Takestan

The relationship of different measures' information content of company size in determining abnormal stock returns companies listed on Tehran Stock Exchange

Shahin Sanechi Mothlagh, Fatemeh Samadi, Zohre Hajiha

Electronic Branch, Islamic Azad University, Tehran, Iran

ABSTRACT

The relation of information content of organization different criteria on abnormal stock returns of companies within Tehran stock exchange is studied in this paper. The scientific purpose of this study is to review the impact of accounting fundamental variables on explaining the value and returns of firms and its applicable purpose is to review the effective factors on stock price in order to help liberal analyzers to choose appropriate stocks for investment through providing effective factors on abnormal stock returns within Tehran stock exchange. Research data are the combination of financial variables of 120 firms participating in Tehran stock exchange in the period of recent 10 years (2004 – 2014). Research methodology, data method was panel and hypotheses test was through Fisher. Obtained results indicate negative and significant relation of future abnormal returns of firms with the asset value and the value of total asset market. In another analysis it is indicated that in case of considering market value to two variables of asset value and market value of total assets, the strength of model explanation and value relation will not be changed. In addition, abnormal stock returns in portfolio of firms with low and high total asset value and firms portfolio with high and low total asset market value are different.

* **Corresponding author: Fatemeh Samadi**

INTRODUCTION

A dynamic, agile and effective organization in leading and investment market policy-making with the purpose of achieving a fair, efficient, disciplined and dynamic market and having tools, entities and advanced financial markets are the goals of stock organization and it is known as the exchange organization outlook.

In this research, the relation between the criteria of organization size and its impact on abnormal stock returns of firms within Tehran stock exchange and some of effective factors on it are reviewed. This chapter is to explain research problem, the necessity and significance of the subject, research questions, expected results, methodology and the intended population. One of the significant purposes of accounting researches is to review the value relation of accounting variables. In 1995, Olson has provided a model based upon accounting data for determining intrinsic value of companies. In this model, he predicts the value of firms by the accounting information f companies. Since that time, lots of researches have been done in the area of accounting in order to review the relation among different accounting variables with the value of companies' market, its results was that accounting information are having significant relation with the value of companies' stock market. Such kind of studies is known as the studies of value relations. In such kind of studies, the purpose of review is to know whether accounting variables can have role in explaining firm's value. Therefore, this study is to indicate whether using different criteria of organization size in model of explaining abnormal stock returns of companies can be effective on the strength of explaining related models or not.

Literature and previous research
The researcher-internal

In financial literature, several studies have reviewed the impact of fundamental variables on stock return rate.

Ahmadpour and Saghafi (1999) have reviewed the impact of financial lever and operational lever and organization size on systematic risk of firms. The results of their study indicated that financial lever is affecting systematic risk, while operational lever is not having impact on systematic risk. Organization size (assets) is significantly effective on risk. In other words, the more is the asset of firms, their systematic risk will be decreased. Eivani (1999), in his study, has indicated that stock portfolio is not having high returns with the lowest ratio of asset value to market value. Hanifi's (1997) and Zarif fard and Ghaemi (2003) studies have indicated that beta only cannot justify the dispersion of stock returns within Tehran stock exchange.

Syed Jalal Sadeghi Sharif (2003) in his research, titled design of pricing model for capital assets (CAPAM) within Tehran stock exchange, has considered risk factor, the relation between risk and expected returns and localization of CAPAM model and providing an appropriate model in order to display the relation between risk and returns during all the periods even the periods which market risk is low. The obtained results indicate that pricing model for capital assets cannot explain returns behavior and its relation with beta under the condition that the market direction is negative (Negative market risk premium), and when the market direction is positive and it is going up, risk and returns relation is positive.

