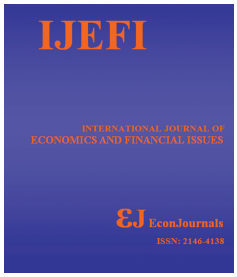

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The Effect of Financial Constraints on Relationship between Financial Reporting Quality and Investment Inefficiency

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ABSTRACT

Today, any research about the influence of accounting information in great range of stock holder decisions makers in companies leads to the better understanding of the method and role of information and its better disclosure. Current work was conducted aiming at investigating role of financial constrains in relationship between financial reporting quality and investment inefficiency. Research statistical population includes companies listed in Tehran Stock Exchange during 2008-2013. 112 companies were considered as statistical sample considering predetermined criteria. Data in Rahavard Novin Software were used for data collection. Also, financial statements of the companies listed in Tehran Stock Exchange were used. Multivariate regression model, the fixed effects model and generalized least squares estimation method were used for data analysis using Eviews software. In this regression model, variables of growth, size, asset return, cash and objective assets were entered into analysis as control variables. Analysis results show that financial constraints increase opposite effect of financial reporting quality on investment inefficiency.

Keywords: Financial Constraints, Financial Reporting Quality, Investment Inefficiency
JEL Classifications: E44, G32

1. INTRODUCTION

Today accounting systems play a very important role in activity flow of organizations and have a very important responsibility within economic environment setting of the countries. Financial reporting is one of the most important products of accounting system and one of its main goals is to provide required information for economic decisions makings of the users regarding the assessment of performance and profitability capability of the economic entity. The required condition to achieve such a goal is to measure and report the information in a way that it makes past performance assessment possible and it can be effective in measuring profitability capability and predicting future activities of an economic entity.

Financial reports are among the accessible information sources in capital markets and they are expected to have an effective role in developing investment and increasing its efficiency. Therefore, the professors, researchers, and practitioners in accounting profession are trying to increase financial reporting quality as a means to establish responsiveness to the needs of their societies.

On the other hand, regarding the resource constraints, in addition to investment development, increasing investment efficiency is one of the most important issues. Investment efficiency requires that on the one hand, we should avoid the consumption of resources in activities that investment has done greater than what is desirably needed (prevention from over-investment), and on the other hand, resources should be directed towards activities that need more investments (prevention from under-investment).

As Saghafi and ArabMazar (2010) have stated, since firms need to increase capital to be enough to finance for investment opportunities, financial constrains halts the investment capability to invest on projects having the required potential for the managers. Thus, firms that encounter financial constrains avoid projects with positive net values due to high costs of financing and this leads to under-investment in the company and as a result investment inefficiency occurs. Meanwhile, Hoakmian (2008) believes that due to the reduction of cashes accessible for the management following the financial constrains, the quality of project selection increases through the reduction of additional investment and this

gives the incentive to the manager to give priority to other valuable project and therefore investment efficiency increases.

Recently a series of studies have dealt with investigating the effect of financial reporting quality on investment efficiency. Since financial reporting quality makes managers to be more responsible through providing the possibility to control better, and probably information asymmetry and following that the reverse selection and moral hazards will decrease, these can heal additional and insufficient investment problems. On the other hand, financial reporting quality can improve investment efficiency through providing the possibility of making better investment decisions for the managers through recognizing better projects and presenting more faithful accounting figures to the internal decision makers (Bushman and Smith, 2001; McNichols and Stubben, 2008). But the effect of financial constraints on this relationship has not been notices and tested practically. Thus, the goal of the present research is to investigate about the balancing role of financial constrains on the relationship between financial reporting quality and investment inefficiency.

