

# The Relationship between the Ability to Manage and Capital Expenditures, Company Resources, Company Debt and Information Asymmetry of Companies Listed on the Tehran Stock Exchange

Mohammad Kachooli<sup>1</sup>, Zohreh Hajiha<sup>2\*</sup>, Abbas Ali Hagh Parast<sup>3</sup>

<sup>1</sup>Department of Accounting, Zahedan Branch, Islamic Azad University, Zahedan, Iran

<sup>2</sup>Associate Professor, Department of Accounting, East Tehran Branch, Islamic Azad University, Tehran, Iran

<sup>3</sup>Faculty Member of Accounting, Zahedan Branch, Islamic Azad University, Zahedan, Iran

\*Corresponding Author Email: drzhajiha@gmail.com

**Abstract:** The aim of this research was to study the relationship between the ability to manage and capital expenditures, company resources, company debt and information asymmetry of companies listed on the Tehran Stock Exchange. For this purpose, the data of 102 companies listed on Tehran Stock Exchange during the years of 2010 to 2014 using Rahavard modern software and Web Kedal, panel data models, regression test preconditions (including Chow and Hausman) and generalized least squares estimation method was used. The results showed that a significant relationship between the ability to manage and capital expenditures, company resources, company debt and information asymmetry of companies listed on the Tehran Stock Exchange was established and there was not found any relationship between the ability to manage and company debt.

**Keywords:** Company Debt, Resources, Management.

## Introduction

In the present era, the importance and the role of levels of managers as designers, directors and principal managers of the organization are obvious and implementing effective systems of appointment, attraction, maintenance, assessment and development are very important and enjoy a special place. Managers as the main decision-making in the face of various issues within and outside the organization play an important role in the success or failure of the organization. Since the management is very important in any organization and it is the most important activities that for those missions and organizational objectives are realized, one of the main routes of meritocracy is to appoint qualified managers (Gholamzadeh et al., 2013). Companies must prepare basic financial statements at the end of each period. One of these financial statements is the statement of profit and loss which the last digit is the profit of an entity. In fact, the profit is a single index for measuring economic activity (Saqafi & Aqaei, 1994). However, due to acceptable degrees of risk, profit is considered as a tool or instrument of a predictor that help people in forecasting future profits and economic events. Profit is a measure of stewardship to manage the company's resources and efficiency in accomplishing the company's affairs so that The Financial Accounting Standards Board has proposed this issue as follows: "one of the goals for the financial statements is that on judging about the ability of management or effectiveness in terms of efficient use of company resources and directing the

performance to achieve the primary goal, some information is presented which over time, the highest amount of cash is returned to owners. Reporting profits could be used as a tool to manage accordingly, about the future of the program (Azizi, 2010). it is necessary to mention that one of the most important sources of information for investors, credit providers, and other users of corporate information (in Stock Exchange), profits provided by the company management at regular intervals are definite (Hashi et al., 2009). However, projecting profitability of companies is very importance. Therefore, the aim of this research was to study the relationship between the ability to manage and capital expenditures, company resources, company debt and information asymmetry of companies listed on the Tehran Stock Exchange.

### Materials and Methods

The research method was descriptive and correlational. The population consists of all companies listed on the Tehran Stock Exchange during 2010 to 2014. Companies that met the following criteria were selected and their data were analyzed.

1. Their fiscal period is ended to 12.29 each year so that we can put data together and this is used in the form of panel and compilation (based on tests of presupposition).
2. During the period of investigation, they have no change in the fiscal period so that the results of financial performance are comparable.
3. Data for the variables during 2010 to 2014 are available so that calculations can be performed without flaw.
4. They do not belong to the investment companies, financial and credit institutions, banks, insurance companies and holdings.

