

The study of the Relationship between beta, company size, financial supply and cash flow from financial activities with sales and profitability in the Tehran Stock Exchange

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Abstract: The main objective of this study was to investigate the relationship between the beta, company size, liquidity and cash flows from financial activities with sales and profitability in the Tehran Stock Exchange. A sample of this study was to evaluate the effect of beta, company size, liquidity and cash flows from financial activities with sales and profitability, the number of 120 companies listed in the Tehran Stock Exchange during 1382 to 1385 respectively. The results of this study showed that there is a significant relationship between cash flow from financial activities and cash by selling. While there is no significant correlation between the beta and the size of the company with its selling. There is a significant relationship between the cash from financial activities and cash flow with sales and profitability, but there is no significant correlation between the beta and the size of the company with profitability.

[Ali abdolahi, Issa heidari, Mojtaba amouri, said behzadi. **The study of the Relationship between beta, company size, financial supply and cash flow from financial activities with sales and profitability in the Tehran Stock Exchange.** *N Y Sci J* 2015;8(9):25-29]. (ISSN: 1554-0200). <http://www.sciencepub.net/newyork>. 5

Keywords: beta, size, liquidity, financial activities, profitability and sales.

Introduction

Stock Exchange by focusing the capital and its optimal allocation in order to increase production and economic and social development goals has undeniable effects on macroeconomic variables. Therefore, the stock market is a sign of economic development, and its activities leads to ease corporate financial supply, directs investment in producing micro and small investors and prevents stagnation of possible small capital and revenue of the public, and other benefits into the stock market. Stock returns in financial decision making is an important yardstick. Profit is important information in economic decisions that is complementary with the sales. In the present, environment in which companies operate is a competitive environment and growing companies need to develop their activities in order to progress through their new investment doing industry projects needs financial supply and cash in this respect, companies are forced to use financial mechanisms. Meanwhile, the financial market consists of the money market and capital market plays a mediating role that financial supply lies in the side of the demand offering side completes a process called the investment process. Despite these market, companies are confident of being able to refer to it in a variety of forms, and provides funds for their financial supply. Money market through banks and financial institutions transfers funds from suppliers to customers. The main points that financial managers consider them are businesses, strategies and financial supply and its

impact on company profitability. Types of financial supply in the country is divided into two categories of funds without financial supply with cost. Financial resources without the cost including prepayment from customers, trade creditors, payable expenses and payable shares. Financial resources with the expense are divided into the two categories of internal resources (retained earnings) and external sources (short-term and long-term loans and issuing new shares). Therefore, in this study, the effect of four factors such as beta- company size and selling in liquidity and cash from financial supply on the profitability of listed companies in Tehran Stock Exchange has been investigated. Which factors can positively and negatively correlated with sales and profitability and the factors which may accelerate to the extent profitability and sales and guarantee them. When sales surpass the favorable condition the constant factors also can pass a favorable situation.

Research literature

Beta

Beta coefficient is a means to evaluate the performance of a particular share or class of shares in the overall market movement. If beta of shares equals to 1, the increase or decrease of the price according to the market would be double. Factor β and its variations of systemic risk or factor β can be part of the fluctuation and leads to changes in security returns as the origin of the macro-economic, political, social factors and overall efficiency of the securities included in the portfolio of market has simultaneous

effects. Beta represents the systematic risk (market risk). Beta is one of the most versatile tool of Financial economists and market experts for measuring and managing risk. Beta and company performance have a positive relationship and companies that have high beta perform better than companies that have less beta, (Shahiki Tash, 1391). Several studies have been done by financial experts in world exchanges, including the New York Stock Exchange. The investigators such as Bloom, Louis, Jahankhani, Francis S., Porter, Azal, Sharp, Koper... each of them have investigated the different aspects of stability coefficient β that the majority of them have reached the same conclusions.

Company size

Company size indicates the size and scope of activities, often indexes are as an expression of measurement that show the company's performance not physical capacity. (TARAFI, 1385: 62). Small companies usually sensitive to changes in economic conditions, so in period of the change of business cycles, they show more volatility, so they have higher risk and therefore there is a negative relationship between company size and efficiency. The companies that have higher returns have better performance than companies that have lower returns, so it can be concluded that there is a negative relationship between company size and firm performance (Farooqi, 1393).