2. RESEARCH LITERATURE

2.1. Theoretical Foundations

Financial reporting quality is defined as the capability of financial statements in transferring firms' operational information and specifically predicting expected cash flows to the investors (Modarres and Hesarzadeh, 2008). Linzmier and et al. (1998) stated that an accounting standard with high quality can improve financial reporting through reinforcing the ability of users in investment and credit decision makings. Torenton (2002) believes that financial reporting and accounting information quality is the common product of at least four main factors: Creativity and management outlooks, accounting quality, the experience of auditing committee, and accounting standards with high quality. The presence of weaknesses in each of these four factors can hurt the whole chain. Many researchers (Barth et al., 2008) have used financial information precision as the criterion for measuring financial reporting quality that represents the capability of accrual earning elements (within flexibility and authority in selection from among approaches and accounting estimations) in predicting future expected cash flows. Therefore, high precision and predictability of accrual earning elements are among indexes to identify information content and high quality of financial reporting (Saghafi and Ebrahimi, 2009).

Investment is among important economic variables that has always appropriated main debates to itself. Different thought schools have proposed different definitions for investment. In one of them it has been stated that investment refers to delaying the current consumption in order to achieve more consumption probability in future. Also investment can be defined as follows: Investment is the costs to obtain an asset that is expected to present income or services in future. In another explanation, it has been proposed that investment is the process through which capital goods are used for commodity or service production. The definitions above are overall and consider investment as a process. Another definition of investment is: Ignoring the sure current value for risky future value. Therefore it can be said that regarding the definition above, investment is a type of comparison between opportunity costs and value type. This means that the current capital value accessible through not entering investment processes can have another opportunity cost too and it refers to the future value that is obtained through manufacturing processes for the investor.

Mandel considers investment as a process through which the investor investigates among different methods and then selects the alternative whose return is proper with the expected risk after gaining assets (such as money, land, and machinery) that are mainly created through savings or less consumption of the income. This alternative can be a real asset like a building, machinery, or financial assets like stocks, bonds, or future contracts, in another definition, investment can be considered as a resource to gain financial benefits. In other words, investment is to consume current resources to achieve future benefits that are not certain and have a probable aspect (Pakdelan, 2012).

To categorize firms regarding financial constraints, first we should define financial constraints. The most complete and clearest definition can be as follows: Firms encounter financial constraints when there is a gap between internal and external costs of the appropriated cashes (Fazari et al., 1988).

Among the main reasons of the presence of difference between internal and external financing costs are information asymmetry and agency problems. If there is information asymmetry, the investors would not have much information about future status of investment projects of the firms. And therefore, to invest in such firms, investors would demand high return rates (Mayerz and Majlof, 1984). Agency problems cause lack of trust among firm managers and investors. In this case, investors demand higher return rates to finance firm's investment projects (Kadapakkam et al., 1998).

2.2. Experimental Literature

Sajjadi et al. (2012) investigated about the effect of agency problems and financial reporting quality on investment risk in firms enlisted in Tehran Stock Exchange. In this research they used the data of 120 firms enlisted in Tehran Stock Exchange during the time period between 2004 and 2010 to do the research. The regression pattern of the research was tested through the use of panel data method with fixed effects approach. Results showed that agency costs have a positive and meaningful effect on firms' investment risk while financial reporting quality has a negative and meaningful effect on it.

Arabsalehi and Ashrafi (2011) investigated about the relationship between financial constraints and investment sensitivity of cash flows in their study. To categorize firms in two groups of suffering from financial constraints and lack of financial constraints, the amount of cash reservoirs of the firms were considered as the main categorizing variable. Research variables showed a positive role of cash reserves in reducing investment sensitivity of cash flows in firms. On the other hand, there was not any certain superiority in using optimal cash reservoirs' model compared with traditional criteria of financial constraints.

Saghafi and ArabMazar (2010) studied the relationship between financial reporting quality and investment inefficiency in firms enlisted in Tehran Stock Exchange. This research used the adjusted model of Verdi (2006) to test the relationship between investment inefficiency and financial reporting quality experimentally. This research was carried out in 152 firms based on the data in firms' financial reports within the time periods between 2000 and 2008. The results showed that in Tehran Stock Exchange and unlike the researches carried out by Biddle et al. (2009) and Wordy (2006), practically there has not been any meaningful correlation between the variables mentioned.