In this research, independent variables included Managerial Ability<sub>i,t</sub> which the following regression model was used to calculate:

$$\text{FirmEfficiency}_{i,t} = \beta_0 + \beta_1 \ln(\text{TotalAssets})_{i,t} + \beta_2 \text{PositiveFreeCashFlow}_{i,t} + \beta_3 \ln(\text{Age})_{i,t} + \varepsilon_{i,t}$$

Firm Efficiency <sub>i, t</sub> = Company performance of i in year t will be the sum of sales revenue to cost of goods sold, general expenses, administrative and sales and calculated net property, plant and equipment;

Ln (Total Assets)<sub>i,t</sub> = natural logarithm of the total assets of the company i in year t;

Positive Free Cash Flow <sub>i,t</sub> = positive free cash flow of company i in year t, which is net cash flow caused operating activities minus capital expenditure (Rezvaniraz et al, 2009); and ln(Age)<sub>i,t</sub> = natural logarithm of the number of years of membership in the exchange company i in year t.

In order to explain the method of calculation for variable of the management of efficiency, it should be noted that in the first step, the above model in the overall level data is estimated and after calculating the coefficient (including  $\beta_0$ ,  $\beta_1$ ,  $\beta_2$  and  $\beta_3$ ), in the second step, the mentioned model for each company - year is used and the value of model waste ( $\varepsilon_{i,t}$ ) in the level of each company-year is calculated which is used as managerial performance. The model waste ( $\varepsilon_{i,t}$ ) for each company in each year indicates the value of dependent variable which is not explainable by the above model and this represents management performance. Also, control variables consisted of Leverage<sub>i,t</sub> (financial leverage of the company i in year t, which is the ratio of debt to assets), Size<sub>i,t</sub> (size of company i in year t which is the natural logarithm of the market value of the company's equity), MtB<sub>i,t</sub> (growth opportunities that the company i in year t is equal to the market value of equity to book value of equity). The dependent variables were calculated using regression models:

$$1) \text{Investment}_{i,t} = \beta_0 + \beta_1 \text{Managerial Ability}_{i,t} + \beta_2 \text{Leverage}_{i,t} + \beta_3 \text{Size}_{i,t} + \beta_4 \text{MtB}_{i,t} + \varepsilon_{i,t}$$

$$2) \text{Resources}_{i,t} = \beta_0 + \beta_1 \text{Managerial Ability}_{i,t} + \beta_2 \text{Leverage}_{i,t} + \beta_3 \text{Size}_{i,t} + \beta_4 \text{MtB}_{i,t} + \varepsilon_{i,t}$$

$$3) \text{Debt}_{i,t} = \beta_0 + \beta_1 \text{Managerial Ability}_{i,t} + \beta_2 \text{Leverage}_{i,t} + \beta_3 \text{Size}_{i,t} + \beta_4 \text{MtB}_{i,t} + \varepsilon_{i,t}$$

$$4) \text{Information Asymmetry}_{i,t} = \beta_0 + \beta_1 \text{Managerial Ability}_{i,t} + \beta_2 \text{Leverage}_{i,t} + \beta_3 \text{Size}_{i,t} + \beta_4 \text{MtB}_{i,t} + \varepsilon_{i,t}$$

Return<sub>i,t</sub> = company return i in year t which is used three criteria to calculate the return on assets (ratio of net profit to total assets of companies), return on equity of shareholders (ratio of net profit to total equity of shareholders); return on equity (the difference between the stock price at the end of this year and the stock price at the end of last year, plus stock dividends divided by stock price at the end of the previous year). EVA<sub>i,t</sub> = EVA company i in year t (net operating profit after tax, minus the cost of capital expenditure) divided by total assets. MAV<sub>i,t</sub> = market added value i in year t (minus the market value of equity, book value of equity) divided by total assets. Investment <sub>i,t</sub> = capital expenditure of company i in year t, which is the ratio of capital expenditure derived from the cash flow statement to total assets. Resources <sub>i,t</sub> = company sources i in year t, which is the company's long-term net debt during the year plus income from operating activities divided by total assets. Debt <sub>i,t</sub> = company Debt i in year t, which is the company's long-term net debt divided by total assets during the year. Information Asymmetry <sub>i,t</sub> = company information asymmetry i in year t which this is used by the percentage difference between