Bagherzadeh, in his study, has reviewed the effective factors on stock return within Tehran stock exchange in the period of 1998-2005. The results indicate that there is a linear and positive relation between systematic risk and Tehran stock exchange returns. But this relation is highly weak statistically. Also, among the studied variables, three variables of organization size, the ratio of asset value to market price and ratio of profit to price were having the highest impact in explanation of stock returns. Unlike the expectation of the three variables' relation with stock returns were in contrary with recorded relation within financial literature. In other study, Rahmani et al, have reviewed significant relation between betas, ratio of asset value to market value with stock returns. The results of relation between beta and returns in three portfolios have indicated that the portfolios with higher beta are having higher returns in comparison with portfolios with lower betas. Bahramfar and Shams Alem (2005), have reviewed the impact of accounting variables on future abnormal stock returns for firms within Tehran stock exchange. The findings of their study have indicated that accounting variables are having information content and distribution of dates recorded within financial statements are impacting on future abnormal stock returns. Also, the variables of financial lever degree, Accruals, the company's market value, debt-to-equity ratio,The cost of borrowing and the distribution of dividends are having negative relation with future abnormal stock returns while the variables of fixed assets' return rate and operational cash are having direct relation with future abnormal stock returns. Modares and Asgari, in a research, have identified the effective factors on abnormal stock returns of initial stocks in Tehran stock exchange. The obtained results indicate that only three variables of the type of audit firm, organization size and the error of predicting profit for each stock are having significant relation with abnormal stock returns. The study by Rahmani et al (2007) indicates that there is a significant relation between beta, ratio of asset value to market value with stock returns. The results of the relation between Beta and returns in three stock portfolios indicate that the portfolios with higher betas are having higher returns in comparison with portfolios with lower betas. The results of Salmanpour (2005) study about the impact of organization size on stock returns indicated that size is not having significant impact on returns. Fama and French model have been tested in several studies within Tehran stock exchange. For instance, the results of the study by Robat Meili (2008), confirm three factorial models of Fama and French for predicting stock returns in Tehran stock exchange. Dr. Gholamreza Soleimani and Mahdi Shajar (2010) confirm significant relation of changes in profitability, receiving accounts and gross profit margin by abnormal stock return. On basis of studies by Dr. Syed Hossein Zolnour and Mohammadreza Heidarnia (2011), significant relation of some ratios of profit division policy, change in investment structure, change in sales ration on inventories, change in inventories, change in ration of net profit on the income of shareholders and change in profit of each share have been confirmed by abnormal stock returns. In other studies by Dr.

Abdolkarim Moghaddam and Sultan Javanmardi (2012), with subject of relation between financial reporting and dispersion of abnormal stock return, lack of significant relation between committed items' quality and abnormal stock returns has been proven. The study by Mohammad Hosseinzadeh Ghaemi and Ghasem Askarzadeh (2012) indicates that the strength of items based on accounting variables for testing abnormal return is equal with strength of items based on market variables. Based on a comparison, between two methods of cumulative returns and identical return, the strength of different statistics for exploring abnormal returns in method of cumulative return in comparison with identical return was higher. The research by Dr. Syed Mahmud Musavi Shiri and Navid Mehrzad (2013) was about reviewing relation among conservativeness and abnormal stock return, positive and significant relation among the ratio of value to market and lack of significant relation among committed items have been confirmed by abnormal stock returns.

The researcher-foreign

The initial cross-sectional studies on stock return such as Nicholson (1960) were not gotenough attention due to the used small samples to perform experimental tests .Finally the databases developed by the researchers were able to createlarge enough samples with high qualityor reliable results and reliable way to test and predict the CAPM model.Subsequently after a few years of presenting the model, variables such as the ratio of market value to the book value and ratio of price to earnings did not exist.

Kim (1990) in order to evaluate monthly return of stock portfolio, he first reviewed the impact of organization size on return and he found out that smaller companies are having higher returns rather than bigger companies; also Kim (2003) and Benz (1981) have concluded that the factor of size is having higher influence rather than Beta coefficient for explaining stock return, but the studies by Jeff et al (1989), and the research by Muska Ariolla (2004) indicate that there is no any significant relation between size and the rate of stock returns. The study by Luthia Garajan (1993) has introduced 12 variables as fundamental variables on stock returns. Abarbanelo Bushi (1997), Pivotroski (2000) and Paskalniuen (2003) have considered these variables in studies.

Fama and French research (1992) has indicated when Beta is utilized as the only factor for predicting returns, then the relation between Beta and return will be vanished; therefore, Beta cannot justify the dispersion of returns lonely. Fama and French (1996), in other study, have concluded that the factors of profit ratio on price and organization size are more reliable factors for predicting stock return rather than Beta. It is also proven in studies by Basso (1983), Chan, Hamao and Lakonishok (1991), Lakonishok et al (1994). Clifford (1994), studied about the explanatory power of variables of Beta, value on market value ratio, ration of debit on the shareholders' equities, ratio of profit on market value and past return for future return. Before that, Fama and French have found out that organization size and the ration of value on market value; are having more explanatory power for future returns rather than other variables. The result of Clifford study indicated that two variables of "ratio of book value to market value" and "organization size" are consisting of explanatory power for future return. However, these two variables are not enough

