, in Iran, like study of Khani (2002), Kolian (2009), Taghvaei and Nakhjavani (2013) and Salehi (2003) suggest that stagflation is because of economic dependence on oil and its exports and recommend reliability on internal productions and enhancement of employment level in multiple regions, as a way to exit from these economic phenomena.

Following features are correlated to cultural products: Domestic employment, culture promotion and develop such products with low investment.

These results are also in line with the study of Xie Meng Long Shi et al. (2010) and of Yausoyee (2010), who believe that investment in creative and cultural industry sector not only effect on industry itself but also accelerate other sectors performance.

Cultural industries, as one of the important components of societies economy, have a basic role not only in economic and employment development but also as a cultural identity instrument for strengthening cultural diversity. Also promotion and export of culture is a main instrument to recognition other countries that improve commercial relations and increase confidence in international relations. Indeed, cultural industries significantly contribute to access information, education, culture as well as employment, and are effective on providing cultural image of a country or nation and on the creation of a proper place in international economy.

The results are in line with the study of Sepehr Niya (2011) concluded that low labor efficiency and pool policy time incompatibility are stagflation factors in Iran and consider basic review of policy and investment structures and methods as a way to exit from it.

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# INVESTIGATING EFFECT OF VOLATILITIES IN CRUDE OIL PRICES ON THE UNEMPLOYMENT RATE IN MAJOR MAJOR OIL EXPORTING OPEC MEMBERS COUNTRIES WITH EGARCH APPROACH

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## Abstract

*Oil revenues play an undeniably significant role for Iran and other OPEC members. Oil sector not only as one of the important economic activities affects other economic variables, but also revenues from this sector plays an important role to as an important finance source in the economy of such countries. Oil revenues in OPEC member economies, one of the important factors affecting macroeconomic variables. oil prices volatility affects the economy of Petroleum Exporting Countries so that Iran and other OPEC countries that are developing countries and so far have not been able to lower their dependence on oil revenues are more vulnerable to and by changes in oil prices, economic variables change as well as one of the most important impact on employment and unemployment. Studies of the effects and implications of oil price volatility on Iran to discuss various economic sectors it is important to deal with injuries. The social impact of unemployment is one of the main issues is that it is pure economists are aware, this means that unemployment work is by no means confined to the economic sphere and the social sphere and politics to be drawn. This paper reviews the impact of oil price volatility on the unemployment rate in the OPEC member countries. Research 2000 and 2014 will be the time domain. In this paper, the method for estimating panel data regression model was used. After reliability, the pattern of research using panel data and random effects is that estimated and according to the results it could be concluded that based on the estimated coefficients for the variables of the model, the impact of crude oil price volatility on variable rates are positive and significant OPEC countries. The effect on the unemployment rate of gross domestic product in OPEC countries is positive and significant at a confidence level of 95% finally, there is a negative and statistically significant effect of wages on unemployment rate, according to the results of the research model estimation.*

**Keywords:** Oil price volatility, unemployment rate, GDP, panel data

JEL: C23, C35, D32, E40

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## Introduction

Oil prices rising impose a different impact on the domestic economy of countries. Rising oil prices for importing countries increases production costs, the rising cost of finished goods and services and ultimately reduces demand, unemployment, and recession and inflation. While the increase in oil exporting countries of crude oil has increased oil revenues and the subsequent increase liquidity and request the whole economy, and ultimately inflation of demand with increased production and reducing unemployment, it is. Then the recession that started in other countries, reduce non-oil exports, which increased unemployment and the next round against the country's imported inflation caused by rising production costs, Importer country's economy with the inflation caused by supply problems are created. Since no activity in any area of life is made possible without the use of energy, It is easy to get the economy of human society is impossible without energy. It should be emphasized that oil is a source of energy that humans compared with other energy very quickly and in less time to get used to it and is used in all aspects of life. Oil is also used as a material with the general public and having a variety of products, is important.

55 years ago, known as OPEC, an organization of Petroleum Exporting Countries (OPEC<sup>30</sup>) was born to serve the interests of Petroleum Exporting Countries is. OPEC now has twelve members. Developing countries whose economies are more dependent on oil and oil revenues, a large part of export revenues Petroleum Exporting Countries (OPEC) will form. The resulting oil and oil revenues to the economy plays three roles:

- Provide the fuel needed for domestic consumption
- Foreign exchange income for the country
- Provide revenue for the state general budget (Emadi, 2012)

In developing countries such as Iran and other OPEC member countries to achieve capital goods, Intermediate and consumption goods choice but to rely on oil revenues as a source of funds for import there. Hence all economic sectors for raw materials, machinery and spare parts have become dependent on foreign exchange earnings from oil sales and consequently national production and employment levels are affected by volatility in oil prices and the proceeds from it are located. OPEC countries rely heavily on oil revenues and the non-oil exports very little. However, the degree of their dependence on oil revenues reveals that in many cases, less than estimated because many of these countries have to bridge the gap between the requirements of foreign exchange and export earnings, resort to borrowing are. Due to the high degree of dependence on oil, oil revenue variability can lead to instability in oil-producing countries is economy (Fadhil Jchalabi, 2003). Changes in oil prices affect the economy of Petroleum Exporting Countries in this between Iran and other OPEC countries that are developing countries and have failed so far the structure of its economy away from dependence on oil revenues drop or reduce it more vulnerable to and by changes in oil prices, economic variables change as well as one of the most important impact on employment and unemployment. Studies of the effects and implications of oil price volatility on Iran to discuss various economic sectors it is important to deal with injuries. The social impact of unemployment is one of the main issues is that it is pure economists are aware, This means that unemployment work is by no means confined to the economic sphere and contributions to society and politics to be drawn (Samadi, 2009).

## Literature review:

Studies illustrated effects of energy price shocks, including oil-based economy. Among them, the classical supply-side effect that causes the increase in oil prices led to reduced production because of rising oil prices as production input causes the output to be reduced, As a result, growth rates and reduced performance (Brown and Yücel, 2002). Oil price shocks can raise the marginal cost of production in many industries, reduce production and eventually falling employment and rising unemployment. The mobility of skilled labor and capital from one industry to another is costly and because labor mobility is not great speed, so waits to see a better position to eventually reduce the employment. Since that investment provides long-term potential output, following an oil price shock, Production input price increases that reduce investment and ultimately reduce generated (Brown and Yücel, 2002). Oil price shock on the labor market also changed significantly affect the relative costs of production in some industries. As Loungani (1986) argues, if the long-term price increases, can cause changes in the structure of production and have a critical impact on unemployment. This change caused the mobility of capital and labor and unemployment can be effective in the long run. If workers have a professional industrial and because job searching is time consuming, the increase in unemployment was not unexpected. Hamilton, (1988) in a general equilibrium model of unemployment and business cycles suggests that a rational expectations equilibrium unemployment can be flexible with prices. Business cycle mechanisms provided by Hamilton put it, rising energy prices reduced consumer purchasing of goods that are energy will reduce the production demand will lead to structural unemployment.

Another aspect is that energy prices may lead to rising unemployment due to the increase in production costs due to relatively higher prices. Based on Carruth et al (1998) models of efficiency wages, a better framework for the

<sup>30</sup> Organization of the Petroleum Exporting Countries

relationship between unemployment and provide energy prices. Carruth et al model based on the equation Shapiro and Stiglitz (1984) have developed that can be expressed as follows:

$$\text{Log } w = \text{Log } b + f + \frac{f \times s}{(1-P(u))(1-S)} \quad (1-2)$$

Where  $w$ , represents wages,  $b$  represents any profit arising from unemployment,  $f$  means work,  $S$  likelihood of the work going on working,  $u$  unemployment and  $P(u)$  represents the probability of finding work for job seekers  $a$ . Assuming constant returns to scale production function, homogeneity of its class and perfect competition goods market, it follows that the price of inputs following equation holds:

$$C = \mu c(w, r, P_0) \quad (2-2)$$

Where primarily a function of the homogeneous equation So have the following equation for the relationship between real prices stated:

$$\mu = C(w, r, P_0) \quad (3-2)$$

Where  $P_0$  oil prices show. The above equations are equal:

$$\dot{U} = \dot{U}(r, ep, b(\mu), f, s) \quad (4-2)$$

As a result, according to an analysis of Carus and real unemployment rate is a function of interest rates and energy prices (oil) is.

#### - The relationship between GDP and unemployment

Gross domestic product (GDP) as one of the most important indicators of economic activity known at the macro level of the economy. Usually used to measure production of gross domestic product. Indicator of economic growth, according to economic theory, changes in economic activity of a country or region during a specific period of time show. Economic growth rates reflect the economy is in a period of economic stagnation and negative signs.

The relationship between real growth and change in the unemployment rate, known as Okun's law in the name of its discoverer Arthur Okun was named. Okun's law explains that for every two and a half percent real gross domestic product growth, to be sustained for a year, unemployment decreased by one percent. This is about 2.5 to 1, that instead of naming law was better than a regular relationship empirically was called, offers a rule of thumb. However, this rule is only approximate and does not provide accurate estimates from one year to the other, but still reasonable interpretation of the relationship between economic growth and unemployment. One factor that provides real GDP growth to have delivered, change the amount of resources available in the economy. One of the resources available in the economy of the workforce. Thus, increasing the amount of labor because part of the increase in real gross domestic product (Dornbusch, Rudiger and Fischer, 1999). Okun's law can be one of the known laws of economic.. Its economic growth with employment of key indicators of the labor market (KILM) as well as the elasticity of employment to be raised. Employment elasticity of output growth, employment numerical scale of how the economy is, how much employment growth by 1 percentage point to economic growth. This indicator along with other indicators such as economic growth, labor force, poverty, the number of hours worked and the wages of labor market trends provides important information (Forozanmehr, 2011). Education and economic realities show a direct relationship between economic growth rates and reduce unemployment there. Naturally these two indices together have a certain relationship. In other words, the increase in GDP and economic growth is expected to create employment and reduce unemployment. The important point in this regard is defined and described's no way to create jobs and reducing unemployment unless new investment to economic activity take shape Or funding for the development of an economic activity to take place. In this case, when it is formed or expand economic activity, are needed to work as an input factor in the major capital comes to employment. The investment process that has begun to increase employment and reduce unemployment. On the other hand, this process leads to GDP growth, indicating that economic growth index (Pegoyan, 2014).

#### - The relationship between wages and unemployment

In the theoretical framework, wages are the most important mechanisms of balance in the labor market and in the absence of wage flexibility, either because the nominal and real rigidities or incomplete information, are looking to enter this market shocks, the lack of performance, economy and rising unemployment will be inevitable. Vision of economic schools of wages as the labor market is different regulators. Classical school and new school fans also believe that real business cycle to wage flexibility and balance in the labor market. In contrast, the Keynesians regard to nominal wages or real cohesion and thus, imbalances, labor market and employment changes over the business cycle the product is also achieved through changes in the number of unemployed. In addition, the new Keynesian sticky nominal wages are economically justified based on the behavior of individual optimization. The new approach on policies that pay attention to "human capital" in the firms. From this perspective, we can say that the theories of wages, although labor demand and supply mechanism may play a role in this regard, But gradually the situation will change and alter it to fit the kind of economic conditions, social, political and work done, so that the role of trade unions in determining wages is widespread. This approach emphasizes that wages be paid in proportion to labor productivity. In the meantime, workforce training and skills to achieve it, is important, and this issue was emphasized

human capital theory as well as subsequent comments, So that the human capital theory, the role of the educational funding was considered Ox. Following this approach, policymakers revised allocation of resources that result, a dedicated significant resources to develop education. In this theory, people with more education have higher average wages than workers with less education. So in the context of labor costs further training as an investment for the future as the present value received wage increases (Naderi, 2004).

In contrast, other theories suggest that human capital theory challenged, so that the role of the Ox human investment put into serious doubt. The second type, has completed the first approach and the traditional wage, according to labor market conditions, skills and labor productivity, employment discrimination or distinction between them.

Minimum wage policies, labor supply and labor demand is effective on both sides. But since the problem of unemployment in many economies in the world by the lack of sufficient demand for labor is more and the decisions of the demand side plays a central role in determining employment (Brown et al., 2014), Often the impact of policy decisions manufacturing firms that are labor applicants attention and been investigated. Assuming a constant increase in the minimum wage reduces the demand for labor is labor productivity and an increase in the number of unemployed to follow. For a profit maximizing firms hiring labor times the value of the final production worker's wage, If, over time, increasing worker productivity (increasing the value of final production) and this increase at a rate more than the minimum wage, not only will result in a workforce reduction but do factor will lead to an increase in employment (Meager and Speckesser, 2011). High relative wages, manufacturers in the long run will encourage the use of capital-intensive technologies, requiring manufacturers to labor, especially skilled labor down, stay down there.

The possibility of transferring labor from the formal to the informal market the labor market situation there minimum wage (Mazumdar, 1989; Harrison and Leamer, 1997). Due to high unemployment wage workers willing to work for less than minimum wage, which requires formal agreements between workers and employers. Competitive market-clearing wages may be less competitive wage (Khamis, 2008). This phenomenon in societies with high unemployment, cumbersome rules (especially for employers) and low-skilled workers occur more often. The unemployment bargaining power of workers and trade unions to increase wages decrease. More unemployment in the labor market caused uncertainty about the future workers of their job and cut power to enforce, they will be in demand for wage increases in future periods. The impact of minimum wage increases on the composition of employed people is also important. So that it may raise the minimum wage, demand for labor affect different ages differently. In a competitive market, wages as a result of supply and demand for labor is determined. While the labor market is not competitive and monopolistic forces such as the trade unions are active in the economy, wages in addition to the forces of supply and the beggar labor, influenced by the bargaining power of trade unions and employers' organizations together takes place. In addition, the government also influence wages through minimum wage determination, so that wages in the formal sectors shall not be less than the minimum wage. Moreover, the state government wages through wage for private sector employees is effective, To maintain the existing workforce because private employers or recruiting must pay a minimum wage of public sector wages to employ these forces.

Since wages tend to increase due to two factors: inflation and productivity growth is determined, in situations where there is no inflation, wage growth with productivity growth must equal the maximum and the minimum efficiency is constant and there is inflation, wage growth than inflation must be equal. If wages grow more than inflation, the purchasing power of workers increases on the one hand, but on the other, an increase in real wage to producers, the demand for labor is reduced, which results in a decrease in the level of employment (assuming flexible labor market). If the labor market is not flexible, real wage increases, increased production If the rise in prices to the consumer and is not transferable reduced profitability and investment firm, which results in reduced production capacity in the long run. In other words, the decline in investment and diapering facilities and capital equipment, production capacity of enterprises decreases gradually and finally shut down and jobs have leads. Therefore, as a result of an increase in minimum wages, the demand for unskilled labor and force young teen decrease (Mehrara, 2000).

## Literatures:

Papaptrv (2014) in an article entitled "Changes in oil prices and its position in the Greek economy" using the regression model (VAR) for 1980 and 2013 have been dealt with and concluded that changes in oil prices, economic activity and employment are affected. Oil prices are effective in explaining stock price changes. Stock returns will not lead to a change in economic activity and employment.

Ftiti et al. (2014) studied impact of oil price shocks on economic growth OPEC four countries (UAE, Kuwait, Saudi Arabia and Venezuela) during the years 2000 to 2010 using panel data model. They found that during the study, volatility of the financial crisis, the Asian Tigers in 1998 and oil in particular, volatility of the business cycles, significant impact on the relationship between oil and economic growth in member countries of OIC. It is a continuation of research Ftiti (2010).

Cesar Revoredo-Giha (2012), assessed relationship between unemployment and growth as called Okun's law, in Scotland for the period 1990 to 2010. In this article he this relationship in the three regions of Scotland and using

panel data (Panel data) estimates. In this article, first investigated whether the relationship exists and, secondly, whether this relationship differs for Great Britain or not? The results show that, Okun coefficient for Scotland is slightly higher than the amount calculated for the UK (1.7 for Scotland against 1.39 and 1.45 for Great Britain). Although Okun relationship seems to many areas is valid, there is no statistical difference between urban and rural areas. However, due to the effect of economic growth on unemployment, the results suggest that different and stronger in urban areas than in rural areas.

Masih et al (2011) in a paper in evaluated "oil price volatility and changes in stock prices" for the years 1995 to 2010 in South Korea. The main objective of this study was to investigate the effect of volatility in the price of crude oil during the financial crisis, South Korea. In this study examines the relationship between the variables of interest rates, economic activity, real stock returns, real oil prices and the volatility of oil prices has been using VECM. The results of this study showed that the effect of oil price volatility on stock transition, this trend has increased over time. Changes in oil prices has significantly influenced the stock market. The analysis of this study have shown that the main stock index real short-term adjustment path is a long-run equilibrium, After the oil price shocks and volatility in oil prices (with larger effects in the second variable), Will increase efficiency and reduce its stock Which leads to achieve a long-run equilibrium after a period of time is approximately 9 months. During this period, interest rates and oil prices impact on stock returns have expanded. This concludes the relationship between real economic shock and the stock market index confirms the monetary policy tools.

Kreishan (2011), investigated relationship between unemployment and economic growth, according to Okun's law, during the period from 1970 to 2008 in Jordan. His study shows that Okun's law in Jordan, could not be verified. The study recommends that the economic policies of demand management is the most effective way to reduce unemployment in Jordan. The implementation of economic policies that led to structural changes and reforms in the labor market would be more suitable by policymakers in Jordan.

Mehregan et al (2014) dealt with relationship between energy prices and employment in the transport sector for the years 1991 to 2013 found that between employment and price of petroleum products are long-term relationship. They also caused by the shock of rising prices of petroleum products in the transport sector using the VAR model (VAR) study and found the price of petroleum products has a negative impact on employment.

Motevaseli & Foladi (2013) evaluated effects of rising oil prices on GDP and Employment in Iran using computable general equilibrium paid for the years 1981 to 2011. The results show that rising oil prices, an increase in GDP as well, though the increase is due to the increase in all components of GDP. The rise in prices, leading to increased employment in the oil and gas, construction and services.

Shahbazi and Talibi (2012), in a study titled "production, unemployment and Okun's law: Evidence from the provinces" Iran estimated Okun's coefficients for different provinces. In fact, the aim of this study. First, estimate the Okun index for provinces provincial of the country, and secondly to determine the differences between real output and the unemployment rate. In this research using panel data over the period 2001 to 2010, Okun's coefficients have estimated the country's 28 provinces. Based on their results Okun's law in 10 provinces in the country and has been relatively stable. In 12 provinces Okun's law not been achieved. In others, it is not of adequate strength. Also, the parent test results indicated significant differences in Okun's coefficients are statistically different provinces. According to the study, parameter on the length of time from country to country and from region to region ranged Therefore, the analysis of the impact of economic growth on the unemployment rate and vice versa, especially at the provincial level, an important factor in policy-making and the regional plans and strategies.

Elmi and Jahadi (2012) evaluated volatility in oil prices on economic growth in the period 1970 to 2008, elected member of the filter method to estimate the VAR model was -Prskat Hvdryk. The results showed that Iran has the largest oil dependence and Indonesia and Ecuador are the least dependent.

Asari Arani et al (2011) studied the effects of oil price shocks on the current account of OPEC countries, in the period 2006-1970 using panel data, examined. Results show the direct relationship between oil price shocks and the current account balance of payments implications. Oil increased current account balance is positive momentum and negative momentum of oil reducing the current account balance to follow.

Ebrahimi and colleagues (2011), in an article on the effects of oil price volatility on macroeconomic variables using structural VAR (SVAR) for the years 1988-2007 were studied. They believe that among the variables, the highest expenditures, government and private sector investment is less sensitive to oil prices. Effect on Iran's oil revenues primarily through fiscal policy on the economy and the state budget deficit appears and then through the financial sector of the economy is concerned.

Nematolahei and Majdzadeh Tabatabai (2011), investigated effect of volatility in oil prices on the trade balance in Iran's OPEC. In this study, using Lag extensive model for the period 1967-2006 The long-term and short-term empirical relationships between variables have on the economy. The results show that the OPEC oil price changes in the short term and long term will be negative and significant effect on the trade balance.

## Model:

To investigate the role of oil price volatility on the unemployment rate in OPEC member countries according to the article, Jason ,2014( Brown, 2014), offered the following regression model:

$$U_{it} = \alpha_0 + \beta_0 + \beta_1 PF_t + \beta_2 GDP_{it} + \beta_3 w_{it} + \varepsilon_{it}$$

In this model, the unemployment rate (U) dependent variable and function of the volatility of oil Price Volatility (PF), gross domestic product (GDP) and labor (w) is. The population of this paper OPEC (OPEC) and Research 2000 and 2014 will be the time domain. Selected OPEC member countries are:

Iran, Saudi Arabia, United Arabic Emirates, Iraq, Nigeria, Kuwait, Venezuela, Qatar, Libya and Algeria In this study, rough estimates based on panel data regression model above mentioned base paper method (panel data) will be used. All variables of the model have been determined for nominal current.

- Measurement of fluctuation of crude oil prices OPEC:

Because during the study period between 2000 to 2014, in order to extract the OPEC oil price volatility during the study period, In order to better estimate the regression model and the level of release monthly data on OPEC oil price used and finally, Volatility in the price of crude oil mined on a monthly basis and to insert in the pattern of the study, For each year, the average volatility used is twelve months. (This model accurately estimates OPEC oil price higher and the result will be more precise and better to extract oil price volatility.)

For extraction and measurement of crude oil price volatility in the price of crude oil cartel OPEC should be modeled and the results of modeling the price of oil is as follows.

Table 1: Shows estimated OPEC crude price model

Prob.	t-Statistic	Std. Error	Coefficient	Variable
0.0000	138.5862	0.007192	0.996756	AR(1)
0.0000	4.876968	0.071792	0.350127	MA(1)
R-squared 0.974874				
Adjusted R-squared 0.974732				
Durbin-Watson stat 1.830829				

Source: research findings

Proof of volatility in the price of crude oil OPEC:

To prove volatility in crude oil prices due to the review of time-series models of volatility, You have to prove the existence of Conditional Volatility in crude oil prices payments time series, can be used to perform this test, ARCH test The result of this test are given in Table 2.

Table 2: ARCH test

Heteroskedasticity Test: ARCH			
0.0053	Prob. F(1,176)	7.980899	F-statistic
0.0055	Prob. Chi-Square(1)	7.721454	Obs*R-squared

Source: research findings

According to the initial hypothesis that there is no probability of Conditional Volatility in crude oil prices has been rejected time series and so the series when crude oil prices are a Conditional Volatility in the price of crude oil has fluctuated during the period in question is research.

Is modeled after the proven crude oil prices and volatility in these variables, To measure volatility in crude oil prices should be estimated using theoretical models that the results of the model are as follows.

Table 3: Models crude oil price volatility by using the EGARCH

Prob.	z-Statistic	Std. Error	Coefficient	Variable
0.0000	190.1214	0.005264	1.000874	AR(1)
0.0358	2.098995	0.094465	0.198282	MA(1)
Variance Equation				
0.2444	-1.164040	0.167286	-0.194727	C(3)
0.0111	2.538626	0.184493	0.468359	C(4)
0.4560	-0.745478	0.156487	-0.116658	C(5)
0.1089	1.603243	0.142031	0.227710	C(6)
0.0000	19.55608	0.048050	0.939668	C(7)
R-squared 0.974053				
Adjusted R-squared 0.973906				
Durbin-Watson stat 1.907268				

Source: research findings

At this stage, the volatility of crude oil prices, OPEC is measured and you need to extract the crude oil price volatility. Make variance garch used commands.

The unemployment rate model to estimate OPEC countries to assess the reliability of variables using Levin Lin Cho takes place. The following table shows the reliability of variables.

Table 4: Results of the reliability of variables

Possibility	Statistic value	Symbol	Variable
1.00	95.503	U	The unemployment rate
0.0000	-8.47088	D(U)	First difference unemployment rate
0.7218	0.58808	GDP	GDP
0.0000	-5.03132	D(GDP)	First difference of GDP
0.0050	-2.57656	PF	OPEC oil price volatility
0.0000	-7.50019	W	Wage

Source: research findings

According to the results presented in Table 4, GDP, unemployment rates are not sustainable and are stable after differencing.

Therefore, to ensure the absence of spurious regression coefficients and model estimation, cointegration test done. In this study, to test the integration of the two test-Integration Cao integration tests are used.

The first test for the presence of Integration long term relationship between variables that gets results is presented in the table below.

Table 5: The presence of Integration long term relationship between variables that gets results

Test	Selected Countries investigation
	The test statistic And The significance level
Panel PP-Statistic	-5.539554 (0.0082)
Panel ADF-Statistic	-2.073225 (0.0191)
Group PP-Statistic	-20.59426 (0.0000)
Group ADF-Statistic	-17.36357 (0.0000)

Source: research findings

As you can see, based on the results presented in Table 5 existence of cointegration or long run relationship between variables at a confidence level of 95% is accepted.

Cao also co-integration test results is presented in the table below.

Table 6: Cao integration test results

Prob.	t-Statistic	
0.0193	-2.067895	ADF
	1.569267	Residual variance
	0.297481	HAC variance

Source: research findings

Consider that, according to research results in Table 6 for selected countries And due to the low significance level of 0.05, the null hypothesis that the lack of co-integration relationship between variables is rejected Cao also co-integration test results for the variable accumulated evidence that the variables in the long run and long-run relationship between them.

Limer test:

Before estimating the model needs to be ensured that the possibility of estimating the width of the common origin for all countries. Test the null hypothesis that the difference between the estimated coefficients for individual sections and the estimated coefficients are not common. For this purpose, first Limer test is used.

Table 7: Result of Limer test

Redundant Fixed Effects Tests Equation: Untitled			
Test cross-section fixed effects			
Prob.	d.f.	Statistic	Effects Test
0.0000	(9,137)	17.352392	Cross-section F
0.0000	9	114.116540	Cross-section Chi-square

Source: research findings

As Fisher statistics show that the null hypothesis can be rejected and estimates consolidated data should be done using panel data techniques

Hausman test

Hausman test results are shown in the table below.

*Table 8: The test result Hausman*

Correlated Random Effects - Hausman Test			
Equation: Untitled			
Test period random effects			
Prob.	Chi-Sq. d.f.	Chi-Sq. Statistic	Test Summary
0.8065	2	0.430080	Period random

*Source: research findings*

The results indicate that the null hypothesis cannot be excluded and estimates consolidated data should be done using random effects However research model using panel data and random effects estimate placed.

*Table 9: Results of regression testing investigation*

Possibility	A significant test statistic research coefficients	Standard deviation	the impact	Variable
0.0028	3.046861	3.486586	10.62314	Intercept
0.0293	2.027764	0.116228	0.235683	Volatility in oil prices
0.0097	-2.624597	0.124565	-0.326932	GDP
0.0099	-2.570839	0.338342	-0.869823	Labor
Technical Specifications regression				
0.68				The coefficient of determination
0.65				Adjusted coefficient of determination
2.17763	Durbin-Watson stat		24.79789	F-statistic
0.000000				Prob(F-statistic)

*Source: research findings*

According to the results presented in Table 9 could be concluded that based on the estimated coefficients for the variables of the model, the impact of crude oil price volatility on variable rates are positive and significant OPEC

The effect on the unemployment rate of gross domestic product in OPEC countries is positive and significant at a confidence level of 95%

Finally, in relation to the effective impact of wages on unemployment rate, according to the results of the research model to estimate the impact is negative and statistically significant.

As can be seen from the table above, coefficient of determination and adjusted coefficient of determination obtained respectively 0.65 and 0.65 is the research model. Test F, the significance of the estimated regression checks across the line. The F-statistic of 24.79 is obtained for the research model and its meaning is to assume that all coefficients equal to zero H0 to be rejected and the alternative hypothesis is accepted that the H1. This means that the regression line is significant.

The data indicated a direct relationship between volatility in oil prices and unemployment. The results of a negative relationship between GDP and labor, with unemployment show. Different factors affecting economic growth, output and employment have not been properly considered and if the role of these factors more fully to consider, It can be argued that the increase in foreign exchange earnings due to rising oil prices, these investments rather than into the real economy, Production and investment in the manufacturing sector was more likely to imports in the OPEC countries, which is generally done in order to fight inflation. In this case, many manufacturing sectors are faced with serious injury And will be out of the production cycle and thus part of investments in the economy remained unused And reduced production rate and in contrast to the decline in revenue, Imports also dropped that part of the decline in imports of capital goods and machinery production will be realized And reduce investment, Production and employment and rising unemployment is, therefore, confirmed that the oil price swings that lead to currency volatility in the OPEC countries, An important factor in creating employment for imposing risk investment sector and transfer it to the production. Parts as a result of massive imports of consumer goods in periods of rising oil revenues were rolling off the production in this period will not be renewed. Generally after a review of the economic record of the OPEC countries can be noted that, in times of rising oil prices mainly to rising oil revenues are not managed well Instead, long-term investment and short-term spending have resulted in nothing but inflation and increase liquidity, interest rates, reduced investment, increased employment and not unemployment. OPEC countries in which the economic cost of lack of confidence and uncertainty analyzes, is too high. Due to the impact of oil price volatility on production and unemployment in the economy OPEC countries, This mistrust, uncertainty and inefficiency that results in people and the private sector do not invest enough. All these factors lead to rising unemployment.

