

The Relationship between Incentives and Opportunities of Investment (An Evidence from of the Based on Economic Psychological in Iran)

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Abstract

The aims of this study was the survey of the relationship between investment incentives and opportunities to make a profit of the stock price based on economic psychological factors and advances behavioral finance in the capital market of Iran. The population in this study, including manufacturing and investment companies accepted in the Stock Exchange for the period of 2003 to 2013. The present study method according to the purpose has been application and also based on implementation method has been descriptive and correlation. As the population of the study was open-ended, to determine the sample size in this study is used of a random sample, according to Kerjsi and Morgan table were selected 384 people in level 95%. In this study, standard questionnaires investment incentives and standard questionnaire opportunities to profit share price is used based on economic psychological factors and new behavioral finance. For the validity used of the analysis of experts and get their opinions about the questionnaire, those experts have confirmed the questionnaire in terms of the validity. And reliability, each of the questionnaires is used of Cronbach's alpha. The reliability is in order for the questionnaire of investment incentives (QII), equal to (0.878), and the reliability of the questionnaire opportunities profit of stock price (QOPSP), equal to (0.955). Also, given that hypothesis studied the effect of independent variables on the dependent variable, the result is used of a test, Pearson correlation and regression analysis ordinary last square (OLS). For data analysis using descriptive and inferential statistical methods and data analysis was used respectively statistical software packages include: (Excel, and SPSS). The Results of this study indicate that there are significant positive relationship between investment incentives and opportunities for profit stock price, according to new behavioral finance economic and psychological variables is among share holders the Tehran Stock Exchange and given the positive and significant coefficient of the regression line equation was estimated (ai,t), is confirmed the main hypothesis of research. Implies that investment incentives, opportunities, profits stock price based on economics psychological factors and new behavioral finance at the Tehran Stock Exchange are detected earlier, than other behavioral variables affecting investment in the Tehran stock market. The results of this study can be applied to all individuals and active investor in Tehran Stock Exchange.

Keywords: Investment incentives, economic psychological and new behavioral finance

1-Introduction

Developing countries usually face lack of capital which is the most important production resource. Other producing resources in these countries may be abundant but due

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to lack of optimum usage, they face lower level of efficiency. So it will be substantial for such countries to allocate their limited capital in a way that their level of employing other producing factors and efficiency can increase, secondly this way producing resources will be applied in line with producing products which have relatively district and national advantages (Azizi, J. M, Zibaei. 2001, pp.71-96). In the next phase, goods produced will have a relative advantage in the business field and by gaining foreign exchange, more investing will be done and as a result business will act as a growth motor (Achaean, 2006).

We should notice that there are various markets and factors for providing level of capital needed for institutions and producing and industrial, trading and cooperative companies where their demand function is for investing and the function of level of investing incentives; investing as a key macro economy factor results from demands of economic institutions as a producer factor (Pajoian and Khosravy, 2012, pp.1-17) Of course we have to notice that in economy these capital resources are gained in various markets which depend on investing incentives and investing size. But generally, investing incentives are specified according to psychological variables; there is a specialized knowledge in financial texts called "financial behavior" which can be useful in identifying incentives of stockholders who are active in capital market and even other markets such as financial market, non-financial investing markets and other markets which are available in economy.

Many internal and external factors can influence on buying process of people. Some external factors are economic, political and cultural factors. But what was analyzed in this article for investigating the relation between investing incentives and opportunities to gain stock price profit based on economic and financial and psychological variables in capital market of Iran, included a series of internal factors such as biorhythmic, power of natural analysis, comparing image of buyer and real image of company, level of risk and level of self-Confidence level. We should note that investing incentives is in form of a case study between stockholders of manufactures and investing firms which were accepted in stock exchange of Tehran. Measuring factors above can make us recognize buying and selling behavior and behavior of maintaining stock bought in portfolio as accurately as possible. As a result, opportunities of gaining stock price profit and finally growth of stock market in Iran will be provided (Dehghan, 2008, pp.60-64). Basis of them is modern behavior economic and financial psychological variables.

Therefore, according to cases above, the main aim of the current research has been studying the relation between capital incentives and opportunities of gaining stock price profit based on modern behavior economic and financial psychological variables in Iran's capital market. Statistical society of the current research includes manufacture and investing firms which were accepted in stock exchange during 2001 to 2013.