Kashanipour et al. (2010) selected a sample including 96 firms enlisted in Tehran Stock Exchange during the years between 1999 and 2002 and showed that firms with financial constraints have had higher investment sensitivity to cash flows than those firms without financial constraints. Also in decision making of the investors they had emphasized on internal cash flows greatly.

Sajadi et al. (2009) carried out a research on the relationship between five non-financial characteristics of firms enlisted in Tehran Stock Exchange using financial reporting quality. To measure financial reporting quality they used an index including 155 items based on accounting standards in Iran and other regulations related to disclosure and they studied the probable relationship between them and firm size, audit firm type, industry type, ownership structure, and firm age using multiple regression models. The results showed that firm size, firm age, and industry type have had a meaningful positive relationship with financial reporting quality and ownership structure has had a negative relationship with financial reporting quality. But there has not been any statistically meaningful relationship between audit entity type and financial reporting quality.

Karimi and Sadeghi (2009) carried out a research entitled: "Internal and external financial cxonstraints and their relationship with investment in capital assets in firms enlisted in Tehran Stock Exchange." They used the statistical data of 148 manufacturing firms during the time period between 1999 and 2008. Results of their research showed that there has been a meaningful and positive relationship between firm size and investment sensitivity to cash flows. Therefore, by increasing external financial constraints, investment sensitivity to cash flows increases either. Results of other researches show that there has been a meaningful and negative relationship between operational cash flows and investment sensitivity towards cash flows. Thus, by reducing internal financial constraints, investment sensitivity to cash flows increases.

Modarres and Hesarzadeh (2008) studied the relationship between financial reporting quality and investment efficiency based on a model completely compatible with the model posed in a study by Wordy (2006) and investigated about 120 firms enlisted in Tehran Stock Exchange during the years between 2000 and 2006. They showed that in addition to the fact that financial reporting quality level has a meaningful and positive relationship with investment efficiency level, financial reporting quality causes investment efficiency improvement. Also this research showed that based on the model utilized and in order to calculate investment efficiency, there has been a negative and meaningful relationship between over-investment or underinvestment and financial reporting quality. Therefore, the results of this research showed that financial reporting quality through between over-investment or underinvestment can lead to enhance investment efficiency.

Gomariz and Ballesta (2013) carried out a research entitled: "Financial reporting quality, debt maturity, and investment efficiency," by using the data of Spanish firms during the years between 1998 and 2008 and tested the role of financial reporting quality and debt maturity on investment efficiency. Results of their research showed that financial reporting quality heals the problem of over-investment. Also debt maturity can enhance investment efficiency through over-investment and insufficient investment. They also found that overuse (underuse) of short term debts can make financial reporting quality lower (higher).

Bidel et al. (2009) carried out a research on the relationship between financial reporting quality and investment efficiency. And they investigated about whether higher financial reporting quality can increase investment efficiency in capital items due to the reduction of information asymmetry and thus factors such as inappropriate selection or moral hazards and lead to the reduction of overinvestment or underinvestment or not. Their findings showed that there has been a great positive or negative correlation between financial reporting quality and investment in firms through which operational environments were capable to bear underinvestment or overinvestment. These findings showed that the presence of a mechanism between financial reporting and investment efficiency can reduce the contradiction between these two issues that mainly originate from moral hazards and inappropriate selection and halt investment efficiency. Thus, their findings showed that financial reporting quality has been connected to underinvestment and overinvestment. It means that there has been a cause and effect relationship between financial reporting and investment efficiency and there has been a meaningful relationship between financial reporting quality and underinvestment and overinvestment.

3. RESEARCH HYPOTHESES

Since higher financial reporting quality makes managers more responsive through providing a better control possibility and probably information asymmetry and following that reversed selection and moral hazards will be reduced, this will be able to heal overinvestment or underinvestment. On the other hand, financial reporting quality prepares the possibility to make better investment decisions for the managers through better recognition of the projects and presenting more honest accounting figures for internal decision makers and can enhance investment efficiency (Bushman and Smith, 2001).