## Offer

Due to the negative impact of wages on unemployment rates in selected countries research is proposed to increase the flexibility of the labor market and promoting the welfare through wage labor in the production process Review current policies supporting wages and corporate profitability, including strategic requirements of the labor market. Because in the state of tri-parties - employer's workers, increase efficiency by improving labor productivity wages policy enforcement In the production process will be efficient on the one hand the profitability of firms because of the growth of labor productivity will increase, On the other hand benefits from the income and job security of workers will increase compared to the previous period and finally, concerns about government support for low-income workers and unemployment will decline at the macro level. In such circumstances to achieve the goals reasonable fee, will not be difficult to improve efficiency and reduce unemployment.

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# PRIORITIZING SUB-CRITERIA OF POLITICAL AND ECONOMIC FACTORS ON EXPORT OF CUMIN WITH AN EMPHASIS ON PRODUCTION CAPACITY OF THE CITY OF NEYSHABUR UNDER THE SUPERVISION OF EXPERTS FROM EXPORT COMPANIES IN THE CITY OF MASHHAD USING THE MULTI-CRITERIA DECISION-MAKING TECHNIQUE (AHP)

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Saeid Bakhtiari<sup>33</sup>

## Abstract

*The present study aimed to prioritize the sub-criteria of political and economic factors affecting Neyshabur's exports and production capacity using the multi-criteria decision making technique (AHP) for cumin as an export crop. This research was descriptive-analytic and a library-survey method was used to collect data. To this end, the library method was first employed to identify the factors affecting the export of cumin with an emphasis on production capacity. The first draft of the questionnaire was developed after reviewing the experts and professionals' comments. As one of the limitations of this study, sufficient patience, time, expertise and experience are required concerning the paired comparisons performed in this model as well as the accuracy of responses for optimal decision-making. Given the novelty of the field of cumin exports, the experts and professional have no expertise and experience in this regard, highlighting a need for further investigation in this field. The result of testing the research hypotheses revealed that management changes, bank interest rate, exchange rate, government regulations and inflationary conditions are the first, second, third, fourth and fifth priorities among other political and economic factors, respectively.*

**Key words:** Export, production capacity, political factors, economic factors

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## Introduction

Export of goods plays a critical role in the economic development of countries. An analysis of 41 countries during the years 1963 and 1985 by the World Bank indicated that the economic performance of countries with an export-oriented economy has been better in almost all aspects at firm levels than import-oriented economies. Export of goods provides growth opportunities for companies. By expanding the level of access to foreign markets, the companies can reach a higher level of production, thus reducing total unit costs and increasing profit rates. Exports provide learning opportunities for the companies through competition and enable them to survive in unfamiliar and strange conditions. Increasing global competition has led to an increase in the number of companies looking for opportunities in international markets to achieve their goals and preserve their market position and survival. In a knowledge-based economy, intangible assets of organizations have increasingly become a competitive factor (Naidu, 2014).

Such assets are considered as the essence of competitive advantage. Export of goods is known as the most common strategy for companies, especially small and medium-sized ones, to enter into foreign markets. Hence, a proper assessment of international markets, international strategies and export sales are increasingly being regarded as appropriate strategies for the growth of companies and ultimately the economic growth of the countries. The major challenges of export marketing include market search or the selection of appropriate countries through conducting marketing research and making decisions on how to properly formulate a combined marketing strategy. The decision is mostly under the influence of a firm's philosophical underpinnings concerning how it operates in the foreign market (Kotler, 2016). In this research, there was an attempt to investigate the role of marketing strategies since research implies that the main concern of international companies is to improve export performance. One of the main determinants of export performance is the international marketing strategy. Considering the international marketing literature, there are different and contradictory results in terms of the relationship between international marketing strategies and export performance. Some studies indicate that adopting an international standardization marketing strategy leads to an increase in export performance. Some other studies also showed that there is no significant relationship between standardization strategy and export performance. Some also argue that the adoption of an international adjustment marketing strategy would increase export performance. The contradiction on the relationship between international marketing strategies and export performance is arising from disregarding the role and importance of strategic coordination in international marketing and its effect on export performance (Kathryn, 2017).

## Statement of the Problem

Strong competition in countries that are able to produce at a low cost has created a lot of problems for many industries. Industry makers should look for some methods to adapt to changes in order to keep the competition. Organizations are not task-oriented anymore and have become collaborative. To investigate the factors affecting exports means searching and finding markets appropriate in different aspects, including economic, social, cultural and legal aspects, and continuously providing the grounds to declare the existence and safeguard the position (Morschett, 2016).

Given the rapid expansion of major global market poles, it will be difficult or even impossible in some cases to recapture and re-dominate the market in any field in which market domination and market presence are lost. In spite of this fact, policymakers of a majority of companies are losing their products or services market and submitting the markets to their competitors. Unfortunately, improper and non-optimal use of strategies associated with goods export and lack of their expansion in the agricultural export sector as well as the lack of attention to scientific and specialized centers in this regard have led to passive reactions in potential markets such as those belonging to Central Asia, Africa, Persian Gulf region and other Arab countries. On the other hand, some countries with a much lower potential levels than Iran have entered into these markets and strengthened their foothold through the timely and proper employment of the abovementioned factors. They even decide to expand their influence on these markets (Maguet, 2015).

## Importance and Necessity

Today, export and its improvement are one of the main challenges of international companies and their in-charge unites, especially the international marketing and export department. The premise underpinning the importance and necessity of coordination is that coordination brings about unity and synergy. Specialization would lead to pluralism, resulting in contradictions and lower productivity of exports.

Hence, the coordination, along with the division of labor and specialization, must also be maintained. Such coordination should be possible both within a system and in terms of its relationship with other policies and the whole organization. This coordination becomes more pronounced in the process of exporting when its necessity is concerned at the practical and theoretical levels (possessing its own special hierarchy) (Nauriyal, 2017).

Nowadays, the managers require international skills to compete in global markets which are expanding. They need capabilities to identify opportunities to employ them. If they do not succeed, they would fail and be demoted. Identifying the factors affecting the export of cumin is defined as a statement specifying the organization's route to achieve marketing objectives (Mirabi, 2003).

Developing countries are increasingly playing a critical role in global competition as they contain some of the fastest-growing economies in the world. Furthermore, since the developing countries often have cultural backgrounds different from the developed countries, they provide an appropriate ground for generalization of the existing knowledge on standardization literature (Wilcox, 2015). Thus, the subject of standardization in identifying the factors affecting export from the perspective of the companies in developing countries has been one of rich areas of global marketing research. The importance of international marketing is considered with regard to the government's support from companies and the companies' intention to operate globally so that the governments encourage the companies and support them to export goods and perform exporting. To enter into foreign markets, exporting companies usually need to gather some information about the type and conditions of foreign markets, competitors, existing demands, process of product delivery and consumers' tastes, preferences, cultures and purchasing power (Mehrabi, 2015).

## Research Background

Kazemzadeh and Abonouri (2013) studied and estimated the supply and demand of Iran's export of dates using the simultaneous equations model during 2001-2004. They concluded that the relative price of date palm exports, real exchange rate and date production rate were significant in its export demand function and export volume, domestic wholesale price, domestic production of date palm and export value of the previous period were meaningful in its export supply function; thus being considered as the variables affecting export of dates.

In his dissertation, Karami (2011) investigated the impact of e-commerce on non-oil exports. She examined two groups of countries. The first group includes the United States, Canada, France, South Korea, Malaysia, Singapore, China, Denmark and India, and the second group consists of Iran, Pakistan, Spain, Italy, Greece and Poland. The data used in this study are related to the period (2000-2006) and the panel data method was used. The results showed that e-commerce affects the business model of the countries under study and the volume of exports in these countries was significantly enhanced by increasing the Internet penetration rate and spending on information and communication technology.

Pahlavani et al. (2010) evaluated the export and import demand functions in the Iranian economy using the Autoregressive *Distributed Lag* (ARDL). The study was conducted using time series statistics from 1959 to 2006. The authors found that national income, relative prices of imports and exchange rate and relative prices of exports have positive and significant impacts on export results.

Using simultaneous equations model, Goldestein and Khan (2013) researched the supply and demand functions of export in eight countries including Belgium, France, Germany, Italy, Japan, the Netherlands, the United Kingdom, and the United States during 1985-2010. The results of their study revealed that the price elasticity of the export demand function for all these countries (except Japan) is negative and income elasticity of demand is positive in all cases. Also, based on the estimates, the export coefficient in the supply function is positive and has been statistically significant for the seven countries (except Japan).

Seyoum (2014) in his article examined the America's business performance and the export performance of developed countries using panel data obtained from 120 developed countries during the years 1985-2010. The author concluded that the overall performance of America's export has a significant and positive impact on the exports of beneficiary and manufacturing groups in the United States. On the other hand, the necessity and recognition of the relationship between receiving government credits would increase the America's export performance since this could have a significant impact on exports.

Persana (2010) studied the effect of foreign direct investment on India's export performance during the years 1990-2007. Using the panel data method, the author came to the conclusion that investors would recommend providing the grounds for further attraction of foreign direct investment and evaluating the methods to achieve this goal.

## Research Objectives and Hypotheses

The main objective is to prioritize the sub-criteria of the political and economic factors affecting Neyshabur's export and production capacity in terms of cumin as an export crop.

### Secondary Objectives

- To determine the effectiveness priority of the sub-criteria of political factors on the cumin export.
- To determine the effectiveness priority of the sub-criteria of economic factors on the cumin export.

### Research Questions

- How to rank the sub-criteria of political factors in terms of their effect on the export of cumin?
- How to rank the sub-criteria of economic factors in terms of their effect on the export of cumin?

### Research Hypotheses

- The sub-criteria of political factors are the first priority in terms of their effect on the cumin export.
- The sub-criteria of economic factors are the first priority in terms of their effect on the cumin export.

### Research Method

This research was descriptive-analytic and library-survey method was used to collect data. To this end, the library method was first employed to identify the factors affecting the cumin export with an emphasis on production capacity.

This research is descriptive-analytical and data collection method is library-field-based. In this process, firstly, by means of library study, factors affecting labor productivity are identified. Then, the questionnaires were distributed among managers and export of the companies exporting cumin. Then, a hierarchical analysis method was used to examine and prioritize the factors affecting the dependent variable.

A multi-criteria decision-making model has a wide application in complex decisions when there are a large number of conflicting, criteria. Multiple decision-making techniques are different and have their own specific application and operating conditions. Their implications also differ. The steps taken in this technique are:

1. Establishing a hierarchy tree
2. Paired comparisons
- 3- Determining the priorities of factors in each level
4. Calculating the compatibility rate of comparisons (Gumus, 2009).

### AHP Model

The analysis hierarchical process can be used when decision-making is facing several competing decision-making options and criteria. The proposed criteria can be quantitative and qualitative. This decision-making method is based on paired comparisons. The decision maker begins with a hierarchical decision tree. The hierarchical decision tree shows the comparative factors and the competing options being evaluated in a decision. Then, a series of paired comparisons is performed. These comparisons show the weight of each factor in comparison with the competing options being evaluated in the decision. Finally, the logic of the hierarchical analysis process combines the matrices derived from paired comparisons to achieve the optimal decision.

## Principles of Analytical Hierarchy Process

Thomas L. Saaty (the founder of the AHP method) outlines the following four principles of the hierarchical analysis process and performs all the calculations, rules and regulations on these principles. These principles are as follows:

The reverse condition: If the element A's preference for the element B is equal to  $n$ , the element B's preference for the element A will be equal to  $1/n$ .

the principle of homogeneity: Element A must be homogeneous and comparable with element B. In other words, the superiority of the element A over the element B cannot be infinite or zero.

Dependency: Each hierarchical element can be dependent on its higher level element and this can linearly maintain this dependence to the highest levels.

Expectations: When there is a change in the hierarchical structure, the evaluation process should be re-established (Ghodsi Pour, 2002, p. 6).

## Analytical Hierarchy Process Model

Applying this method is dependent upon four main steps:

### A) Modeling

At this step, the problem and the purpose of decision making are presented in a hierarchical manner based on the decision elements that are related to each other.

### B) Preference judgments (paired comparisons)

This is to make comparisons among different decision options based on each index and to judge the importance of the decision-making index through making paired comparisons. After developing the decision hierarchy, the decision maker should determine a set of matrices numerically showing the value or priority of the indices relative to each other and measure each option decision according to the indices in comparison to other options.

### C) Calculation of relative weights

The weight of "decision elements" is determined relative to each other using a set of numerical calculations. The next step in the hierarchical analysis process is to perform the computations necessary to determine the priority of each decision element using the information of the paired comparison matrices. The summary of mathematical operations at this stage is as follows.

### D) Integration of relative weights

In order to rank the decision options at this step, the relative weight of each element must be multiplied by the weight of the higher elements in order to obtain the final weight. By doing this for each option, the final weight is obtained.

## Statistical Population and Research Sample

Considering that in this research, all the factors affecting exports are studied and addressed, therefore, the statistical population of this research includes experts and authorities of export companies in the city of Mashhad as well as the production capacity of Neyshabur City. Ten companies are involved in this field; the census method was used to complete the questionnaires in these 10 companies.

## Validity and Reliability of the Questionnaire

To assess the validity of the questionnaire, views of professors and experts in the field of management science have been measured. Also, to measure the reliability of the questionnaire, the incompatibility rate is calculated. Almost all calculations related to the hierarchical analysis process are done based on the decision maker's initial judgment that appears in the form of a paired comparison matrix, and any mistakes and incompatibilities in comparison and determination of the importance between the options and indicators undermine the final result obtained from the calculations. The incompatibility rate, which we will come to know how to calculate in the following, is a tool that identifies compatibility and shows the extent to which the priorities resulting from the comparisons can be trusted. For example, if the option A is more important than the option B (preferred value of 5), and the option B is relatively more important (preferred value of 3), then the option A should be expected to be evaluated as much more important than the option C (preferred value of 7 or higher). In another instance, if the preferred value of the option A to the option B is 2 and the option B to the option C is 3, then the preferred

value of A to C must be 4. Although the two options might be simply compared, the compatibility of the comparisons cannot be easily achieved when the number of comparisons increases and the incompatibility rate is required in this regard. It has been shown that if the incompatibility rate is less than 0.10, the compatibility of the comparisons is acceptable; otherwise the comparisons should be reconsidered. The following steps are used to calculate the incompatibility rate.

## Identification of Final Indices

The most important factors affecting the export of cumin include political and economic factors; for each of these criteria, a number of sub-criteria have been identified. The sub-criteria of the study are presented in Table 1.

Table 1: The main indices and relevant sub-criteria

Main indices		Sub-criteria	Symbol
C1	Political factors	Management changes	S21
		Government rules	S22
C2	Economic factors	Bank interest rate	S31
		Inflationary conditions	S32
		Exchange rate	S33

### Comparison and Determination of the Priority of the Sub-criteria

The sub-criteria related to each criterion are compared in pairs using the AHP technique.

#### Determination of the Priority of the Sub-criteria of the Political Factors

The sub-criteria of the political factors include:

- Management changes
- Government rules

The calculations performed to determine the priority of the sub-criteria of the political factors are presented in Table 2.

Table 2: Determination of the priority of the sub-criteria of the political factors

	S21	S22	G	EV
S21	1.000	4.169	2.042	0.807
S22	0.240	1.000	0.490	0.193

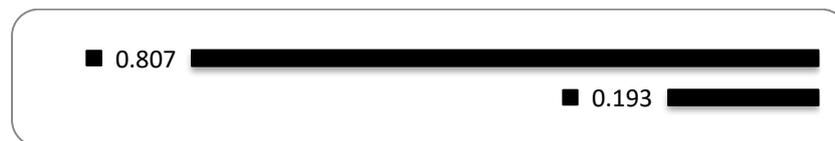


Figure 1: Determination of the priority of the sub-criteria of the political factors

Based on the specific vector obtained, the sub-criterion of managerial changes with a weight of 0.807 has priority over the other sub-criteria.

#### Determination of the Priority of the Sub-criteria of the Economic Factors

The sub-criteria of the economic factors include:

- Bank interest rate
- Inflationary conditions
- Exchange rate

The calculations performed to determine the priority of the sub-criteria of the economic factors are presented in Table 3.

Table 3: Determination of the priority of the sub-criteria of the economic factors

	S31	S32	S33	Geometric mean	Special vector
S31	1	2.537	1.108	1.411	0.432
S32	0.394	1	0.394	0.538	0.165
S33	0.903	2.537	1	1.138	0.403

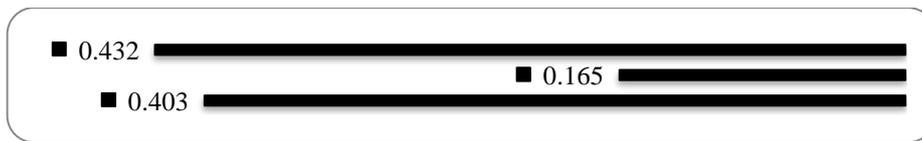


Figure 2: Determination of the priority of the sub-criteria of the economic factors

Based on the special vector obtained, the sub-criterion of bank interest rate with the weight of 0.432 is of a higher priority compared to the other sub-criteria. Also, the incompatibility rate of the comparisons is 0.075, which is less than 0.1 and therefore, the comparisons could be trusted.

**Determination of the Final Weight of the Factors Using the AHP Technique**

In this step, the final priority is calculated. The results of the comparison of the study sub-criteria and weights related to them make the  $W_2$  matrix. To determine the final priority of the indices with the AHP technique, the weight of the indices based on each criterion ( $W_2$ ) should be multiplied by the weight of the main criteria ( $W_1$ ). After calculating the weight of each of the main criteria ( $W_1$ ) and sub-criteria ( $W_2$ ), the weight of each index is calculated. The Super Decisions software has been used to perform the calculations. The results of the carried out calculation as well as the weights related to the indices are given in Table 4.

Table 4: Determination of the final priority of the sub-criteria using the AHP technique

Main criteria	sub-criteria		Primary weight	Total weight	Rank
Political factors	Management changes	S21	0.807	0.165	1
	Government rules	S22	0.193	0.040	4
Economic factors	Bank interest rate	S31	0.432	0.055	2
	Inflationary conditions	S32	0.165	0.021	5
	Exchange rate	S33	0.403	0.051	3

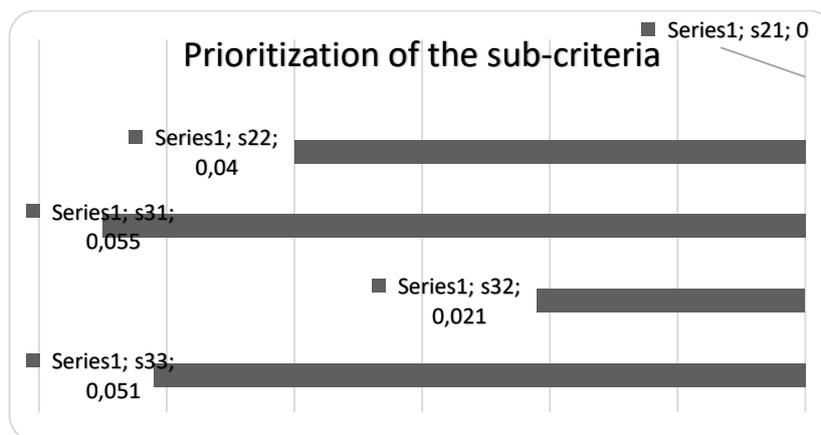


Figure 3: Determination of the final priority of the sub-criteria using the AHP technique

Therefore, the index of managerial changes with a normal weight of 0.165 is of the highest importance among all the existing indices, followed by the index of the bank interest rate with the weight of 0.055.

**Discussion and conclusion**

Considering that managerial changes were in the first-priority queue, it is suggested:

- To recruit internationally experienced business managers; to empower the organization and personnel through training courses and seminars to enhance knowledge of international competition; and to create a strong corporate culture to improve sales and increase profitability, as well as a strong marketing team to explore target and rival markets
- To recruit an effective marketing manager; also, packaging plays an important, critical role in the export of medicinal plants; packaging refers to the act of designing and creating boxes or wrappers for a product. In the field of marketing, packaging is an attractive way to convey messages to customers in relation to the product. Accuracy in visual elements includes focusing on images, sizes and shapes of packages that mostly affect the decision making process; whereas the precision of information elements is related to the provision of

information and technologies used in packaging, which is very likely to be of importance from a cognitive aspect.

- To develop trading systems commensurate with the profitable trading of medicinal plants and to examine their strengths and weaknesses as well as barriers and challenges in the production route
- To utilize the capacity of foreign trade from the path of smart engagement with the global economy
- To consider the latter and former circles of import and export management in policy making
- To make senior managers of the organization committed to support learning environments in the organization
- To create an appropriate environment for identifying the intellectual capital of the organization
- To create a knowledge repository of best experiences
- To encourage dissemination of knowledge and to make it available to public employees

Given that the bank's interest rate was in the second-priority queue, it is suggested:

- To adopt clear and desirable foreign exchange policies
- To adopt export policies so that reduction of export volatility is of greater concern.
- To conduct land-use planning; to obtain production statistics as well as the potential of the country based on the relative advantage; and to manage cultivation using targeted incentive packages, particularly with the goal of promoting the performance and productivity of the desired products; the reason for taking such measures is uncertainty about the price stability of some agricultural products, which has existed for several consecutive years. Among the main reasons for this problem are mismanagement and lack of sufficient information on the condition of the current cultivation, as well as excessive and unplanned imports and lack of proper and timely government support from the agricultural sector under stress conditions.

Given that the exchange rate is in the third-priority queue, it is suggested:

- To pay attention to real support through integrated foreign exchange and tariff policies
- To consider the amount of foreign currency that can be brought into the country through exporting goods and also, to regard the value added of export goods
- To improve the current situation in terms of quality and quantity by creating incentives for competition and possibilities for development of production, as well as by making production factors efficient
- To consider the evaluation of export products and the export of goods with relatively high advantage

Given that government rules are in the fourth-priority queue, it is suggested:

- To develop export strategies by taking into account government rules in destination and origin countries
- To comply with regulations on reducing risks to nature and the environment for the welfare of people
- To make companies aware that governments ask for a large volume of documents to assess the tax on entry and exit of goods and services from countries, etc.
- To have authorized trading card for export activities

Given that inflationary conditions are in the fifth-priority queue, it is suggested:

- To change and reduce customs tariffs, which could be explored from two aspects. Firstly, in this way, the price of imported goods decreases for consumers, and the ascending trend of the general level of prices is terminated. Secondly, necessary preparation is made to boost Iran's economy and to create a competitive atmosphere to pave the way for Iran to join the World Trade Organization. Currently, there is a need for changes to occur in the countries involved in the exchange. In this context, trade relations must be established with countries that have the lowest inflation rates. Also, in order to be immune from further inflation, the level of trade should be expanded to countries that are members of economic organizations such as ECO.

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# INVESTIGATION OF THE RELATIONSHIP BETWEEN THE BANK LOAN RATIO AND RETURN ON CAPITAL AND TRADE CREDIT OF ACCEPTED COMPANIES IN TEHRAN STOCK EXCHANGE

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## Abstract

The purpose of this study is to investigate the effect of growth rate, bank loan ratio, financial performance and return on capital on trade credit of companies. This study is library and analytical-casual research and is based on the panel data analysis (panel data). In this study, the financial information of 95 accepted companies in Tehran Stock Exchange during the period of 2010-2015 was investigated. To analyze the results of the study, SPSS 20 software has been used. Analysis of the findings showed that there is a significant and inverse relationship between the bank loan ratio and trade credit, and there is a significant and direct relationship between return on capital and trade credit of companies.

**Key words:** trade credit, Bank Loan Ratio, Financial Performance, Return on capital

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## Introduction

Profit fluctuations with positive fluctuations of expected return of stock return reflect the optimal performance of companies with regard to the presence or absence of financial constraints (Burkart & Ellingsen, 2004). One of the most important factors in company shareholders' proper decision-making, fluctuations in expected and predicted profit and related to decision-making about the issue and subject which is close to the reality is about of investment or non-investment, if they are not provided and predicted properly, they will have negative effects for the individual or decision maker entity. On the other hand, the type and the way of predictions made by the business unit management are also important (Choi and Kim, 2005). Most of the previous studies regarding the trade credit of the companies concluded that the company's credibility is composed of a large total asset ratio. The credit material ratio dependent to total assets in US companies in the early 1990s was 17.8%. The cash reserves ratio across 16 European countries ranged from 16% to 24%. According to these articles, companies using trade credit are looking for a suitable replacement for short-term financing and loans of contractual entities.

The stock exchange is one of the most important economic markets in each country, as it is as a center for collecting savings and stagnant resources of natural and legal persons and it directs them to production centers, and ultimately, if these resources are properly directed towards growing and healthy productions, it leads to economic growth and social welfare (Wu et al., 2011). Many studies have been conducted on the basis of information from the Stock Exchange, which all of these tests and researches attempted to find unknown relationships between existing variables. Finding these relationships is to raise investors' awareness of the status of present companies in the stock exchange, which results in a better understanding of investors from information published by accepted companies and, ultimately, it leads a better understanding of the performance of the company and more accurate predictions with lower risk about the company's future will be shown (MegaGoriph et al., 2009). On the other hand, these discovered relationships by company management are used to estimate and analyze the results of their performance and can be used to improve and correct the procedure and change the process, and even management practices (Bougus et al, 2009).

Therefore, the main question of the research is whether the bank loan ratio and returns on capital has a relationship with the trade credit of the accepted companies in Tehran Stock Exchange or not?

## Theoretical Foundations of Research :

### Return on capital :

The purpose of providing information on cash flows is to evaluate liquidity, and the ability of an entity to pay its obligations. Liquidity is the relative ability to convert assets into cash, and sometimes as an approximation of assets to cash, and also refers to the relationship between short-term liabilities and cash items and close to cash. The ability to deposit obligations in a wider sense refers to the ability to cash or have available funds for any purpose that may be required by the institution (Rajan, Zingales, 1995).

In a more precise sense, the ability to pay obligations is the ability of the business unit to pay its obligations at deadline. The concept of financial flexibility means the ability of an entity to get cash during the short period of time in order to benefit from appropriate opportunities or to deal with unforeseen events. The three above-mentioned concepts are related to each other. But the concept of flexibility has a broader sense than the ability to pay obligations and the concept of ability to pay obligations is broader than the concept of liquidity. The ability to pay obligations is necessary for the continuity of the company's activity. Failure to pay obligations may result in bankruptcy, compulsory settlement, and loss for equity holders and creditors (Jamshidi, 2002).

There is also information about the state of liquidity is in the balance sheet. The classification of balance sheet into current assets and non-current assets can be a guide about the liquidity position. The reason is that this classification has some deficiencies, such as deferred expense and creditors are from current items, but they have no effect on cash flows. Other assets, such as inventories may also not be convertible into cash flows (Eppler, Titan, 1994).

### Bank loans and trade credit

Some financial criteria are more important to evaluate the performance of firms. These include: the rate of return on investment, residual income, and the rate of return on sales, economic value added (EVA) and market value added, and the Comprehensive Performance Index (BSC), the indicators of value-based performance evaluation in the evaluation process, in order to be aware of the value creation of economic enterprises it has become more widespread in comparison with

traditional indicators based on historical data. The informed and justifiable judgment is more beneficial as they establish and target value concepts and value creation (Namazi and Kermani, 2008).

Many companies use operating profits as an internal and accounting measure, while companies complete this measure with external financial information (stock prices), external non-financial information (customer satisfaction), and Internal non-financial information (delivery time of goods). Companies report these financial and non-financial criteria under a report called comprehensive performance measurement index. These reports include:

1. Profitability criteria: operating profit and revenue growth.
2. Customer satisfaction criteria: market share, customer responsiveness, timely operation.
3. Efficiency criteria, quality and time, Efficiency variance of direct material, absorbed overhead variance.
4. Innovation criteria: the number of inventions, the number of new goods.

A comprehensive performance measurement index, known as a balanced score card, is one of the new metrics for measuring performance in management. This index was first introduced by Norton and Kaplan and comprehensiveness is its feature. It also considers the financial and non-financial criteria in the evaluation (Hejazi, Dostian, 2006).

