The Relationship between Financial Flexibility and Financial Performance of the companies accepted in Tehran Stock Exchange

Babak Jamshidinavid, Ph.D[1], Mohammad Abasi[2] and Saeed Parvizi[3]

Abstract

This research was aimed to investigate the effect of Financial Flexibility and Financial Performance of the companies accepted in Tehran Stock Exchange. To this end, 183 companies were selected using certain criteria. The data were extracted from financial statements and existent information in Exchange Hall of these companies in a 4-year period beginning from 2010 to the end of 2014. In this research panel data method was used to evaluate the model. Moreover, descriptive and deductive methods were employed to analyze the data. In descriptive level, using statistical characteristics such as frequency, mean, and Standard Deviation, we described common characteristics of the population and in the deductive level, regression analysis tests, significant T tests and significant F tests were used to test research hypotheses and also to find correlation between variables. In this research, statistical software of Eviews was used to test hypotheses. The results indicated that there was a significant relationship between leverage and liquidity ratio with financial performance of the companies accepted in Tehran Stock Exchange.

Keywords:

Financial flexibility, financial performance, leverage ratio, liquidity ratio, the companies accepted in Tehran Stock Exchange.

[1] Department of Accounting, Kermanshah Branch, **Islamic Azad University**, Kermanshah, Iran. jamshidinavid@iauksh.ac.ir
[2] Department of Accounting, Ilam Branch, **Islamic Azad University**, Ilam, Iran.
[3] Department of Accounting, Ilam Branch, **Islamic Azad University**, Ilam, Iran.

Introduction

In highly competitive environments, it is necessary that managers proceed to the appropriate directing of affaires for development and goals and intended economic strategies with a cautiously way using the procedure of performance management. Success in performing this process depends on continuous Measurement, evaluation and improvement of unit performance. Due to rapid changes and increased competitive potency and capability of organizations in today world, performance utility of every part and all parts of organization can be important in measuring the performance of the CEOs of companies. (Farajolah zadeh 1386, 3). The performance of a company indicates the performance efficiency of management to increase the value of the company for stockholders (Johnson et al, 1976). One of the best places for investment is Stock Exchange that is a symbol of separation of ownership from stock. To alleviate this problem, Stockholders make efforts to evaluate the performance of companies and identify factors affecting it. Due to competition among world markets, the companies have ascertained that the prerequisite for maintaining their activities in such markets is production of high quality goods. Most companies pay special attention to financial flexibility in order to adapt to the competitive environment of nowadays world markets (Lopez et al 2009). This is because of the fact that the flexibility plays an important role in enabling managers to invest in the future. The problems of capital marketshave entailed maintaining flexibility for the companies to use profitable opportunities.Myers (1977) indicated that how threats due to debts of companies prevented them from usingprofitable opportunities, even when the managers and stockholders were interested in using these opportunities. Optimal acquisition of sources has led to success of companies in markets and allowed them to pursue market opportunities successfully and

benefit from the advantages of participating in markets. (Scott, 2007,305).Managers stated that financial flexibility had played an important role in enabling them to invest in the future. The companies with financial flexibility try to maintain the potential borrowing power so that they can invest more in the years following theconservatism policy (Rahmani et al, 2013). Judgment about flexibility is usually subjective and informal because of many uncertainties in applying this word, and flexibility is also examined and measured scarcely. Financial flexibility indicatethe capability of a company to encounter future events. (khodaei valahzaghrod and zare teymori, 1389). Financial flexibility is regarded as the capacity of a company to equip its financial slacks for reactive activities to increase the value of the company.Financial flexibility in theoretical concepts of accounting standards refers to the capability of entity to change the rate and time of its cash flowbased on effective measure so that the entity can react to unexpected events and opportunities.Financial flexibility enables the entity to make a good use of unexpected opportunities of investing and tocontinue in the period that cash flow received from operations is in a low level and presumably in a negative level due to unexpected decline in demands for products of entity. Because there is less recognition about financial flexibility and its effect in increasing investingability, this study tries to fill this gap. Recognition of financial policies and their relations with investment rate of companies also can help in financial planning of the companies in Tehran Stock Exchange. (khodaei valeh zadfard and zare teimori, 1389). The current research is aimed to study the relationship between financial flexibility and financial performance in capital market of Iran. In other word, the purpose of this study is to find out whether there is a significant relationship between financial flexibility and financial performance.