Also some studies (Saghafi and ArabMazar, 2010; Hoakmian, 2008) claimed that financing constraints affects investment efficiency. Therefore, it can be expected that the effect of financial reporting quality on investment efficiency will be affected by financial constraints. Therefore, the question in the present study can be posed as follows:

Can financing constraints affect the effect of financial reporting quality on investment inefficiency?

In order to achieve a result to find an answer for the question posed based on the theoretical foundations presented, the main research hypothesis could be devised as follows:

Main hypothesis: Financing constraints can affect the relationship between financial reporting quality and investment inefficiency.

4. RESEARCH METHODOLOGY

The present research is applied regarding the categorization based on the goal. The research goal is functional and the development of knowledge in a certain field. Also regarding the method and nature, it is of descriptive-correlation research. To achieve the data considered to process the main research hypothesis, the data in Rahavard Novin software and financial statements in firms enlisted in Tehran Stock Exchange were used by referring to the official website of Tehran Stock Exchange.

The statistical population of the present research includes all firms enlisted in Tehran Stock Exchange during the years between 2008 and 2013. In this research and regarding the criteria below, 112 firms were selected as the statistical sample.

1. Fiscal year ended on 29th Esfand (19th March) to put the data in a row and utilize them in panel or pooled (based on presupposed test results) format.
2. During the research period there should not be any change in fiscal year to make financial performance results comparable.
3. Firms should not be chosen from among those working in financial areas such as investment firms, banks, insurance companies, and financial institutions. Since these entities differ regarding activity nature and the major income results from the investment and depending on the activity of other firms. Therefore, they are intrinsically different from other firms and thus they would be removed from this research.
4. The data required to calculate research variables should be accessible during the research period to make calculations without any defects.
5. During the fiscal year the firms should not have stops for more than 6 months.

5. THE RESEARCH VARIABLES AND VARIABLES' MEASUREMENT

The main research model in this study to answer the research question is as follows:

$$InIneff_{i,t} = \beta_0+\beta_1 FRQ_{i,t}+\beta_2 KZ_{i,t}+\beta_3 FRQ*KZ_{i,t}+\beta_4 Growth_{i,t}+\beta_5 Size_{i,t}+\beta_6 ROA_{i,t}+\beta_7 Cash_{i,t}+\beta_8 Tang_{i,t}+\varepsilon_{i,t} \quad \text{(Model 1)}$$

5.1. Variables' Definition

5.1.1. Dependent variable

In this research, investment inefficiency is the dependent variable and the model proposed by Bidel et al. (2009) has been used to calculate it:

$$Investment_{i,t} = \beta_0+\beta_1 SalesGrowth_{i,t-1}+\varepsilon_{i,t} \quad (1)$$

Where,

$Investment_{it}$ = Total investment of firm, I in year t that is equal to net increase in tangible and intangible assets divided into total assets of the previous year according to the definition posed by Gomariz and Ballesta.

$SalesGrowth_{it}$ = Shows sales growth that is equal to firm i's sales growth rate in year t−1 compared to the year t−2.

If the investment in future year is greater than sales growth, the residual of the model above will be positive and it means that overinvestment has been done and if future year investment is less than sales rate, the residual in model above will be negative and this means that underinvestment has been done. Therefore, to calculate investment inefficiency, we have used the absolute amount mentioned above. Therefore, the greater amount of the result means a greater amount of investment inefficiency.

- Independent variables
- Financial reporting quality.

In this research, financial reporting quality is independent variable and to calculate it we have used the model posed by McNicoles and Stoben (2008) as follows:

$$\Delta AR_{i,t} = \beta_0+\beta_1 \Delta Sales_{i,t}+\varepsilon_{i,t} \quad (2)$$

Where,

ΔAR = Annual change in accounts receivable in firm

ΔSales = Annual change in sales' income.

All these variables are divided into total assets at the start of the year. The residual or the leftover of this equation shows the change in accounts receivable and it cannot be explained through changes in sales. Therefore, to calculate financial reporting quality we have used the absolute amount of this multiplied by −1. In this way, the higher amount will show higher financial reporting quality.