## Review of literature

Moradi and Ahmadi (2014), in their research, investigated the effective factors affecting investment behavior of the company in defective markets. For this purpose, the information of 81 accepted companies in Tehran Stock Exchange during the years 80 to 92 were extracted and analyzed. The changing patterns of capital expenditure were estimated using the multiple regression models. The results of this study show that only the operating cash flow variable has a significant relationship with capital expenditure changes. Tehrani and Hesarzadeh (2013) studied the effect of free cash flows and financing constraints of investment on the levels of investment in 120 accepted companies in Tehran Stock Exchange during the period of 2002-2012. The results of their research indicate that the relationship between free cash flows and investment levels is direct and statistically significant. Yahyazadeh and Khoramdin (2012) examined the effects of the variables of illiquidity ratios and factors affecting liquidity, including size of company, book value ratio to stock market value, and excess market return to excess stock return in Tehran Stock Exchange. In this study, Amihud's ratio has been used as a factor of illiquidity. The results of their study showed that there is a reverse relationship between changes in the ratio of illiquidity and excess stock return.

Saeedi and Ghaderi (2011), in a study entitled "Investigating the relevance of accounting profit, book value and operating cash flow and investing in price-based evaluation models", examined the predictive value of book value, net profit, operating cash flow, and investment as a representative of accounting information about the value of the company market. Regarding the four variables, the combined power of these variables was studied together and the strongest model was chosen to explain and predict the market value of the companies. Testing Hypotheses was conducted using panel data of 50 selected companies among the accepted companies in Tehran Stock Exchange during 2001 to 2010. Research findings show that book value and accounting profit are related items, and entering a cash flow (operating and investing) does not increase significantly the explanatory power of the models.

Umutlu (2014) explored "the relationship between financial leverage and investment decisions" for stock manufacturing companies in Turkey. In this research, panel data using constant and fixed effects method was used to estimate multivariate linear model. The summary of research findings suggests that financial leverage has a negative impact on investment decisions, and companies that have more debt than other companies show less willingness to invest in capital assets.

Sung (2010) examined the relationship between financial leverage and investment opportunities for Chinese companies. In this study, four different ratios have been used to measure the financial leverage. A summary of research findings suggests that companies with higher growth have lower leverage ratios. Larger companies will incur more debt to invest than smaller companies.

Kevin and Wickey (2008) examined the relationship between the earnings quality and the investment of capital assets during the years 2005-2012. The results of the research showed that companies that have a lower earnings quality have lower rates of stock returns and less investment in their capital assets than in cash inflows. Similarly, these companies allocate their resources less to capital assets than other companies, and they have less "return on assets".

Nagecha and von Thain (2012), in a paper titled "Economic Growth and Total Factors Productivity in Nigeria," investigated the empirical study of the sources of total production growth, as well as the determinant factors on total productivity of production factors in Nigeria during the years 2003- 2011). In this study, the different indexes that indicate negative growth (TFP) and physical capital per capita were used to study the factors of the gradual decrease of per capita production in the final years of the period. Yu (2011) examined the relationship between accounting transparency and credit status of the company. According to Yo, it can be predicted that the transparency of published

accounting information will reduce credit risk. He considered accepted companies in New York Stock Exchange and he revealed that there is a significant and reverse relationship between the transparency of accounting information and credit risk, disclosure of incomplete and vague information increases the company's credit risk. Cousinidis (2010) explores the relationship between stock returns and accounting profitability for a sample of companies in Greece. The research also tests the hypotheses that the company's size and life cycle variables in order to improve the explanatory power of stock returns. The results of the research show that the explanatory power of profitability for simultaneous stock returns is very weak. However, Chavo's test showed significant instability for the relationship between profitability and returns during the period. When the regression was adjusted to consider size, the results were improved, and the idea that the size of the company was an important factor in explaining the relationship between profitability and efficiency and returns was reinforced and strengthened. However, the results did not support the hypothesis of existence the difference between the information content of profitability to explain stock returns according to the company's lifecycle.

Khajavi and Nazemi (2010) investigated the relationship between earnings quality and stock returns with an emphasis on the role of accruals in Tehran Stock Exchange during the years 2001-2009. To test the hypotheses, cross-sectional regressions have been used and the results of the research show that company returns will not be affected by the amount of accruals.

Moradi and Safavi (2009), in an article entitled "Total Factor Productivity Growth in the Iranian Commerce Sector", identified important and effective components in the Total Factor Productivity growth (TFP) of the country's commerce sector, and estimated them in the form of a recognized and identified model using data of years (2003-2008). They initially calculated the productivity index of the production factors on the basis of the share of the factors of production in the sector, and they put it on the function and concluded that the growth of capital stock per capita, the average growth of years of schooling and the real exchange rate have a positive effect and Inflation rate has a negative impact on the of total factor productivity growth in the commerce sector. Mehdi Zivdari (2008) investigated the relationship between trading volumes, stock prices and fluctuations in returns on the data of 15 stock companies that were in each of the four lists of 50 active stock companies in the year 83, from 83/1/8 to 86/3/11. In this study, they tried to study the simultaneous and causal relationships of trading volumes, price changes, and fluctuations in returns. The results of this study confirmed the simultaneous correlation between trading volume and stock price changes, as well as the simultaneous correlation between trading volume and absolute value of the stock price changes and it also confirmed of the two-way feedback correlation between the trading volume and stock return, but this hypothesis that the trading volume explains the fluctuations in returns and the information is being imported simultaneously to the market is rejected.

## Methodology :

Scientific research method is to follow systematic practices that must be observed when using statistical methods and linking the subjects of the research (Delaware, 2007). This research is in terms of content and content is under a correlative study. The statistical method used in this study is panel data method, because in order to investigate the relationship between independent variables and dependent variable, two different aspects of the subject are examined. The statistical population of this research is the accepted companies in Tehran Stock Exchange. According to the official website of the Tehran Stock Exchange, all accepted companies were until to the end of 2015.

Therefore, in the present study, all accepted companies in Tehran Stock Exchange in a six-year period, from 2010 to 2015, are the statistical population of the study. In this study, the screening sample method was used to select the sample as an appropriate representative of the statistical population.

For this purpose, the following criteria are considered and if a company has met all the criteria, it is selected as one of the sample companies. Finally, 95 companies from the statistical population were selected.

## Analysis of the findings :

A summary of the status of the descriptive statistics related to model variables after screening and deletion and removing the scatter data using the Spss 20 software is presented in the following table.

Table 1: Summary of descriptive statistics status after screening

elongation	skewness	maximum value	Minimum value	Standard Deviation	mean	Number of observation	variable
158/907	8/987	6/8448	0/0110	0/3504	0/6290	624	trade credit
31/753	4/931	2/5554	0/0000	0/2540	0/1386	624	bank loans ratio
-0/770	0/861	0/9986	0/0000	0/3194	0/3365	624	Return on capital
0/446	0/266	3/1943	0/0027	0/5351	1/2008	624	Life of company

## Test of normality

If the significance level of this test is more than 0.05 (Prob> .05), the hypothesis 0 is based on the normal distribution of the variable will be accepted. The results of the K-S test are presented for the dependent variable of research and trade credit of sample companies. Considering that for trade credit variable, the significance level of KS statistic is less than 0.05, therefore the hypothesis 0 of the normal distribution of these variables is rejected at 95% confidence level and it indicates that the trade credit variable does not have a normal distribution.

Table 2: Results of the test of normality of the dependent variable of the research

) Sig(	k- statistics	number) N(	variable
0/001	4/249	624	Credit value

Normality of the dependent variable is a necessary condition for regression models, so it is necessary to normalize this variable before testing the hypotheses. In this study, Johnson's transformation function was used to normalize the data and the data was analyzed by Minitab software 16. The results of the K-S test after the normalization of the data are as follows:

Table 3: Results of the test of normality of the dependent variable of the research after normalization process

) Sig(	k- statistics	number) N(	variable
0/937	0/532	624	Credit value

There is a significant relationship between the growth rate and the trade credit of companies.

There is a significant relationship between the bank loan ratio and trade credit of companies.

There is a significant relationship between financial performance and trade credit of companies.

There is a significant relationship between capital returns and trade credit of companies.

## Correlation test :

In this section, using the Pearson correlation coefficient, we examine the relationship between the research variables and the correlation between them. The matrix of correlation coefficients between the variables of the research is presented.

According to the results of Pearson statistic, the trade profit of companies has a positive and significant correlation with the life of the company and shows a negative and significant correlation with the ownership ratio of institutional shareholders and the size of the company.

The growth rate also has a positive and significant correlation with the bank loan ratio, the ownership ratio of institutional shareholders and the size of the company. The bank loan ratio also shows a positive and significant correlation with financial performance. Ownership ratio of institutional shareholders also has a positive and significant correlation with the size of the company.

	Credit value	Bank loan ratio	Return on capital
Credit value (P-Value)	1		
Bank loan ratio (P-Value)	0/034 (0/430)	1	
Return on capital (P-Value)	0/029- (0/523)	(0/402)-0/026	1

The results of model estimation are presented in the following table. The estimated figure of the model using the Eviews 7 software will be as follows:

$$TC_{i,t} = 1.4992 - 0.0543 BankLoans_{i,t} + 0.0111 RMC_{i,t} + \varepsilon_{i,t} \quad (1)$$

Table 5: Test results of the first hypothesis of the research using the fixed effects method

Dependent variable: trade credit Number of observations: 624 years - Company				
relationship	P-Value	statistics -t	coefficient	variable
positive	0/0146	2/4349	1/4212	Fixed component
negative	0/0363	-2/1145	-0/0598	bank loan ratio
positive	0/0008	1/3300	0/0134	Return on capital
0/9055	The coefficient of determination of the model			
44/7233 (0/0000)	F- statistics (P-Value)			

### First hypothesis of research:

The purpose of the first hypothesis test is to investigate whether there is a meaningful relationship between the bank loan ratio and trade profit of the companies or not? And its statistical hypothesis can be expressed as follows:

H0: There is not a significant relationship between the bank loan ratio and trade profit of the companies.

H1: There is a significant relationship between the bank loan ratio and trade profit of the companies.

$$TC_{i,t} = \alpha_0 + \beta_1 BankLoans_{i,t} + \beta_2 RMC_{i,t} + \varepsilon_{i,t} \quad (2)$$

$$\begin{cases} H_0 : \beta_1 = 0 \\ H_1 : \beta_1 \neq 0 \end{cases}$$

In considering the coefficients with respect to the results, the probability of t- statistics for the coefficient of variance of the bank loan ratio is less than 0.05. Therefore, the first hypothesis of the research is accepted and 95 percent can be said that there is a significant relationship between the bank loan ratio and trade credit. The negative coefficient of this variable indicates an inverse relationship between the bank loan ratio and trade profit.

The purpose of the second hypothesis is to investigate the relationship between capital returns and trade credit and its statistical hypothesis is as follows:

H0: There is not a significant relationship between capital returns and trade credit.

H1: There is a significant relationship between return on capital and trade credit.

$$TC_{i,t} = \alpha_0 + \beta_1 BankLoans_{i,t} + \beta_2 RMC_{i,t} + \varepsilon_{i,t} \quad (3)$$

$$\begin{cases} H_0 : \beta_4 = 0 \\ H_1 : \beta_4 \neq 0 \end{cases}$$

In order to examine the significance of the coefficients with respect to the results presented, the probability of t- statistics for the variable coefficient of return on capital is less than 0.05 (0.0008), as a result of the existence of a significant relationship between return on capital and trade profit at 95% confidence level is confirmed. Therefore, it can be concluded that there is a significant and direct relationship between return on capital and trade credit.

### Conclusions and suggestions:

The results of our first hypothesis are in line with the findings of studies by W et al. (2012), Konat (2007) and Yu and Fun (2005), and contradict the findings of Fisman and Low (2003) and Heshmati (2001). The results of our second hypothesis are in line with the findings of Collouzie et al. (2014), Huang et al. (2010) and Bossai and Group (2007) and contradict Goddard et al. (2002) and Smys and Bigman (1997). According to the results of the first hypothesis of the study, it is suggested to investigate the relationship between the bank loan ratio and trade profit and its effect on the expected returns of company shares. According to the results of the second hypothesis of the study, it is suggested to investigate the relationship between return on capital and trade credit and its effect on the unusual returns of company shares. One limitations of the study is the discrepancy between the statistical information reported by the company's stock exchange website and the information contained in the data banks, and in this case we relied on the information provided by the stock exchange website and the stock exchange company. The study of the effect of industry on the relationship between growth rate, bank loan ratio, financial performance and return on capital and trade credit of companies and the use of other control variables such as financial constraints and industry index are proposed in examining the effect of growth rate, bank loan ratio, Financial performance and return on capital as future research topics.

# INVESTIGATING THE RELATIONSHIP BETWEEN IDIOSYNCRATIC RISK AND STOCK VALUE OF LISTED INSURANCE COMPANIES IN TEHRAN STOCK EXCHANGE

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## Abstract

The purpose of this research was to study the relationship between idiosyncratic risk and stock value of listed insurance companies in Tehran Stock Exchange. The research population consists of all the insurance companies listed in Tehran Stock Exchange. The number of reliable and accurate observations for each variable has been for 7 years. The research data involves the data related to 8 insurance companies listed in Tehran Stock Exchange since 2009-2015. The research hypotheses were tested discretely using Excel and STATA software (Version 12.0). The results revealed that there is a significant relationship between idiosyncratic risk and stock value of listed insurance companies in Tehran stock exchange. Further, there is an association between institutional ownership, ownership concentration and financial leverage of stock value of listed insurance companies in Tehran stock exchange.

**Key words:** Idiosyncratic risk, institutional ownership, company's concentration, financial leverage, stock value

JEL:G30

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## Introduction

Stock Exchange provides the best potential to use the wandering savings of the people for production and meets the financial needs of companies and institutions. From the supply chain perspective, the investors try to invest their savings to have the highest efficiency as much as possible. Of course, this requires possessing a sufficient information on investment. Research indicates that large investors have been more successful than small investors since they have had access to more information (Weberman, 1984).

The world experience demonstrates that the insurance industry as a small part of financial industry needs to have a mutual relationship with the capital market. This relationship, in the globalization age, is embodied in two forms. On the one hand, insurance business needs a robust capital market and, on the other hand, the capital market is dependent on the active participation of insurance funds in this market. Therefore, the reforms expedition, development of these two sections and improvement of the mutual relationship between these two is a necessary prerequisite to the development of an appropriate financial system in the country.

Iran's life insurance sector is still in the very early stages of development. This can be observed in the small number of Iranian insurance companies, the proportion of insurance companies' premium income to Gross Domestic Product (GDP) and the limited variety and number of insurance products (Kazemzhad, 2010). Investment plays an important role in social and economic development so that it is considered as one of the most robust factors to achieve a sustained development. It is worth-noting that although paying attention to this issue can result in a positive economic growth, it can also lead to an economic slump. Therefore, it can be said that it is impossible to attain long-term economic development and increase public welfare without paying attention to investment and factors affecting it. One of the influential factors affecting investment is the return on investment and risk. There is an axiom in the investment culture indicating that the investors avoid the risk and are more interest in the profit and return on investment. Therefore, the investors avoid investing their capital where there is the possibility for risk or there is an unknown horizon against their profits and return of their capitals. Typically, the investors look for a higher return on investment in proportion to the investment risk through their own financial analysis and demand for a higher return for the securities that have a higher risk of investment. The insurance industry plays a significant role in the countries' economic growth and development especially developing countries. Paying attention to the status and factors affecting the insurance sector as well as the effect of various policies adopted in this sector has a considerable influence on the economy of a country. Davalou and Fartookzade (2016) in a research studied the cross-sectional variation in stock returns: liquidity and idiosyncratic risk. The results indicated the liquidity influences the cross-sectional variations in the stock returns. Gaemi and Toosi (2016), in another study, investigated the factors influencing the normal stock return of the listed companies in Tehran Stock Exchange. The results demonstrated that there is a positive significant relationship between stock return with systematic risk, firm size and P/E ratio. Jafari Samimi, Yahyazadehfar and Aminzadeh (2015) studied the relationship between the size of the portfolio and the idiosyncratic risks of common stock in Iran. The results revealed there is a negative (and reverse) significant relationship between the size of securities basket and its risk. This study also indicated the extent to which the size of the securities basket can be increased to eliminate the idiosyncratic risk. The results demonstrated the risk of securities decreases to an asymptote with an increase in the number of stocks and this line closes to the mean of market systematic risk in a basket of 36 shares. In other words, the risk of securities basket promptly decreases with an increase in the number of shares. As the number of securities in the portfolio increases to more than 36 shares, the effect of diversification decreases to the least or the idiosyncratic risk is somewhat eliminated. Akhgar and Jelozan (2015) investigated the effect of profit smoothing on the idiosyncratic risks of the listed companies in Tehran Stock Exchange. The results revealed that profit smoothing reduces the idiosyncratic risks in these companies. Further, this study demonstrated there is a significant relationship between company's size, liquidity ratio, debt ratio, interest variability, industry type and idiosyncratic risk. In another study Zolghi, Bayat, Danesh Askari (2014) analyzed the effect of management profit prediction on the idiosyncratic risk. The results indicated that there is a negative significant relationship between precision and frequency of management profit prediction and idiosyncratic risk. Badri, Davalou and Arab Mazar Yazdi (2014) investigated the pricing of idiosyncratic risk: evidence on the information content of profit. The findings of IVOL information content test suggested that there is a negative correlation between idiosyncratic volatility and profit in which it can be claimed that the IVOL information content test is greatly influenced by the earnings liability component. Therefore, the IVOL information content test is confirmed for profit, but the findings are not alone sufficient to explain the reason for the idiosyncratic risk pricing. Also, the recent relationship is not in conflict with the principles of "investors' ignorance of profitability" and "expectations of growth". Investment is a vital condition for the economic growth and development of all countries which needs to capital resources to realize its necessary dimensions. The insurance companies with numerous financial resources are considered as one of the most important resources for financing and investment. Further, the insurance companies characterized by their operational nature will undertake to compensate for the possible future losses (at the time of incident). The surplus funds need to be invested at the time interval between premiums receive and loss payment so that the insurance companies can meet their undertakings even at the time of inflation. Therefore, the investment management of insurance companies is of high significance and careful investment of the available resources can ensure the survival

of these companies and development of insurance services. This paper investigates the relationship between the insurance portfolios and the stock value of insurance companies listed in Tehran Stock Exchange.

## **Research Objectives**

### **Primary Objective**

The analysis of the relationship between idiosyncratic risk and the stock value of insurance companies listed in Tehran Stock Exchange.

### **Secondary Objectives**

1. The analysis of the relationship between institutional ownership and the stock value of insurance companies listed in Tehran Stock Exchange.
2. The analysis of the relationship between company's concentration and the stock value of insurance companies listed in Tehran Stock Exchange.
3. The analysis of the relationship between financial leverage and the stock value of insurance companies listed in Tehran Stock Exchange.

## **Research Hypotheses**

### **Main Hypothesis**

There is a significant relationship between idiosyncratic risk and the stock value of insurance companies listed in Tehran Stock Exchange.

### **Secondary Hypotheses**

1. There is a significant relationship between institutional ownership and the stock value of insurance companies listed in Tehran Stock Exchange.
2. There is a considerable correlation between company's concentration and the stock value of insurance companies listed in Tehran Stock Exchange.
3. There is a substantial relationship between financial leverage and the stock value of insurance companies listed in Tehran Stock Exchange.

## **Research Methodology**

The present research is of an applied type in terms of objective. The research design is a quasi-experimental design using ex-post-facto approach (through retrospective information). The research data are based on the real figures and statistics of Tehran Stock Exchange and the financial statements of insurance companies. The research population comprises all the insurance companies listed in Tehran Stock Exchange within the years 2009-2015 in terms of the following criteria:

1. The required data related to all the insurance companies listed in Tehran Stock Exchange within the years 2009-2015 are accessible.
2. The fiscal period ending in March for all the insurance companies listed in Tehran Stock Exchange does not change during the period 2009-2015.
3. The Stocks of insurance companies are traded during the research years.
4. The insurance company is not one of the investment or intermediary companies.

The research data was collected from 8 insurance companies selected randomly as the statistical research sample among all the insurance companies listed in Tehran Stock Exchange. To analyze the collected data, the Excel and STATA (Version 12.0) software were used.

## Research Findings

### Testing main hypothesis

H0: There is no significant relationship between idiosyncratic risk and the stock value of insurance companies listed in Tehran Stock Exchange.

H1: There is a significant relationship between idiosyncratic risk and the stock value of insurance companies listed in Tehran Stock Exchange.

The results in Table (1) suggest that there is a significant relationship between idiosyncratic risk and the stock value of insurance companies listed in Tehran Stock Exchange ( $F=13/69$ ) at a significance level of 0.000 ( $P=0.000$ ). Also, the results of Aldrich testing revealed that there is no auto-correlation between the error terms in the model. The adjusted coefficient of determination is  $R^2=0.27$ . The idiosyncratic risk is recognized as the research independent variable and the stock value as the dependent variable. As the table below indicates there is a negative inverse correlation between idiosyncratic risk and the stock value variables at a significance level of 0.004 ( $P=0.004$ ). As we can see there is a significant correlation between idiosyncratic risk and the stock value of insurance companies listed in Tehran Stock Exchange, so the main research hypothesis is confirmed. The significance in correlation is interpreted meaning that whether the correlation obtained is by accident or there is really a strong relationship between the two variables. The Coefficient of Determination ( $R^2$ ) value is calculated as the square of correlation. This coefficient represents how much of the dependent variable variations can be caused or explained by independent variable. The Coefficient of Determination has application in regression analysis. The results of testing hypothesis show that the Coefficient of Determination of this research is 0.27 ( $R^2=0.27$ ).

### Testing secondary hypothesis 1

H0: There is no significant relationship between institutional ownership and the stock value of insurance companies listed in Tehran Stock Exchange.

H1: There is a significant relationship between institutional ownership and the stock value of insurance companies listed in Tehran Stock Exchange.

As the results of Table (1) indicates there is a substantial association between institutional ownership and the stock value of insurance companies listed in Tehran Stock Exchange ( $F=13/69$ ) at a significance level of 0.000 ( $P=0.000$ ). Furthermore, the results of Aldrich testing demonstrated that there is no auto-correlation between the error terms in the model. The adjusted coefficient of determination is  $R^2=0.27$ . The institutional ownership is identified as the independent variable and the stock value as the dependent variable. As it can be observed, there is a positive direct correlation between institutional ownership and the stock value variables at a significance level of 0.007 ( $P=0.007$ ). Thus, since there is a significant relationship between institutional ownership and the stock value of insurance companies listed in Tehran Stock Exchange, so the secondary hypothesis I is accepted.

### Testing secondary hypothesis II

H0: There is no significant correlation between company's concentration and the stock value of insurance companies listed in Tehran Stock Exchange.

H1: There is a significant relationship between company's concentration and the stock value of insurance companies listed in Tehran Stock Exchange.

The results of Table (1) represents that there is a considerable relationship between company's concentration and the stock value of insurance companies listed in Tehran Stock Exchange ( $F=13/69$ ) at a significance level of 0.000 ( $P=0.000$ ). The results of Aldrich testing also showed that there is no auto-correlation between the error terms in the model. The adjusted coefficient of determination was obtained to be  $R^2=0.27$ . The company's concentration is referred to as the independent variable and the stock value as the dependent variable. There is a negative and inverse correlation between company's concentration and the stock value with a significance level of 0.000 ( $P=0.000$ ). Consequently, as there is a correlation between institutional ownership and the stock value of insurance companies listed in Tehran Stock Exchange, the secondary hypothesis II is affirmed.

### Testing secondary hypothesis III

H0: There is no considerable correlation between financial leverage and the stock value of insurance companies listed in Tehran Stock Exchange

H1: There is a significant relationship between financial leverage and the stock value of insurance companies listed in Tehran Stock Exchange.

According to Table (1), there is a significant correlation between financial leverage and the stock value of insurance companies listed in Tehran Stock Exchange ( $F=13/69$ ) at a significance level of 0.000 ( $P=0.000$ ). Further, the Aldrich testing results indicated there is no auto-correlation between the error terms in the model. The adjusted coefficient of determination was calculated to be  $R^2=0.27$ . The financial leverage is considered as the independent variable and the stock value as the dependent variable. As we can see in the table below, there is a negative and inverse correlation between financial leverage and the stock value at a significance level of 0.000 ( $P=0.000$ ). As there is a correlation between financial leverage and the stock value of insurance companies listed in Tehran Stock Exchange, so the secondary hypothesis III is verified.

Table 1: Statistics for Testing Hypotheses

b4 lev <sub>it</sub> + e <sub>it</sub> + b3 con <sub>it</sub> + b2 inst <sub>it</sub> + b1 b <sub>it</sub> + b0 =v <sub>it</sub>				
Variable	Abbreviation	Coefficient	T-statistic	Significance level
Idiosyncratic risk	b	<b>024/-0</b>	-2/97	<b>0/004</b>
Institutional ownership	inst	<b>143/0</b>	2/85	<b>0/007</b>
Company's concentration	con	<b>131/-0</b>	-3/09	<b>0/000</b>
Financial leverage	lev	<b>-0/107</b>	-3/61	<b>0/000</b>
Intercept	$\beta_0$	<b>0/12</b>	4/22	<b>0/000</b>
Adjusted Coefficient of Determination ( $R^2$ )		<b>0/27</b>	F-statistic	69/13
			Significance level	<b>0/000</b>

### Conclusion

The behavioral model presented by Barberis and Heung (2011) suggests the idiosyncratic risk is inversely correlated with stock returns. The main ideas that lie behind this model include investors' loss aversion and narrow framing. Kahneman and Tversky (1979) state that people are more sensitive to losses than to foregone gains. In fact, the idea of loss aversion states that people try to avoid locking in a loss more than profit. Additionally, there is evidence that the degree loss aversion is linked to the benefits they have gained in the past. A narrow framing means that people evaluate the conditions with their stereotypical knowledge. For example, when they want to analyze the changes in their wealth, they only pay attention to the increase in stock prices than to look at their entire set of assets, such as the profit gained from those stocks, bonus shares, preference shares, etc. Yao, Zhou, Jiang (2009) showed that there is an inverse correlation between idiosyncratic risk and stock returns. The main reason for this inverse correlation is the impact of selective disclosure of corporates information. This group indicate that the idiosyncratic risk is related inversely to the future earnings shocks and future stock returns. For example, when stock portfolios are classified based on the idiosyncratic risk, in the next season, there will be a 2.19 % difference between the average return of the first and the tenth deciles. This difference will reach 5.7% next year. The fact that stock returns which are based on different idiosyncratic risks are changing is mainly due to the information concerning the firms' earnings prospect that reveals new facts about idiosyncratic risk. In addition to the hypotheses related to market anomalies, this research revealed a potential link between the idiosyncratic risk and firms disclosing strategies. Companies with higher idiosyncratic risks have lower disclosure quality and this relationship is constantly consistent, meaning that the disclosure scores are inversely correlated with the future return of the stock. In a study by Varchenko (2002), the systematic and idiosyncratic risks were tested in isolation due to the asymmetric risk in stocks. Although there was a positive relationship between idiosyncratic risk and stock return in half of the markets, the idiosyncratic risk had a negative significant effect on the stock return in all the markets investigated in this study. Ang et al. (2009) discovered a reverse relationship between idiosyncratic risk and stock returns in the United States and Group 7 countries (Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States).

### Suggestions and Recommendations

After performing all the procedures related to a scientific research, if the research has been carried out systematically, the researcher can provide comments on the research findings and results as well as a set of suggestions and recommendations to improve and further the research in the future. Therefore, a sets of suggestions and recommendations are presented in terms of the research findings.

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# INVESTIGATION THE EFFECT OF TOTAL QUALITY MANAGEMENT ON ORGANIZATIONAL PERFORMANCE BY USING STRUCTURAL EQUATION MODELING

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Hamzeh Amin-Tahmasbi<sup>39</sup>

## Abstract

*The goal of current research is considering effect of total quality management and its dimension (Leadership, Strategic planning, Emphasis customer, management of process and constant improvement) on performance of Foumanshimi company. Statistical society of research is staff of FoumanShimi Company in Guilan province that are 700 people. By using Cochran formula and simple random sampling method 268 people have been chosen as final sample of research. For data collection a questionnaire including 25 items were benefited. Also for analyzing data structural equation modeling has been used. Result of considering hypothesis showed that total quality management and its dimension has meaningful effect on performance of foumanShimi Company at the level of 99%.*

**Key words:** Total quality management, organizational performance, structural equation, foumanshimi

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## Introduction

Organizations are like dynamic systems have relationship with other social systems and have interactional effect on each other. On the one hand for saving and survival they should make themselves compatible with the environment and on the other hand by supplying services and products affect environment. Extensive and comprehensive flow of changes has involved in fundamental changes in goals and missions and strategies that by thinking in all changes we can know is common aspect at exploring science at previous decades (Malik et al, 2012). In current complicated world that environment of organizations has ambiguity and specific complexity and rapid changes, only organizations can continue their life to be able to achieve more awareness from their surrounding environment and its existing factors and by relying knowledge and awareness of his environment adapt himself with changes of environment (Vinzi et al, 2010).