2-Theoretical basis and the research background

2-1-Financial and investing markets:

Investing includes changing fund to several types of asset which is kept for a certain period in the future. The word "investor" can include a wide range of activities. This word can contain investing in saving paper, bonds, normal stock or joint investing funds. Those who invest professionally use other assets such as certificate of buying papers, authority of buying and selling stock paper, and bonds that can be changed to clear assets like jewelry and valuable things for investing. Investing can be various levels of risk and every individual can make investing decision-making according to their condition (Tehrani and Nourbakhsh, 2014, p.10). Providing facilities in financial provision of investing has been the reason behind establishing financial markets as a part of producing market agent. Financial market is a market where financial assets are exchanged there. Although presence of financial market is

not a necessary condition for establishing and exchanging financial asset, in most economies it occurs in financial market. Based on comments of Fabozzi, Modigliani and Ferri (1994) transferring fund and risk of return in financial assets is of the most important functions in financial markets. Price of every financial asset is equal to its future cash flow, although this cash flow may not be totally specified (Abonoury, Motmani, 2007, pp.247-261).

Some believe that main objective of corporation should be maximizing social welfare. Although this objective is so great, it is not possible practically. So some believe that their aims should be maximizing stock price (Brock, C, 2008). On the other hand, stock price is one of the items that people are much interested in predicting, since stock price is liked by internal users (like internal managers and administrative managers). For example, the aim of investors in investing is to gain logical interest (Fromlet, H. 2001). Generally, stock return is formed of two sections. 1).Changes in stock price and 2).Stock profit received(Hammoudeh, S, Y Yuan, M Mc Aleer, M.A. Thompson, 2009). Therefore, one of the decision-making criteria regarding buying and selling stock is stock price. So in order to present stock price prediction model, effective factors should be specified. (Rahgozar, Reza, 2005).

2-2-Opportunities for gaining stock price profit based on modern behavioral economic and financial variables in the capital market:

Behavioral financial point of view (doctrine) which is formed by combining psychological and financial factors believes that psychology plays a role in financial decision-making. Since cognitive errors influence on investing comments (views), researchers were forced to investigate conduct of investors in financial markets and their reaction in various condition(Eslami Bidgoli, Kordlouey, pp.19-36).

Generally, empirical evidences gained in capital markets demonstrate the truth that decision-making process of investors and their conduct have been complex where presenting a single pattern for predicting their conduct in market will not be possible easily. In many cases, investors' conduct in stock exchange is logical and identifying behavioral stimulus is not possible accurately (Dehghan, 2008, pp.60-64).

2-3-Variables of internal factors:

Generally we can argue that internal factors which are effective on people's intention in investing in stock exchange are as follows:

1.Biorhythmic factors; 2.Power of inherent analysis; 3.Gaining prestige for being an stockholder; 4.Comparing image of buyer and real image of firm; 5.Level of risk ;6.Level of self-Self-Confidence level (Dehghan, 2008, pp.60-64).

2.4-Variable of external factors:

Abdolmajeed Dehghan (2008) studies psychological factors which are effective on investing in stock exchange. Two factors can be classified as external factors which can be sorted out into economic, political and cultural factors. But his study focused on analysis of inner factors mostly which included biorhythmic factors, power of inherent analysis, prestige of being stock holder, comparing mental image of buyer and real image of firm, level of risk and level of self-Self-Confidence level. Based on his comments, such factors can make us receive more information regarding conduct of investors, as a result growth and improvement of stock exchange and the economy will be guaranteed (Dehghan, 2008, pp.60-64). It is worth to mention that in the current research we only deal with inner factors.

2-5-The research background

Generally secondary subjects in their financial field are studies related to identifying process of decision-making of investors and designing and explaining their decision-making

models in the capital market in condition of lack of trust (Dehghan, 2008, pp.60-64). The first studies on investors' conduct go back to 1970.