5.2. Financial Constraints

In this research, financial constraints are considered as an independent variable. In 1997, Kaplan and Zingals divided firms into 5 groups regarding financial constraints and their criteria for this categorization were the amount of gap between internal and external costs of the firm. Then, Lamont et al. (2001) called this index as KZ.

Based on this index, firms that have higher KZ would be more dependent on owners' equity. In other words, higher index means that the firm encounters financial constraints and to gain external resources, it cannot have the capability to use loans or facilities (debts capacity of the firm has completed). Therefore, it turns to issue stocks. These researchers used an integrated regression to gain the following model:

$$KZ\,index = -1.002\frac{CF_{it}}{A_{t-1}} - 39.368\frac{Div_{it}}{A_{t-1}} - 1.315\frac{C_{it}}{A_{t-1}} - 1.319\,Lev_{it} + 0.283Q \quad (3)$$

Where,
CF = Net cash flows
DIV = Total dividends
C = Cash residual (cash and deposits in the banks)
A_{t-1} = Book value of total assets in year t−1
Q = QTobin index (firm's value index)
Lev = Leverage ratio (the ratio of total debts to total assets).

KZ index was localized by Tehrani and Hesarzadeh (2009) in Iran and its coefficients were estimated regarding the conditions in firms enlisted in Tehran Stock Exchange. The index used by these researchers to measure financing constraints in Iran was proposed as follows:

$$KZ\,index = 17.33 - 37.486\frac{CF_{it}}{A_{t-1}} - 15.216\frac{Div_{it}}{A_{t-1}} + 3.394Lev_{it} - 1.402MTB \quad (4)$$

The greater the amount of KZ calculated for the firm shows more financial constraints.

Where,
MTB = The ratio of market value to book value of assets to debts.

5.3. Control Variables

The control variables utilized in the research model are as follows:

Growth = Firm growth calculated as follows
(Sales in current year - sales in previous year)/sales in previous year
Size = Firms size and to calculate it we have used logarithm of assets
ROA = Return on assets, and to calculate it we have used the ratio of net income to total assets
Cash = The amount of cash holding (the ratio of cash to total assets)
Tang = The tangibility of assets and to calculate it we have used the ratio of fixed assets to total assets Figure 1.

6. RESEARCH FINDINGS

In order to discover the relationships between independent and dependent variables and the role of adjusting financial constraints we have used a multiple variable regression. Also to make sure of the reliability of the results gained, the presupposed tests of using regression were utilized as follows.

Before analyzing the research data, the reliability of the variables should be investigated. The reliability of research variables means that the average and variance of the variables during the time and the covariance of the variables between the different years is fixed. Therefore, using the variables in the model will not lead to pseudo-regression. To do this analysis, we use i^{th} test of Posran and Shin. The result of this test has been represented in Table 1.

Regarding Table 1, the meaningfulness level of all research variables has been <5%. Therefore, all research variables in the study have been reliable.

To determine the integrated data utilization method and to understand the convergence or divergence of them we have used Chaw's test and F Limer statistic. If the amount of probability gained from this equation is <5%, it means that the null hypothesis is rejected. Therefore, fixed effects model was used. If not, a better model to estimate the parameters is the random effects model.

Before doing the test of main research hypothesis, first we should calculate financial reporting quality variables and investment efficiency.

At first step we estimate financial reporting quality model. In doing so, we act as the method posed by McNicoles and Stoben (2008) to estimate the coefficients using Eviews software. First we have used Chaw's test and F Limer statistic to determine pooled data method and to recognize the convergence or divergence of them. Results of this test are represented in Table 2.

As it can be seen in Table 2, the result of Chaw's test show that the probability calculated for the F-statistics has been higher than 5%. Therefore, to test this model the data were used in pooled type. The result of the model test above by using the pooled data model and adjusted least squares method of estimation (EGLS) are represented in Table 3.