Globalization of business economy has emphasized presence of new business power, changes of need of customers and technological and legal development of companies that concentrate on constant competitive advantage through innovative activities and these advantages is directly related to the quality of production and services. Comprehensive quality management that has relation with ability of earning, absorption, adaption and implementing change of attitudes of organization and their mixing in the organization is identified as a tool for saving this competitive advantage and achieving organizational excellence. Globalization process, market and necessity of having power of competition causes creation of new pattern of quality management. Comprehensive quality management, philosophy, theory and new methodology at quality management and systems is taken from it. In fact applying quality management is one achievement resulted from development and internationalization of quality management during previous years (Ambini, 2015).

## Research theoretical framework

### Organizational performance

Organizational performance is one important structure discussed in managerial research and undoubtedly it is counted the most important criteria of assessing success of business companies. However about its index there is complete viewpoint between authorities. Generally index of organizational performance is divided into two mental and obvious groups. Obvious index of performance is indexes that is measured as real form and based on obvious data is measured. Such index is output of asset, equity output, investment output and profit of each share of stock. Mental index are index that are formed based on judgment of beneficiaries in the organization. Such indexes are customer satisfaction, staff and success at presenting new products (Azar et al, 2015).

Organizational performance is the index that measures the way of realization of goals of an organization or an institution (Ho, 2008). Organizational performance is extensive concept that encompasses the thing that a company produces and fields that interact with them. In other word organizational performance means achieving organizational or social goals or doing responsibility that an organization has (Aghajani & Jafari kenari, 2013). Nowadays regarding increase of competition between organizations and in the direction of attention to the organizational changes, any organization is going to have more effective performance and this action has taken attention of many researchers of human science area especially industrial and organizational psychologist. Understanding problems related to organizations leads to more effectiveness of them (Currie et al, 2012).

### Total quality management

TQM is an strategy that can improve learning and competitive excellence in the organization (Kazazi & Shol, 2013). Since 1950 gradually approach of TQM was identified and since the start of 1980 it has played role as a new managerial philosophy at quality management (Azar et al, 2015). Japanese companies have been pioneer about implementing TQM, whereas companies at middle Asia, Europe and America have been known as followers of its implementation (Eghbal et al, 2012). TQM in recent years has been changed into an important and effective field at developing and industrial countries and extensively it has been used at business, scientific and cultural organizations (Naghshbandi et al, 2012). Zitz et al (1995) claimed that TQM gradually has been changed into institutionalized action it means that many institutions and industries at competitive environment has paid attention to it and strengthens such plans. Because implementing TQM enables organizations to improve their internal efficiency and in fact it is a prerequisite for competitiveness at market (Vikramating, 2012). However different approaches to the concept of TQM leads to different definitions. Rahman (2004) showed that TQM is approach of management for improving organizational performance technically and behaviorally (Uo et al, 2011). Herington et al (2012) have defined it supporting culture of customer satisfaction trough constant improvement and innovation at all aspects of business (Herington et al, 2012). In the view of Goetch and Deyvis (2012), TQM means doing correct work at the first

opportunity, constant attempt for improvement and satisfying customers (Alovirti, 2012). In the view of ben ahdMostafa (2013), TQM is methods and techniques of content improvement saving it and supplying demands of customers (Ben and Mostafa, 2013). This definition has been paid attention by researchers (Rodrigz and Alvarez, 2014). In the view of doran et al (2014) this concept is a managerial philosophy that by using different strategies, effective changes will create at the process of an organization (Doran et al, 2014). Generally TQM can be defined: total quality management is an attempt that fallows constant improvement of prpcess, production, services and all organizational activities for supplying customer need, strengthening competitive leverage and achieving optimized level of ding world in relation with environmental variable condition (Azar et al, 2015).

## **Dimensions of total quality management**

### **Leadership**

Leadership was as a communicative line between people and controls their performance and takes attention of company toward these goals. At environment of implementingtotal quality management, leaders don't have much power and don't have control and authority; they achieve high capability of distinguished and lead others in doing affairs. Thereforeone practical method for leaders is increasing energy of group and growing creativity in them. Growing creativity causes innovation of them. Regarding current situation of companies where knowledge is basis of all affairs, total quality management needs change of organizational factors especially leadership style (Pasvar & Moshabaki, 2006).

### **Strategic planning**

Strategic planning is as an activity that causes success and puts a company at the level of competition. In the view of researchers strategic planning is one important factor of success of total quality management. A favorable strategy shows that how a company can provide capabilities and resources for achieving goals. Creating strategy is a kind of division of viewpoints for implementing TQM. This problem has importance for supporting business (Sila, 2007).

### **Emphasizing customer**

In current competitive world inattention to a customer will lead to competition. Identification of needs of customers can be effective at taking attention of customers and their loyalty to the organization. Result of most experimental studies have common view that attention to a customer is an important factor for effective quality management and achieving final goal that is the same customer satisfaction (Sadeghi et al, 2013). The subject of concentration on customer and satisfaction is one proper leverage for enhancing organizational performance. Surrounding environment is changing. Therefore companies that are based on quality have more emphasis on innovation and presenting new products. For concentration on customer satisfaction firstly we should collect information about their expectation and then collected data should be sent to related units in the company (Oo, 2009).

### **Process management**

Process management relies on implementing capabilities and met needs and expectations of customers. Quality and structure of process of management are both fundamental opportunities of the organization. Quality adapts approach of process management and at the same time implementing operation is subset of structural approaches (Sila, 2007).

### **Constant improvement**

Constant improvement in the organization is a kind of implementation of TQM system that design a permanent system, this action causes collecting and distributing knowledge at the whole organization daily and permanent. Companies improves process constantly (Oo, 2009).

## Hypothesis and research conceptual model

Reviewing literature of research and some studies have shown that companies that benefited TQM comparing those who don't use it have more competitive advantages. For example: Kabor et al (2013) manifested simultaneous effect of TQM and saving production on performance of companies in India (Kaor et al, 2013). Amad et al (2012), have assessed effect of TQM on performance by using mediating variable (Controlling statistical process, production with support, saving generating products) in Malaysia. Result of their analysis showed that TQM has positive effect through these variables on business performance (Ahmad et al, 2012). Vitjaksosn (2012) by assessing implementation of TQM in different companies found that those companies that applied TQM have better performance than those companies that don't benefited them (Vitjaksono, 2012). Hassan et al (2012) by assessing 221 companies in Pakistan showed that companies benefiting TQM operation than companies lacking it have more favorable level of performance (Hasan et al, 2012). Agh and Hassan (2011) by studying companies situated in Malaysia manifested that operation of TQM has high correlation with customer performance and product performance (Agh and Hasan, 2011). Valmohammadi (2011) tested relationship between factors of TQM at small and moderate business of Iran. Result of his research distinguished that there is relation between TQM and performance and leadership has significant share at increasing performance (Valmohammadi, 2011). Since various researchers have found positive relation between TQM and organizational performance therefore:

**Main hypothesis:** operation of TQM has positive effect on organizational performance,

Other hypothesis of research and conceptual model are as below:

H1: Leadership affects organizational performance.

H2: Strategic planning affects organizational performance.

H3: Emphasis on customer affects organizational performance.

H4: Management process affects organizational performance.

H5: Constant improvement affects organizational performance.

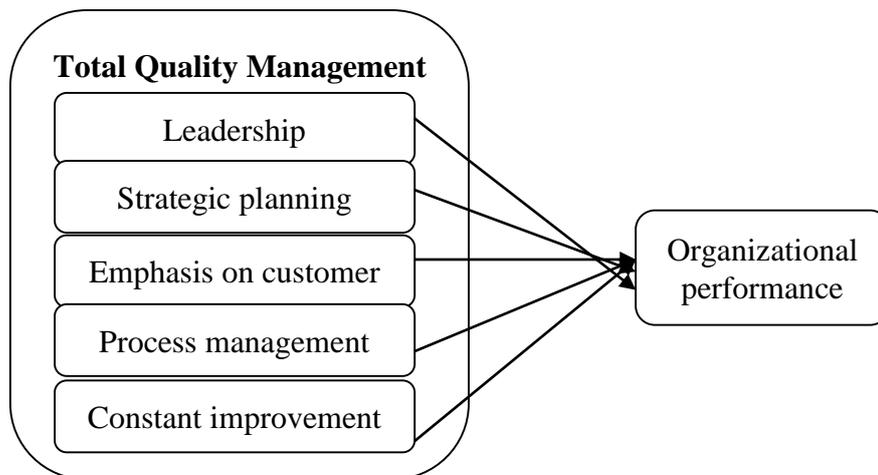


Figure 1: Research conceptual model (Oo, 2009)

## Methodology

Statistical society of research are all staff of foomanshimi company in Guilan province that number of these staff based on clima of administrative unit and human resource is 700 people. Sampling in current research was done through simple random sampling method among staff. For calculating sample volume of staff regarding that variance of society wasn't identified firstly a primitive study was done on a group of 30 people. After distribution and collection of questionnaire and data analysis and by considering favorable probable accuracy and certainty coefficient of 95% and volume of statistical sample, sample volume was estimated by using formula of minimum required sample volume about 268 people.

For data collection a questionnaire having 25 items were benefited. For assessing each dimension of TQM oooi scale (2009) was benefited and for assessing organizational performance wang et al scale (2011) was benefited. Validity of questionnaire has been approved by using viewpoint of experts and its reliability was approved by using cronbach alpha coefficient.

## Research findings

In this section result of considering variables of research were extracted by indexes like mean, standard deviation, mean of extracted variance, K-s index and cronbach alpha coefficient that for this aim SPSS software version 20 was benefited. Result of analysis has been shown in table 1.

*Table1: Describing variables of research*

	N	Mean	S.D.	AVE	K-S
Leadership	268	3.1172	0.4678	0.571	0.126
Strategic planning	268	2.8433	0.7316	0.504	0.084
Emphasizing customer	268	3.7665	0.7327	0.639	0.1131
Process management	268	3.1423	0.5023	0.584	0.061
Constant improvement	268	2.9880	0.5652	0.521	0.271
Organizational performance	268	2.6960	0.4192	0.672	0.898

## Testing hypothesis

Applied method for testing hypothesis of research and presented conceptual model is structural equation modeling. Structural equation modeling is a general and powerful multivariable analysis technique of multivariable regression and more exactly is general linear model that possible researcher to test a set of regression equation simultaneously/ SEM is a comprehensive statistical approach for assessing hypothesis about relation between manifest variables (Observed variables) and latent variables (Unobserved variables) that is sometimes called covariance structural analysis, causal modeling and sometimes LISREL. Therefore researchers can reject supposing structure or approve their adaption with non-experimental data. Result of considering hypothesis has been shown in table 2:

*Table 2: Result of considering hypothesis of research*

Path	(B)	T
TQM to organizational performance	0.56	6.88
Leadership to organizational performance	0.39	3.98
Strategic planning to organizational performance	0.78	10.28
Emphasis on customer to organizational performance	0.64	8.22
Process management to organizational performance	0.48	5.11
Constant improvement to organizational performance	0.66	8.93

All hypothesis of research are tested by using t statistics. This statistic (t value) is meaningful when its amount is out of range (-1.96 and 1.96) and if amount of t statistic is in this range it is meaningless. Regarding result that has been shown in table 2, all hypothesis of research are approved at sig of 99%. The highest effect in the model is related to strategic planning on performance of FoumanShimi company and the least effect is related to leadership variable.

## Conclusion and discussion

In current research regarding exiting theories and theoretical principles that were discussed 6 hypotheses are identified. Result of testing structural equation showed that all hypotheses are approved. In these research elements of TQM like strategic planning and customer-orientation at FoumanShimi has the highest importance. Productive companies often strengthen these factors effectively through methods like supplying products or ordering services by emphasis on the importance of internal departments and external sections that includes customers and suppliers, relation through networks or information and IT systems.

Also we can conclude that one effective factor for strengthening performance of FoumanShimi Company is attention to correct implementation of process of TQM. between these process strategic planning has had the highest importance that is the mentioned company should pay more attention to the category of goal and considering competitive market and also its positive and negative points and can identify existing opportunities in market and create opportunities for existing threats and implement updated planning proper to the process of market in the direction of implementing determined goals.

Also result of research showed that leader of a company as the dimension of dimensions of TQM has less importance than other parameters. Because staff of an organization should perceive TQM and its functions and apply them and performance of the organization is a set of functions of different section that their main factors are staff of an organization and inattention of staff can be a barrier for correct implementation of TQM at FoumanShimi Company.

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# ON THE RELATIONSHIP BETWEEN SOCIALIZATION INDICATORS AND DEPRESSION LEVEL AMONG ACTIVE AND PASSIVE PEOPLE WITH DISABILITIES IN THE CITY OF MASHHAD

**Takatom Niazi**

## **Abstract**

The current research was aimed to compare socialization indicators and depression level among active and passive people with disabilities in the city of Mashhad. The methodology was causal-comparative and the statistical population consisted of all active and passive people with physical and motor disabilities in the city of Mashhad. The sample size included 600 active and 1000 passive disabled people. From this number, the number of 110 active physical and motor disabled individuals and 230 passive physical and motor disabled individuals were randomly selected as the statistical sample. In the end, as many as 101 questionnaires related with active physical and motor disabled individuals and 209 questionnaires related with passive physical and motor disabled individuals were returned. To gather data, Sports activities, Socialization and Depression Questionnaires were applied. To analyze data, Kolmogorov-Smirnov Test as well as Spearman Correlation Test was employed. Findings revealed that 32.6% of the statistical sample was active and 67.4% were passive. Research findings showed that there was a significant and reverse relationship between socialization indicators and depression level of active physical and motor disabled people. However, there was not such a significant relationship between socialization indicators and depression level of passive physical and motor disabled people. Thus, encouraging the disabled to conduct sports activities and to have active presence in the society will cause them to be happy and cheerful. This has to be focused attention by sports, rehabilitation areas managers.

**Keywords:** disabled, socialization, depression

**JEL:**

## Introduction

As a social phenomenon, disability has long existed in societies since past times. It has always been raised as a basic problem from the view of understanding of the existence and social relations. Meantime, there have been no stable relations between social and scientific evolution on the one hand, and disabled peoples' social situation on the other hand (Javadi, 1995). Disability refers to a set of physical, mental and social factors or a combination thereof which leaves adverse effects on the individual's life and thus hinders them to continue living naturally. Different groups of disabled people are seen in the society who struggle with some kinds of disorders related with disability (Reza'ea, 2007, p. 8). This physical situation can isolate some disabled people. As lesions and physical weakness signs appear, the disabled people no longer rely on themselves and the need for help from others and dependency will be felt. Reduced confidence level, negative personality, and feeling of insufficiency and being seen as a burden overshadow the disabled peoples' remaining abilities and these people will increasingly feel grieved. This same isolation and escape from the community can expose disabled people to the challenge of depression. Depression is among psychiatric disorders which, according to the World Health Organization, have, in recent years, topped all diseases in terms of disease charge. The prevalence of this disorder in various societies has been reported between 10 to 25%. Depression is a mood disorder in which the individual feels grieved and frustrated and is not able to feel pleasure and cheerfulness. Without considering race and social class and situation, depression can appear in anyone.

Its special signs are dissatisfaction, losing of interest and energy, low confidence level, feeling of sin and grief, change of appetite and disturbed sleeping patterns. Disabled people are more likely to be exposed to depression compared to healthy people. Depression, anxiety and stress in the disabled people are considered their common problems because of the problems they have in familial and social lives. The disabled people face certain challenges and stresses which subject them to the risk of depression. Entering a small sports community from an isolated environment will pave the way for entering larger communities. In reality, sports for the disabled are channels for socialization and return to a normal life (Reza'ea, 2006, p.117). New findings confirm that sport is closely related with *emotional state and self-knowledge* as it improves mental conditions, and bodily practices are good things for attaining some appropriate mental and subjective conditions (Pursoltani, 2004). On the other hand, the disabled peoples' group activities including sports activities intensify the tendency to collective movement while removing isolationism moods and resulting depression states. Each disabled person well understands he/she is not the only one affected with some psychical injury; rather there are thousands of people who are grappling with the same situation. From another point of view, the disabled individual's social coherence grows at first with other disabled people and with the community later, and thus he is dragged to the activation arena (Hajmir Fattah, 1989, p. 43). Based on his researches in the area of disabled people, Guttmann states that sports for such people is aimed at: "creating mobility, preventing from diseases from being hospitalized in ten hospital and helping people with disabilities to have renewed relations with the social environment" (Ardestani, 2002).

Thus, given the complexity of social relations in modern societies, it is imperative to address the disabled peoples' social characteristics and relevant factors more than ever before. A social life requires compatibility with others, agreement with them and efforts to meet their expectations. The increasing number of people who have problems establishing relations with others or people who fear special contacts or disabled people affected with anxiety, depression and social isolation, necessitate the need for dealing with socialization and relevant factors (Hajmir Fattah, 1989, p. 43). Socialization is a very complicated process. People are able to connect with their surrounding world through sports activities such that the family, peers, the media, instructors and officials and other people as well as externalities affect this process. Family and school contribute most to transferring attitudes and social skills. Cooley argued that school is a place for socializing people and teaching affection, empathy, loyalty and cooperation with others. Social skills learnt in the family naturally are taught to children and adolescents in formal environments with reliance on socialization principles and by employing educational sciences and psychology (Khezrnejat, 1993). Researches on socialization in sports are directly related with sociology of sports. Many efforts were made to explain the various aspects of participation in sports activities during 1960s and early 1970s. Most socialization studies on sports were concentrating on two issues. One was the antecedents of participation in sports, i.e. how and under what conditions the individual turns to sports, and the other was the outcomes of participation in sports. These two processes are called socialization in a social role and socialization through social role. Thus, in most sources, two titles of socialization in sports and socialization through sports can be seen. In the former, the individual becomes socialized in sports role like an athlete and in the latter, it refers to the learning of attitudes, values, skills and overall, attitudes, e.g. manliness, and discipline which are perceived to be obtained in sports activities. Socialization through sports means the impacts of sports on person's beliefs, attitudes and opinions. It is perceived as if lessons we learn from participating in sports can be transferred to other social aspects and through this, the individual learns how to take part in sports successfully (Abdolim, 2007, p. 87).

To explain sports and sports activities in the society, one can use various sociological perspectives. From among the major four sociological theories, one can refer to theories of functionalism, conflict, symbolic reciprocal action and exchange (Khezrnejat, 1993). The Symbolic reciprocal action theory is one of the dominant psychosociological theories which is accepted by sociologists who have tried to provide theoretical foundations of identity in form of social constructs. Various classifications can be found from among studies over social identity; however, based on theories and the emphasis placed

on dimensions of socialization by sociologists, it was tried to measure socialization with respect to such dimensions as internalization of values, roleplaying, independence, social relations competencies, intimacy towards the society, feeling of identity, sensitivities, and formation of self with appropriate indicators for each dimension. In this survey, all mentioned dimensions altogether serve as competencies or qualifications an individual should acquire during his own socialization process. Thus, after the measurement, in the first stage, each of the nine dimensions is created through combining peculiar indicators and in the next stage, these nine indicators of socialization are obtained through sports. Therefore, the role of sport as establishing contacts and communications is one of its most known functions (Kheeznejat, 1993). In this connection, some domestic and foreign researches are mentioned. Mehri et al. (2011) investigated the relationship of emotional intelligence and mental health among male athletic and nonathletic students in the Ardabil Payame Noor University. His findings suggested that the emotional intelligence and mental health among athletes was higher than those in non-athletes. The results also illustrated that there was a significant difference between mental health and emotional intelligence in students majoring in Physical Education and other students, and the mental health and emotional intelligence in physical education students were higher than that in students.

Kargardfar, Dehghani and Heidari (2011) investigated a period of aquatic exercise therapy on quality of life, anxiety and depression in patients with hemophilia. Results indicated that aquatic exercise therapy led to a significant improvement of various aspects of life, anxiety and depression in these people. In their article "Lessons from sports; socialization of children towards values through family interactions and during sports activities", Sadlick and Kim (2007) concluded that participation in sports activities was significantly associated with reduced criminal behaviors and increased special and educational performance. Interview with parents indicated that they were looking at extracurricular sports activities as a ground for socialization of their children towards major values and skills acquired during participation in sports activities. In the end, it was determined that sports in daily life serves as a tool for socialization towards culture and values. In a research by Charl Rox (2012) under the title of "The degree of socialization in *Wheelchair tennis elite athletes* in South Africa" was done. The degree of socialization of 8 elite physical disabled athletes in Wheelchair tennis was investigated in three areas: 1) education; 2) sports and 3) communication with the family and friends. The results indicated that wheelchair tennis athletes were having more power and capacity to meet special goals and relations through sports.

In recent years, many scientists have focused on the sociology of sports; however, there is still room for a widespread range of activities. Hence, the current article has entered the realm of sports sociology and dealt with the relation of sports and the disabled people's socialization in the city of Mashhad. Understanding two major factors in this research, i.e. socialization and sports activities and the effects sports can have on the disabled people's socialization and their depression level, one can socialize the disabled people in our own society by using sports in a favorable way. Thus, the main question in this research was: Is there any relationship between socialization indicators and depression level among men with active and passive physical and motor disabilities in the city of Mashhad.

## Methodology

According to the subject matter and the hypotheses, the current research falls into applied categories. The data were gathered via surveys; however, data analysis was of a causal comparative kind. The statistical population consisted of all active and passive disabled people in the city of Mashhad who amounted to 600 active and 1000 passive people. According to the statistical population properties, the sampling method was done in a classified method appropriate to the sample size, and each physical and motor disabled person, either active or passive, was considered a sample unit. According to the Morgan formula, the statistical sample size was 110 active physical and motor disabled people and 230 passive physical and motor disabled people who were chosen randomly. The active physical and motor disabled people included all physical and motor disabled people who were members to the sports teams in the Razavi Khorasan province or those who were taking part in sports activities for three sessions in a week at least.

Passive disabled people consisted of all motor and physical disabled who were not members to sports teams or had less than two sessions of sports activities a week. Tools for gathering data included 3 questionnaires of General Questions, questionnaire of Socialization by Akbari, Ghamsari and Nemati (1995 and 2011) including 98 closed ended questions with three main indices and 25 subscales on a five value Likert scale as well as questionnaire of Depression by the Stanford Educational Research Center including 8 closed ended questions where the items related with each question were taken into account based on a 4 choice scale (never, several days, most days, almost always). The reliability of the questionnaire was obtained by referring to the views provided by experts in the fields. The reliability was estimated at 0.90 for the Socialization Questionnaire and 0.72 for Depression Questionnaire. To analyze data in the descriptive section, tables of frequency distribution and central indices (mean), and dispersion (standard deviation) and in the inferential statistics, the Kolmogorov-Smirnov Test was used for determining the normalcy of variables according to the hypotheses developed. Then, to test the hypotheses, Spearman correlation test was applied. In order to conduct statistical estimations and analyses, SPSS software version 16 was employed. Test error level was 0.05 in all cases.

## Findings

Descriptive analysis of data indicated that 32.6% of the statistical sample members were active subjects while 67.4% were passive members. In the active people group, the mean age was 37.38 with a standard deviation of 1.243. The minimum age was 18 and the maximum age was 69. In the passive people group, the mean age was 32.96 with a standard deviation of 10.35. The minimum age was 16 and the maximum age was 63. In the active people group, 23.8% were holding under diploma degrees, 36.6% diploma, 17.8% associate's, 12.9% B.A., and 8.9% M.A. In the passive people group, 33.5% were holding under diploma degrees, 34% diploma, 12.4% associates, 16.3% B.A. and 3.85 M.A. In terms of employment status, in the active people group, 44.6% were employed and 54.4% were unemployed. One percent did not answer this question. In the passive people group 28.7% were employed while 71.3% were unemployed. No question was left unanswered. In the active people group, from the marriage status, 59.3% were married and 34.7% were singles. Six percent did not answer this question. In the passive people group, 57.9% were married while 41.6% were singles. Half a percent did not answer this question. In the active people group, 3% was related to brain disability, 45.5% spinal cord damage, 24.8% polio, 7.9% mutilations and 18.8% other disabilities. No question was left unanswered. In the passive people group, 25.4% were suffering from brain damage, 20.6% spinal cord injury, 4.3% polio, 16.3% mutilations and 29.2% other disabilities. Four point three percent did not answer this question. From the view of sports activities, five percent did sports activities for 2 days and less than that, 47.5% for 3 days, 33.6% for 4 days and 11.9% for 5 days and more. Two percent did not answer this question.

*Table 1: Spearman correlation test for investigating then relationship between socialization indicators and depression level among active physical and motor disabled*

	Depression level	
	Spearman correlation coefficient	Sig.
Socialization	<i>29/0-</i>	<i>005/0</i>
Family level	<i>129/0-</i>	<i>224/0</i>
Peers level	<i>221/0-</i>	<i>035/0</i>
Society level	<i>321/0-</i>	<i>002/0</i>

Table 1 results show that the Spearman correlation coefficient between two variables of socialization and depression level among the active physical and motor disabled people was -0.029, and the probability value of its significance level was 0.005, being less than 0.05. Therefore, the existence of a reverse and significant relationship between the two variables is accepted.

The Spearman correlation coefficient between two variables of socialization at the family level and depression level among the active physical and motor disabled people was -0.129, and the probability value of its significance level was 0.224, being more than 0.05. Therefore, the existence of a reverse and significant relationship between the two variables is not accepted.

The Spearman correlation coefficient between two variables of socialization at peers level and depression level among the active physical and motor disabled people was -0.221, and the probability value of its significance level was 0.035, being less than 0.05. Therefore, the existence of a reverse and significant relationship between the two variables is accepted.

The Spearman correlation coefficient between two variables of socialization at the social level and depression level among the active physical and motor disabled people was -0.321, and the probability value of its significance level was 0.002, being less than 0.05. Therefore, the existence of a reverse and significant relationship between the two variables is accepted.

*Table 2: Spearman correlation test for investigating the relationship between socialization indicators and depression level among passive physical and motor disabled*

	Depression level	
	Spearman correlation coefficient	Sig.
Socialization	<i>031/0-</i>	<i>656/0</i>
Family level	<i>023/0-</i>	<i>747/0</i>
Peers level	<i>011/0</i>	<i>879/0</i>
Society level	<i>067/0-</i>	<i>334/0</i>

The Spearman correlation coefficient between two variables of socialization and depression level among the passive physical and motor disabled people was -0.031, and the probability value of its significance level was 0.656, being more than 0.05. Therefore, the existence of a significant relationship between the two variables is not accepted.

The Spearman correlation coefficient between two variables of socialization at the family level and depression level among the passive physical and motor disabled people was -0.023, and the probability value of its significance level was 0.747, being more than 0.05. Therefore, the existence of a significant relationship between the two variables is not accepted.

The Spearman correlation coefficient between two variables of socialization at peers level and depression level among the passive physical and motor disabled people was -0.011, and the probability value of its significance level was 0.879, being more than 0.05. Therefore, the existence of a significant relationship between the two variables is not accepted.

The Spearman correlation coefficient between two variables of socialization at the social level and depression level among the passive physical and motor disabled people was -0.067, and the probability value of its significance level was 0.334, being more than 0.05. Therefore, the existence of a significant relationship between the two variables is not accepted.

## Discussion and conclusion

Results indicated that there was a reverse and significant relationship between socialization indicators and depression level among active physical and motor disabled people. There was no significant relationship between socialization indicators and depression level among the passive physical and motor disabled people. These results are in line with those of Kargardfar et al. (2011) and Zarepur et al. (2012). Overall, results indicated that sports and bodily activities have major impacts on increasing socialization indicators among the disabled. Also, engaging in sports and bodily activities help reduce depression and increase cheerfulness and happiness among the said people. Thus, it is necessary to pay special attention to the category of entertainment and sports entertainment.

According to the research results, families, peers and managers engaged in disabled peoples' affairs are suggested to encourage the disabled individual to do sports activities so that their socialization level is increased. Given the increasing growth of sports related with disabled people, the role of sports in increasing disabled peoples' socialization assume significance and it is thus suggested that Sociology courses on disabled peoples' sports get more active at universities and some researches are devoted to this issue.