Financial supply

In general, financial providing theories can be classified in three basic parts, capital budgeting, capital structure and working capital management. The first two sections, all of them are in connection with the financial supply and management of long-term investment, but it is more intertwined with working capital, related to financial supply and long-term investment and current liabilities and assets at the same time. So it is logical that mainly the short-term management is mentioned as "working capital management". (Samilglu & Demirgunes, 2008).

cash

Subject cash conversion cycle (ccc) for the first time in 1976 by Richard Vlain believed that the analysis of the cash conversion cycle should be used as a complement to traditional liquidity analysis

(static) because it provides a dynamic view, They deduced that there is a significant relationship between the cash conversion cycle and current ratio (positive).

Hypotheses

The main hypothesis:

The beta, size, liquidity and cash flows from financial activities have a significant relationship with sales and profitability.

1: There is a significant relationship between beta and profitability.

2: There is a significant relationship between beta and sales.

3: There is a significant relationship Between net cash received from loan and principal repayment with profitability.

4: there is a significant relationship between the net cash received from loan and principal repayments and sales

5: There is a significant relationship between liquidity and profitability.

6: There is a significant relationship between liquidity and the sale.

7: There is a significant relationship between size and profitability.

8: There is a significant relationship between the size of the company and sales.

Research Methodology

The classification of research according to objectives, this research is an the applied research. The research focuses on finding an immediate solution to the scientific nature.

According to the hypotheses it was used correlation and regression methods. Other part related to variables is through a field of the use of CDs and available software via Microsoft Excel classified correction and final analysis is done by software spss19.

The research has been done in listed companies in The Tehran Stock Exchange, survey was conducted from 1385 to 1392. All of companies in the Tehran Stock Exchange were selected randomly, with the following conditions selected from the years 1385 to 1392.

Table 1.

The total number of listed companies	476	
More restrictions	included companies	The remaining samples
Listed companies after 1384	98	378
Investment firms, financial intermediation and insurance	96	282
Different fiscal year	97	185
Companies lack the information they need	65	120

Expression of research model

In this study, two models according to the dependent variables on profitability sales is provided.

Profitability:

$$B^f = \alpha + \rho^{f1} B^{bf} + \rho^{f2} (WE^{E^f}) + \rho^{f3} (\Gamma \Gamma O^{b^f}) + \rho^{f4} (\Gamma^f)^{b^f} +$$

- Pt =annual net profit
- P = LIQpt liquidity portfolio in period t
- Li_pt =financing through loans in period t
- B_pt =systemic risk period t p cart
- ME_pt =market size baskets
- B_t =regression coefficients
- A =intercept

= $\sum \epsilon^f$ =The random error of the regression equation

2. sales

$$Z^f = \alpha + \rho^{f1} B^{bf} + \rho^{f2} (WE^{E^f}) + \rho^{f3} (\Gamma \Gamma O^{b^f}) + \rho^{f4} (\Gamma^f)^{b^f} + \epsilon^f$$

- = S_t Annual net sales
- P = LIQ_pt liquidity portfolio in period t
- Li_pt = financing through loans in period t
- B_pt =systemic risk period t p cart
- = ME_pt =market size baskets
- B_t = regression coefficients
- A =intercept
- $\sum \epsilon^f$ =the random error of the regression equation

Table 2.

	mean	average	maximum	minimum	Standard deviation
Return on Sales	0.581	0.342	52.20	-0.60	2.419
Finance rate	-0.06	0.479	1790.00	-4022.00	147.52
Company size	1.47	1.21	4.10	0.111	0.499
Financing	248427.2	34280.00	20090381	-1200100	1116673.
Reduced cash	194806.0	12340.00	39303191	-240000	1590818
Working capital (cash)	0.885	0.30	106.00	-236.00	9.412
	1.23	1.04	2.08	-1.00	64.00

Results of hypotheses:

1. There is a significant relationship between beta and return on sales.

According to model 1, the statistical hypothesis is in following:

- H₀: β₅ = 0
- H₁: β₅ ≠ 0

There is a significant relationship between beta (decrease cash) and return on sales.

2: There is a significant relationship between beta and profitability.

According to model 2, statistical hypothesis is in following:

- H₀: β₃ = 0
- H₁: β₃ ≠ 0

There is a significant relationship between Bta and profitability rate.

3: There is a significant between net cash from (funding) of the loan and the principal repayment and return on sales.

According to model 1, the statistical hypothesis is made as following:

- H₀: β₂ = 0
- H₁: β₂ ≠ 0

There is a positive relationship between net cash (finance) and return on sales. According to the results of the estimation OLS, the beta coefficient (financing) is estimated at 0.002 means if a net variable unit of cash (Financing) increases the return on sales increases an average of 2.0 units.

4. there is significant relationship between Net cash from (Finance) of the loan and the principal repayment with profitability.