Cohn et al (1975) presented empirical evidences on reducing risk-phobia of people during wealth increase in valid stock exchanges of the world (Cohn et al, 1975, pp.605-620). Also Riley and Chow (1992) found out that there is a meaningful relation between risk aversion of individual and age, income, wealth and education. With the income raise, people's wealth and education and risk will increase. But there is a reverse relation between people's age and risk (Riley, W. B and Chow, K.V, 1992s, pp.32-27). The studies conducted by Le Baron, et al (1992) approved that risk level of people is a function of their inner factors and has no relation with external consideration of market (Le Baron, D et al, 1992s, pp.19-24). Findings of Lewellen et al demonstrated that there exists a meaningful relation between people's investing, age, sex and education. (Lewellen et al, 1997s, pp.296-333). Barnewells (1987) realized that investors' conduct can be predicted in the market based on their life style, risk aversion level and job. (Barnewells, M, M, 1987). Epstein et al deal with effect of social information on real individual's conduct. His findings indicate that annual financial reports of companies have no effect on investors' decisions and they are out of value (Epstein et al, 1994s, pp.94-104).

Conducting a series of survey studies, Merilkas et al sought to identify factors which are effective on real investors' conduct in capital market of Greece. Their research results show that people's decision-making criterion in buying shares is a mixture of economic and psychosocial criteria. They found that investors' decision-making is not always a logical and organized approach (Merilkas et al, 2003).

One of the latest researches done on identifying factors which are effective on investors' conduct is a research which was conducted by Hasan al tamimi, (2006), in Emirate's capital market. He sorted out variables which are effective on investors' conduct into five groups. These factors include financial and accounting data, neural data, and biased advice, comparing their image with firm and personal needs of investor. The research findings show that variables associated with the theory of maximizing desirability are the most important variables which are influential on buying intention of shares in market. The variables associated include profiting growth, cash profit paid to stockholders and profit of each share predicted (Hasan al Tamimi, 2006, pp.37-48).

Abdolmajeed Dehghan (2008) deal with inner factors which are effective on investing in stock exchange. Generally, his study was only about identifying psychological factors which are effective on people's intention in investing in stock exchange. His results in the research based on his investigation demonstrated that current situation of capital markets of Iran and the whole world with analyzing psychological effective factors is very substantial. This which is called "financial behavior" has been active in financial markets for several decades. Financial behavior deals with investors' conduct and tries to identify and comprehend their reaction accurately. Also he expressed that inner and external factors can influence on process of buying of people. Some external factors are economic, political and cultural factors. But his studies were on analysis of inner factors such as biorhythmic factors, power of inherent analysis, gaining prestige of being stockholder, comparing mental image of buyer and real image of firm, level of risk and self-Self-Confidence level. Measuring such factors can make us know conduct of investors more accurately and as a result growth of stock exchange on the country will be provided. (Dehghan, 2008, pp.60-64).

In a research called financial behavior, Gholamreza Eslami Bidgoli and Hamid Reza Koudkoei (2001) dealt with step of passing from financial standard to new finance. They investigated what we call financial and economic markets as basis of the research. Then their difficulties and lack of comparing findings to truth were dealt with. They expressed that what influences reality from itself and influences on financial decisions is within framework of a

Neuro- finance school which is recognized as financial behavior. They also expressed that presence of some bias had helped us find out financial behavior. Since this school showed only signals and signs and did not express causes, researchers found another school where reason of behavioral bias originated. This new school which originates from neural system of men and can influence on financial and economic decisions is called Nero finance School. (Eslami Bidgoli, Kordloei, 2001, pp.19-36)

3-Research Methodology

3-1-The research method:

The research method in this research is a set of activities which are conducted in order to gain a certain goal and research includes a set of organized activities whose aim is to discover truth or gain knowledge (Khaki, 2005, p:211). Therefore, the current research method is based on a descriptive-analytical research which investigates the relation between investing incentives and opportunities of gaining stock price profit based on modern behavioral and economical variables in capital market of Iran.

3-2-Statistical society of the research:

In this research statistical society include manufacture and investing firms which were accepted in stock exchange during 2001-2013. The current methodology is applied and its method of performing is descriptive and correlative.

3-3-Statistical samples of the research:

Since the statistical society of the research has been unlimited, to determine the same size simple random sampling was used based on Krejcie, Robert V. and Morgan, Daryle W., (1970), tables in level of 95 % where 384 people were chosen.

3-4-Tools of gathering information:

In this research standard questionnaire of investing incentives and standard questionnaire of opportunities of gaining stock price profit were used based on economic and financial variables in modern behavior. The questionnaire includes certain and related questions which were set up based on Likert Scale. So to specify reliability, expert analysis method was used, where experts approve the questionnaire from aspect of reliability. Also to determine validity of each questionnaire, Cronbach Alpha was applied. validity of questionnaires of investing incentives was 0.878 and for questionnaire of gaining stock price profit it was 0.955.