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# A COMPARATIVE STUDY OF THE FACTORS AFFECTING THE INSTITUTIONALIZATION OF SPORTS AMONG STUDENTS: A CASE STUDY OF MASHHAD FARHANGIAN UNIVERSITY

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## Abstract

*The aim of this study is to compare the factors affecting institutionalization of sport among students. This descriptive survey was conducted in this field and has been done as a case study. In order to achieve the main goal of the study, all the students of Mashhad Farhangian University were considered as a population whose number was 12849 people. Based on Cochran's formula and taking into account the error  $05/0 = \alpha$ , 380 subjects were enrolled in the study. Data collection tools, was a researcher-made-questionnaire which consisted of the five economic, sociocultural, managerial, infrastructural or sports places, and motivational factors. Formal validity of questionnaire was confirmed by the pundits and the average internal validity as well as operating for five 876.0 questionnaire was calculated. In order to analyse the data from the descriptive statistics (including the percentage, mean, standard deviation, and normal probability curve) and inferential statistics (including one-sample T test, variance analysis with repeated measurements, and Bonferoni Pursuance Test) was used. The findings of the investigation showed that from the perspective of the students, all the five economic, sociocultural, managerial, infrastructural or sports places, and motivational factors can be found on the institutionalization of sports among students. Therefore, it is necessary that the authorities pay sufficient attention to these issues.*

**Keywords:** Institutionalization, public sports, students

JEL:

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## Introduction

Today, as a result of the expansion of industrial civilization, and the influence of technology in communities, everyday activities are decreasing and we see the promotion of the culture of inactivity in the workplace, home and leisure. From the perspective of public health, inactivity has a direct linear relationship with the reasons leading up to the deaths, such as cardiovascular diseases, diabetes mellitus (Walker, Walker and Adam, 2003), osteoporosis (Yuri, 2001), obesity (Wing and Hill, 2001) and cancer (Slattery & Potter 2002); in addition it leads to an increase in diseases associated with mental health (Dilorenzo et al., 1999), depression (Bruce et al., 2002) and stress (Iwasaki & Mannell 2000) as well as social communication disorder (Meyer, 2009); while participating in sport and physical activity on a regular basis or to exercise in the institutionalization of societies can be the cause of body and spirit health and improve social relations (Saiedi, Heydari Chroodeh, and Ghadimi 2011).

There are various definitions of the term 'institutionalization' in scientific texts. Institutionalization means providing context and circumstances that cause stability, constancy, and desirable behaviours being inclusive. In a comprehensive definition of the term institutionalization, Greenwood and Hinnings (1996) define it as a process that involves obtaining and absorb the cultural values of the environment, accept, objectivity and structure to those values for the establishment, consolidation, transfer and sustain them at all levels of the individual, the group and super-group. According to the above definitions, 'institutionalization of sports' can be defined as making exercise a desire and a tendency to practice physical activity in all the layers of the society.

The results of the done research indicates that the lack of desire to sport in the academic society of Iran, especially among students has become a pervasive problem. Asadi, et al. (2002) found in a study that 38 percent of the country's students have no sport activity, 57 percent of students at the university dormitory do no exercise and only 3.29% of the sports activities of universities are specified to the public sports activities. In addition, Abkar (2009) and Azizi, Jalali and the Khabiri (2011) also refer to the low participation of students. Although, the presence and participation of students in sports and sports fields in comparison to the past years have grown appreciably, but it must be admitted that with consideration of demographic indicators, this growth in comparison with other sports participation has not been significant and the necessity to achieve the optimal level requires more effort (Fathi, 2010). This is while the regular physical activity is considered as one of the most important components of healthy lifestyle that can be used with the institutionalization of a healthy lifestyle in the community (Sallis et al., 2006). This issue is more important among the ladies. In fact in all countries of the world, women participate in sports activities less than men. Also in Iran, based on the comments of the experts, only 10 percent of college students have had sport activities of which about 20000 people were female students and this figure is only 5 percent of the student population in the form of the year 2001 (Qalibaf, 2010). The researchers found the cause of the low participation of women in sports activities to be the cultural and social constraints, neglecting their physical and mental health, traditional and religious beliefs prevailing in the society, inadequate informational media, lack of facilities, embarrassment, weakness of the extracurricular physical training of managers and a lack of extracurricular hours, as they have expressed (Mozaffari, Safania, 2004).

For the planning of public sport, especially in the women's section and under the cover of putting them in these programs, it needs to think basically. It is even better that planning in the public sector of women's sports as a major part of the national plan or a comprehensive plan be considered to conform to the program and comply with all conditions of the country, women's interests, the country's economic situation and the ruling values. Accomplishing this requires the understanding of the factors affecting the institutionalization of sports (Lahsaieezadeh, Jahangiri and Tabaian, 2006). On the other hand, the management of physical education of universities that are responsible for the planning and the development of sports activities at the level of universities, requires adequate information in the areas of institutionalization of sports among students in order to satisfy this major responsibility demands better. Therefore, checking the dimensions and variables related to the dissemination of a culture of sport in order to promote social and health as well as the culture of building up and preparing to increase overall participation in the community levels seem essential. In this regard, the identification of the needs related to physical activity for students is that it should be up to the attention of the authorities by responding to the needs of the community that encompasses a large percentage of youth, to promote a culture of health and the establishment of a community-building exercise at level of society.

Researchers have classified the affecting factors on institutionalization of sports among the students from different perspectives. Fathi (2010) in a research on the students of Islamic Azad University of Tehran, has studied the affecting factors on the participation of students from the cognitive aspect of society and has examined six variable martials of status, gender, feeling of usefulness, access to sports facilities, social support and interest in sporting which can affect the participation of the students. In another study, Shabani, Ghafoori, and Honari (2011), have examined the challenges of public sports in Iran from the perspective of experts that some of the most important challenges raised in this research they include: lack of medical programs, lack of benefit management unit, using not the experts, neglect to exercise and physical activity in schools and universities and the neglect of public exercise in low income class of the society. Ghodratinama and Heydari (2013) have examined the relationship of sport participation motives with the amount of physical activity and sports participation motivation of University students of Ahvaz Shaheed Chamran University and found that there is a positive relationship between the fun and liveliness, physical health and social

interaction with the amount of physical activity of the students. Also, Lahsaieezadeh, Jahangiri and Tabaian (2006), have introduced the five factors affecting the interest of students of Shiraz University of Medical Sciences to exercise: awareness of the psychological impact of physical exercise, awareness of the impact of exercise, access to sports facilities outside of the university, gender responsive, and the adequacy or non-adequacy of sports facilities. But in the study conducted by Jami Al-Ahmadi (2014), the five factors of Institutionalization of sport among the University students of Tehran was introduced that includes the five economic, sociocultural, managerial, infrastructural or sports places, and motivational factors. In the latest study, done in this context, Talebpour, et al. (2016) in a study titled as 'The Comparative study of Affecting Factors in Institutionalization of Sport Among the Current University students of Farhangian' concluded that from the perspective of the students, each of the five economic, sociocultural, managerial, infrastructural or sports places, and motivational factors can be found on the establishment of a sport institutionalization among students.

In General, we can express that one of the major issues that has attracted a lot of attention from researchers, managers and planners, is to find solutions for the institutionalization and expansion of the continuous participation of the youth, especially students, in sports; because, with regular participation of the members of society, especially with the presence of students in general, exercise can be used to deal with undesirable behaviors (Mir-Ghafoori, Sayyadi, Toranlu and Mir-Fakhradini, 2009) and spreading the values and desirable economic, social, cultural and moral norms among participants (Zarei and Tondnevis, 2003) since in this way, it can help to promote a healthy and dynamic lifestyle among the students. On the other hand, nowadays sport is blended with titles such as wellness, learning and brings friendship, exhilaration, competition and joy. Therefore, the institutionalization of sport activities at the level of universities, causes to increase the activities of the students in the study environment, creating the right habits, having an active lifestyle, promotes physical and mental health of college students and their efficiency (Jung, 2016). A glance at the done researches indicates that the focus of researchers has been more on the motives of people who participate and less on continuous presence and inclusive attention of them in sports. So in this study, the researchers have examined the factors affecting the institutionalization of sports among students and have offered proposals in the direction of continuous and pervasive presence of male and female students in the field of sports.

## Methodology

The method for conducting the present research was descriptive- measuring that was done as a case study. The population society for the research was all the community of college students in Mashhad in the current academic year comprised 2016- 2017 that according to a report of the Department of Education of the university, their number was 12849 people. Based on the formula of Cochran and taking into consideration the number of  $\alpha = 0.05$  error, 380 people were considered as research samples. Data were collected in the research by the means of questionnaire encompassing the five economic, sociocultural, managerial, and infrastructural or sports places, and motivational factors. After a few changes in the contents of this questionnaire, the Content Validity Index (CVI) of it was confirmed by 15 pundits and the index of its validity content was calculated by Lawshe (1975) method as:  $CVI = 0.926$ . The internal validity of the questionnaire was calculated based on Cronbach's Alpha, the amount of which for the five economic, sociocultural, managerial, infrastructural or sports places, and motivational factors was respectively 0.751, 0.746, 0.895, 0.942 and 0.837; therefore, the average inner reliability of the questionnaire is 0.876. It should also be noted that in order to respond to this questionnaire from a small range of 10 value (number 1 as full opposition and number 10 as full agreement) was used. In order to analyse the data, the descriptive statistic (including percentage, mean, Standard deviation, and Q-Q Plot) and inferential statistics (due to being a natural data distribution as well as the sample size of the test sample, variance analysis of One Sample T Test with repeated measurements used for the Pursuit Test of Bonferroni) was used. All the analysis was done by the means of the 20th version of SPSS software.

## Findings

**Demographic characteristics of respondents:** Table 1 shows the demographic information of the sample research.

*Table 1: Demographic information of the sample case being considered*

Percentage	Variable Levels	Variable
49.2	Male	Gender
50.8	Female	
80.4	Single	Conjugal Status
19.6	Married	
0.7	Associate's Degree	Educational Degree
66.5	B.A.	
32.8	M.A.	

In this research with respect to the community volume, 380 students were selected as examples of research with the average age of  $993.22 \pm 364.5$ .

## Test of the Assumptions:

**Determining factors affecting the institutionalization of sport among students:** Table 2, factors affecting the establishment of sports institutionalization among students.

Table 2: *Affecting Factors on institutionalization of sport among students*

Test Value= 5.5			
The level of significant (Sig)	Statistical Amount of the Test (T)	Mean and Standard Deviation	Factors of institutionalization of Sport
0.001	9.273	6.467 ± 1.562	Economic
0.001	11.426	8.689 ± 1.652	Sociocultural
0.001	12.381	7.242 ± 1.581	Managerial
0.001	15.897	7.273 ± 1.690	Infrastructural and sports places
0.001	19.543	8.167 ± 1.462	Motives

As it can be inferred from the above table, as significant level of One Sample T Test is smaller than 05.0 and is the average values of the means are higher than the average (Test Value = 5.5), it can be stated that any of the five economic, sociocultural, managerial, infrastructural or sports places, and motivational factors are effective on the institutionalization of sports among students.

## Comparing the factors affecting the institutionalization of sport among the girls and boys:

In this research too, in order to compare the institutionalization of sport factors among students based on gender breakdown, due to a natural distribution of data and also a lack of constant variance, Variance Analysis Test was used with repeated measurements at the level of 05.0 error. The default of the frequent measuring test is a Mauchly's Test which surveys the Krot hypothesis. In the event that the amount is more than a significant level of 05.0, there is no problem and if that significant levels is less than 05.0, there must be some corrections and test statistics of the tests of Greenhouse – Geisser, Huynh – Feldt, and Lower – Bound be used (Habibpour and Safari 2012). The results of Krot Mauchly's Test for boy and girl students are shown in table 3 and 4 respectively.

Table 3: *The results of Krot Mauchly's Test among male students in the University of Mashhad*

Significant Level	Levels of Freedom	( $\chi^2$ )	Mauchly's (W)	Standard Deviation ± Mean	Indicators of Performance Evaluation
0.001	4	48.42	0.522	7.933 ± 1.543	Motive Factor
				7.817 ± 1.652	The Infrastructural and Sports Places Factors
				7.249 ± 1.598	Managerial factor
				6.778 ± 1.891	Economic Factor
				6.230 ± 1.249	Sociocultural Factor

Table 4: *The results of Krot Mauchly's Test among female students in the University of Mashhad*

Significant Level	Levels of Freedom	( $\chi^2$ )	Mauchly's (W)	Standard Deviation ± Mean	Indicators of Performance Evaluation
0.001	4	41.22	0.628	8.216 ± 1.546	Motive Factor
				7.651 ± 1.345	The Infrastructural and Sports Places Factors
				7.584 ± 1.513	Managerial factor
				6.465 ± 2.109	Economic Factor
				6.782 ± 1.516	Sociocultural Factor

As stated, the scaling factors of the covariance between the institutionalization factors of sport among male and female students, does not exist in Farhangian University of Mashhad because the significant obtained level of value in the tables 3 and 4 is less than 05.0. Therefore, to check the difference between the data we should use Greenhouse – Geisser, Huynh – Feldt, and Lower – Bound, the last of which is the corrected epsilon of the Repeated Measurement Test. Because the value of ( $\chi^2$ ) in Krot Mauchly's Test is less than 75 percent in the two groups of boys and girls in the Farhangian University of Mashhad ( $\chi^2 = 32/43$  for girls and for boys  $X^2 = 49/33$ ), the Greenhouse – Geisser Test has been used. Table 5 shows the test results of Green in the two groups of boys and a girls.

Table 5: *The results of the test statistics of Greenhouse – Geisser Test by gender segregation for comparing the factors making the Institutionalization of sports among students*

Significance Level (Sig)	Statistical Amount of the Test	Freedom Level (df)	Gender
0.001	15.334	3.149	Male

0.001	21.213	3.168	Female	Test Statistics of Greenhouse – Geisser Test
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According to the statistics of Greenhouse- Geisser Test it can be expressed that there is a meaningful relationship between the factors of institutionalization of sports among male and female students of the Farhangian University of Mashhad.

**A Dual Comparison of the Affecting Factors of Institutionalization of Sports:** the results of the dual comparison of the affecting factors of institutionalization of sports among male and female students of the Farhangian University of Mashhad is shown respectively in in table 6 and 7:

*Table 6: Comparing of the affecting factors of institutionalization of sports among the male students of the Farhangian University of Mashhad based on Bonferroni Test.*

Motive Factors	The Infrastructural and Sports Places Factors	Managerial Factor	Sociocultural Factor	
0/003	0/004	0/692	1.00	Economic Factor
0.001	0.008	0.219	Sociocultural Factor	
0.001	0.007	Managerial Factor		
1.00	The Infrastructural and Sports Places Factors			
Motive Factors				

*Table 7: Comparing of the affecting factors of institutionalization of sports among the female students of the Farhangian University of Mashhad based on Bonferroni Test.*

Motive Factors	The Infrastructural and Sports Places Factors	Managerial Factor	Sociocultural Factor	
0/001	0/002	0/005	1.00	Economic Factor
0.004	0.001	0.057	Sociocultural Factor	
0.001	0.001	Managerial Factor		
1.00	The Infrastructural and Sports Places Factors			
Motive Factors				

According to table 6, the results of the Pursuit Test of Bonferroni showed that there is a significant difference between all the factors in the institutionalization of sports from the perspective of male students of the Farhangian University of Mashhad (with the exception of the difference between economic factors with the socio-cultural and social-communicational factors with the operating Managerial and the infrastructural and sports places with motivational factors).

Also according to table 7, the Pursuit Benferroni Test results showed there is a significant difference between all the factors in the institutionalization of sports from the perspective of female students of the Farhangian University of Mashhad (with the exception of the difference between economic factors with the socio-cultural, socio-cultural factor with a Managerial factor, and the infrastructural and sports places factors with motivational factor).

## Discussion and Conclusion

This research was conducted with the aim of examining the affecting factors on the institutionalization of sports among students. The results showed that from the perspective of the students of Farhangian University of Mashhad, the five economic, sociocultural, managerial, infrastructural or sports places, and motivational factors are crucial in the institutionalization of sports among male and female students. Test results of analysis of variance with repeated measurements showed that there is a significant difference between these factors so that among the male students the motivational, infrastructural, managerial, sport places, economic and sociocultural factors are respectively of a higher average; while among the female students it is the motivational, infrastructural, sport places, managerial, sociocultural, and economic factors which are of a higher average.

The motivational factors such as the acquisition of health and wellness, partnership with friends in physical activities, avoiding boredom, fitness as well having fun and moments of joy has always been of interest among the class who have participated in the sport and physical activities. Male and female students studied in this research community, have considered this factor as the most important factor for the institutionalization of sports. Because of the importance of the mentioned factor, in the research literature review, there is a severe focus on that point of which we can refer to Ghodratnama and Heydari (2013) and research of Parsamar (2011) that are consistent with the findings of the present article. Motives of a person have different modes, the domain of which is along the scope of the outer and inner motives. The inner behaviour evoked by inner motivation is regardless of the results of the activity,

taking pleasure and satisfaction; while the behaviour evoked by the outer motivation has a mechanical nature, i.e. the activity is not done due to its own sake but to gain a result. Those who have inner motivations in comparison with those who have outer motivations, are more excited and have a higher level of self-confidence. They also are better in doing the tasks given to them and have a better performance, creativity, assiduity, as well as mental health. In general, when the need of competition, dependence and self-ruling is satisfied, the inner motivations might be evoked; but if these needs are not satisfied, the inner motivations decline. The inner motivation also declines if there is a threat of being punished, evaluation under pressure, and telling one what to do and what not to do in an imperative way. Even giving awards in lieu of doing a significant task, especially if the award is considered as a control factor, the inner motivation declines (Sharifi, 2006).

Infrastructure and sports places, is another factor that affects the institutionalization of sports among students. From the perspective of male and female students in the community being studied, this factor is second in importance order for institutionalization of sports. The findings of this research showed that considerations such as proper exercise places located at the university, visual charm of places and exercise equipment, variety in university places and the equipment of the university, being equipped with sanitary equipment to the University sports places especially the environment suitable for bathing, sport facilities and places of safety, attention to grooming and hygiene, being enough in spaces and places as well as sport facilities, and being standard in the places and facilities are very important for having more participation of students in sport activities. In a study carried out by Pourkiani (2000), the results showed beside the sport space given to universities, the average maximum time advantage of sport spaces by male and female students are 4.5 and 6.7 hours per day respectively. This clearly reflects the low productivity features available. Therefore, increasing the sport space of universities alongside of paying attention to the factors affecting productivity of enhancing sport places such as human resources, management, facilities, financial status, organizational structure, monitoring and evaluation, time and activity, maintenance, customer-orientation and planning (Karegar, et al, 2006) could lead to a rise in student participation in sport activities.

Survey results also indicated that the managerial factors, too, are of crucial importance for institutionalization of sports among male and female students and it is in the third rank of importance. From the perspective of the community being studied, managers should exercise proper management items such as places, being in possession of the places in the hours of the day and night, coordinating the various academic exercise, its related entities, hold tournaments and sports festivals at the universities, the emphasis on the development of physical activities and free time in regard to the planning of college sports. These findings are in parallel with the research results of Ghafoori Shabani, and Honari (2011) and the research results of Fathi (2010). It should also be stated that this factor is not feasible except by the presence of the expert managers at the top of academic sport management sections. In fact, scientists believe that in recent years fewer tasks have been challenged as the responsibilities of managers. In fact, in parallel with more reforms and devolution responsibility to managers, their burdens become heavier and they are more challenges as well. Therefore, in many countries we see preparing new programs or revise in the traditional training programmes of managers and groups and countless commissions investigate and provide proposals to provide appropriate solutions to the needs of the day. Our university space instructs several concepts to the managers which are often useless; while today in the today education of managers, the Professional Logic is being used. In the Professional Logic, management is introduced not as an applicable science, but as a social science that is consistence with a profession. In this approach, the educational program of the managers should be able to respond to the expectations of activity; management practice, not a simple, machinery and repetitive activity, but an active and intelligent commitment in which the power of understanding conditions, and responsibility of the manager is essential. So in educating managers it is tried to create an opportunity for analysis of the working conditions and the examples of design management issues, managers future professional practice, to promote and get them ready to deal with the forthcoming events (Bazargan, 2004). So it is recommended that sport managers of colleges be trained with the mentioned approach and get ready to be present at this important post.

In this study economic factor was also one of factors that is effective on the institutionalization of sports among students. From the perspective of the boys, this item is in the fourth rank and fifth from the perspective of girls. Students examined in this study believe that the economic level of the income of the family of the person, and cheap or expensive sport services can affect their physical activity. This findings are in parallel with the results of the studies done by Shabani, Ghafouri, and Honari (2011) and Fathi (2010). According to the scientists this factor is one of the most important factors affecting the distribution of sport behaviour among various classes of the society (Fathi, 2010). For example Sheikhi (2011) suggests that different social classes and economic levels impact on the selection of sports and research showed that the middle class and higher communities activities are such as sailing, riding, tennis, golf, while some sports such as football have a general nature and are not confined to a certain class (Fathi, 2010). Powell, Sandy & Frank (2004) stated that the access of people to sport places and facilities is under the influence of the socio-economic factors. In addition, Duncan, et al. (2002) showed that the level of physical activity and sports is under the influence of socio-economic status, so that the higher classes of the socio-economic have a higher activity rate than the other classes. Finally, it is O'Dea and Caputi (2001) and Dollman & Lewis (2010) who consider the socio-economic status effective on sport participation as well. Therefore, it is recommended to the authorities and the managers of universities that sport facilities be expanded in a way that the meet the needs of all the classes of student society; meanwhile paying attention to socio-economic status of the students can be of help in identifying their needs and interests.

The last factor, i.e. sociocultural factor, has also been effective on institutionalization of sports among students and it is from the perspective of boys in the fifth and from the perspective of girls in the fourth rank of importance. The students of the community being studies believe that elements such as expansion of social relationships in sport activities, having a healthy and dynamic life style, having enough leisure time, and the thoughts of relatives and friends can be effective on the institutionalization of sports. These findings are in parallel with the results obtained from the studies carried out by Lahsaieezadeh, Jahangiri, and Tabeaiean (2006), Fathi (2010) and Shabani, Ghafouri, and Honari (2011). Researchers believe that physical activity in leisure time can enhance the level of hopefulness to life and cause happiness, relationship with others, taking part in team works and avoiding solidarity and boredom. In making this come true, the perspectives of friends, colleagues, relatives, society, authorities and the staff, as well as media is effective (Pourranjbar, et al. 2014). So, it is recommended to authorities and the staff to use in the way of on institutionalization of sports among students and take enough advantage from this opportunity to expand healthy biologic culture in the society. An interesting point here in the findings of these research is the higher importance of this factor in the ranking of girls in comparison to boys. It is necessary that authorities pay serious attention to this point and try to enhance the rate of women participation in sports by removing sociocultural obstacles and giving inner motives to them (Naderian, Zoletekaf, and Moshkelgosha, 2009).

Generally, it must be stated that the findings of this study is related to the male and female student community of the Farhangian University of Mashhad. According to the male students of this university, the motivational, infrastructural and sport places, managerial, economic, and sociocultural factors are effective on institutionalization of sports among them, respectively. In contrast, according to the female students of this university, the motivational, infrastructural and sport places, managerial, sociocultural and economic factors are effective on institutionalization of sports among them, respectively. Hence, it is highly recommended to the authorities and the staff of the university to pay attention to these factors and by considering the level of importance of each factor and the dual comparison of them between male and female students, make correct action toward the institutionalization of sports in the student society. The expansion of this results to other societies and universities is faced with limitations and it is essential that it be done with caution; so it is recommended to the future researchers that in order to expand the information related to the subject of the study, make similar studies in other universities and compare them to the results of the present article.

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# INVESTIGATING THE RELATIONSHIP BETWEEN MORAL REPUTATION AND PERCEIVED VALUE WITH CUSTOMER LOYALTY IN BANKS

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## Abstract

The present study was conducted to investigate the relationship between moral reputation and perceived value with customer loyalty in banks. Research population consists of all customers of private banks of Gorgan. Sampling was measured through simple random and Cochran formula and it was estimated as 384 subjects. Mulki and Jaramillo's standard questionnaire was used to collect required data and structural equation was used for data analysis and hypothesis test. According to the findings of the present study, there is significant relationship between perceived value and morals reputation with customer loyalty. Therefore, it seems logical to claim that the higher perceived value and moral reputation, the more satisfied and loyal the customers get.

**Key words:** moral reputation, customer loyalty, customer satisfaction, customer perceived value, private banks

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## Introduction

Due to the growth of NGOs, more protest movements against the company, increased public awareness, the development of capital markets, the expansion of public companies, and financial and moral corporate scandals, the concept of moral reputation has become the dominant paradigm of the majority of companies (Cronin et al, 2000). Moral reputation signifies the commitment of a company to ethics and moral values (Jaramillo et al 2009); it usually involved various moral issues (Armstrong 1996), and their management strategies, which occur to both the customers and the staff. (Dawkins, Lewis).

The perceptions of customers, which are constructed by social and moral responsibilities of the company, is an influential factor in the domain of moral reputation of financial institutions; various factors, such as social programs and activities, artistic supports, and attempt to enhance social welfare, affect the formation and level of customer perception. Thus, companies have begun to examine whether or not moral reputation can be considered as an added, distinctive value. Financial institutions pay more attention to communicating with customers and stakeholders with ethical practices (Garcia de Lewis et al 2009). According to "Moral Reputation and Perceived Value Received through Customer Satisfaction" study, moral perceptions enhances customer satisfaction and, consequently, loyalty. (Mulki and Jaramillo 2011)

Delivering value to customers has become one of the most permanent management concerns in most commercial markets; the concept of value is one of the most important foundations for managers. It is also crucial to recognize where the value created for the customer is located within the structure of organization. Customer's perception of value is affected by price and quality; i.e. customers understand the value of goods and services by these two indexes. Therefore, creating value for customers is of paramount importance, because the higher satisfied and valued a customer is, the more loyal to the organization he becomes, the more competitive the market gets, and the stronger the market gets. (Ulaga and Chacour 2001)

According to Di (1990), customer perceived value signifies the difference between benefits and costs. Haber et al (2001) stated that costs and benefits are defined based on the observations of customers during the processes of attaining, consuming, using, and maintaining, the expectations of customers from satisfaction, and personally expected values.

Given the widespread efforts of researchers, experts, and managers of financial institutions, in order to promote the development of quality management tools and customer-oriented attitude, it can be claimed that customer satisfaction and loyalty has become one of the most important factors in determining business success and profitability of organizations. Therefore, realizing business development has become more and more inevitable. Thus, creating and implementing customer satisfaction measurement systems, as the most important indicator in determining the quality of services and products, is an essential requirement of today's organizations and institutions (Lichen et al 2007). Institutions which are capable of providing valuable services for customers have a significant competitive advantage. Thus, both researchers and managers should pay more attention to how customers feel towards a certain product or quality (Roman and Ruiz 2005). According to Williams and Soter (2000), findings of researches conducted in the domain of perceived value can be used to enhance entrepreneur strategies in order to increase customer perception of presented products and services which, in turn, can create customer satisfaction and loyalty. In fact, perceiving value is a cognitive assessment which occurs prior to customer satisfaction. (Cronin 2005)

Hammann et al study (2009), conducted on German managers, shows that when customers perceive a company's attempt towards presenting values, they will give constructive, positive feedback and feel satisfied with goods and services. Perceiving value is a cognitive assessment of a product or service which occurs before attitudinal reactions, such as customer satisfaction (Cronin 2000); consequently, according to the findings of a meta-analysis study which indicated the significant impact of customer satisfaction on attitudinal loyalty and purchase intentions, perceiving value is quite crucial for a company. (Carrillat et al 2009)

Cutler defines loyalty as enduring commitment to family, country, and friends; he believes that the term entered into marketing literature with an initial emphasis on loyalty to brand (چادوهارى 2001). Anisimova (2007) stated that loyalty is an attitude suggesting customer preference at the face of unique value of a brand, usually known as emotional and cognitive components of brand loyalty. This kind of loyalty signifies long-term commitment of a consumer to a certain organization. Commitment on emotional and cognitive levels is created for an organization when the actual purchase transpires; although customer purchase etiquette is of paramount importance, it doesn't solely suffice for ensuring commitment on the part of the organization. The fact that organizations are trying to increasingly differentiate themselves from the rest through relationships, values, and emotional bondages indicates the significance of a customer's knowledge and perception of the function and structure of the organization. According to Iceman, loyalty is consumer satisfaction accompanied with regular purchase of a particular brand. Dick and Basu (1994) divided brand loyalty in two components of authentic and fake brand loyalty. Fake loyalty occurs when customer repurchases a brand only because he has no other choice, but authentic loyalty is when customers accompanies enduring purchase with psychological and emotional commitment. Satisfaction is an emotional state signifying a customer's reaction in the face of fulfilled expectation of services. (Luluk and Right 1999)

Loyalty of customers to companies is important because it can reduce entrepreneur costs and contribute to revenue growth and new purchases. Customer loyalty is often emotional commitment to the company when customer expectations are fully met. According to Pirch et al (2007), loyal customers are reluctant to change suppliers and they might, even, attempt to improve the quality of provided services through complaints and suggestions rather than leaving the company; these customers not only rely on the company to meet the needs and desires, but also introduce it to other people with the same needs and expectations. Eskandari's study, entitled "The impact of perceived value on customer loyalty", showed that the loyalty of Alborz Insurance Company Customers is affected by their perception of the quality of provided goods and services; customers show their loyalty by comparing the quality of the product and the cost they have spent; thus, it can be said that there is a strong, significant relationship between customer satisfaction and loyalty. Research also shows that satisfaction with the supplier can lead to a relationship based on pleasant memories and low uncertainty (Chadrashkaran 2007) (Olsen 2007). The present study is the first research conducted to investigate the relationship between moral reputation and customer loyalty. Academics, researchers, and business owners are deeply interested in finding empirical evidence about the impact of moral reputation on customer perceived value and, consequently, customer satisfaction and loyalty, as two predictive factors of business performance. A customer feels satisfied when his interests are met in purchasing a certain item (Oliver 1980). Perceiving value is a cognitive process which occurs prior to customer satisfaction (Cronin 2000); consequently, according to the findings of a meta-analysis study which indicated the significant impact of customer satisfaction on attitudinal loyalty and purchase intentions, perceiving value is quite crucial for a company (Carrillat et al 2009). According to Woodruff (1997), customer value is the next source of competitive advantage. Numerous studies have examined the relationship between customer loyalty and satisfaction. However, based on our information, few studies have examined the relationship between moral reputation and perceived value with customer satisfaction. The present research aims at filling this huge gap in literature review and providing effective strategies for attracting and maintaining customers for companies.

