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The relationship between the stock exchanges and changes in market shares in the capital of Iran

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ABSTRACT

The purpose of the study is the investigation of the relationship between trading volume and stock value changes in Iran capital market. Companies listed on Tehran stock exchange during 2011-2015 are regarded as locative and time dimension. Finally, 85 companies are collected by simple random method as sample. This is a kind of descriptive-correlative study. As data nature, this is a kind of quantitative study and as purpose, this is a kind of applied study. Jarque-Bra test is done for normality testing. Regression significance and coefficient significance tests are considered in order to investigate significance in regression pattern. Heterogeneity, F-limer and Husman tests are considered as regression pre-test as well. The results show that there is a significant relationship between trading volume and stock value changes in companies listed on Tehran stock exchange. there is a significant relationship between the number of transaction stock and stock value changes in companies listed on Tehran stock exchange. there is a significant relationship between the number of stock traded and stock value changes in companies listed on Tehran stock exchange.

Keywords: trading volume; stock value changes; Iran capital market

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INTRODUCTION

The relationship between the volume and price in financial markets has attracted considerable attention during the past two decades. Through the survey of emerging and less developed markets, more insights can be gained on this relationship. Due to the differences in the structure and information flow in emerging markets, they are a good option for a further examination on the relationship between the volume and value. In fact, empirical studies on the markets of developed countries often indicate a correlation between turnover and value (price) of shares [1-12]. A question is raised that to what extent the empirical findings from the developed markets of industrialized countries are applicable in emerging markets. Such a study on emerging markets has two advantages. First, it improves our understanding of the relationship between the volume and value, and second, it results in a better understanding of the performance of emerging markets. Since the Tehran Stock Exchange is among the emerging markets, the aim of this study was to investigate the relationship between the volume and share prices change in the market [13-17]. The statement of the problem, the findings of research, objectives, variables, and structure of the research are explained later in this chapter.

Problem statement

One of the main tasks of stock exchange is to direct liquidity surplus available in the country toward production activities and safe investments. Turnover is an important factor for a stock exchange organization as the fees and interests of these organizations are determined based on the tariffs of turnovers and, indeed, all of them benefit from turnover rate more than they profit as a result of an increase or a decrease in the stock price. Since the purchase of shares for individuals and investors is a decision to invest and the goal of any investor is to gain more in the future, one of the important characteristics of any market is the transactions take place therein. Securities market has a fundamental difference with other commodity markets where the bulk of buyers of the goods are consumers who

purchase a product for their needs. Each product has its own elasticity of demand, and the consumers have to purchase and consume their items of interest even with the rising prices [16, 19, 20] .
This study has tried to investigate the relationship between share prices change and stock turnover rate. Therefore, the main research question is to examine the relationship between the stock exchanges and share prices change of firms in the Iranian capital market.

RESEARCH METHODOLOGY

This is an experimental research, which is considered an applied one in terms of objectives and a descriptive-correlation study with respect to data collection. The data are typical of combined ordinary data. The software EVIEWS was used to estimate econometric models, analyze the data, and perform statistical tests.

Hypotheses

1. There is a significant relationship between the turnover rate and share prices change in the Iranian capital market.
2. There is a significant relationship between the number of shares traded daily and share prices change in the Iranian capital market.
3. There is a significant relationship between the number of transactions and share prices change in the Iranian capital market.

The population and statistical sample

The study population consisted of 85 companies listed on the Tehran Stock Exchange for the period from 2011 to 2015.

Regression model

$$\Delta V_{it} = \alpha_0 + \alpha_1 Volume_{it} + \alpha_2 SIZE_{it} + \alpha_3 AGE_{it} + \alpha_4 MTB_{it} + \varepsilon_{it}$$

$$\Delta V_{it} = \alpha_0 + \alpha_1 Day_{it} + \alpha_2 SIZE_{it} + \alpha_3 AGE_{it} + \alpha_4 MTB_{it} + \varepsilon_{it}$$

$$\Delta V_{it} = \alpha_0 + \alpha_1 Numb_{it} + \alpha_2 SIZE_{it} + \alpha_3 AGE_{it} + \alpha_4 MTB_{it} + \varepsilon_{it}$$