for explaining expected returns. The results of Frankel and Lee (1998), indicate that market value is effective on abnormal stock return. The results of Levine (2000) show that the ratio of book value to market value, has the explanatory power of future returnsonly together with other factors such as beta.Lam (2002) showed that three factors of size, ratio of book value to market value and earnings-price ratio can explain the differences in stock returns on the Hong Kong Stock Exchange.Achick and colleagues (2003) demonstrated that ratio of book value to market value is very high in predicting the ability of future returns and that is linked with stock price dispersion.(2002) indicated that Fama and French three-factor model represent the better results in comparison with the capital asset pricing model in French stock exchange due to the addition of SMB and HML stock returns.Aim of the research of Penman et al (2007) was to examine the relationship between operational and financial components of stock returns. The results showed that operating component is positively related to stock returns and leveraged component has a negative correlation with stock returns as well. The results of Rosenberg and colleagues confirmed the important role of book value to market value in explaining the expected returns andpositive relationship between the ratios of book value to market value yield was approved.

Questions and hypotheses

According to the theoretical foundations of the research, the following questions arearising:

1- Dothe book value of total and market value of totalassets have negative and significant relationship with company's future abnormal returns?

2- Dothe book value of total and market value of total assets increase explanatory power of the model of output and the value relevance?If the market value will be considered.

3- Is an abnormal stock return in the portfolio of companies with high and low total book value of assets different? In addition, is abnormal stock return in the portfolio of companies with high and low market value of total assets different?

To answer the research questions, the following hypotheses have been developed:

-Hypothesis number one: the book value of assets and the market value of total assets would have a significant negative relationship with company's future abnormal returns

- Hypothesis number two:the book value of assets and the market value of total assets increasedthe explanatory power of model of output and the value relevance, if the market value will be considered

- Hypothesis number three: abnormal stock returns in the portfolio of companies with total high and low book valueassets is different and abnormal stock returns in the portfolio of companies with total high and lowmarket value of assets is different.

How to test hypotheses

Due to the superiority panel data rather than cross-sectional data,panel data used to estimate the research models in this study.It should be noted that using cross-sectionaleconometric methodsmight be associated with problems of inefficiency and incompatibility of models'

estimation. Mentioned problems in estimating the models to combined data method and using methods such as Fixed Effect Model, Random Effect MODEL, Seemingly Unrelated Regressions (SUR) and Pooled Data would not exist.Meanwhile to reviewing obtained results of t-tests to investigate the significancecoefficients and F test for total significance of the model used. Adjusted R^2 Is used for the relationship between dependent and independent variables.

Statistical Society

The statistical populationof the present studies companies listed on Tehran Stock Exchange since the beginning of 2004 until the end of 2013 for 10 years, during this period they preserved their membership in the Stock Exchange.
Sample and sampling
Among all companies, those who were not eligible for any of the following conditions deleted and finally, all remaining companies were selected for the test.

✓ Companies must provide enough information to all financial statements, including balance sheet, income statement and statement of cash flows
✓ Their financial year must end to 29 March.
✓ companies must have activity during research period on the Stock Exchange
✓ They must not have financial year changes during research period
✓ At least two consecutive years' data must be in access.
✓ Companiesmust not be in type of investment or financial intermediation.
In the present study due to the limitations mentioned, 120 companies were selected and investigated as the statistical sample
Variables
Variables and how to measure them

How to Measure	Type	Symbol variable nature of the measure	Variable
$ar_{it} = (ri_{it} - r_{mt})$ ar_{it} = abnormal returns ri_{it}=Returns i at time t r_{mt}=Tehran Stock Exchangeprice indexreturnsandcashyieldsin month	Dependent	ar_{it}	abnormal returns
Payment of dividends to net profit (Dps compared to eps)	Independent	DIVY	Dividend payout ratio
The criterion of systemic riskthroughthe covarianceofreturnsandthe marketreturnstoa standard deviation ofreturnsachieved.	Independent	BETA	BETA
This variable isthelogarithm of the ratioof book value tomarketis achieved.	Independent	LnBTM	The ratio ofbook valuetomarket
This variable isthelogarithm of the company's market value.	Independent	LnMV	Market Value
This variable is the logarithm of the book value of total assets of the acquired company.	Independent	LnTBA	Book value Totalassets
This variable isthelogarithm of the market value of equityanddebtthe company is obtained.	Independent	LnMVTA	Totalmarket value Companyassets