After estimating the coefficients of financial reporting quality, we estimated the coefficients of the model posed by Bidel et al. (2009)

Table 1: i^{th} test of Pesaran and Shin

Research variables	t-statistic	Meaningfulness
Investment	−18.688	0.000
Sales growth	−23.479	0.000
Changes in accounts receivable	−26.877	0.000
Changes in sales	−19.574	0.000
Financing constraints	−8.835	0.000
Firm size	−4.451	0.000
Return on assets	−10.438	0.000
Objectivity of the assets	−4.502	0.000
Cash holding amount	−10.844	0.000

Table 2: Results of Chaw's test to recognize convergence or divergence of the levels

Null hypothesis	F	P F	Chaw's test result
Cross-sectional and time effects are not meaningful	0.566	0.999	H_0 is not rejected

Figure 1: The conceptual research model

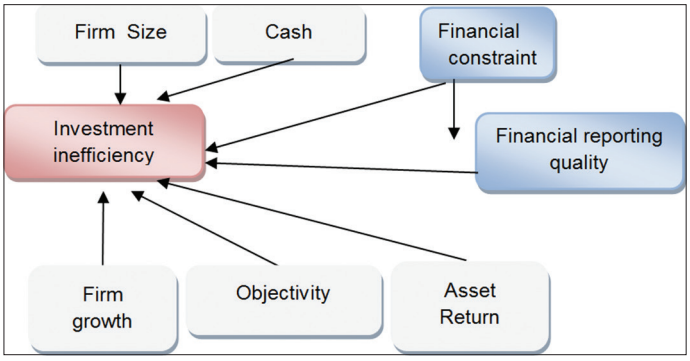

Table 3: Results of estimating model coefficients of calculating financial reporting quality

Variable	Coefficients	Standard error	t-statistic	Meaningfulness level
Fixed amount	0.01	0.002	4.633	0.000
Changes in sales	0.098	0.009	10.686	0.000
F-statistic	114.19	Identification coefficient		0.156
		Adjusted identification coefficient		0.154
F-statistic probability	0.000	Durbin-Watson		2.037

to calculate investment efficiency. In this way, model coefficients are estimated in Eviews software. Also we have used Chaw's test and F Limer statistic to determine pooled data method and to recognize the convergence or divergence of them. Results of this test are represented in Table 4.

As it can be seen in Table 5, the results of Chaw's test show that the probability calculated for the F-statistics have been lower than 5%. Therefore, to test this model the data were used in panel type. Next, Table 5, by administering Hausmann test, we investigated about whether to use fixed or random effects method.

The meaningfulness level of Hausmann test has been <5%. Therefore, to estimate the coefficients in the model above, we should have used fixed effects model. The result of testing the model above by using fixed effects model and estimated adjusted least square method (EGLS) is represented in Table 6.

After estimating the coefficients of investment efficiency model, to study the role of financial constraints regarding the relationship between financial reporting quality and investment inefficiency (main research hypothesis), we have used Chaw's test and F Limer statistic to determine pooled data method and to recognize the convergence or divergence of them. Results of this test are represented in Table 7.

As it can be seen in Table 7, the result of Chaw's test requires using the data in panel format to test the hypothesis. Now, to determine whether to use fixed effects or random effects model to estimate model parameters we use Hausmann test and the results are represented in Table 8.

The meaningfulness level of Hausmann test has been <5%. Therefore, to estimate the coefficients in the model above, we should have used fixed effects model. The result of testing the model above by using fixed effects model and estimated adjusted least square method (EGLS) is represented in Table 9.

Since the meaningfulness level of the variable financial reporting quality *financial constraint is <5% and t-statistic of it (−2.118) is higher than 1.96, the effect of it on investment inefficiency is reversed and meaningful. Thus, increasing financial constraint affects financial reporting quality effects on investment efficiency directly. In other words, it increases the reversed effect of financial reporting quality on investment inefficiency.