According to model 2, statistical hypothesis is made as following:

- H₀: β₂ = 0
- H₁: β₂ ≠ 0

There is a positive relationship between net cash (finance) and rate of profitability. According to the results of the estimation OLS, is estimated 0.025.if a variable unit of net cash (financing) increases, averaging 2.5 points of profitability increases.

5: There is a significant relationship between liquidity and return on sales.

According to model 1, the statistical hypothesis is made as following:

- H₀: β₄ = 0

there is a significant positive relationship between working capital (cash) and return on sales.

and the other hand, the model determination coefficient (R² = 0.745) is good, if a variable capital (liquidity) increases, the average units of yield 0.762 sales increases.

6: There is a significant relationship between liquidity and profitability.

According to model 2, statistical hypothesis is made as following:

- H₀: β₄ = 0
- H₁: β₄ ≠ 0

There is a positive relationship between liquidity and profitability. According to the results of the estimation OLS, the liquidity ratio was estimated

0.072 means if one unit of liquidity increases, an average unit of profitability increases 7.2 percent.

7: There is a significant relationship between firm size and return on sales.

According to model 1, the statistical hypothesis is made as following:

H0: $\beta_1 = 0$

H1: $\beta_1 \neq 0$

There is a negative relationship between firm size and return on sales. According to the results of the estimation OLS, firm size factor is estimated at 0.519 means if a variable of company size increases,

51.9 percent of the average return on sales will decrease.

8: There is a significant relationship between size and profitability.

According to model 2, statistical hypothesis is made as following:

H0: $\beta_1 = 0$

H1: $\beta_1 \neq 0$

As Table 3 shown, the significant level of t-statistic related to the coefficient 1β equals to size of the company means to 0.268 (0.05) which is not statistically significant at the 5% level.

Table 3: The impact of independent variables on the return on sales (the dependent variable).

independent	variables	coefficient	Standard deviation	T statistic	Sig level
Intercept	0β	0.444	0.422	1.053	0.293
Company size	1β	-0.519	0.270	-1.922	0.045
Financial supply	2β	0.015	0.045	2.055	0.040
Working capital (cash) beta	3β	0.762	0.014	53.141	0.001

0.848	0.191	0.064	0.012	4 β
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R2 = 0.743 Adjusted R2 = 0.741	549.11 F-statistic = = 0.001 confidence level.	1.8 Watson statistic = camera
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Independent variables	variables	Coefficient	Standard deviation	T statistic	Sig level
Intercept	0β	16.540	14.255	1.160	0.246
Company size	1β	-14.058	12.682	-1.108	0.268
Financing	2β	0.025	0.075	-0.239	0.811
Working capital (cash)	3β	0.072	0.098	1.940	0.046
Beta	4β	0.429	0.663	0.647	0.518

R2 = 0.1254 Adjusted R2 = 0.111-	F-statistic = 1.53 = 0.001 significance level	1.88= Watson statistic = camera
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Analysis of the results

First hypothesis: is there a significant relationship between beta and return on sales?

There is no significant relationship between beta and return on sales.

The second hypothesis: is there a significant relationship between beta and profitability?

There is a significant relationship between beta and profitability.

The third hypothesis: is there a significant relationship the cash resulting from financial activities of received loans and repayments of loans with return on sales?

There is a significant relationship between the cash flow from financial activities, repayments of loans and principle loan with return on sales.

The fourth hypothesis: is there a significant relationship between the cash from financial activities and Repayment of loan with profitability?

There is a significant relationship between cash flow from financial activities and Repayment of loan with profitability.

Fifth hypothesis: is there a significant relationship between liquidity and return on sales?

There is a positive relationship between liquidity and return on sales.

Sixth hypothesis: is there a significant relationship between liquidity and profitability?

There is a significant positive relationship between liquidity and profitability, profitability and growth.

Seventh hypothesis: is there a significant relationship between firm size and sales?

There is no significant relationship between firm size and sales.

Eighth hypothesis: is there a significant relationship between firm size and profitability?

There is no significant relationship between firm size and profitability.

Suggestion

1. It is recommended that an indicator is designed for the Company to the Stock Exchange, so the researchers don't face problems of large and small companies. If small companies are divided into two groups based on their market value, we can separately explain influence of different factors for large and small companies. Each of the factors that are the basis of grades.

2. It is recommended to the Stock Exchange that according to the specific circumstances of each company overall, we can say a limit or a certain amount for the company's use of debt (borrowing) is specified.

3. There is a pricing mechanism in the Market Stock causes that investors can recognize that is stock prices based on risk and return or not is, in this case, all prices are equilibrium and there is no papers more or less than pricing in the market.

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