3-5-The method of analyzing data:

Since hypotheses investigate effect of independent variable on dependent variable, to analyze data gathered Pearson Coefficient tests and ordinary last square (OLS) were applied through criterion of investing incentives and questionnaire of chances of gaining stock price profit. To analyze the research data, descriptive and inferential statistical methods were applied and during analyzing data software's such as SPSS and Excel were used.

3-6-Conceptual model of the research:

After theoretical considerations and the researchers conducted, conceptual model of the current research was shown in figure No (1). In the model above, opportunities of gaining stock price profit or Opportunities Profit of Stock Price (OPSP) and modern behavioral financial and economical variables were considered as independent variables and investing incentives were considered as dependent variables.

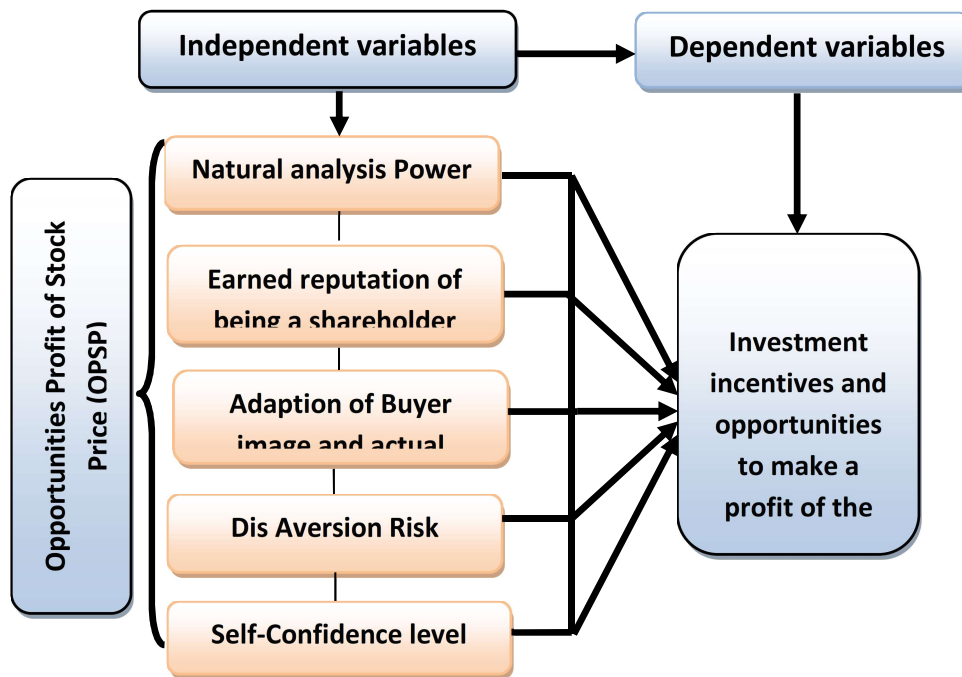


Figure.1 Conceptual model of the research

4-Data analysis

4-1-Data description:

Here we will present statistical features of time series of indices return and their shares. Such features include elongation, skewness, average, number of observation and so on. Therefore, these results were presented briefly in table No. (1).

Table 1: Test of describing features of statistical sample of the research during 2002 to 2011.

Descriptive Statistics							
Variable	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
Investment incentives....Y _{it}	384	13.80	42.00	30.1733	6.02166	-.401	.266
Natural analysis Power...X _{it}	384	13.80	23.00	19.9541	1.90897	-.822	1.120
Earned reputation of being a shareholder...X _{it}	384	15.43	21.00	19.1610	1.29704	-1.064	.485
Adaption of Buyer image and actual image...X _{it}	384	13.13	18.33	15.7174	1.25729	-.542	-.783
Dis -Aversion Risk...X _{it}	384	15.25	19.63	16.6418	.97193	.909	.292
Self-Confidence level...X _{it}	384	14.00	40.00	17.1017	1.75345	7.430	84.325
Valid N (list wise)	384						

Source: the research findings (calculated by software of SPSS and Excel).