### Conceptual model of the research

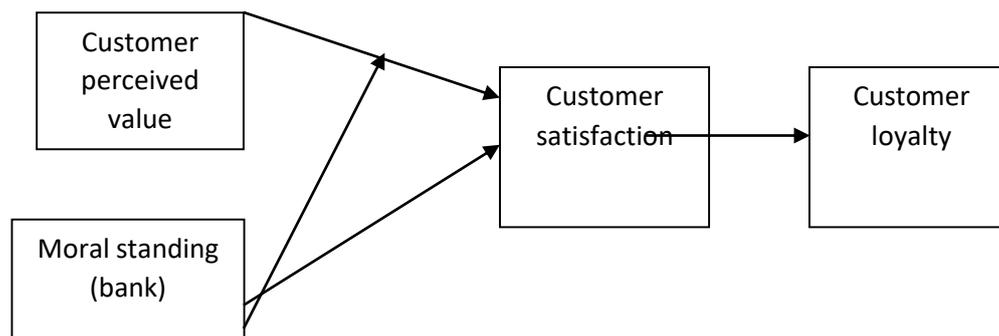


Figure 1: Mulki and Jaramillo's model presented in 2011

The above model was presented by Jay Prakash (University of Massachusetts, United States) and Jaramillo (University of Texas) in 2011 and it aims at investigating the relationship between moral reputation and perceived value with customer loyalty. Perceived value and moral reputation are two independent variables, the relationship of which are examined with customer loyalty as the single dependent variable. There is also an equalizer variable (moral reputation), the main objective of which is assessing the relationship between perceived value and customer satisfaction; finally, the relationship between equalized factor and dependent variable of customer loyalty will be indicated.

### Statistical population and sampling method

Statistical population of the present research included all 384 customers, selected randomly, who referred to private banks of Pasargad, Parsian, Eghtesad Novin, and Saman from September 2013 to March 2014; all participants were asked to fill questionnaire.

### Data collection device

The present study used Mulki and Jaramillo standard questionnaire, which consists of four parts of moral reputation (questions 1 to 3), customer satisfaction (questions 4 and 5), customer loyalty (questions 6 to 8), and perceived value (questions 9 to 11).

## Questionnaire validity and reliability

In order to assess reliability and validity of the questionnaire, a prototype pre-test questionnaire was prepared; then, using data collected from questionnaire and analyzed through SPSS, reliability coefficient was estimated as 0.70 for moral reputation, 0.77 for customer satisfaction, 0.71 for customer loyalty, and 0.75 for perceived value through Cronbach alpha. The overall estimation of the questionnaire, according to Cronbach alpha, turned out to be 0.925.

## Descriptive statistics

### Demographic indicators

As shown in the following Table, 59% of 384 studies subjects was male and 41% was female; it is quite clear that male population is quite larger than female population in the present study.

Table1: Demographic indicators

Percent	Frequency	Demographic Indicators	
59	227	Male	Sex
41	157	Female	
6/5	21	Associate	Education
50	192	BA	
9/41	161	MA	
4/2	9	PHD	
2/20	77	Employee	Occupation status
8/0	3	Doctor	
5/10	40	University student	
7/63	244	Self-employed	
2/3	12	Unemployed	
6/1	6	Retired	
9/28	111	Less than 1 year	Familiarity with bank
15	57	1 to 3 years	
1/41	158	3 to 5 years	
15	57	More than 5 years	
29	111	Less than 25	Age
64	224	35-25	
5	18	45-35	
2	9	55-45	

As the above Table shows, the majority of subjects have BA and MA degrees, are self-employed, are between 25 to 35 years old, and have 3 to 5 years' familiarity with the banks.

### Examining research variables

Following Table indicates the assessment of research variables individually. Based on the results of conducted analysis, studies variables have yielded high means in recently conducted researches.

Table 2: Research variables

MODE	MEDIAN	SD	MEAN	MAX	MIN	VARIABLE
4	4	723/0	801/3	5	1	PERCIEVED VALUE
4	4	792/0	685/3	5	1	MORAL REPUTATION
4	4	972/0	737/3	5	1	SATISFACTION
33/3	47/3	785/0	473/3	5	1	LOYALTY

## Introduction to Partial Least Squares Method

Partial least squares method was used to test the hypothesis and research conceptual model of structural equation; to do so, Smart PLS software was applied.

Smart PLS is a flexible software with a graphical interface for analyzing structural equation model based on partial least squares method. This alternative method replaced commonly used structural equation modeling of covariance structure analysis when the assumptions of structural equation model are not met. Additionally, this software makes Formative Measurement Models possible.

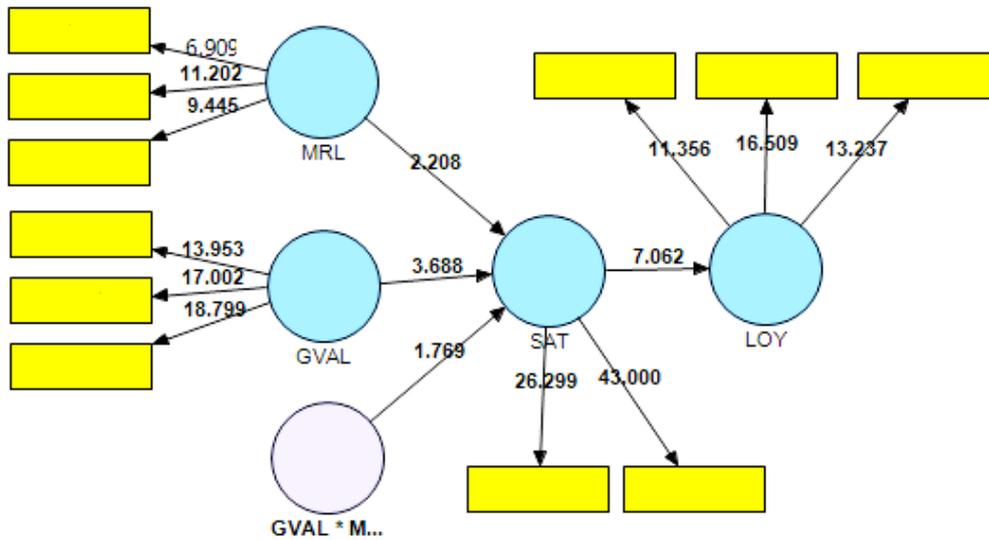


Figure 2: Structural equation modeling in significance mode

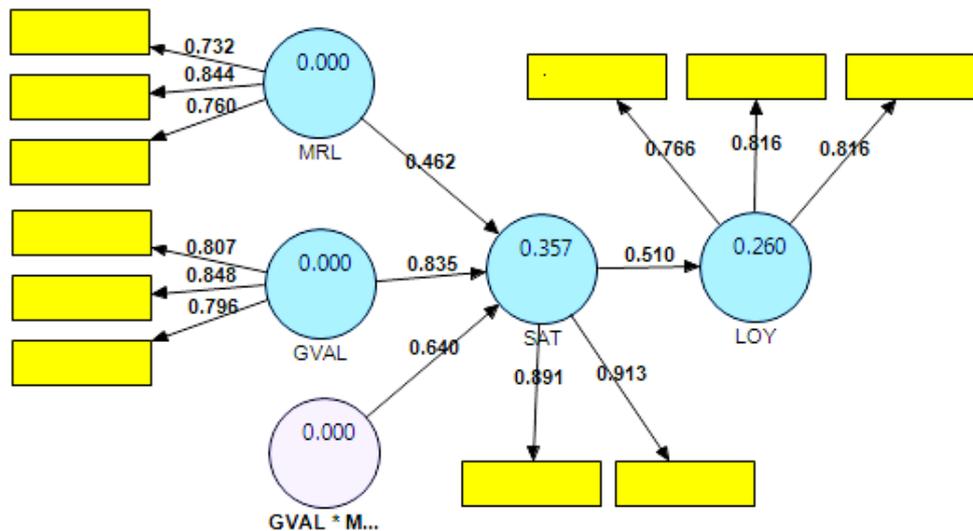


Figure 3: Structural Equation Modeling in standardized coefficients mode

### Research general model test

Structural equation modeling approach, using Smart PLS software, was used for the analysis of the conceptual model of the present research. The structural model is explained in the following. Significance coefficient (T Value) is used to analyze the significance of relationships. GOF index, the standard rate of which is 0.3, has been used to evaluate the overall fitness of the model and it is calculated through the following formula

$$GOF = \frac{\sqrt{R^2 \times \overline{Communalities}}}{1}$$

$$GOF = \frac{\sqrt{R^2 \times \overline{Communalities}}}{1}$$

Based on the output of PLS software, GOF index is estimated as 0.401, which shows acceptable and desired fitness of tested model; it also confirms the effectiveness of the model in predicting results, because it is higher than standard rate of 0.3. Paying close attention to the values of R<sup>2</sup> 0.357 and 0.260, which are higher than standard value of 0.19, as an indicator of predictive power of the model, is a further substantiation of high efficiency of the used model.

Table 3: General procedure analysis

TABLE3. GENERAL PROCEDURE ANALYSIS			
PROCEDURE COEFFICIENT	DEPENDENT VARIABLE	INDEPENDENT VARIABLE	PROCEDURE
236/0	CUSTOMER SATISFACTION	PERCIEVED VALUE	PROCEDURE 1
426/0	CUSTOMER SATISFACTION	MORAL REPUTATION	PROCEDURE 2

## Data analysis

Descriptive, correlation, and structural equation modeling were used to analyze data on an inferential level in order to investigate and examine the hypothesis and conceptual model through PLS software.

## The analysis of hypothesis

Structural equation modelling procedure was used to analyze conceptual model of the present research. The results of analysis and PLS outputs are presented in the following Table.

Table 4: Summary of the results of hypothesis analysis

T Value	Procedure coefficient	Equalizer	Independent	Dependent	hypothesis
668/3	835/0		Perceived value	Customer satisfaction	<b>First</b>
208/2	462/0		Moral reputation		<b>Second</b>
769/1	640/0	Moral reputation	Perceived value		<b>Third</b>
062/7	510/0		Customer satisfaction	Loyalty	<b>Fourth</b>

According to the above Table, there is a strong relationship between perceived value and customer satisfaction, with the significance coefficient, 3.668, being higher than the absolute value, 1.96. thus, perceived value has positive, significant impact on customer satisfaction with procedure coefficient of  $\beta = 0.835$ . There is also a significant relationship between moral reputation and customer satisfaction, with significant coefficient, 2.208, being higher than the absolute value, 1.96; thus, moral reputation has positive, significant impact on customer satisfaction with procedure coefficient of  $\beta = 0.462$ . It is worth mentioning that moral reputation equalizes the relationship between customer perceived value and satisfaction; significance coefficient of this relationship is 1.769, which is lower than the absolute value, 1.96; thus, this hypothesis is rejected. In fact, moral reputation is not effective enough in equalizing the relationship between perceived value and customer satisfaction.

There is also a significant relationship between customer satisfaction and customer loyalty, with the significance coefficient, 7.062, being higher than the absolute value,  $\beta = 0.510$ ; thus, customer satisfaction has positive, significant impact on customer loyalty.

## Discussion and conclusion

The results of the present research showed that there is a significant relationship between perceived value and customer satisfaction; in other words, perceived value can enhance the level of satisfaction in the customers. This is consistent with the findings of domestic and international researches, such as Ayla et al (2012), Jay Prakash and Jaramillo (2011), Yang Fen (2005), Batacharia and Cen (2003), Eskandari et al (2013), Estiri et al (2012), and Hamidzade et al (2012). According to Eskandari et al study entitled "The impact of perceived value on customer loyalty", which was conducted on 384 customers of Alborz Insurance Company in Tehran, the loyalty of Alborz Insurance Company customers is totally affected by the value they perceive from presented goods and services; customers adjust their loyalty by the output of the comparison they conduct between the costs they spend and the quality of feedback they receive; this is consistent with the findings of the present study. Customers expect a certain level of quality in both goods and services, which they call "the way it should be", in their relationship with financial institutions and they often seek for something 'more' in services, special connections, immediate response to the request, willingness to meet demand, and innovation, which are of paramount value for them. In order to differentiate itself more and more from rivals, a company must add more value to its products and services; it must understand the necessity of providing extra benefits and interests in to ensure surviving as a supplier and add as much extra goods and services, both monetary and non-monetary, as possible without creating extra costs for the company; monetary benefits may include return of capital and earned interest and non-monetary ones might include emotional and mental comfort, such as peace, security, and friendship.

The results of Ayla et al (2012) study, which examined the effect of ethical climate and its relationship to corporate reputation and corporate identity, showed that corporate reputation plays crucial role in the construction of corporate identity; this relationship is affected by two forms of ethical climate; i.e. philanthropism and altruism. Mulki and Jaramillo's research (2011), entitled "Moral reputation and the perceived value: customer perception", indicated that customer's moral perception of a certain company enhances customer satisfaction and, finally, customer loyalty; therefore, there is a positive, significant relationship between moral reputation and customer satisfaction; this is consistent with the findings of following studies: Frah and Newman (2010), Garcia Salmonz et al study (2009), Kheiri et al (2010), and Hamidizadeh (2011). The present research confirms all the above-mentioned researches, based on which moral reputation can enhance a sense of satisfaction in the customers. The clear point is that proper social activities and actions on the part of banks can establish positive feedback in the customers. Actually, financial crisis with which the world is struggling is mainly because of disregarding ethical codes on the part of financial institutions; this causes serious drop in the number of customers an institution has had so far, because, as critical elements for the survival of such institutions, these customers do not trust such companies any longer. Customers would believe that companies and institutions have deceived them with false promises only to make their selling and they would become suspicious of any further promise or activity on the part of institutions. However, when customers believe that a company observes ethical codes closely, the relationship between perceived value and customer satisfaction will definitely increase because of the originality and authenticity of the source of goods and services production. When a company is involved in social responsibilities and its sellers observe conventional ethical norms, buyers will feel secure and satisfied with their purchase and presented service. Numerous researches have shown that customers generally have a negative perception of financial institutions because they have experienced low moral standards implemented by such corporates. However, when customers perceive of a certain company as a moral one, the relationship between value and satisfaction will increase, because of the originality and authenticity of the source of goods and services production. A customer feels satisfied when his interests and expectations are met to a proper extent; when the benefits and interests he receive are more than the costs he has spent, the customer would feel that the company had produced much more benefit than what he had expected and, consequently, he would feel satisfied. The findings of this study showed that moral reputation, as the independent variable, has positive relationship with customer satisfaction; however, it cannot fully equalize the relationship between perceived value and customer satisfaction; one reason might be the fact that research conducted in developed countries has embedded increasing impact of moral reputation on perceived value and customer satisfaction (Armstrong 1996); however, perceived value is not necessarily affected by moral reputation of the company in developing countries; rather, the quality of the product plays the central role. For example, Chinese customers prioritize product safety and quality, while English and Canadian customers are more preoccupied with environmental issues (Piers and Lan 2009). Thus, the findings of the present research are consistent with the results of Piers and Lan study and it is inconsistent with the results of following studies: Jay Prakash and Jaramillo (2011), Lai et al (2010), Jaramillo et al (2006), Hamidizadeh et al (2011).

The results of the study showed a positive, significant relationship between customer satisfaction and customer loyalty, which is consistent with the findings of Hazlina and Abdul-Ghadir et al study (2011), Jay Prakash and Jaramillo (2011), Egon Nike (2010), Eskandari (2013), Shafe'i and Khatami (2013), Ranjbaran et al (2012), Saied Javadein (2010), and Hamidizadeh et al study (2011). In other words, a customer's satisfaction of presented goods and services can strengthen his loyalty towards a certain company or institution and a customer's loyalty is important because it reduces marketing costs and helps grow revenue through repeated and new purchases. Customer loyalty is often emotional commitment to the company, when customers' expectations are fully met. Research shows that loyal customers are reluctant to change suppliers and they might, even, attempt to improve the quality of provided services through complaints and suggestions rather than leaving the company; these customers not only rely on the company to meet the needs and desires, but also introduce it to other people with the same needs and expectations. A large number of experimental studies have been summarized in Carrillat meta-analysis study (2009), all of which show a significant relationship between customer satisfaction and his loyalty to a certain corporate. Research also shows that satisfaction with the supplier can lead to a relationship based on pleasant memories and low uncertainty.

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# EVALUATION OF AMOUNT OF STRATEGIC MANAGEMENT OF QUALITY AND BUILDING TRUST AND ITS RELATIONSHIP WITH FINANCIAL PERFORMANCE (CASE STUDY: THE MELLI BANK OF ARDABIL PROVINCE)

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**Saeed Lazemi<sup>53</sup>**

## **Abstract**

This study was aimed to evaluation of amount of strategic management of quality and building trust and its relationship with financial performance (Case Study: the Melli Bank of Ardabil province). Sample size was 223 people based on Cochran's formula. Sampling method was selected stratified random and multiplexing. The data collection instrument in this study was a standardized questionnaire that the reliability and validity of each of them was confirmed. This research in terms of aim and objective is applied research and in terms of performance, it is descriptive survey. Among the distributed questionnaires, 232 cases were analyzed. Spearman correlation test, linear regression and t-test were used for the analysis of research data. The results of Spearman correlation test for the first hypothesis showed that there is a significant relationship between strategic management of quality and building trust. In the correlation test of second hypothesis of the study, the achieved significant level was less than 0.05 that showed there is a significant relationship between strategic management of quality and financial performance. Spearman correlation test in third hypothesis showed there is a significant relationship between Building trust and financial performance. T test was used to test the hypotheses 4 to 5 that the results showed that the level of the strategic management of quality and building trust variables are more than average between employees.

**Key words:** strategic management of quality, Building trust, financial performance, the Melli Bank of Ardabil Province

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## Introduction

In recent years, much attention has been taken to the needs of customers in relation to the level of quality management. High levels of giving service to customers are used as a means to achieve competitive advantage. Along with increasing customer awareness of the services offered by banks and other financial institutions, they are increasingly sensitive to received strategic of quality. In order to maintain long-term relationships with satisfied customers, the bank must know how can provide satisfied customers with high quality strategic management (Venus, 2003, p. 200). The more we move forward towards a pervasive reality of interdependency, the importance of trust becomes more and more vital. If mistrust occurs either due to unethical behavior or non-professional, but ethical behavior, it will cause the collision and friction (Kowii, 2007, p. 19). With the spread of the phenomenon of globalization, the importance of trust in social, economic, political and institutional relationships has been considered dramatically. So, the majority of experts in various fields have pointed to the importance of trust in organizations. Trust is essential for organizational success, ongoing changes in the role and technologies, as well as designing jobs and responsibilities (Danaeefard et al., 2007). Strategic management attempts to examine the set of achievements and results of practical and executive services and products over the past decade in the field of management services and strategic planning. Strategic management could be mentioned as axes of strategic thinking of entrepreneurship, financial strategic management, manufacturing strategic management, research and futures studies, marketing, innovation and creativity, attention to philosophy and strategic thinking, human resources, ecology and theory of strategic studies of strategic, planning at the national macro level by mathematical models, technology, science and technology, models and patterns of management and strategic planning, successful business and case study of and strategic planning, strategic planning in governmental and non-profit organizations, control and monitoring systems and approaches across all organizations about strategic planning (David, 2009:56).

In other words, the strategy is a plan and a kind of deliberate way and Intended of a guide for dealing with a deceits situation of a particular map or plan or maneuver to divert the model rival, especially the model of a series of concrete measures, it is meaning as a means to determining the position of organization in the market environment, and the view that considers the strategy is a subjective notion and it is a common view among members of an organization that is based on their intentions or actions. In fact, we can consider the following points:

- Establish a framework for organizational change
- Creating commitment and sense of ownership
- Create a balance between stability and innovation (Charles, 2014: 15).

Strategic planning has been developed primarily in the private sector, but it can help to organizing of the state, and non-profits organizations, communities and other institutions. Strategic planning can be defined as regular and organized attempt to make decisions and attempt to new actions that lead to the development of an organization. In fact, the strategic planning is a process in order to equip the resources and unify its efforts to achieve long-term goals with regard to the internal and external possibilities and limitations. On the other hand, the process to determine the current position and future direction of the organization or community, setting goals, devising a strategy for the goals and measure results are considered (Rezayian and Naji, 2011: 17). Strategic planning can be stated as planning in conjunction with long-term goals of the organization and the activity necessary to fulfill them (Zaerpuor Kalishm, 2011: 64).

## Benefits of Strategic Planning

The benefits of strategic planning are as follows:

- Strategic planning is guidance and it determines direction of the activities and operations of the organization and acts as a guide.
- It determines future direction and priorities and it adopts today's decision in light of future outcomes.
- It has coordinating role between operational programs and it puts measures in different parts of the organization on a single path.
- It treats with the conditions that are changing fast in an effective method and it provides teamwork and expertise work.
- It predicts the future with long-term approach and thus provides information on its own that is useful for long-term measures of managers.
- Strategic prediction is possible across organizational units including all administrative systems and rather than it will be mechanical operation, it acknowledges the central role of individuals, groups and influence of organizational culture.

Concepts of Strategic management of Quality

Quality management has urgent need for a deep and microscopic understanding of human nature, ie the needs, aspirations and fundamental abilities of the human. A leader because he can affect the environment and his relatives, he must have been familiar with all the items below and he should has a full understanding of them:

- 1).The human needs security while he doesn't want his independence be violated.
- 2). Human is very sensitive to the external rewards and punishments.
- 3). Human loves to hear kind verbal in his praise.
- 4). Human can only do a limited number of activities at the same time.
- 5). Human is being sure to his personal perceptions more than the information and statistical data.
- 6). If it is a conflict between leader speech and leadership performance - though that his speeches are eloquent – he will distrust towards him.

By expanding the understanding of the public, who is responsible for leading a working process, he must respect the spirit of independence and lack of complete dependence of employees and besides he must provide appropriate security in the working environment.

Persuading, encouragement and rewards that are given because of success of people, they are effective in running the entire process. According to the latest studies, sudden and unpredictable rewards are more effective than uniform repeated payments in the end of the year (Cutler, 2005).

## Building trust

Trust in organization, in both Inter-organizational and out- organizational buildings, it has important role in achieving the goals and targets of it. Attracting specialist forces, attracting financial resources, the realization of productivity cooperative system in manufacturing, success in competitiveness and developing and promoting genuine and sustainable organizational culture depend on trust. Not satisfied with gaining the superficial and unstable trust by approaches and techniques of propaganda and enjoyment of concern to institutionalize it, all of them are one of symptoms beyond slogans to the intelligence and technical perfection of wisdom, that is derived from strategic vision of managers and it finds tools to achieve itself by sufficient knowledge. Trust seedlings don't root on any subject and it doesn't load in any substrate, but its attainment is based on principles and specific ways. Principles that could pave the organization's strategic directions and it acquired efficient and viable methods in achieving that orientation and direction (unnamed, 1999).

### Dimensions of trust

In various studies it is defined various dimensions for trust structure, such as three-dimensional trust Bromiley and Koomingez (1996) four-dimensional Trust of Mishra (1996) and five dimensional Trust of Thomas and Schindeler(1993) and finally ten dimensional Trust of Butler (1991)(Sarlak, 2003).

Thomas and Schindeler consider that the key elements of trust are including five factors according to their research:

- 1- Honesty: Honesty is the same as honesty and trust. This pillar is the most important factor among the five factors, especially when a person evaluates the ability to rely on someone else.
- 2- Competency: It covers a person's all the social skills and technical capabilities and refers to whether the person knows what they're talking about it.
- 3- Stability: According to McGregor, stability consider the ability whether we can predict person's words and deeds or not. Existence of contradiction between words and deeds of individuals reduces trust by reducing the stability. This variable is important, especially among managers.
- 4- Loyalty: It is enthusiasm for supplying the interests others. This pillar is the opposite of opportunistic acting. Loyalty represents the person's desire to maintain the prestige and reputation of the opponent.
- 5- Clarity: It represents the person's desire to freely share information and thoughts with others. Clarity refers to state of all facts and not a part of it and it is to avoid concealing the truth (Movahed et al., 2010).

## Performance

Individual or group performance measurement process in specific period with the approach to achieving the goals and strategies of the organization, so that expectations and indices, has already been transferred transparently evaluated party, all of them are named performance assessment (Tabarsa, 1990). Organizations have been formed based on a philosophy, and they are moving toward targets. In order to achieve organizational goals, core processes should be identified and in an integrated environment with creating synergy, they facilitate achieving the goals. In the meantime, performance measurement of organizational processes helps to determine achieving the goals of each process together with the organization's objectives (Akbari, 2005, p. 10).

Performance evaluation process

The process involves a series of measures with particular sequences that are logical and purposeful. Performance evaluation involves taking multiple steps. The proposed steps in the performance evaluation include:

1. Drafting or review their message, mission, the major objectives and strategies
2. The preparation and formulation of performance evaluation indexes
3. Development and establishing of performance standards related to evaluation metrics
4. Notification and announcement of evaluation indexes to person who is assessed.
5. Determination of actual performance
6. Comparison of the actual performance with the standards for each indicator
7. Announcement of results and how to achieve them to person who is assessed.
8. Action to the application of corrective actions to improve the performance of subjects evaluated through feedback mechanisms. (Ghasempour, 2005, p. 36)

## Melli Bank of Iran

The law establishment of Melli Bank of Iran was approved by parliament in the session of 14 May 1925 and the Statute of the Bank in the 14 June 1926 were approved by Finance Committee of parliament and Melli Bank of Iran officially began its work on Tuesday of 20 September 1926 in the Tehran.

Now 86 years passes from glorious establishment of Iran's Melli Bank. Now there are more than 3276 branches within country and 16 active branches in abroad and 179 booths and because of that it is one of the strongest financial institutions in Iran and even in the world.

## History

Alizadeh Sani and et al (2012), in the a study entitled "Effect of Perceived variations on financial performance of team: the moderator role of organizational trust" came to the conclusion that financial Performance of teams has positive significant correlation (0.321) with diversity and variety and it has negative significant correlation with the difference (-0.371) and it has no significant relationship with separation. In the second part of the tests, organizational trust was considered as a mediating variable of relationship between perceived diversity and financial performance of the team. And model test results indicate the severity of strong moderating effect (1.277) for organizational trust variable. Rahimnia and Muradian (2011), in the study titled "Conceptual Model of leadership style of the CEO on strategic decisions by creating a trust relationship between senior managers and their learning from failure.", they represented the conceptual model of the relationship between leadership style relationship of CEOs with trust between senior managers and with their learning from past failures, relationship between senior managers learning from the failures and amount of trust between senior managers with quality of strategic decisions, the relationship between trust between senior managers with their learning from failures. Opinions and several studies have claimed that CEOs can improve quality of strategic decisions of senior managers in the organization under their leadership by forming a relationship based on trust between senior managers as well as accelerating their learning process.

Chamchong and Wonglorsaichon by doing a research under the title of Total Quality Management, they achieved the following key results: 1- In the case of teachers' perceptions, there were issues with the practices indicators (strategic quality management), particularly in terms of changing management. There were striking differences in perception between teachers in the ways of TQM related to branch variables, level of education and employment while there was no significant difference according to state of variables. 2- Also the practical implications of the questionnaire were on this basis, the findings showed the need for changing efficient management, staff training and deployment

of human resources in order to gain a wide system of quality management for the realization of the principles of Total Quality Management. 3. The origin of value in this research is the quality improvement of an ongoing process that should be taken from a practical level to senior management. Primary schools as the basic system of higher education, it effects on the upper level schools with the correct results. Thus, total quality management efforts in the elementary schools are essentially important to achieve a high quality education system.

In the research Patanayak (2011) as strategic quality management influence on customer satisfaction in the banking industry in India, the findings suggested that 1. There was a high correlation between the variables of strategic quality management. 2. Also There was significant relationship between the dimensions of strategic quality management (employee empowerment and responsiveness, speed in providing services, accuracy of providing services, beauty of services space, central trust, transparency and notification, flexibility and considerations of values and beliefs) and the customer satisfaction.