ΔV_{it} : Share prices change

$Volume_{it}$: The exchange

Day_{it} : Number of shares traded per day

$Numb_{it}$: Number of bargains

$SIZE_{it}$: Company Size

AGE_{it} : Company age

MTB_{it} : Market value to book value

ε_{it} : Error

Hypotheses testing

Results of the first hypothesis regression

Table 1. Regression testing and significance level of the first hypothesis model

Variable	Estimated coefficients	Estimated bias	t-statistic	Sig.
Fixed	0.573	0.808	0.709	0.0325
Stock exchanges	0.532	0.092	5.782	0.0126
Company size	2.054	0.359	5.721	0.0157
Company life	0.105	0.119	0.882	0.2369
Market value to book value	0.416	0.0567	7.428	0.0022
Durbin-Watson	**Coefficient of determination**	**Adjusted coefficient of determination**	**F-statistic**	**Sig.**
1.9	0.54	0.52	75.44113	0.000**

According to Table 1, Durbin-Watson statistic is equal to 1.9 showing that there is no correlation between the errors because it lies between 1.5 and 2.5. The estimated coefficient for the variable of turnover rate

equals 0.532 indicating that there is a positive and direct relationship between the variables of the stock exchanges and share prices changes. Because the significant level of t-statistic for an independent variable (the amount of stock exchanges) is lower than an error level of 5%, H1 can be confirmed with a confidence level of 95%. Thus, there is a significant relationship between the stock exchanges and share prices changes of companies listed on the Tehran Stock Exchange.

Results of the second hypothesis regression

Table 2. Regression testing and significance level of the second hypothesis model

Variable	**Estimated coefficients**	**Estimated bias**	**t-statistic**	**Sig.**
Fixed	0.370	0.254	1.461	0.0417
Number of shares traded per day	0.630	0.121	5.214	0.0169
Company size	2.034	0.359	5.665	0.0127
Company life	0.301	0.319	0.943	0.1365
Market value to book value	0.531	0.055	9.654	0.0005
Durbin-Watson	**Coefficient of determination**	**Adjusted coefficient of determination**	**F-statistic**	**Sig.**
1.6	0.53	0.52	66.40374	0.000 **

According to Table 2, Durbin-Watson statistic is equal to 1.6 showing that there is no correlation between the errors because it lies between 1.5 and 2.5. The estimated coefficient for the variable of numbers of shares traded daily on the stock value changes equals 0.630 indicating that there is a positive and direct relationship between the variables of the numbers of shares traded daily and the stock value changes. Because the significance level of t-statistic for an independent variable is lower than an error level of 5%, H1 can be confirmed with a confidence level of 95%. Thus, there is a significant relationship between the numbers of shares traded daily and share prices changes of the companies listed on the Tehran Stock Exchange.

The third hypothesis regression

Table 3. Regression and significance level of the 3rd hypothesis

Variable	**Estimated coefficients**	**Estimated bias**	**t-statistic**	**Sig.**
Fixed	0.610	0.513	1.191	0.0 4 52
Number of transaction	0.562	0.156	3.602	0.0269
Company size	2.041	0.359	5.685	0.0189
Company age	0.608	0.600	1.013	0.1023
Market value to book value	0.330	0.056	5.892	0.0157
Durbin-Watson	**Coefficient of determination**	**Adjusted coefficient of determination**	**F-statistic**	**Sig.**
1.8	0.72	0.70	69.31532	0.000 **

According to Table 3, Durbin-Watson statistic is equal to 1.8 showing that there is no correlation between the errors because it lies between 1.5 and 2.5. The estimated coefficient for the variable of number of transactions on the share prices change equals 0.562 indicating that there is a positive and direct relationship between the variables of the number of transactions and share prices change. Because the significance level of t-statistic for an independent variable (the number of transactions) is lower than an error level of 5%, H1 can be confirmed with a confidence level of 95%. Thus, there is a significant relationship between the number of transactions and share prices changes of companies listed on the Tehran Stock Exchange.

CONCLUSION

A summary of the results of the first hypothesis testing

The result of hypothesis testing showed there is a significant relationship between the stock exchanges and share prices change of companies listed on the Tehran Stock Exchange. This means that increases in the stock exchanges of the companies leads to elevated share prices changes.

A summary of the results of the second hypothesis testing

The result of hypothesis testing showed there is a significant relationship between the numbers of stocks traded daily and share prices change of companies listed on the Tehran Stock Exchange. This means that increases in the numbers of stocks traded daily lead to elevated share prices changes.

A summary of the results of the third hypothesis testing

The result of hypothesis testing showed there is a significant relationship between the numbers of transactions and share prices changes of companies listed on the Tehran Stock Exchange. This means that increases in the numbers of transactions leads to elevated share prices changes.

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