Theoreticalbackground and research history

Hassanlo et al (1391) concluded that using the method of TOPSIS along withsensitivity analysis helped in more accurate way inanalyzing financial statements and evaluating the performance of companies. Rahmani et al (1391) wrote an article entitled "the effect of financial flexibility on investment rate and value creation". They used spare debt capacity to determine the financial flexibility, and investment and value creationwere operationally defined using capital expenditure and dividend yield.

The results of research indicated that financial flexibility had a negative effect on investment and an important positive effect on value creation, and the companies with financial flexibility were of great volubility. Haqiqat and Bashiri (1390) wrote an article entitled "studying the relationship between financial flexibility and capital structure". The results of this research indicated that the companies riskedless in the introduction stage than financing through liability, and maintain a more balanced financial leverage. The companies used debt financing in the growth stage and maintain a great leverage ratio. The companies of maturation stage rely on financing internal to the organization and maintain little leverage ratio.

The role of performance evaluation criteria in reflecting the performance of companies through their existing information content also has been signalized because of the development of capital markets. Meanwhile, the competition between these two sets of traditional and value-basedperformance evaluation criteria to justify the performance of aforesaid companies have captured researchers' attention. In the traditional formand in the performance evaluation only accounting income is considered. It is not regarded as an optimal methodbecause the sources of capital cost of companies is not taken into consideration.Different approaches have been

presented toevaluate the management performance and measure stockholders' wealth. The most important of these approaches can be classified in the following four general groups. (Anvari Rostami 1383, 7).

1-Accounting approach

In this approach, the numbers written in financial statements such as sale, gain, return on assets, and return on equity and so on are used.

2- Financial management approach

In this approach, popular models in financial management such as Capital assets pricing model (CAPM) and Arbitrage model are used.

3-integratedapproach

In this approach, it is tried to combine the numbers of financial statements and market values in order to use ratios such as earningsratio and the ratio of market value of assets to their book value and so on for analyzing.

4- Economic approach:

In this approach that the economic concepts are used, the entity performances is evaluated along with emphasis on profitability power of company assets and by regarding the applied rate of return and capital cost rate in the company. From the most important criteria of this approach we can point out Economic value added (EVA) and Market value added (MVA). The proponents of the economic approachcriteria claim that these indexes are considered as the best criteria for performance evaluation. Because they as an evaluation criterion consider opportunity cost of stockholders and time value of money and remove misstatements arising from withdrawal of different ways of accounting. (Ouei and Lee, 2002), one of the most important goals of economic agencies is to make profit and to

increase stockholders' wealth(owners) in a long time. Shareholders, authorities and other groups related to economic agencies need reliable and related information about their performance and managers in order to make logical decisions. Because shareholders and authorities allocate their limited financial slacks to economic agencies, performance evaluation is formal process of gathering data about the results of the study. Itleads to identifying competencies of the organization and loomingit to generate more values and actually lead to more optimal performance, because it has a future view by analyzing the last activities of the agency to help recording the values. (Azizzadeh,1388,44).

Khodaei vale zafard and Teimory (1389) wrote an article entitled "financial flexibility effect on investing decisions". This study aimed to find out whether companies coulddevelop financial flexibility abilityenabling them to perform premier and more capital expenditures. In other words, has the investing ability of the companies with financial flexibility increased?

In this study, optional accruals were used as an index for determining flexibility in the companies using Marchika and Mora model. The results of the study indicated nonexistence of financial flexibility effect on investment costs and also no correlation between cash flow and capital expenditures in the examined companies in Tehran. Noroush and Yazdani (1388) studied the relationship between financial leverage and investment in the companies accepted in Tehran Stock Exchange. The results showeda negative corrolation between financial leverage and investment, and this correlation was stronger for the companies with less growth opportunities.

Franklin and Motasami (2011) perform a research entitled "financial leverage effect on investment decisions of companies" in which 25 Indian pharmacy companieswere selected as the sample.The results of this research indicated that there was a positive meaningful correlation

between financial leverage and investment. They also found that cash flow and retained earnings played a meaningful role in the investment decisions.

In another research, Denis (2011) showed that the companies that financed through debttried to return to their current condition through limiting the profit sharingin thesubsequent years. The results of this research conformed the hierarchy of needs theory of financing and financial flexibility based on having additional capacity of debt and advantage of financing through debt on financing through capital. The results also showed the power and importance of financial flexibility through debt to financial flexibility through safeguarding cash.