## The research hypotheses

1. There is a significant relationship between quality strategic management and building trust.
2. There is a significant relationship between quality strategic management and financial performance.
3. There is a significant relationship between building trust and financial performance.
4. Status of quality strategic management at the Melli Bank of Ardebil is above average.
5. Status of building trust in the Melli bank of Ardabil province is higher than the average.

### Conceptual model

For doing scientific and systematic research, scientific and theoretical framework is needed which is commonly called a conceptual model. In this study amount of the strategic management of quality and building are considered as independent variables and organizational performance are considered as a dependent variable.

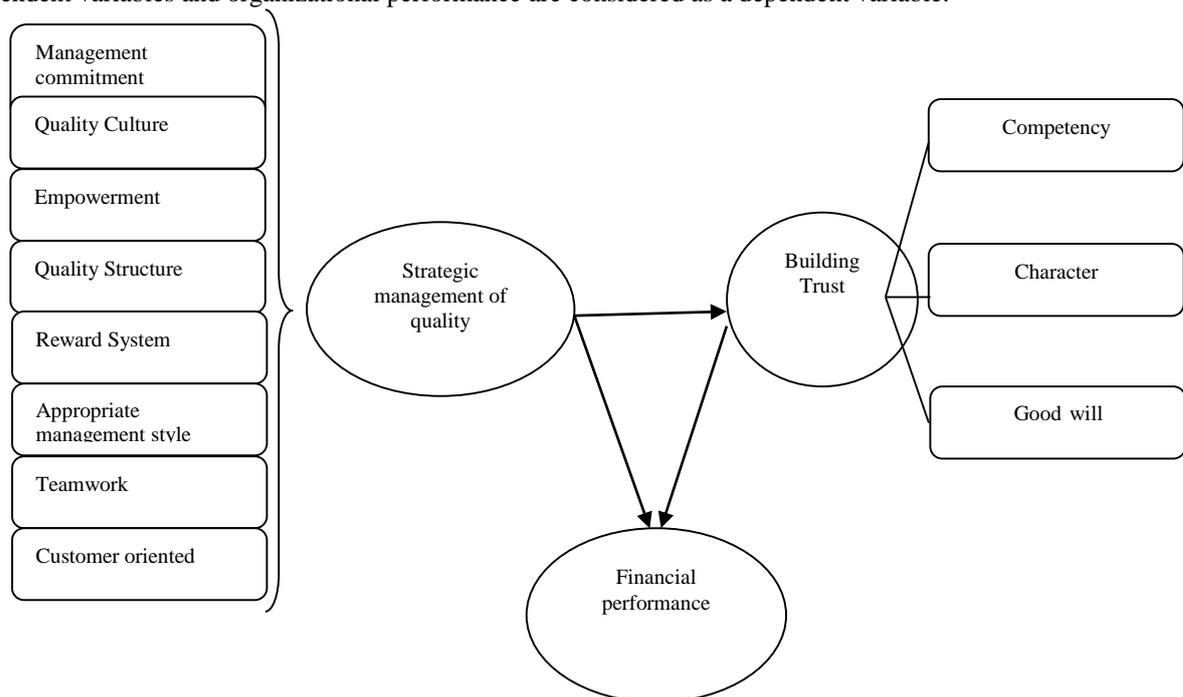


Figure 1: The conceptual model of research

Source: (Nena Tani and et al., 2010; Alizadeh Sani and et al., 2012)

In this study standard questionnaires were used to assess each of these variables, so that, for the amount of attention to Strategic management of quality inventory of Days and Chapman, 1997 was used, questionnaire of Kuwait Cole et al (2009) was used to building trust and Dizji happiness questionnaire (2012) was used to financial performance.

## Research Methodology

This research can be considered as a functional based on purpose and it can be regarded as a descriptive study according to obtain the desired data, and because the desired data is obtained by community sampling, to determine the distribution of population characteristics, this study was correlational survey and its method is cross sectional. Research is correlation in terms of implementation.

The study population consisted of all those that researcher are interested to study a particular topic on them. Therefore, all employees of the Bank Melli of Ardabil province are considered. The total number of our population is 532 people.

Sampling method: sharing stratified random sampling method was used to sampling. In the table below, the number of population is mentioned based on the sample of Ardabil province branches:

*Table 1: Stratified random sampling*

STATISTICAL SAMPLE	STATISTICAL SOCIETY	Branches	CLUSTERS	ROW
167	400	branches 32	Ardabil	1
7	17	3 branches	Khalkhal	2
14	33	5 branches	Parsabad	3
11	27	4 branches	Germi	4
3	7	1 branch	Namin	5
9	21	4 branches	Meshgin Shahr	6
6	14	3 branches	Bilesavar	7
3	6	1 branch	Nir	8
3	7	1 branch	Sarein	9
223 people	532 people	54 branches	9	Total

In the present study the descriptive analysis methods such as the frequency distribution, frequency percent, average and graphs and appropriate inferential analysis methods were used to analyze the data and verify hypotheses such as normality of population and the correlation coefficient and linear regression analysis, that all these calculations were performed using SPSS version 20. At the beginning of inferential statistics, for ensuring of normal survey data Kolmogorov-Smirnov was used. Then, according to the abnormal data, the Spearman correlation test was used to test the first to third hypotheses and then to test the fourth and fifth hypothesis t-test was used.

## Findings:

The first hypothesis test

There was a significant relationship between strategic management of quality and building trust.

Spearman correlation test was used to test this hypothesis that the results is showed in Table 2 below.

*Table 2: The correlation coefficient between the components of the strategic management of quality and building trust*

Building Trust		independent variable
0.251**	The correlation coefficient	
0.000	Significance level	Customer oriented
223	Number	
0.225**	The correlation coefficient	
0.000	Significance level	Quality Culture
223	Number	
0.321**	The correlation coefficient	
0.000	Significance level	Management commitment
397	Number	
0.198**	The correlation coefficient	
0.000	Significance level	Empowerment
397	Number	
0.162**	The correlation coefficient	
0.002	Significance level	Quality structure
223	Number	
0.141**	The correlation coefficient	
0.006	Significance level	Reward System
223	Number	
0.195**	The correlation coefficient	
0.000	Significance level	Appropriate management style
223	Number	
0.296**	The correlation coefficient	
0.000	Significance level	Teamwork
223	Number	
0.443**	The correlation coefficient	
0.000	Significance level	Strategic management of quality
223	Number	

\* Significant test at a significance level of 0.05

\*\* Significant test at a significance level of 0.01

As can be seen in Table 2 at double domain significant level, a significant level of Spearman's test is 0.000 and this level is smaller of the minimum level of significance which is 0.05, and also according to the correlation value that is calculated 0.443, therefore there is a significant relationship between these two variables, there after hypothesis H0 is rejected and H1 is confirmed. In other words, there is a significant relationship between strategic management of quality and building trust. According to the above table, we can also conclude that there is a significant relationship between all components of strategic management of quality and building trust and the highest correlation coefficient between the components of the strategic management of quality is related to management commitment component with a correlation coefficient of 0.321 and the lowest one is related to component of rewards system with a correlation coefficient of 0.141.

The results of previous table showed that there is a significant relationship between the dimensions of strategic management of quality and building trust. The correlation coefficient for each dimensions of the strategic management of quality (Customer oriented, quality Culture, management commitment, empowerment, quality structure, reward system, efficient management style, teamwork) in relation to building trust is calculated respectively (0.251, 0.225, 0.321, 0.198, 0.162, 0.141, 0.195, 0.269) at the significant level ( $P < 0.05$ ).

The second hypothesis test

There is a significant relationship between strategic management of quality and financial performance.

To test this hypothesis, we used Pearson correlation multivariate test, which the results for this are in the table below.

*Table 3: The correlation coefficient between components of strategic management of quality and financial performance*

Financial performance		independent variable
0.329**	The correlation coefficient	
0.000	Significance level	Customer oriented
223	Number	
0.127*	The correlation coefficient	
0.014	Significance level	Quality Culture
223	Number	
0.041	The correlation coefficient	
0.425	Significance level	Management commitment
397	Number	
0.213**	The correlation coefficient	
0.000	Significance level	Empowerment
397	Number	
0.105*	The correlation coefficient	
0.04	Significance level	Quality structure
223	Number	
0.264**	The correlation coefficient	
0.000	Significance level	Reward System
223	Number	
0.295**	The correlation coefficient	
0.000	Significance level	Appropriate management style
223	Number	
0.047	The correlation coefficient	
0.395	Significance level	Teamwork
223	Number	
0.28**	The correlation coefficient	
0.000	Significance level	Strategic management of quality
223	Number	

\* Significant test at a significance level of 0.05

\*\* Significant test at a significance level of 0.01

As can be seen in Table 3 at double domain significant level, a significant level of Spearman's test is 0.000 and this level is smaller of the minimum level of significance which is 0.05, and also according to the correlation value that is calculated 0.28, therefore there is a significant relationship between these two variables, there after hypothesis H0 is rejected and H1 is confirmed. In other words, there is a significant relationship between strategic management of quality and financial performance. According to the above table, we can also conclude that there is a significant relationship between all components of strategic management of quality (except for two components of management commitment and teamwork) and financial performance.

The results of previous table showed that there is a significant relationship between dimensions of strategic management of quality and financial performance. The correlation coefficient for each dimensions of the strategic management of quality (Customer oriented, quality Culture, empowerment, quality structure, reward system, efficient management style) in relation to financial performance is calculated respectively (0.329, 0.127, 0.213, 0.105, 0.264, 0.295) at the significant level ( $P < 0.05$ ) and for two components of management commitment and teamwork, because a significant level obtained for each of them is more than the standard significance level of 0.05, they have no significant relationship with financial performance variable.

The third hypothesis test

There is a significant relationship between building trust and financial performance.

To test this hypothesis, we will also use the Spearman correlation coefficient test that the results of them are represented in Table 4.

Table 4: The correlation coefficient between the components of building trust and financial performance

Building trust	Good will	Character	Competency		The dependent variable
0.223**	0.147**	0.201**	0.308**	The correlation coefficient	
0.000	0.002	0.000	0.000	The significance level	Financial performance
223	223	223	223	Number	

\* Significant test at a significance level of 0.05

\*\* Significant test at a significance level of 0.01

As can be seen in Table 4, at double domain significant level, a significant level of Spearman's test is 0.000 and this level is smaller of the minimum level of significance which is 0.05, and also according to the correlation value that is calculated 0.223, therefore there is a significant relationship between these two variables, there after hypothesis H0 is rejected and H1 is confirmed. In other words, there is a significant relationship between Building trust and financial performance. Also results showed that there is a significant relationship between all components of Building trust and financial performance and the highest correlation coefficient between the components of it is related to management competency component with a correlation coefficient of 0.308 and the lowest one is related to component of good will with a correlation coefficient of 0.141.

The fourth hypothesis test

The strategic management of quality at the Melli Bank of Ardabil province is above average.

To test this hypothesis, we used the t-test which the results for that is provided table (5 and 6) below.

Table 5: Strategic Management of quality Average test

The mean error	Standard error	Average	Number	Variable
0.02	0.399	3.56	222	Strategic Management of quality

Table 6: T test of strategic management of quality in one sample

Upper bound	Lower bound	difference in average	The significance level	freedom degree	T statistics	Variable
0.61	0.529	0.569	0.000	222	27.739	strategic management of quality

According to the scores obtained from the sample and one sample t test, the results were represented in Tables 5 and 6. As can be seen amount of p-value ie Sig amount that is equal to 0/000 was smaller than of the amount  $\alpha = 0.05$ . Therefore, the null hypothesis that the mean of variables of strategic management of quality has not been confirmed that it is equal to 3; on the other hand, two numbers that were shown in the column corresponding to 95% confidence interval of the mean difference were not including the zero. Therefore this factor proves that the null hypothesis is rejected. Lower and higher limits are also positive and this implies that the average of strategic management of quality is more than the number 3. The overall result can be explained in this way that the strategic management of quality is relatively high according to the average population 3.56 in statistical population. As identified in the table, the statistic value of T is equal to 27.739, which is larger than 1.96 and it is at the critical area of test and in other words, the mean difference of the number 3 is significant.

Fifth hypothesis test

The level of building trust of Melli Bank in Ardabil province is above average.

To test this hypothesis, we used the t-test which the results for it are provided below in the table (7 and 8).

Table 7: Average test of building trust

The mean error	Standard error	Average	Number	Variable
0.02	0.395	3.531	222	Building Trust

Table 8: One sample t-test of building trust

Upper bound	Lower bound	difference in average	The significance level	freedom degree	T statistics	Variable
0.571	0.491	0.531	0.000	222	26.171	Building Trust

According to the scores obtained from the sample and one sample t test, the results were represented in Tables 7 and 8. As can be seen amount of p-value ie Sig amount that is equal to 0/000 was smaller than of the amount  $\alpha = 0.05$ .

Therefore, the null hypothesis that the mean of variables of Building Trust has not been confirmed that it is equal to 3; on the other hand, two numbers that were shown in the column corresponding to 95% confidence interval of the mean difference were not including the zero. Therefore this factor proves that the null hypothesis is rejected. Lower and higher limits are also positive and this implies that the average of strategic management of quality is more than the number 3. The overall result can be explained in this way that status of building trust is relatively high according to the average population 3.53 in statistical population. As identified in the table, the statistic value of T is equal to 26.171, which is larger than 1.96 and it is at the critical area of test and in other words, the mean difference of the number 3 is significant.

## Conclusion

### The first hypothesis test results

The Spearman correlation test was used to examine the relationship between strategic management of quality and trust building. The results with respect to the significant level indicate a significant relationship between the research variables. The findings of this part of the research are consistent with findings of Nena Tani et al. (2010), which confirmed significant effect of strategic management of quality on the customer trust and studies of Patanayk (2011).

### The second hypothesis test results

The Spearman correlation test was used to examine the relationship between strategic management of quality and financial performance. The results with respect to the significant level indicate a significant relationship between the research variables. The findings are consistent with findings of Nena Tani et al. (2010), which confirmed significant effect of strategic management of quality on profitability.

### The third hypothesis test results

The Spearman correlation test was used to examine the relationship between trust building and financial performance. The results with respect to the significant level indicate a significant relationship between the research variables. The findings of this area of research are consistent with the findings of the Alizadeh Sani et al (2012) that reported the moderator role of the trust on the financial performance and also it is consistent with Gahremani's results which showed that organizational trust are associated with the creation and transfer of knowledge and innovation and innovation has a significant relationship with financial performance.

### The fourth hypothesis test results

One sample t-test was used to analyze this hypothesis. With respect to the significant level of 0.000, it indicates that this hypothesis is confirmed at the level of 95% and can be argued that situation of variable of strategic management of quality between the staff of the Melli Bank of Ardabil province is above average. The findings in this area of research are consistent with the findings of Rasouli et al (2012) which reported that level of strategic management among their population is higher than the average.

### Fifth hypothesis test results

One sample t-test was used to analyze this hypothesis. With respect to the significant level of 0.000, it indicates that this hypothesis is confirmed at the level of 95% and can be argued that situation of building trust variable between the staff of the Melli Bank of Ardabil province is above average. The findings in this area of research are consistent with the findings of Bakhshan (2011) that in a study with title: identifying and prioritizing the factors affecting the trust of Internet banking customers (Case Study: Mehr- e- Eghtesad Bank) that they reported that the level of the building trust in T test is higher than the average.

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## EFFECT OF THE QUALITY OF SERVICES OFFERED IN THE FIELD OF MEDICAL TOURISM ON TOURISTS' LOYALTY: A STUDY ON EBN-E SINA HOSPITAL

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Mostafa Saffari<sup>55</sup>

### Abstract

*Today, countries are looking to increase the number of tourists in various areas to improve prosperity and welfare of the country. Health tourism is one of the new concepts that has been created in the field of tourism. The main goal of research had been to investigate the effect of quality of service, satisfaction of tourist and trust on services on the reuse of services offered in the field of medical tourism due to the moderator role of expected price of delivering the services regarding infrastructures and geographical features of Tehran. The research methodology had been applied in terms of the purpose and descriptive - survey in terms of nature. The statistical population of tourists of this research is patients and medical tourists of Ebn-e Sina Hospital. Statistics that ended in last year that indicated that about 245 patients with the goal of health tourism have visited this hospital and used its services. Sample size was considered 150 patients by a researcher using Cochran formula method. Questionnaire with 34 items was used to collect data in this study. A researcher confirmed the validity and reliability of the questionnaire before its final distribution. Smart PLS software was used to analyze the data collected in this study. Results obtained using this application had been confirmed that the quality of services and quality of treatment affect the satisfaction of tourists. Improving the satisfaction of tourists has a positive effect on confidence in the employees and clinics. Strengthening this confidence provides the field to reinforce the intention to use the services of the clinic. On the other hand, the price as a mediating variable has a role in influencing the quality of medical services on the satisfaction of tourists, while the price as a mediating variable has no role in influencing the perceived quality of services on the satisfaction of tourists.*

**Keywords:** Health Tourism, Quality of service, Price, Confidence, Satisfaction of Tourists, Intention to Use the Services

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## Introduction

Achieving the competitive advantage is considered one of the major topics in this field given the importance of the tourism industry in a country's economic development and growth. Competitive advantage is very important because many countries, especially Iran's neighbors, seek to attract more tourists to improve foreign exchange, create jobs and so on. The issue of health tourism, especially medical has had the highest growing rate among tourism industry in attracting revenue and profitability among the fields of tourism (Tyfret and Herstyn, 2012; Debta et al., 2013; Han and Huang, 2015)

So, this issue means high growth rate of this industry has led that many policy makers and planners from countries with tourism industry to seek improving the activity in this area and areas dependent on it.

The intensity of the activity has led to the fact that the environment surrounding this industry has high complexity in terms of effective factors on success. In such increasingly competitive environment, the main concern for doctors is to attract new tourist through marketing actions and motivate the tourists to reuse services (Han, 2013).

According to the latest conducted researches, maintenance manpower to 5 times to use the services is more profitable than attracting new tourist in the field of tourism and other services. (Chiu et al., 2012; Kim and Gapata, 2009). So, it can be understood that the retaining tourists is one of the most important challenges in the field of tourism (Jiang and Rosenblam, 2005). In the meantime, it seems that in addition to medical quality, which is a requirement in attracting tourists in this field, quality of services of aligned components with this industry that can be very important for tourists, has not been considered by many managers that it has led to not to achieving the satisfaction of tourist in desirable limit for it to be the ground to gain competitive advantage.

On the other hand, confidence is one of the issues that medical tourist relies on. Because tourists will re-use services at the destination and the country in which they have full confidence in the employees of the clinic and its services. So, achieving satisfaction in addition to confidence can be two important factors in re-using medical and health services of health and therapeutic clinics of Tehran.

The main issue of this study, is the lack of infrastructures at the health and therapeutic clinics in Tehran and accommodation facilities are not provided coherently for foreign tourists. However, in many competing countries, all services are provided coherently and patient uses the tourism services and spends their recovery time with no concern. This can lead to improved satisfaction and confidence in the provided services. This issue tells this point that medical and therapeutic tourism planners simply focus on the quality of clinical services and have no systematic approach to improving the quality of services provided in the aligned and parallel areas in this field. On the other hand, offered price is one of the issues that is important from the perspective of tourists. Lack of correlation between the price offered and the medical services provided can be an underlying reason for dissatisfaction and lack of reuse of medical tourism services that are offered at Ebn-e Sina Hospital. Finally, it can be stated that the lack of use of health services medical services, can cause to deprive not only the health and medicine section Ebn-e Sina Hospital from earn revenues in this area, but also the country will not have a good performance in competitiveness in attracting tourist and development indicators. The main question of this study is whether satisfaction and quality of services are effective factors for the reuse of medical services by tourists in Ebn-e Sina Hospital. In the meantime, the role of expected price will be a strengthening factor in these influences.

## Theoretical Foundations

Several studies have been conducted in the field of health and medical tourism so far worldwide, but none of these studies have tried to categorize and classify the factors affecting the reuse of medical tourism especially among the internal studies. Connell (2013) has stated that until now conducted studies about medical tourism have had special directions. Some have looked at health tourism from marketing perspective and some from economic and national perspective (Lee and Kim, 2015).

It has been shown in conducted studies that the growth rate of medical tourism in the world due to many problems economically had been equivalent to 40.1 percent, which reflects the high profitability of this industry in different countries during the period 2009 to 2014 (Brand Festchrin and Reni Stanvo, 2016). Tehran, hospitals and other entertainment and residential centers can profit from this huge and profitable market and gain a favorable position according to local conditions and insecurity of many countries and on the other hand with respect to the high potential of medical tourism in Tehran especially Ebn-e Sina hospital in terms of technical and medical knowledge, equipment and provided services and by increasing necessary planning and developing parallel programs between public and private sectors. Therefore, Ebn-e Sina and other hospitals, private and public sectors will be able to be as an important and effective factor on improving the satisfaction of tourists and increase their confidence with the identification and classification of effective factors. This issue can improve the ability to maintain tourism. On the other hand, the main vision and mission of Ebn-e Sina hospital refers to this point that Ebn-e Sina care center decides to increase the expectation of people from the quality of receiving the health care by increasing quality level of their healthcare and

services. The goal of this medical center is to achieve this degree of excellence among other medical centers. Therefore, it tries to provide safe and effective treatment services to patients with proper treatment cost and to have quality in accordance with international standards. Physicians and human resources of this organization has tried to reach the goals and ideals existing in mission statement with the use of professional knowledge, skills and behaviors consistent with the culture of Ebn-e Sina's growth and excellence. Thus, this research could provide a field to gain organizational prospects according to the perspective of Ebn-e Sina hospital.

## **The tourism industry**

Tourism industry is considered as the world's largest and most diverse industry. Many countries know this dynamic industry as the main source of income, employment, industrial sector growth and development of infrastructure. Especially in the world's developing countries, means countries that other forms of economic development, such as production or extraction of natural resources, is not affordable in terms of economic or has no important role in the trade and business, and pays much attention to the development of tourism (Botti Laurent et al, 2008; 2).

Tourism is the largest element of the modern world. Today, countries that are more thinking to develop its economy look at tourism industry and leisure as an important necessity. That's why the tourism has been developed in many countries, especially Western countries and has had extraordinary improvements so that France alone has had more than 91 million tourists in 2010 (WTO (world Trade Organization), 2011: 3)

It is expected that by 2015 people who engage in international travels are more than a billion people, means double the number 500 million people who have traveled out of their homeland in 1993 according to World Trade Organization. This figure was minimal and less than 8000 people in 1950. (Sharplay, 2008: 36)

Many of the economic activities are associated with tourists activities, the most important ones are as follows: public transportation, airlines, car rental companies, see travel lines and, travel with trains and motor vehicles, and hotels, meeting and conference centers and other places of public accommodation are added to these cases. Others cases are business firms that arrange the travels and accelerate their performing such travel organizations, tourism agencies and places of tourist attraction such as natural and free trade areas and other resorts, that provide leisure facilities and entertainment for visitors (Truanga et al, 2006: 1064).

There is no doubt that many countries in the world seek to gain more and more profits and advantages socially, economically and politically in their own countries and raise the level of employment resulting from the optimization of this industry in close competition. Certainly exploit opportunities within the tourism industry, like any other activity requires to adopt basic policies and design the principles and programs based on the scientific researches and management (Baher, 2002: 3 ). In addition that facilities and services can have a significant effect on tourist attracting , identify the needs of tourists and supply them can have important effects on tourist attraction in certain areas. One of the most basic activities of governments is to design and develop policies and macro programs. Government's policies and programs look at tourism as an effective tool to continue the political, cultural and economic development process.

## **Health Tourism**

Health tourism has existed since ancient Greece and Rome and has developed to many European countries and elsewhere in the world. From ancient times, many people have traveled to mental relaxing and treatment to near the river and mineral water. Traditionally warm waters have been with calm and physical and spiritual reinvigorate. Users of these waters bathe in the warm waters, drink from mineral water springs for centuries. In the UK, the development of seaside resorts occurred based on this belief that sea water use is useful in treating diseases. In Europe, many cities have been built around spas and medical facilities.

Examples can be observed in the cities of Baden, Lausanne, Interlaken and Moritz in Switzerland, Baden-Baden and Wiesbaden in Germany, Vienna in Austria and Budapest in Hungary. In these cities, the people used the mineral water to treat diseases such as rheumatism, skin infections and indigestion. In Europe, spas and water treatment clinics were in the late eighteenth century, and in addition to this that were equipped with fit equipment, spaces around them were organized for the benefit of peace and tranquility and natural landscapes ( Ebrahimzadeh, 2007: 9).

In such clinics consulting medical teams are working to prescribe and how to use any water for the treatment of various diseases. Referring people to these waters are often patients who are suffering from skin irritations, pain of rheumatism, arthritis, extreme physical fatigue, gout, inflammation of the spine and spinal cord. In the United States people traveled to spas, resorts near the spa and sea. America's oldest hot springs area is Saratoga that has been activated from about 511 years ago as a commercial are in this field by providing appropriate residential and entertainment facilities. It can also be pointed to the mineral springs near Philadelphia and Virginia.

Facilities such as libraries, theaters, music halls and playgrounds have been created for tourists to fun the time of tourists to maximize the utility of travel. As people today travel not only for hydrotherapy but also to use a variety of social entertainments travel to these areas. There are great works and evidences of importance of hot and mineral waters among Iranians. Categories of Avicenna that have divided these areas to the spiritual barracks, therapeutic springs and hot water and have investigated the way of usage of each category, are the signs of scientific importance of these areas to Iranians.

Before that, the remaining monuments also in the city of Nishapur represent the stone channeling system to transfer water of mineral springs to near the temple of Anahita. The situation is reminiscent of the old fountain position of Merano in Italy that its dating is two thousand years old. Mineral springs in different regions of Iran have more than 30 mineral elements such as magnesium, potassium, sulfur, calcium and so and some of them have properties of radioactivity (Heidarzadeh et al., 2007:3). Over time, the tourism based on the use of mineral waters found wise concept so that the use of natural features such as healthy air is considered a part of health tourism.

Over time the concept of health tourism has gone further and included patients travel to receive the kinds of medical services. The latter issue (patients travel to receive the kinds of medical services) is new compared to other types of health tourism. For affluent people in developing countries, foreign travels to receive health care services is not a new phenomenon (Shiri Esfahani et a, 2014: 39)

## The Quality of Services in Health Tourism

Despite the passage of long time from the issue of the quality of services and ways to its measure and evaluate, not only pay attention to this issue has been dimmed but also its role has become more important because of the growing importance of services in the economy of countries, especially the modern economies. Quality measurement in the services organization, is a measurement of how much the provided service meets the expectations of tourists. Awareness of the concept of quality of service and trying to improve it has been caused to provide high quality services and tourist satisfaction increasing can be expected by increasing level of quality services.

According to the Parastoraman and colleagues, quality of service, is tourist judgment (attitude) of tourist and the difference between the expectations of the tourists is defined of what the company must offer and the performance of received service. Thus, the quality of service can be defined based on tourist satisfaction in the form of difference between the expectations or demands of tourist and his /her understanding of the actual performance of the service. In the service sector, assessing its quality is carried out during the process of providing services. If we glance at the history of quality activities in the recent era we will realize that notice to the tangible quality of goods and products has a history of nearly a century. But until the early decades of the 80 centuries, the concept of quality in services was not considered seriously (Merooti et al., 2013).

Philip Kotler believes that " service activity is invisible and impalpable or benefit that one party supplies to the other side and does not follow the ownership of something". "Production service may be dependent on the physical commodity or not. Since the service role became clear in daily life, the concept of "quality of service ", as well as the main feature of the competition was considered between the organizations so that pay attention to quality of service, distinguishes the organization different from its competitors and leads to gain competitive advantage. One of the key ways that service institution can differentiate itself from other competitors through it is consistent delivering the quality of service superior to them. Many companies have recognized this point that providing high quality services can bring sturdy and strong competitive advantage to them. Some services institutions because of this reason that they provide excellent quality services, have become almost legendary. For achieving this purpose, it is sufficient to give proper answer to customers' expectations of quality service or surpassing of it. According to an American Express executive, only promise what you can do and act more than what you have promised'.

These expectations are created due to past experiences, word of mouth advertisements and advertising of services firms. Customers often compare provided services of an institution with their expected services. They refer again to this institute in a case that services provided are over the expected services of them, or at least equal to it (Ganguli and Roy, 2010). Definitions of quality of services, usually have the general framework and do not point out to the services quality dimensions, for example, one of the common definitions of quality of service is that " judgments by customers about the superiority of one service" (Zeithaml, 1994). Gronroos has divided the quality of service into two general categories of technical and functional quality. are offered in the interaction between buyer and seller and its quality is evaluated in terms of two technical and functional dimensions by customer. that technical dimension includes real result of services and functional dimension includes the way of delivery of services. He believed that, what the customer receives after providing services is the technical quality dimension and how it is received, is quality functional dimension.