Figure (1): descriptive statistics research

Date:
Time:
Sample: 2004 2013

	LNBTM	LNMV	LNMVTA	LNTBA	RET	RM	BETA	DIVY
Mean	-0.273649	5.508167	5.889658	5.748000	0.279100	0.330200	1.134733	0.614750
Median	-0.250000	5.450000	5.810000	5.705000	0.165000	0.157500	1.030000	0.700000
Maximum	1.510000	7.610000	7.980000	7.900000	1.860000	1.045000	3.850000	2.030000
Minimum	-2.770000	4.020000	4.320000	4.250000	-0.800000	-0.129000	0.050000	0.000000
Std. Dev.	0.362012	0.634060	0.585700	0.592826	0.504999	0.382417	0.577705	0.378054
Skewness	-0.304375	0.422934	0.624059	0.601531	1.055829	0.574730	1.108038	-0.045774
Kurtosis	5.850164	3.479466	4.002336	4.167725	4.217211	2.063908	4.720481	3.242626
Jarque-Bera	419.0379	47.26903	128.1237	140.5469	297.0352	109.8764	393.5522	3.362415
Probability	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.186149
Sum	-324.0000	6609.800	7067.590	6897.600	334.9200	396.2400	1361.680	737.7000
Sum Sq. Dev.	155.0354	482.0364	411.3106	421.3796	305.7736	175.3447	400.1581	171.3665
Observations	1184	1200	1200	1200	1200	1200	1200	1200

In general, according to the information values above table shows the descriptive statistics of the variables in the variable dispersion medium can be concluded that this issue can be deduced the standard deviation, also from the mean and median of the can be symmetrical or variable not conclude that all variables with relative symmetry.

Tests correlation coefficients
Figure (2):
 Pearson correlation coefficients

Covariance Analysis: Ordinary
Date: Time:
Sample: 2004 2013
Included observations: 1184
Balanced sample (listwise missing value deletion)

Correlation Probability	LNBTM	LNMV	LNMVTA	LNTBA	RET	RM	BETA	DIVY
LNBTM	1.000000							

LNMV	-0.335865	1.000000						
	0.0000	-----						
LNMVTA	-0.071862	0.896475	1.000000					
	0.0134	0.0000	-----					
LNTBA	0.197713	0.762093	0.950088	1.000000				
	0.0000	0.0000	0.0000	-----				
RET	-0.096213	0.094830	0.023843	-0.033978	1.000000			
	0.0009	0.0011	0.4124	0.2427	-----			
RM	0.012461	0.077841	0.083193	0.082475	0.219144	1.000000		
	0.6684	0.0074	0.0042	0.0045	0.0000	-----		
BETA	-0.027255	-0.065222	-0.064053	-0.069376	0.279084	0.163498	1.000000	
	0.3488	0.0248	0.0275	0.0170	0.0000	0.0000	-----	
DIVY	-0.013457	0.156908	0.027481	-0.001880	0.180747	-0.038833	-0.153892	1.000000
	0.6437	0.0000	0.3448	0.9485	0.0000	0.1818	0.0000	-----

To detect the presence and direction of a linear relationship between variables, Pearson correlation coefficients were tested and the results are in table (4-2) is provided. As can be seen, the correlation coefficient Independent variables in the model represents no greater affinity to each other.

Assess the reliability of variables
Prior to estimate model parameters, variables, the Dickey-Fuller test is investigated. The results of a reliability test the variables in Table 3-4 reads:

Figure (3): test the reliability of variables

Significance level	Dickey-Fuller test	Variables
0/0000	642.106	LNBTM
0/0000	526.852	LNMV
0/0000	594.401	LNMVTA
0/0000	816.843	LNTBA
0/0000	703.034	RET
0/0000	573.074	BETA
0/0000	541.796	DIVY

  As you can see unknown variables are stable at 95 percent. Parameters can be estimated without the worry of them being false.