4-2-Kolmogorov-Smirnov tests:

In this part, we use tests mentioned to test the hypothesis of data distribution's being normal in statistical society of the research. To investigate their being normal, the tests mentioned above were used whose results can be observed in table no. (4).

Table 2- One-Sample Kolmogorov-Smirnov Test

One-Sample Kolmogorov-Smirnov Test	
	Investment incentives....Y _{it}
N	384
Kolmogorov-Smirnov Z	2.484
Asymp. Sig. (2-tailed)	.784
a. Test distribution is Normal. b. Calculated from data.	

Source: the research findings (calculated by SPSS and Excel).

Table 2-2-One-Sample Kolmogorov-Smirnov Test for Dependent variables

One-Sample Kolmogorov-Smirnov Test					
	Natural analysis Power...X _{it}	Earned reputation of being a shareholder...X _{it}	Adaption of Buyer image and actual image...X _{it}	Dis -Aversion Risk...X _{it}	Self-Confidence level...X _{it}
N	384	384	384	384	384
Kolmogorov-Smirnov Z	1.373	2.808	2.143	2.286	4.268
Asymp. Sig. (2-tailed)	.646	.793	.681	.875	.964
a. Test distribution is Normal. b. Calculated from data.					

Source: the research findings (calculated by SPSS and Excel).

As you can observed in table No.(2), the tests mentioned earlier are for investigating normal state of data distribution in statistical society. And the research error level for each variable is 5 percent more than the value of research error. Therefore, data distribution in the statistical society was normal and as a result parametric statistic will be used for analyzing data.

4-3-The research hypothesis test:

The research hypothesis:

There exists a meaningful relation between investing incentives and opportunities of gaining stock price profit.

Table 3-Results gained out of regression test related to the research hypothesis

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.809 ^a	.655	.650	3.56237
a. Predictors: (Constant), Self-Confidence level...X _{it} , Dis -Aversion Risk...X _{it} , Natural analysis Power...X _{it} , Adaption of Buyer image and actual image...X _{it} , Earned reputation of being a shareholder...X _{it}				

Source: the research findings (calculated by SPSS and Excel).

Table 4- the Coefficients of regression model

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-5.341	7.264		-.735	.003
Investment incentives....Y _{it}	1.300	.140	.412	9.306	.000
Natural analysis Power...X _{it}	1.934	.260	.416	7.430	.000
Earned reputation of being a shareholder...X _{it}	-.996	.171	-.208	-5.814	.000
Adaption of Buyer image and actual image...X _{it}	-.377	.227	-.061	-1.664	.009
Dis -Aversion Risk...X _{it}	-.325	.134	-.095	-2.420	.001
a. Dependent Variable: Investment incentives....Y _{it}					

Source: the research findings (calculated by SPSS and Excel).

Table No. (3), indicates the results gained out of regression test related to the research hypothesis. It indicates that there exists a meaningful relation between investing incentives and opportunities of gaining stock price profit among shareholders. Since determined coefficient gained out of regression test written in table No.(3), showed that variables of opportunities of gaining stock price profit based on psychological variables can explain 80/90 percent of variable of investing incentives.

Table 5: results of test ANOVA, coefficient of comparing mean model coefficient in the sample related to the research hypothesis

ANOVA ^b					
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	9090.732	5	1818.146	143.268	.000 ^a
Residual	4797.006	378	12.690		
Total	13887.738	383			
a. Predictors: (Constant), Self-Confidence level...Xit, Dis -Aversion Risk...Xit, Natural analysis Power...Xit, Adaption of Buyer image and actual image...Xit, Earned reputation of being a shareholder...Xit					
b. Dependent Variable: Investment incentives....Yit					

Source: the research findings (calculated by SPSS and Excel).

Table No. (5), indicates results gained out of the test ANOVA in the sample related to the research hypothesis which indicates results of regression test in level of 95% and error level of %5 was meaningful with meaningful level of (Sig=0.000).

5-Conclusion

In the current research the relation between opportunities of gaining stock price profit and psychosocial financial and economic variables were investigated as independent variable and investing incentives. Therefore, according to the tests conducted on the research variables we can argue that in the level of 95% and also in error level of 5% independent variables had a significant effect on dependent variables. In other words, we can argue that there is a meaningful relation between investing incentives and opportunities of gaining stock price profit and modern behavioral psychological variables.

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