bid and offer prices. By the use of the Average Bid (BP) and the average price of an offer to sell (AP), the difference of the Average bid and sales is achieved. Whatever this difference is more, information asymmetry will be more:

$$\%SPREAD = (AP-BP) / [(AP+BP)/2]$$

For data analysis, regression, Fisher F-test, t significance test and Hausman test were used. Also, to choose between panel data and data compilation methods, Limer F-test was used for correlation test for the lack of self-solidarity, Durbin-Watson test for the test of heterogeneity of variances, White test and also to test the stability of test variables Fisher was used.

### Results

The results of the first test model using fixed effects model and generalized least squares estimation method (EGLS) are presented in Table 1. According to the results presented in Table 1, since the t-statistic for variable of the ability to manage is more than +1.965 and its significance level is smaller than 0.05, there is a significant and direct relationship between the ability to manage and capital expenditure of companies listed on the Tehran Stock Exchange. Durbin-Watson statistic is also 2.249 which are between 1.5 and 2.5. Meanwhile, the significance level of the F-statistic is 0.000 which is lower than 0.05 and represents the model significance.

**Table 1.** Test results of the relationship between the ability to manage and capital expenditure.

Variable	Coefficients	Standard error	t	Sig.
Fixed value	-0.014	0.039	-0.358	0.72
The ability to manage	0.031	0.007	4.439	0.000
Financial leverage	0.012	0.011	1.122	0.262
Size of the company	0.001	0.002	0.608	0.543
Growth opportunities	-0.001	0.009	-1.817	0.069
F statistic		7.42	Coefficient of determination	0.673
F statistic significant level		0.000	Adjusted coefficient of determination	0.583
Method of EGLS (fix potential effects of heterogeneity of variance)			Durbin-Watson	2.249

The result of the test of the second model using fixed effects and generalized least squares estimation method (EGLS) is presented in Table 2. According to the results presented in Table 2, since the t-statistic for variable of the ability to manage is more than +1.965 and its significance level is smaller than 0.05, there is a significant and direct relationship between the ability to manage and resources of the companies listed on the Tehran Stock Exchange. Durbin-Watson statistic is also 2.013 which are between 1.5 and 2.5. Meanwhile, the significance level of the F-statistic is 0.000 which is lower than 0.05 and represents the model significance.

**Table 2.** Test results of the relationship between the ability to manage and company resources.

Variable	Coefficients	Standard error	t	Sig.
Fixed value	1.281	0.179	7.12	0.000
The ability to manage	0.641	0.036	17.527	0.000
Financial leverage	-0.212	0.056	-3.771	0.000
Size of the company	-0.073	0.012	-5.73	0.000
Growth opportunities	0.026	0.004	6.604	0.000
F statistic		40.933	Coefficient of determination	0.918
F statistic significant level		0.000	Adjusted coefficient of determination	0.896
Method of EGLS (fix potential effects of heterogeneity of variance)			Durbin-Watson	2.013

The result of the test of the third model using the model of the data combined is presented in Table 3. According to the results presented in Table 3, since the t-statistic for variable of the ability to manage is lower than +1.965 and its significance level is more than 0.05, there is not a significant and direct relationship between the ability to manage and debt of the companies listed on the Tehran Stock Exchange. Durbin-Watson statistic is also

1.807 which is between 1.5 and 2.5. Meanwhile, the significance level of the F-statistic is 0.000 which is lower than 0.05 and represents the model significance.