7. CONCLUSION AND SUGGESTIONS

The goal of the present research is to investigate about the role of financial constraints on the relationship between financial reporting

Table 4: Results of Chaw's test to recognize convergence or divergence of the levels

Null hypothesis	F	P F	Chaw's test result
Cross-sectional and time effects are not meaningful	1.294	0.035	H_0 is rejected

Table 5: Results of Hausmann test

Null hypothesis	Chi-square statistic	P value Hausmann test	Test result
Using random effects model	4.652	0.031	H_0 is rejected

quality and investment inefficiency. Thus, we have used a multiple variable regression model, fixed effects model, and estimating adjusted least squares model to investigate it. In this regression model, we have used several control variables like growth, size, return on assets, cash, and assets' tangibility. It should be noted that to calculate financial constraints we have used the adjusted model posed by Kaplan and Zingals (1997) utilized by Tehrani and Hesarzadeh (2009). The results of investigations showed that financial constraints increase the reversed effect of financial reporting quality on investment inefficiency.

In identifying the adjustment role of financial constraint on the direct effect of financial reporting quality on investment efficiency we can document the reasoning posed by Saghafi and ArabMazar (2010). They stated that since firms are required to increase sufficient capital for financing for their investment opportunities, the financial constraint can halt investment capability in projects with required potentials from the firm managers. Thus, firms encountering financial constraints ignore projects with positive net values due to high financing costs. This leads to underinvestment in the firm and thus investment inefficiency occurs. Also, previously Jensen (1986) and Stoles (1990) stated that the presence of lots of capital makes the management free in overinvestment and this will probably lead to increase the loss of capital in projects with low quality.

Some suggestions resulted from research findings are as follows:

1. Research findings show that there has been a direct and meaningful relationship between financial reporting quality and investment efficiency. Thus, it can be suggested to the investors and financial analysts to pay serious attention to this issue and estimate firms' investment efficiency through it in a way that it can be very important for the future perspective of the firm.
2. Another result of this research is the adjusting effect of financial constraints on investment efficiency and also the effect of financial reporting quality on investment efficiency

Table 6: Results of estimating model coefficients of calculating investment efficiency

Variable	Coefficients	Standard error	t-statistic	Meaningfulness level
Fixed amount	0.026	0.0007	149.893	0.000
Growth in sales	0.007	0.0007	9.216	0.000
F-statistic	19.152	Identification coefficient		0.809
		Adjusted identification coefficient		0.767
F-statistic probability	0.000	Durbin-Watson		2.101

Table 7: Results of Chaw's test to recognize convergence or divergence of the levels

Null hypothesis	F	P F	Chaw's test result
Cross-sectional and time effects are not meaningful	2.633	0.000	H_0 is rejected

Table 8: Results of Hausmann test

Null hypothesis	Chi-square statistic	P value Hausmann test	Test result
Using random effects model	93.725	0.000	H_0 is rejected

Table 9: Results of regression test

Variable	Coefficients	Standard error	t-statistic	Meaningfulness level
Fixed amount	−0.026	0.009	−2.783	0.005
Financial reporting quality	−0.048	0.019	−2.524	0.011
Growth	0.008	0.002	3.107	0.002
Size	0.005	0.001	3.938	0.0001
Return on assets	−0.02	0.008	−2.477	0.013
Cash	−0.059	0.029	−2.004	0.045
Assets tangibility	0.159	0.008	17.772	0.000
Financial constraints	$-4.25*10^{-9}$	$1.4*10^{-9}$	−3.049	0.002
The quality of financial reporting ratio with financial constraints	$-2.57*10^{-8}$	$1.21*10^{-8}$	−2.118	0.034
F-statistic	41.805	Identification coefficient		0.383
		Adjusted identification coefficient		0.374
F-statistic probability	0.000	Durbin-Watson		1.861

in stock exchange firms. This result can be beneficial in making financial and investment decisions used by managers, investors, and other beneficiaries.

3. The excessive effect of financial reporting quality on investment quality shows the importance of financial reporting quality and its important effects on management's decision makings. Thus, it can be suggested to bourse organization to devise appropriate structures to make it possible for the firms to be enlisted in bourse through increasing the controls over financial reporting quality, and to present training courses to make the investors aware of the high importance of firms' financial reporting quality.
4. On the whole, the results of this research show the importance of accounting information supplied by the firms. Therefore, it can be suggested to the investors to avoid ignoring the importance and useful nature of such information. Also, data suppliers can increase accounting data quality to improve firms' future perspectives.

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