A summary of the second hypothesis and statistical results obtained

Figure (4): The first hypothesis and results at a glance

Description	Case
The first hypothesis	Hypothesisreviews
Do the book value of total and market value of total assets have negative and significant relationship with company's future abnormal returns?	Questionassumptions
the book value of assets and the market value of total assets would have a significant negative relationship with company's future abnormal returns	Targethypothesis
Model 1 $$ar_{it} = (ri_{it} - r_{mt}) = \alpha + \beta_1 DIVY_{it} + \beta_2 BETA_{i,t} + \beta_3 LnBTM_{i,t} + \beta_4 LnTBA_{i,t} + \varepsilon_{i,t}$$ Model 2 $$ar_{it} = (ri_{it} - r_{mt}) = \alpha + \beta_1 DIVY_{i,t} + \beta_2 BETA_{i,t} + \beta_3 LnBTM_{i,t} + \beta_4 LnMVTA_{i,t} + \varepsilon_{i,t}$$	Modelsused totestthe first hypothesis
Independent variables: (Ln MVTA） (Ln TBA） *Dependent variable:* $$ar_{it}$$	Variables
Durbin-Watson statistic(theassumption ofautocorrelationbetween thesentencesof the remainingmodels) *Model: Durbin-Watson statistic=2.12* *Four: Durbin-Watson statistic=2/08* *F statisticFisherassumption ofsignificantadoptionof themodel(there was a significantlinear relationshipbetweenindependent and dependent variables)]*	Test
Model 1 - Variable rate asset book value: -1/1 - Significant level of asset book value: 0.000 Model 2 - Variable coefficient market value of total assets: -0/ 814 - Total market value of assets are significant: 0.000	The resultsoftheestimationmodels
The result of the first hypothesis indicates that there is a negative and significant relationship between Book value of assets and the market value of total assets of company's upcoming abnormal returns.	The results of research

A summary of the third hypothesis and statistical results obtained

Figure (5): The second hypothesis and results at a glance

Description	Case
The second hypothesis	Hypothesisreviews
Do the book value of total and market value of total assets increase explanatory power of the model of output and the value relevance? If the market value will be considered.	Questionassumptions
The book value of assets and the market value of total assets increased the explanatory power of model of output and the value relevance, if the market value will be considered	Targethypothesis
$$ar_{it} = (ri_{it} - r_{mt}) = \alpha + \beta_1 DIVY_{i,t} + \beta_2 BETA_{i,t} + \beta_3 LnBTM_{i,t} + \beta_4 LnTBA_{i,t} + \varepsilon_{i,t}$$ Model 1 1	Modelsused totestthe first hypothesis

$_t = (ri_{it} - r_{mt}) = \alpha + \beta_1 DIVY_{i,t} + \beta_2 BETA_{i,t} + \beta_3 LnBTM_{i,t} + \beta_4 LnTBA_{i,t} + \beta_5 LnMV_{i,t} + \varepsilon_{i,t}$	Mode 12	
$_{it} = (ri_{it} - r_{mt}) = \alpha + \beta_1 DIVY_{i,t} + \beta_2 BETA_{i,t} + \beta_3 LnBTM_{i,t} + \beta_4 LnMVTA_{i,t} + \varepsilon_{i,t}$	Mode 13	
$ar_{it} = (ri_{it} - r_{mt}) = \alpha + \beta_1 DIVY_{i,t} + \beta_2 BETA_{i,t} + \beta_3 LnBTM_{i,t} + \beta_4 LnMVTA_{i,t} + \beta_5 LnMV_{i,t} + \varepsilon_{i,t}$	Mode 14	
Independent variables: *(Ln MVTA)* *(Ln TBA)* *(Ln MV)* *Dependent variable:* ar_{it}		Variables
F statistic Fisher assumption of significant adoption of the model (there was a significant linear relationship between independent and dependent variables)] *Wong z test (content analysis of the relationship Value of Models 1 and 3 / models of 2 and 4)*		Test
-Determining factor model 1: 0/192 - Determining factor model 2: 0/1651 *-Determining factor model 3: 0/191 - Determining factor model 4: 0/1648* *The significance level Wong Compare Models 1and 3 Three: 0/17* *The significance level Wong Compare Models 2 and 4: 0/44*		The resultsoftheestimationmodels
The results of the second hypothesis indicate that if market value is into account, we will have significant negative relationship. In the second part of this hypothesis, it was shown that the market value of total assets has lower effect than value of assets of abnormal stock returns.		The results of research