**Table 3.** Test results of the relationship between the ability to manage and company debt.

Variable	Coefficients	Standard error	t	Sig.	Variance inflation factor
Fixed value	-0.059	0.03	-1.945	0.052	-
The ability to manage	0.003	0.012	2.267	0.789	1.1
Financial leverage	0.046	0.015	5.006	0.000	1.023
Size of the company	0.002	0.001	1.279	0.201	1.006
Growth opportunities	0.002	0.001	1.056	0.291	1.118
F statistic		6.399	Coefficient of determination		0.127
F statistic significant level		0.000	Adjusted coefficient of determination		0.119
Significance level of Arch test		0.257	Durbin-Watson		1.807

The result of the test of the fourth model using fixed effects and generalized least squares estimation method (EGLS) is presented in Table 4. According to the results presented in Table 4, since the t-statistic for variable of the ability to manage is more than +1.965 and its significance level is smaller than 0.05, there is a significant and direct relationship between the ability to manage and information asymmetric of the companies listed on the Tehran Stock Exchange. Durbin-Watson statistic is also 2.291 which are between 1.5 and 2.5. Meanwhile, the significance level of the F-statistic is 0.000 which is lower than 0.05 and represents the model significance.

**Table 4.** Test results of the relationship between the ability to manage and information asymmetric.

Variable	Coefficients	Standard error	t	Sig.	
Fixed value	-0.137	0.038	-3.5667	0.000	
The ability to manage	0.024	0.007	3.331	0.001	
Financial leverage	0.101	0.011	8.828	0.000	
Size of the company	0.009	0.002	3.342	0.000	
Growth opportunities	0.0002	0.0004	0.412	0.068	
F statistic		9.272	Coefficient of determination		0.772
F statistic significant level		0.000	Adjusted coefficient of determination		0.689
Method of EGLS (fix potential effects of heterogeneity of variance)			Durbin-Watson		2.291

## Discussion and Conclusion

The aim of this research was to study the relationship between the ability to manage and capital expenditures, company resources, company debt and information asymmetry of companies listed on the Tehran Stock Exchange. The results showed that results of the studies showed that there was a significant and direct relationship between the ability to manage and capital expenditures of companies listed on the Tehran Stock Exchange. Also, there was found a significant and direct relationship between the ability to manage and resources of companies listed on the Tehran Stock Exchange while there was not found a significant and direct relationship between the ability to manage and company debt of companies listed on the Tehran Stock Exchange. Also, there was found a significant and direct relationship between the ability to manage and information asymmetry of companies listed on the Tehran Stock Exchange. The findings of the present research are consistent with the results of studies such as Raheman and Nasr (2007), Chatterjee (2012), Kroes and Manikas (2014), Yaqoubnejad et al (2010), Izadinia and Taki (2010). Another result of this study is that the ability to manage has a direct and significant effect on information asymmetry which is also in conflict with the results of Demerjian et al (2013), Park et al (2015), Izadinia and Taki (2010), Bozorgasl and Salehzadeh (2014).

In order to explain the totality of the results, according to the approach used in hypotheses, it should be said that previous studies have focused on the importance of quality management that with their study, the relationship between the ability to manage and company performance becomes transparent. The ability to manage and human

capital are considered as an intangible asset resulting in more efficient operational management (Panayiotis, 2013). In other words, if the authority and empowerment, it is the organization's management body which performance goodwill of the organizations could be expected under the current circumstances (Farahi Bouzanjani, 2005). Certain and subtle point is that if a manager is not be efficient and capable, he cannot penetrate in colleagues and his subordinates. In other words, lack of necessary skills in doing issues leads that employees through informal relationships are trying to handle a variety of activities, people leave their core functions and destroy the entire system through misplaced decisions (Atafar and Azarbaijani, 2001). Accordingly, whatever the managers have more specialized skills and general abilities, they can better play roles assigned and they can better perform (Vilkinas & Cartan, 1997).