The research results of Maria-Teresa Marchica, Roberto Mura showed that the companies wouldn't have the capability to have a flexible financial structure under a conservatism policy of debt. Financial flexibility enables the companies to have a better access to financial slacks while there are positive shocks of market for investment opportunities, and to provide its necessary funds for financing the investment opportunities. Yomalto (2010) performed a research and examinedthe relationship between financial leverage and investment decisions in productive companies of stock exchange in Turkey. The results indicated that the financial leverage had a negative effect on investment decisions, and the companies that had more debts than other companies, showed less interest in investing in capital assets. Clark, Brayan (2010) studied the financial flexibility effect on decisions of capital structure.The results indicatedthat when the ultimate value of flexibilitywas examined in terms of capital structure decisions, other effective variables on capital structure would lose their importance. In other word, flexibility is the most important effective factor on capital structure.

The research hypotheses

The main hypothesis: there is a significant relationship between financial flexibility and financial performance of companies accepted in Tehran stock exchange.

Secondary hypotheses:

There is a significant relationship between leverage ratio and financial performance of companies accepted in Tehran stock exchange.

There is a significant relationship between liquidity ratio and financial performance of companies accepted in Tehran stock exchange.

Methodology

This was an experimental research in the area of demonstrative researches of accounting that was based on the real information of financial statements of companies accepted in Tehran stock exchange. This research was an applied and descriptive correlational research in which historical information of companies and statistical methodswere used to confirm or reject the hypothesis. Moreover, library studies were performedon theoretical bases and concepts and examining the related data. The authenticity of research hypotheses of examination and obtained results were generalized to the population. In this research, the relationship between independent variables and dependent variables were studied using regression model. The multi variable regression model was used and the panel data method wasalso used to evaluate the research models. Two methods of descriptive and deductive were also applied to analyze the obtained data in this research. In the descriptive level, statistic characteristics such as frequency, mean, standard deviation were used to describe the general characteristics of the population, and in the deductive level, regression analysis tests, significant T test and significant F test were used to test the research hypotheses and also to find correlationamong the variables. Statistic

software of Eviews was applied for hypothesis testing in this research.

The purpose of the current research was to determine the quantitative relations between financial performance as a dependent variable and financial flexibility as an independent variable.

The population and sample of the research

The population of the study consisted of the companies accepted in Tehran stock exchange, and the sampling method was elimination method. Thus, to estimate the models of the research, the companies with the following conditions were selected asthe statistical sample and those companies without the following conditions were eliminated from the statistical sample. The mentioned conditions are as follows:

- It is to be in a 5-year period and between the years of 2010 to 2014.
- Their financial year to be ended in Esfand to increase comparability.
- During the total period of the research to be one of the companies accepted in Tehran stock exchange.

Thus, data collection was confined to the qualified companies, which led to selecting a sample of 183 companies.This number of companies were studied as the research sample.

The research variables

In this research, relevant models and formulas were used to study each of the variables, and the research had two sets of independent and dependent variables as follows:

Independent variables

Financial flexibility: leverage ratio and liquidity ratio were used to measure financial flexibility in this research.

Leverage ratio=$\dfrac{total\ of\ debts}{total\ of\ assets}$

Liquidity ratio=$\dfrac{cash}{total\ of\ assets}$

Dependent variable:

Financial performance:return on assets and operational cash flowswere used to measure the financial performance.

$$ROA_{it} = \beta_0 + \beta_1 Leverage\ ratio_{it} + \beta_2 Liquidity\ ratio_{it} + \beta_3 Size_{it} + \varepsilon_{it}$$

TA= total of assets of the company in the year t

Statistical models of the research:

To test the main hypotheses of the research, the following Regression Model was used:

$$ROA_{it} = \beta_0 + \beta_1 Leverage\ ratio_{it} + \beta_2 Size_{it} + \varepsilon_{it}$$

To test first secondary hypothesis the following Regression Model was used::

To test the second hypothesis:

$$ROA_{it} = \beta_0 + \beta_1 Liquidity\ ratio_{it} + \beta_2 Size_{it} + \varepsilon_{it}$$

Return on assets=$\dfrac{Net\ profit}{total\ of\ assets}$

$Size_{it} = \log_T TA$

Controlling variable:

The company size: that is equal with the logarithm of total assets.