A summary of the fourth hypothesis and statistical results obtained

Figure (6): The third hypothesis and results at a glance

Description	Case
The thirdhypothesis	Hypothesisreviews
Is an abnormal stock return in the portfolio of companies with high and low total book value of assets different? In addition, is abnormal stock return in the portfolio of companies with high and low market value of total assets different?	Questionassumptions
Abnormal stock returns in the portfolio of companies with total high and low book value assets is different and abnormal stock returns in the portfolio of companies with total high and low market value of assets is different.	Targethypothesis
Independent variables: *(Ln MVTA)* *(Ln TBA)*	Variables

Dependent variable: ar_{it}	
Average comparison test	Test
Comparison test measures average abnormal returns with a book value of total assets .The average at least: 0/049 Average in most categories: 0 / 043	The results of the estimation models
Compare abnormal test average return on equity criteria Total market value: The average at least: 0/036 Average in most categories: 0 / 043	
After the third hypothesis, it was concluded that abnormal stock returns is different in portfolio of companies with a total high and low book value of assets and portfolio of companies with total market value of low and high.	The results of research

Conclusion assumptions and suggestions

After reviewing the 120 companies listed on Tehran Stock Exchange during the period 2004-2013, the following results were obtained from the hypothesis:

The result of the first hypothesis:

The result of the first hypothesis indicates that there is a negative and significant relationship between Book value of assets and the market value of total assets of company's upcoming abnormal returns.

The result of the second hypothesis:

The results of the second hypothesis indicate that if market value is into account, we will have significant negative relationship. In the second part of this hypothesis, it was shown that the market value of total assets haslower effect than value of assets of abnormal stock returns.

The result of the third hypothesis:

In a further analysis of the third hypothesis i this study, it was shown that I the market value will be considered for two variables of book value of assets and the market value of total assets,the explanatory power of the model and the value relationship does not change.

The result of the fourth hypothesis:

After the fourth hypothesis, it was concluded that abnormal stock returns is different in portfolio of companies with a total high and low book value of assets andportfolio of companies with total market value of low and high.

Limitation of research journal

Restrictions arising from the terms of the population

Lack of reliable data required to calculate the variables caused some firms to the firms in the sample are not Located in the domain

Limitation of time

In this study, only firms listed in the Tehran Stock Exchange between the years 2004 to 2013 were studied. Therefore, the results obtained can be used only for the period under review.

Complex and costly procedure

Data collection for the combined data difficult, frustrating and costly. That's about the complexity and costliness of restrictions arising from the method of statistical technology growth

Practical suggestions

Identify factors affecting stock returns are always subject to many different countries and has been the basic needs of shareholders and analysts. Continued research in this area may lead to provide the ability to extend the model with fewer errors and more. According to bottlenecks and research findings, recommendations can be expressed as follows.

A - Due to abnormal changes in the overall model efficiency to all market participants, analysts and investment recommendations Recommended measures of firm size in terms of the decision in order to select high-yielding.

B - The results ofthe studysuggest thatsharesfundamental analysisofpublicly availablethrough theTehran Stock Exchangeshareholders, to the shareholderswithfull knowledge of thefundamentalconditionsofthesharepurchase.

To research proposals for the future

A - Investigate the nonlinear relationship between the prediction error abnormal stock returns.

B-Due to thesignificance of the relationshipbetweenaccountingitemsandfutureabnormal returnsof stocks,it is recommended thatauditorswithenough sensitivitytoassess thetrustedexchangeitems thathave information contentandon behalf ofinvestors, more developed to predict thenextabnormal returnsstockof themgetsthem.

C - The impact of accounting variables that can affect stock returns in the stock market and securities industry separately examined.

D- The relationship between accounting value and other indicators of macroeconomic variables on abnormal stock

returns due to economic and political issues affecting returns.

E - Review global economic policies and issues of economic sanctions on the abnormal stock returns in the capital market

F- the identification and evaluation of accounting variables influencing cumulative abnormal returns of new shares that have not been investigated in this study, such as the degree of financial leverage, accruals, return on investment, the growth of fixed assets, operating cash flow, debt-to-equity ratio, interest costs and dividend distribution.

G - The effect of inflation and other macroeconomic indicators on the relationship between the prediction error abnormal stock returns.