As a result, in his view, the quality of services that is offered to the customer has been made of sets of dimensions that some of these dimensions are technical in inherent and some other are functional and necessary to understand how to evaluate quality by customers, is that the effective factors are identified on the quality technical and functional dimensions and how it affects should be clear (1984). Technical quality alone cannot be a factor to achieve comprehensive quality of services, because in addition to the technical skills of employees, interpersonal relationships and how human interaction are also important and vital (Ferguson et al., 1999).

## Perceived expected price in health tourism

Perceived price is inevitable element in tourism studies. Always tourists, especially in the field of health have this concern or risk that the received services are consistent with the price of services. This risk is resulted of lack of confidence in tourists that is always present in the longevity of the organization and risk cannot be eliminated but it can be reduced with prudence or properly can be managed and guided so risk can be measured in uncertain way. Risk effects on many factors involved in health tourism.

For example, on resources, products, services, tourists and other partner's organizations, as well as the effects include also its community (Saleh et al, 2011). Researchers on the theory that it can be named theory of perceived risk, in a study on the concept of perceived risk of tourists in various fields, it should be noted that the forms of separated risk may be perceived independently from each other and influence of each one may be different, because each one can be mad from a variety of different sources and in different circumstances (Mandrik & Bao, 2005). Gemünden (1985) states that the predictive value of each of these dimensions is to what extent in whole perceived risk, and depends on the category of product or service.

In fact, risk and threat perceptions play an important role in the behavior of customers and are used as a value in explaining the behavior of seeking information and deciding of tourists buying. The results of experimental studies and researches indicate that perceived risk and danger possibility reduce the tendency of tourists to get health tourism services (Martin and Camarero ,2014). In conducted researches in the field of risk, confidence can reduce the level of perceived risk in the process of health tourism.

In terms of the perceived risk can increase the online consumers' confidence by reducing the environmental risks and increase the security. In terms of privacy, consumers may reveal their private data to networks with the reliability and validity and are known, this matter increases the concern of consumers towards security and privacy keeping and helps to the confidence making (Liu Yi et al, 2008). Financial perceived risk represents the risk to customer concerns about the potential of financial loss that is resulting from these following cases: 1-mistake in entering transaction details such as the amount by tourists in the purchase of health tourism 2. inability to get compensation from the fields of health in the event of occurring an error in the transaction.

## Tourist satisfaction in the field of health

Tourists, are people, or processes that use the product of results of a function or need them and benefit from them. Because each function in an organization has certainly a goal, so has the tourists as well. Tourist orientation is considered as an important factor in the success of active commercial brands in the field of tourism (Brady, 2001: 247). Satisfaction tourism is one of the most important issues theoretically and experimentally for most marketers and researchers in marketing. Satisfaction of tourists can be considered as the essence of success in the competitive today world trade. So, importance of tourist satisfaction and retention and developing strategies for tourist -based companies and market-based companies cannot be underestimated. As a result, the customer satisfaction growing with rate has been considered by companies and different notions of tourist satisfaction have been presented up to now

in the past, in the definition of the tourist term, they satisfied with this tourist is who receives products of services unit of brands. But this traditional definition is not widely accepted today by others. The proposed new definition is this the tourist is one who that organizations and companies willing to effect on his/her behavior by values that they create (Zivariar et al, 2012).

In other words, satisfaction, is emotional reaction of tourist who is obtained by interaction with a supplier organization or consumer of the product. Satisfaction can be achieved of different understanding between the expectations of tourist and the actual performance of the product or organization. Previous experience of customer of consuming services as well as his/her experience of interacting with residential centers, plays an important role in shaping his/her expectations. Also, tourists' satisfaction, affects their future reactions to the organization, including preparation and passion for reuse, the desire to recommendation of organization others and willingness to pay the price of the product without bargaining or trying to find suppliers that supply similar product in lower prices.

## Confidence in the tourism industry

Confidence, is as old as human history and initiate social interactions between humans and almost all aspects of human life were affected by it so that today by strength of concepts such as long-range communications with business partners, tourists and competitors, the information society and an economy based on services, this concept has been had double importance. Around deals and social relations, confidence such as lubricant, makes wheels of social action to move easier and facilitated the exchanges in the social space and it is considered as an effective factor in reducing the cost of negotiations and exchanges. Confidence is one of the important structures in the analysis of trade relations and naturally users accept the systems that have high reliability and confidence in today's business environment. As

it can be deduced of the marketing literature, deeper and more conceptual confidence causes to create more confidence in the relationship and is a cause of creating dependence and increase interactions between the parties so that in the event of access to the confidence at the individual and organizational levels and continuous improvement it may have effective intervention in tendency to use the product or on all deals of information and cash (Barnz, 2007)

## Re-intend health tourism

Today, organizations have believed that just by repeat purchase of tourists they are able to achieve long-term profit. Thus, they always try to take a step forward in facilitating the process of repurchase of tourists. Repurchase intention, is repeat they are buying by tourist of specific brand after using the same brand (Nox and Walker, 2001) or belief of tourist is to continue to purchase of a company in the future. Repurchase intention is a kind of behavior based on cognition and emotions (Schofer and Dyamtopols, 2008) and as most researchers have stated intention to repurchase is behavioral and loyalty indicator of tourists (Ha et al, 2010, Rayroen et al., 2009) and essentially it depends on the number of purchase of tourist (Ist et al., 2011). Repurchase intention is a factor that affects the future association of tourist and organization, company profitability and their success (Nikbin et al., 2001).

In general, there are two main views in relation to the plan to repurchase: accidental view and definitive view to repurchase. In accidental view, repurchase occurs randomly while in definitive repurchase, buy is happened based on previous experiences satisfaction and in better words based on brand loyalty ( Nox and Walker, 2001).

## Theoretical framework

Today, a close relationship has been created between health and medical industry with tourism that many of the leading countries in this field have used of this relationship in best way and they have provided a variety of services according to the expectations of tourists in this area. tourism means medical tourism has higher growth in the world between sectors and different categories in this field (Bokman and Bokman, 2007: Hyung et al., 2011: Han and Huang, 2013). Gain a larger market in this competitive environment requires creating clinics with high level capability and medical and non-treatment provided quality of service.

In other words, to succeed this field besides the high quality of care and treatment in the clinics, higher equipment and appropriate scientific knowledge, and relevant cases, planners should plan other infrastructures like hotels and suitable residential centers, relaxing infrastructures and other cases to attract tourists (Bernsten, 2011: Hami and D Miko 2007: Sheehan - Smith, 2006). So, exist and increase the quality of services both in clinics and in other areas related to the field of medical tourism can be the ground for tourist satisfaction. Satisfaction is as a sense of satisfaction among tourists who tourist can feel from receiving the services (Rio Han, 2006: Taylor and Baker, 1994).

Many planners and policy makers in the field of health tourism, especially the treatment seek to provide the ground of satisfaction of tourists to make more possible intention of re-use of medical services and attract others by creating optimal experience, because satisfaction is an effective factor in increase confidence making among tourists. Confidence in service industries, especially medical and health tourism is very important. Because discussion of treatment is a sensitive issue among tourists and tourists try to use facilities and services of other brands in the field of tourism. price of offered services is one of factors that always has an effective role in the mind of tourist and is a basis to compare. From the perspective of tourist, when services can be compared with other providing places that a perception of providing services can be achieved that can be effective on the satisfaction, intention to use the services. Therefore, increasing repeat purchase processes or the use of tourism services in the field of treatment can increase the clinical profit abilities and consequently the implementation of development projects. The investigator intends to present the conceptual model derived from the Han and Huang (2015) in the following.

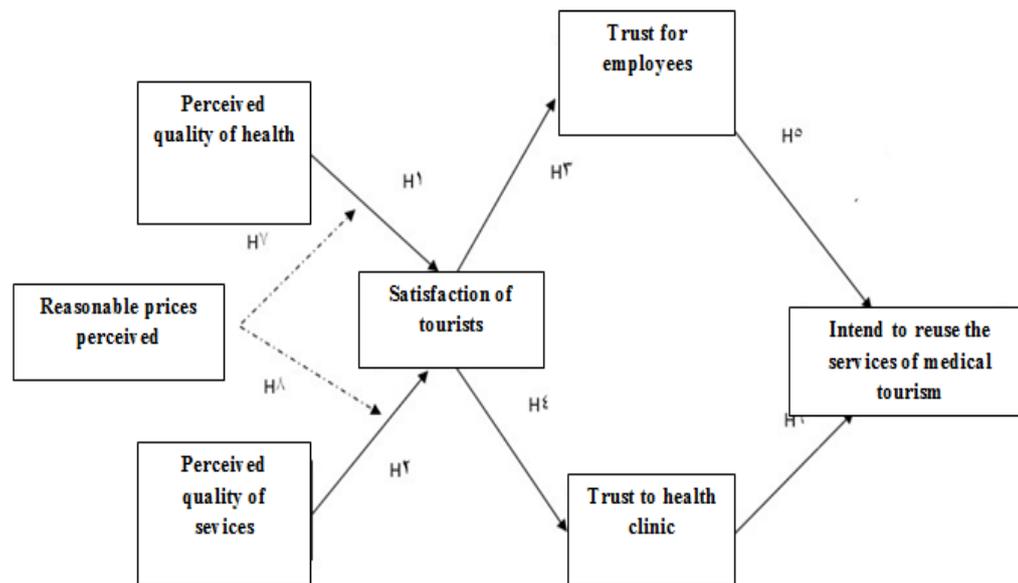


Figure 1: Research conceptual model(Han, Hoan, 2015)

## Methodology

This study is considered in terms of orientation among the assessment researches and in terms of research strategy is a survey research which is intended to test hypotheses and questionnaire tools are used for this purpose (Danaeefard et al., 2004).

In this study, structural equation model with partial least squares approach has been used to test the hypotheses that SPSS and Smart PLS software have been used for this purpose. This study has been conducted among patients and medical tourists of Ebn-e Sina hospital. Sample has been considered equal 150 using Cochran formula given the statistical population size that is 245 persons in this study. Simple random sampling is used in this study. Standard questionnaire that is confirmed in terms of validity by experts of marketing and tourism to collect the required data. The structure of the questionnaire and its resources have been provided to get familiar.

Table 1: Structure of questionnaire

Resources of the structure of questionnaire	The number of questions	variable
Han et al.( 2015)	Question No. 1-5 (5 questions)	Perceived treatment quality
Pantooakiz and Boranta, (2011)	Question No. 6-10 (5 questions)	Perceived quality
Pantooakiz and Boranta, (2011)	Question No. 11-15 (5 questions)	Customer satisfaction
Chao et al( 2012)	Question No. 16-19 (4 questions)	Confidence in employees
Han et al.( 2015 )	Question No. 20-23 (4 questions)	Confidence in health care clinic
Han et al.( 2015 )	Question No. 24-26 (3 questions)	Expected price
Chao et al(2012 )	Question No. 27-34 (8 questions)	Re-use intention

## Research hypotheses

Medical perceived quality influences the satisfaction of tourists.

Services provided perceived quality influences the tourists satisfaction.

Satisfaction of tourists influences on confidence in employees.

Satisfaction of tourists influences the confidence in medical clinics.

Confidence in employees influences plan to reuse services of medical clinics.

Confidence in medical clinics influences the intention to re-use medical clinics service.

The perceived expected price has a mediating role in influencing the medical perceived quality on satisfaction of tourists.

The perceived expected price has a mediating role in influencing perceived quality of services offered on satisfaction of tourists.

## Analysis of data

### Descriptive statistics

The first review was about the demographic features in relation to the gender of the participants in this study of total 150 participants, 102 people (68%) have been women, 48 persons have been male (32%) in this study that this issue had been confirmed the higher participation of men in this study. The second studied issue had been the age of, the participants. In this study, the highest participation rate had been related to ages between 35-45 years with participation rate of 50.6 percent. On the other hand, then the participation rate in age more than 45 years had been 37.4 percent and ages between 25 and 35 years had been with the participation of 12 percent. Third studied feature in this research, was the education level of the participants. Among the tourists of health field in Ebn-e Sina hospital, 89 people have been with a bachelor's degree (59.3%), 61 people with master's degree (41.7%). The fourth studied feature had been marital status of participants in this study. In this study, a total of 150 tourists of health field, were married, 54% of the sample size have accounted for them while 42% of the sample size belongs to singles.

### Inferential statistics

Structural equation model with partial least squares approach has been used to test the research hypothesis. But before the interpretation the model, it must first prove the fit of the model in three sections of measurement model, structural model and the overall model to trust the results of it and the reliability and validity of the model must be proved. Therefore, indexes of Cronbach alpha, combined reliability and convergent validity have been used in the measurement section model that have been provided in Table 2.

Table 2: Reliability and validity of the measurement model

convergent validity	Combined reliability	Cronbach's alpha	variables
0.691	0.917	0.894	Perceived quality of treatment
0.739	0.933	0.925	Perceived quality of services
0.632	0.893	0.845	Tourist satisfaction
0.622	0.867	0.795	Confidence in employees
0.842	0.955	0.937	Confidence in health care clinic
0.602	0.817	0.668	Reasonable perceived price
0.552	0.881	0.845	Intention to re-use

After confirming the appropriateness of the measurement model should refer to the reliability of the structural model that R2 and Q2 indexes have been used for this purpose and has been shown in Table 3:

Table 3: Fit the structural model

variable	$Q^2 > 0.15$	$R^2 > 0.19$
Intention to re-use	0.481	0.457

And finally, the overall fit of the model has been pointed out that GOF index is used in models based on partial least squares that should be more than 0.3, This index has been calculated according to the formula for the present model as follows and shows that the overall model is appropriate:

$$GOF = \sqrt{\text{Communalities}} \times R^2 = .0459$$

now after confirming the model fit at three levels of equation model, the structure that has been created by the software Smart PLS was presented in following and the hypothesis of study is discussed.

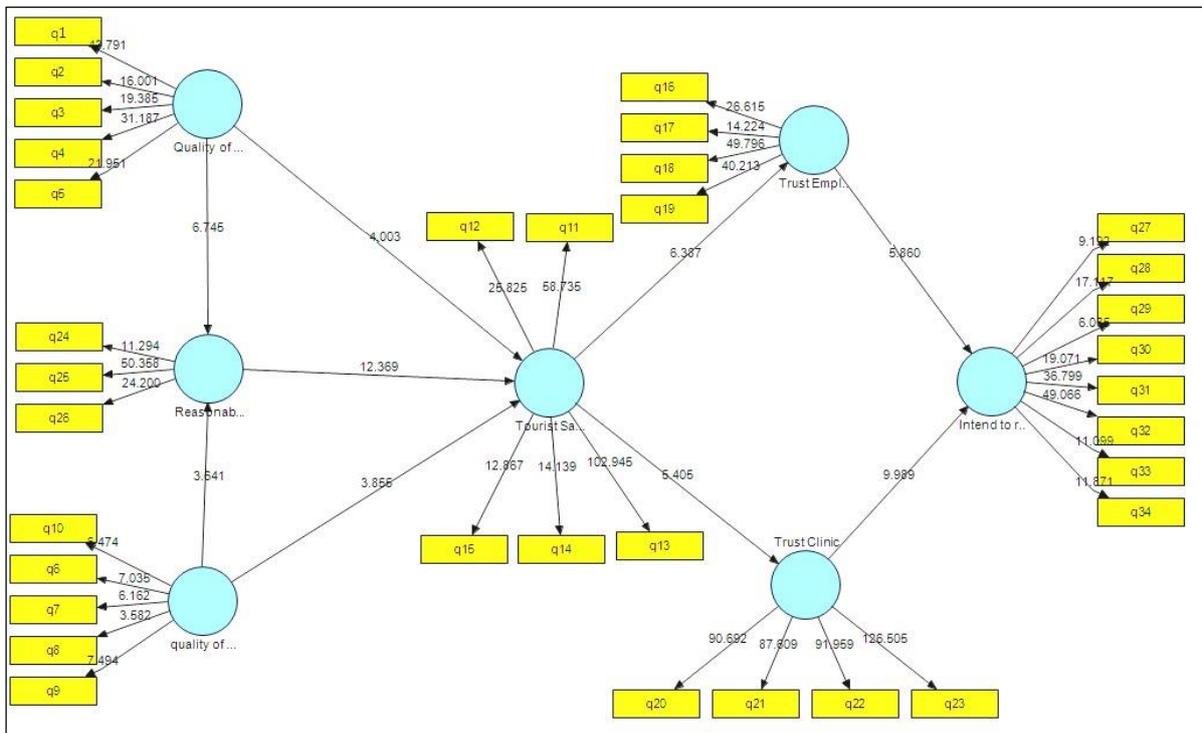


Figure 2: Partial Least Squares model in significant mode (Source data for this study)

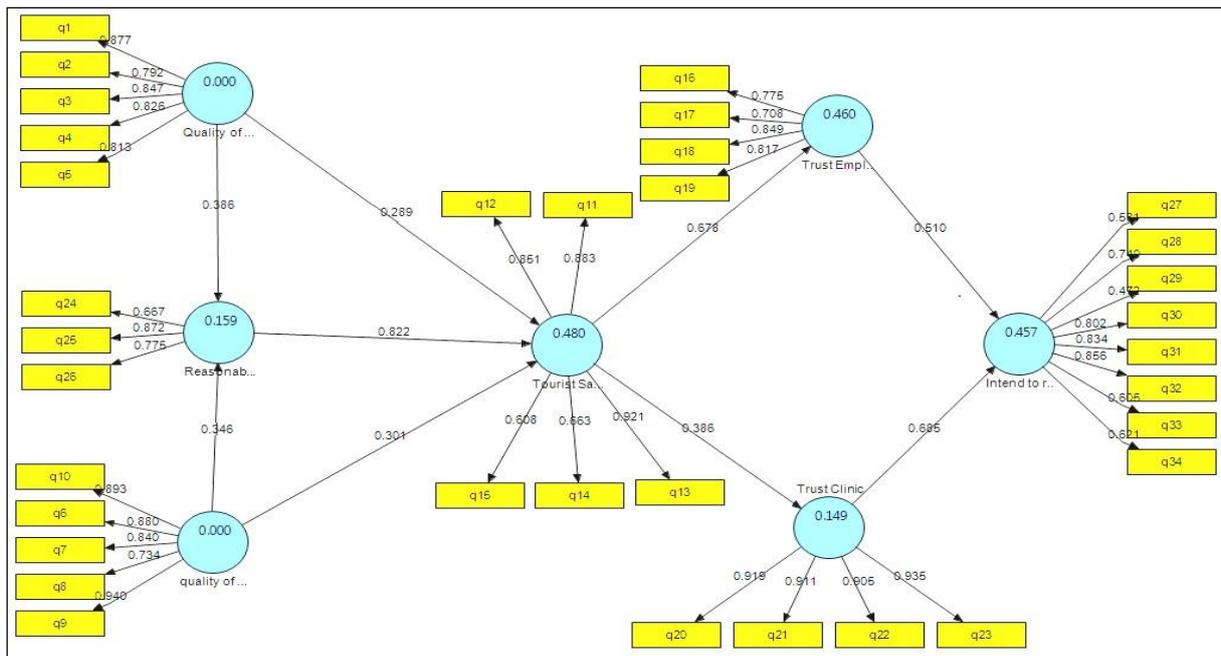


Figure 3: Partial Least Squares model in standard mode (Source data for this study)

As can be seen in the figures 2 and 3 in a meaningful coefficient state, the amount of reported statistic is  $TioLlo$  that if this statistic is higher than 1.96 reflects that the assumption is confirmed and in partial least squares model, numbers reported reflect the path coefficient that reflects the variables influence on each other. Research has investigated the secondary hypotheses in the form of a table in following.

Table 4: Test research hypotheses

result	T statistics	Path coefficient B Path coefficient	variable		hypothesis
			dependent	Independent	
confirmed	4.003	0.289	Tourist satisfaction	Perceived quality of services	1
confirmed	3.856	0.301	Tourist satisfaction	Perceived quality of services	2
confirmed	6.387	0.676	Confidence in employees	Tourist satisfaction	3
confirmed	5.405	0.386	Confidence in Clinic	Tourist satisfaction	4
confirmed	5.860	0.510	Intention to reuse	Confidence of employees	5
confirmed	9.989	0.685	Intention to reuse	Confidence in Clinic	6
confirmed	-	Direct 0.289 indirect 0.822	Perceived Medical Quality	Expected perceived price	7
rejected	-	Direct 0.301 indirect 0.384	Tourist satisfaction	Expected perceived price	8

## Discussion and Conclusion

Without a doubt, tourism is one of the new issues in the field of health and well-being to strengthening the tourism industry. Tourists have an interest in use of hospital services with high quality in this area to improve health care and create a positive experience surrounding course of treatment. Tourists before intention to choose the considered hospital that here is Ebn-e Sina Hospital as an example in Tehran have a public perception about healthcare and non-healthcare services.

Tourists undoubtedly evaluated perceived services both in treatment and other services areas such as residence and how to deal office employees with them at time of receiving services.

If the perceived services, are matched with expectation and tourist has no gap between perceived services and expectations, in this position will have a feeling of good quality. There is always this belief that the quality of services what effects can have on enhancing satisfaction. Quality services provides the ground to improve satisfaction of tourist through increases the perceived value of therapy brands. Never can have this perception that tourists of health field have a negative perception of health quality of service and on the other hand, have the consent of this subject.

Actions must be taken by Ebn-e Sina hospital administrators to improve the quality of services. To improve focus, managers can improve the quality of services in various fields and constantly evaluate. For example, the quality of physical service is one example that in the eyes of tourists of health and treatment field is very important. Full modern equipment can be one of the measures that must be observed in this area by hospital decision-makers.

If the patient feels good in this sector, it can be expected to be more satisfied with the services in Ebn-e Sina hospital. On the other hand, other important part is the technical knowledge of member's treatment group in Ebn-e Sina hospital. When people used to be in the highest degree of the Board of specialists, or human error is very low in Ebn-e Sina hospital, no doubt high quality services will be understood by tourists and companions in the treatment field. Several other strategies for managers in this sector are raised to enhance the quality of services.

companions are important part of health and care tourism, if the hospital provides stress-free environment for tourists this good feeling will also be transferred to the patient that this will be ground higher Satisfaction of tourists in this area.

Many famous hospitals have solved the issue of staying the companions of medical tourists in the hospital and have prepared a healthy environment with good services for tourists in this area. On the other hand, the quality of interactive services, is including issues that is effective on the perception by tourists of treatment. Therefore, it is expected that the necessary trainings are created to strengthen and improve the interaction between human resource active in Ebn-e Sina hospital and medical tourism and companions that no doubt that this will be effective in strengthening and improving the satisfaction of tourists.

to the obtained results in this section.

- It is suggested to Ebn-e Sina hospital managers get loans necessary to raise the quality of equipment and facilities to achieve European standards to strengthen the quality of services for the satisfaction of tourists; It

is suggested in this section that managers visit famous hospitals in health tourism and use from obtained experiences in this field to improve the quality of services at the Ebn-e Sina hospital.

- It is suggested to Ebn-e Sina hospital managers to provide needed training a course in the field of interaction with labor and use educated translators in the international tourist's sector to strengthen the quality of service for the satisfaction of tourists.
- it is suggested to Ebn-e Sina hospital managers use benefit from patient knowledge management systems to strengthen the quality of tourism services to gain satisfaction of tourist. These systems provide the ability to gain expert knowledge about the needs of tourists for the improvement the service offering and provide services in accordance with the needs of tourists. Issue of satisfaction of tourists, is a favorite subject of many managers of services brands in various field of tourism including medical tourism.
- satisfied tourists, have a higher tendency to continue their service in the health sector. The reason of continue to get services of brand that are satisfied with it is rooted in the confidence of tourists to the services provided by hospitals, clinics and medical employees that provide medical tourism services.
- Confidence reflects a sense with ensuring integrity in the behavior and actions that are carried by the other side. When tourists have a sense of satisfaction and pleasure and satisfaction from services of medical tourism brand and will have a sense of confidence in the performed behaviors and actions by human resources and hospital employees
- It is recommended that hospital managers use this spirit of reliability to efficiently for tourism managers, so that they can take the next steps in creating a competitive advantage. The most important part of confidence among employees, is working knowledge of medical personnel. When human resources personnel have adequate knowledge, by given satisfactory services provide grounds for satisfaction of tourists. No doubt this consent will be for working knowledge of personnel working in health care clinics. This satisfaction, will be the ground for confidence of tourists and relatives to decisions of medical personnel and employees during treatment. On the other hand, this satisfaction will create the ground for changing attitude towards the brand of clinic and increase the confidence to clinic. So, satisfaction of tourist in addition to provide the ground for desirable feedback to increase repeat the process using hospital services among tourists and will create the atmosphere of confidence among other commercial competitors, and this issue will be one of the most dramatic and applied effects in closer relations between tourists and hospital including Ebn-e Sina that will provide this field for other positive outcomes. The researcher plans to present his/her practical suggestions in this field:
- it is recommended to managers of Ebn-e Sina hospital, try to strengthen the positive behaviors with feedback providing, extra role behaviors in the organization that are performed by employees against medical tourisms will create the field for the increase of satisfaction of tourists on the one hand and on the other hand, confidence in employees.
- it is recommended to managers of Ebn-e Sina hospital, try to give medical services during treatment in an environment without stress and relaxing so that the sense of the importance of patient during convalescence can be seen for tourists clearly. The groundwork for medical tourism satisfaction and increasing confidence in services provided by health clinics will be provided in this way.
- it is recommended to managers of Ebn-e Sina hospital, In the case of need something out of the commitments made by the clinics for medical tourists These measures can increase satisfaction of tourists in addition to improve grounds for confidence to clinic.

No doubt the intention to re-use is of important goals in fields of services brands especially tourism in health and care field. Managers and organizations of marketing section have believed that just by repeat purchase of tourists of health and care field the hospital like Ebn-e Sina is able to achieve long-term profit. So, they always try to take a step forward in facilitating the process of repurchase of tourists. The intention of re-use, is repeat the purchase a specific brand by tourist after using the same brand.

No doubt that this important thing will not be achieved easily and as most researchers have stated intention to repurchase is behavioral and loyalty indicator of tourists and essentially it depends on the number of purchase of tourist. Repurchase intention is a factor that affects the future association of tourist and organization, company profitability and their success. In general, there are two main views in relation to the plan to repurchase: accidental view and definitive view to repurchase. In accidental view, repurchase occurs randomly while in definitive repurchase, buy is happened based on previous experiences satisfaction and in better words based on brand loyalty. In this study, the issue of confidence in employees and clinic had been famous variable that is the field to increase the intention to use of famous health care services by tourists.

Confidence is an internal positive sense that cannot be created easily, but it will take and it is created in the case that a favorable assessment of all the expectations and cases of the services brands between tourists and service brand,

this confidence is no doubt effective in behavioral patterns tourists. Tourists tend to receive their own services from a center, which they have confidence in it and will have no tend to choose the brand active in the field of medical tourism.

Because this area is associated with an individual's life, without a doubt, confidence in services, health clinic and employees is very effective to repeat the purchase process. So, building confidence can play competitive leverage role that is so effective for Ebn-e Sina hospital to attract tourists to this area again. So, it is recommended to the managers of the hospital for long-term profitability gain and effective factor in the market of medical tourism, try to attract the confidence of tourists of this domain and use this tool to strengthen and improve tourist attraction as well as the profitability. The researcher presents in following his/her practical suggestions.

- It is recommended to Ebn-e Sina hospital managers, try to keep technical knowledge of their labor in very desirable level to improve the field of increasing Confidence among tourists of treatment field
- It is recommended to Ebn-e Sina hospital managers, providing the treatment process is set through a process planned by individual comments of tourists as well as tourists and hospitals act in a perfectly designed plan. This issue will be effective no doubt to improve confidence in health clinics (. Ebn-e Sina)
- It is recommended to Ebn-e Sina hospital managers, commit to their obligations fully and use their abilities fully in performing them.
- One of the most important and practical issues that can be effective in choosing a tourist destination is the price of medical services, etc. In Ebn-e Sina hospital. If the price is in proportion to the quality of service provided or primary treatment can have very strong role in the recovery and the effect on tourist satisfaction.

No doubt if there is not fit between the price perceived by tourists and received services, no doubt that tourists will not be satisfied by their selection of their choice, and do not understand it as rational action. So Ebn-e Sina hospital managers can be effective to improve the effectiveness of quality health services to the satisfaction of tourists by adopt competitive strategies.

For this reason, it is recommended that managers investigate their value and supply chain carefully and remove the activities that can be done to reduce costs and improve quality by sectors outside the organization of their series of measures to have the conditions for strengthening and improving price of services and quality of service.

It is suggested to Ebn-e Sina hospital managers use leadership strategy to improve satisfaction of tourists and create ground for improvement fixed cost of services through re-engineering activities.

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