Where:

ROA_{it}: The performance of the company i in the year t

Liquidity ratio of the company I in the year t

The size of the company I in the year t

Findings:

In this kind of analysis, the researcher summarized and categorized the collected data using descriptive statistics indexes, that is, in this kind of analysis, the researcher used descriptive statistics indexes such as mean, median and so on to summarize the information. (khaki, 1388)

To this end, the descriptive statistics of data such ascentral indexes, dispersion indexes and data skewness deviations were tabulated in the Table 1.

Table1. Analyzing and descriptive statistics

Minimum	Maximum	Standard deviation	Median	Mean	The observation numbers	Reviewing variables
%29	%96	%16	%38	%58	50	Return on assets
%11	1/95	1/74	1/138	1/21	50	Leverage ratio
%10	%91	%18	%32	%42	50	Liquidity ratio
4/561	11/269	10/2951	8/26594	9/8194	50	Size of company

Inferential analysis

As pointed out earlier, collecting data and measuring ratios and summarizing them, the researcher tries to test the research hypotheses(using Excel) using adequate statistical techniques that are accorded with research method, type of variables and other research parameters. In this research, instead of using methods like cross-sectional data, the panel data method was used. The above-mentioned method, in addition to increasing the statistical potency of coefficients, makes the harmony between variables decrease and an effective estimation to be performed using the degree of freedom. In the current research, two methods of static panel data and dynamic panel data were used to study the financial performance effect and financial flexibility. In the method of static panel data, we estimated the coefficients of the model using estimated generalized Method of Least Squares after doing the Hasman testing and selecting the fixed effects method. In the aforesaid model, the coefficients of model were re-estimated as a dynamic procedure and by using advanced Generalized Method of Moments (GMM)to increase the reliability of the results. GMM model, on the one hand, doesn't need the exact information of truncated nominal distribution and was based on the assumption that the truncated statements were not correlated with instrumental variables set in the equitation, and on the other hand, due to existing the correlation, the error statement with explanatory variables in the fixed effects model were of great reliability. In this stage, each hypothesis was tested and there were comments on verifying or rejecting each of them.

The first secondary Hypothesis testing

In the first hypothesis, as pointed out, the researcher studied the relationship between leverage ratio and financial performance of the reviewing companies. To this end, the researcher, after collecting and summarizing data, tried to estimate the model using Eviws software. To test these hypotheses, two models of GMM and EGLS were used .The summary of the results of these two tests was tabulated in Table 2. As pointed out, we used following model to test this hypothesis:

$$ROA_{it} = \beta_0 + \beta_1 \, Leverage \, ratio_{it} + \beta_2 Size_{it} + \varepsilon_{it}$$

Table2. The first secondary hypothesis testing

Generalized advanced Method of Moments (EGLS) (GMM)   **-Estimated Generalized Least Square Method** (GMM)

Significance level	coefficients	Significance level	coefficients	The reviewing independent variables
		0/001	3/659	Fixed degree
0/001	0/4251	0/001	0/3265	Leverage ratio
0/0006	0/3215	0/000	0/2165	size
			8/2654	Statistic F

			0/000	Statistical probability F
			0/62514	The balanced Coefficient of determination
			2/012	Durbin-Watson Test

As pointed out in the above Table, because of the obtained P-value degree, the total correlation coefficient was significant and the Durbin-Watson statistic value with 2/01 value indicated a lack of correlation between errors. The obtained results also indicated that the varying coefficient of the size of the company and debt ratio was positive and punctual. In case that these variables explain 62 percent of dependent variable behavior. Thus the first hypothesis of the research i.e. existence of punctual relationship between leverage ratio and financial performance was verified. Because of variable rate of leverage ratio (0/3265), this relationship was acceptable.