Sources and references
List of resources for research.
Persian sources:
1. Aghabeighi, Saber. (2005). Investigate the relationship between the market factor, firm size and book-to-market with stock returns of companies listed in the Tehran Stock Exchange, ending a graduate financial management, Beheshti University
3. Gholamrezd Derakhshande Dashti . (2003) .Applying the cross-cutting approach in relation to the effect of firm size and book-to-market value of companies listed on stock returns and profitability in the Tehran Stock Exchange, completed a Master's Degree Accounting, Shiraz University
4. Naghi Bhramfr and Sydhsam Shams Alam (2004), "Evaluation of the impact of accounting variables on abnormal returns of companies listed in Tehran Stock Exchange stock futures" studies accounting and auditing, Tehran University, the eleventh year, No. 37
5. Rezd Rai, Saeed Baharvand and Masood Movafaghi (2010). Asset Pricing with more factors (experimental study on the Tehran stock exchange data compilation), Research School of Tehran University

English resources:
1) Balachandran، S.، and Mohanram، P.، 2011، Is the decline in the value relevance of accounting driven by increased conservatism? Review of Accounting Studies 16 (2)، 272-301.
2) Banz، R. W. 1981، The relation between return and market value of common stocks، Journal of Financial Economics 9، 3-18.
3) Barth، M، W. Landsman، and M. Lang، 2008، International accounting standards and accounting quality، Journal of Accounting Research 46 (3)، 467-498.
4) Berk، J. 1995. A critique of size related anomalies. The Review of Financial Studies Vol. 8 (2)، 275-286.
5) Berk، J. 1996. An empirical re-examination of the relation between firm size and return. Working paper (University of Washington).
6) Berk، J. 1997. Does size really matter? Financial Analysts Journal Vol. 53 (5)، 12-18.
7) Callen، J.، and G. Ying Luo، 2012، Can earnings fixated investors survive in a competitive securities market? Implications for sustained price anomalies and mark-to-market accounting، Working paper (University of Toronto and McMaster University).
8) Chen، Y.، and K. Chang، 2010، Analyzing the nonlinear effects of firm size، profitability، and employee productivity on patent citations of the US pharmaceutical companies by using artificial neural network، Scientometrics 82، 75–82.
9) Chen، L.، R. Novy-Marx، and L. Zhang، 2011، An alternative three-factor model، Working paper (Washington University and NBER).
10) Core، J.، W. Guay، and A. Van Buskirk، 2003، Market valuations in the new economy: An investigation of what has changed، Journal of Accounting and Economics 34، 43-67.
11) Desai، H.، S. Rajgopal، and M. Venkatachalam، 2004، Value-glamour and accruals mispricing: one anomaly or two? The Accounting Review 79 (2)، 355-385.
12) Dhaliwal، D.، L. Krull، O. Li and W. Moser، 2005، Dividend taxes and implied cost of equity capital، Journal of Accounting Research 43(5)، 675-708.
13) Easton، P.، T. Harris، and J. A. Ohlson، 1992، Aggregate accounting earnings can explain most of security returns، Journal of Accounting and Economics 15، 119-132.
14) Fama، E. F.، and K. R. French، 1992، The cross-section of expected stock returns، Journalof Finance XLVII (2)، 427-465.
15) Fama، E. F.، 1997، Industry costs of equity، Journal of Financial Economics 43: 153-193.
16) Fama، E. F.، and K. R. French، 2012، Size، value، and momentum in international stock returns، Journal of Financial Economics 105 (3)، 457-472.
17) Gujarati، D. N، 2003، Basic Econometrics، 4th. Ed. (McGraw-Hill/Irwin، New York، NY).
18) Hand، J. 1990. A Test of the Extended Functional Fixation Hypothesis. The Accounting Review 65، 740-763.
19) Hirshleifer، D.، S. Teoh، and J. J. Yu، 2011، Short arbitrage، return asymmetry، and the accrual Anomaly، The Review of Financial Studies 24 (7)، 2429-2461.
20) Jenkins، D. S.، G. D. Kane، and U. Velury، 2009، Earnings conservatism and value relevance across the business cycle، Journal of Business Finance and Accounting 36 (9-10)، 1041-1058.
21) Jones، D.، and K. Smith، 2011، Comparing the value relevance، predictive value، and persistence of other comprehensive income and special items، The Accounting Review 86 (6)، 2047-2073.
22) Kothari، S. P. and J. Zimmerman، 1995، Price and return models، Journal of Accounting and Economics 20، 155-192.
23) McInnis، J، 2010، Earnings smoothness، average returns، and implied cost of equity capital، The Accounting Review 85 (1)، 315–341.
24) Modigliani، F.، and M. Miller. 1958، The cost of capital، corporation finance and theory ofInvestment، American Economic Review June، 261-297.