According to the results of research based on that the company's ability to manage has a direct relationship with the company capital expenditure, decision makers and board members of listed companies in Tehran Stock Exchange are proposed that if appropriate and if needed to increase investment company (according to the company's status in terms of life cycle), top managers with high ability be used in order to increase the company's investments. Investors in companies listed on the Tehran Stock Exchange are also proposed that when making investment decisions and buying and selling shares, the ability to manage the business be taken into account because the company's investments are increased which could have numerous consequences. According to test results, based on that the company's ability to manage has a direct relationship with company resources, investors in companies listed on the Tehran Stock Exchange are also proposed that when making investment decisions and buying and selling shares, the ability to manage the business be taken into account because this represents more resources at the disposal for financial security of future activities.

According to test results, based on that the ability to manage the company has not significantly related to company debt, investors in companies listed on the Tehran Stock Exchange are also proposed that when assessing the works of the use of companies, top managers with high abilities be taken into account that the ability to manage has not any effect on company debt. According to test results, based on that the ability to manage the company has a significant and direct communication with company information asymmetry, investors in companies listed on the Tehran Stock Exchange are also proposed that when making investment decisions and buying and selling shares, the ability to manage the business be taken into account because this will represent more information asymmetry.

#### ***Conflict of interest***

The authors declare no conflict of interest

#### **References**

- Atafar A, Azarbaijani K, 2001. To study the merit in the appointment of public and private directors. *Knowledge of Management*. 54: 15-38.
- Azizi A, 2010. To explain the relationship between earnings management and audit quality of listed companies on Tehran Stock Exchange. Master Thesis of Accounting. Islamic Azad University of Arak. Iran.
- Bozorgasl M, Salehzadeh B, 2014. The ability to manage and the quality of commitment items. *accounting knowledge*. 5 (17): 119-139.
- Demerjian P, Lev B, Lewis M, MacVay S, 2013. Managerial ability and earnings quality. *The Accounting Review*. 88 (2): 463-498.
- Farahi Bouzanjani B, 2005. An introduction of sample for developing managerial skills needed by managers. *Knowledge of Management*. 68: 73-92.
- Gholamzadeh D, Sehat S, Sattari Laqab B, 2013. To determine the eligibility criteria for managers in an insurance company (sample: middle managers). *Latest issues of insurance world*. 178: 4-16.
- Hashi A, Boulou Q, Rashidian S, 2009. Evaluation of the Effect of Section 340 of Auditing Standards (addressing future financial information) on the quality of forecasting earnings. *Journal of Accounting Research*. 3: 5-36.
- Izadinia N, Taki A, 2010. The effect of working capital management on the profitability of listed companies on the Tehran Stock Exchange. *Journal of Financial Accounting*. 2 (5): 120-139.
- Kroes JR, Manikas AS, 2014. Cash flow management and manufacturing firm financial performance: a longitudinal perspective. *International Journal of Production Economics*. 148: 37-50.
- Panayiotis CA, 2013. *Managerial Ability and Firm Performance: Evidence from the Global Financial Crisis*. Available at: [www.efmaefm.org](http://www.efmaefm.org).
- Park J, Ko C, Jung H, Lee Y, 2015. Managerial ability and tax avoidance: evidence from Korea. *Asia-Pacific Journal of Accounting & Economics*. DOI:10.1080/16081625.2015.1017590.

- Raheman A, Nasr M, 2007. Working Capital Management and Profitability-Case of Pakistan Firms. *International Review of Business Research Papers*. 3: 279 – 300.
- Saqafi A, Aqaei MA, 1994. Accounting profit behavior. *Review of Accounting and Auditing*. 9: 5-12.
- Vilkinas T, Cartan G, 1997. How different are the Roles Displayed by Female and Male Managers. *Journal of Women in Management*. 12(4): 129-135.
- Yaqoubnejad A, Vakilifard H, Babaei A, 2010. The relationship between working capital management and profitability in companies listed on the Tehran Stock Exchange. *Journal of Financial Engineering, and Management Portfolios*. 2: 117-137.