The second secondary hypothesis testing

In the second hypothesis, the researcher intended to evaluate the relationship between cash ratio and financial performance the companies accepted in Tehran stock exchange. As pointed out for this test, the following model was used:

$$ROA_{it} = \beta_0 + \beta_1 \, Liquidity \, ratio_{it} + \beta_2 Size_{it} + \varepsilon_{it}$$

After collecting the relevant information, this hypothesis was testedand its results are were tabulated in Table 3:

Significance level	coefficients	Significance level	coefficients	The reviewing independent variables
		0/00000	0/07859	Fixed degree
0/012	0/241	0/013	0/167	Liquidity ratio
0/0006	0/3215	0/000	0/2165	size
			4/6251	Statistic
			0/001	Statistical probability
			0/3821	The balanced Coefficient of determination
			2/10	Durbin-Watson Test

As the above Table shows, the P-value of liquidity ratio was less than 0/05, and thus we could conclude that there was a punctual relationship between liquidity ratio and financial performance of the reviewing companies stock. The values of this correlation was 0/167.The adjustment coefficient indicated that independent variable, namely liquidity flow, justified about 38 percent of the behavior of dependent variable. This was an acceptable value. Durbin-Watson test value (2.10) also indicated lack of correlation among the errors.

The main hypothesis testing

In the main hypothesis, the researchers evaluated the relationship between financial flexibility and financial performance of the companies accepted in Tehran stock exchange. As pointed out before, the following model was used for this testing:

$$ROA_{it} = \beta_0 + \beta_1 \, Leverage \, ratio_{it} + \beta_2 Liquidity \, ratio_{it} + \beta_3 Size_{it} + \varepsilon_{it}$$

After collecting the relevant data, this hypothesis was tested and its results were tabulated in Table 4:

Significance level	coefficients	Significance level	coefficients	The reviewing independent variables
		0/00000	0/15866	Fixed degree
0/0000	0/274	0/0001	0/402	Leverage ratio
0/002	0/541	0/0023	0/428	Liquidity ratio
0/0006	0/3215	0/000	0/2165	Size
			3/785	statistic
			0/001	Statistical probability
			0/4282	The balanced Coefficient of determination
			2/14	Durbin-Watson Test

As observed in the above Table, the P-value of the leverage ratio and cash ratio was less than 0/05, and thus we could conclude that there was a punctual relationship among cash ratio and leverage ratio and financial performance of thestock of the companies under review in this research. The value of this relationship also was 0/402 and 0/428, and the adjustment coefficient indicated the independent variables, namely leverage ratio and cash ratio justified42 percent of dependent variable behavior. This value was acceptable. The value of Watson testing also indicated the lack of correlation among the errors.

Conclusion

In this research, the researcher studied the relationship between financial flexibility and financial performance in the companies accepted in Tehran stock exchange. Briefly, we can conclude from the findings that financial flexibility, by considering to clarity degree in capital market and the current supporting rules, can lead to decreasing the output of companies. Financial flexibility usually ensure the loss of interests thangain of advantages. Financial flexibility can decrease the risks ofthe operations, as by decreasing the risk and bankruptcy in the time of net decline of cash flows due to operations. (Rahmani et al, 1391, Haqiqat and Bashiri, 1390 and Marchica and Moura 2010).Totally, an entity, in every level of operational risk, that enjoy from higher financial flexibility would encounter a less value of risk in comparison with an entity with a less financial flexibility, because financial performance statements can provide some information in order to help us evaluate the potency of the entity to reduce costs while there is income declines.The Balance sheet provides some information in order to evaluate the financial flexibility through determining the nature of available sources and the fund and the time of existent claims to these sources.The results of hypotheses of this research indicate that there is a punctual relationship between leverage ratio and financial flexibility of the companies accepted in Tehran stock exchange, these results agree with studies of Franklin and Motasami (2011), Yomatlo (2010), Bion (2008), Saleh nezhad and ghayor(1389) and Norosh and Yazdani(1388) which found that the financial leverage on investment had been effective on the companies, the stock price and the financial performance. The results of hypotheses of this study indicated that there was a punctual relationship between cash ratio and financial performance of the companies accepted in Tehran stock exchange, and we can express that these results correspond with the studies of Hassanlo et al (1391), Haghighat and Bashiri (1390), Denis (2011), and Arsalan and Florakis (2009).

Suggestions for further research:

1- Considering the less risk of the institutes that have higher financial flexibility, it is necessary for the institutes and the companies and the companies of stock exchange to pay more attention to this matter.

2- Considering to the results of the research, the investors who try to obtain a higher efficiency from their investing, should pay attention to the value of the financial flexibility of the company and also to the quality of financial performance in their investment selection, and to invest in the stocks of the companies that have a logical, and not more, flexibility.

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