

The Relationship between Earnings Quality and Risk of Liquidity in Tehran stock Exchange

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Abstract

Present paper examines the impact and extent of the relationship between accounting earnings quality and liquidity risk. In fact liquidity risk shows sensitivity of investment to unpredictable changes in the market liquidity that theoretical concept of asset pricing in recent years emphasizes its importance as a systemic risk. The present thesis in order to provide empirical evidence in field of accounting earnings quality and liquidity risk analyzes financial information of 100 Tehran Stock Exchange listed Companies as a sample during the period of 2006 to 2010. The research hypothesis states that “Companies that have a high accounting earnings quality have a low liquidity risk” were acted in tow way in order to accepting or rejecting the hypothesis: using multiple regressions and cross tabulation. Based on the findings both test methods indicated a weak negative relationship between accounting earnings quality and liquidity risk.

Keywords: Accounting earnings quality, liquidity risk, Accruals Quality.

Introduction

Investors for economic decisions and allocate owner sources, that need information to achieve maximum efficiency. One of the best factors in choosing the best investment is profit and accounting earning quality. Thus, it is important to identify the accounting earning quality. Such criterion that may be overwhelmed by the accounting earning quality is stocks liquidity risk that its importance has been demonstrated in several studies, because the

investors may need to investing financial resources quickly. Also, stock liquidity rate is related to who investors welcoming the transaction in stock exchange.

Conceptual framework

Stockholders are the most important group that use financial statement and seek their profit in information. Accounting earning is a sign that lead to investors believes and changes their behavior. Changing in price and number of securities transactions is also observable criteria in systematic investors believes that affected by the information content may optionally include a selection of principles or accounting standards and use of estimates and timing of transactions to be recognized unusual items in profit. Over the last three decades, researchers have paid attention to topics of earnings and tried to achieve a logical and valid recognizing method, asses the earning quality and recognize its effect on other factors (Khajavi, 2007).

Accruals items are an important index to recognize earning quality and use instock evaluation. Accruals items role is in changing or recognize cash follow modifying and adjust amount (adjusted earning) according to NO.1 accounting concepts is a better criterion for enterprise performance. Although, accrual items is often based on hypothesis and estimations if be wrong have to modify in accrual items and future earnings. So, accrual item quality and profit reduce according to estimation error size. Accrual items are differences between accounting quality and main cash follow. More positive accrual items indicate that profits are more than cash follows. This differences is due to revenue recognize principle and compliance principle. According to accrual approach in case of realized income and cost occurrence report earnings. Since in accrual basis necessarily revenue recognize and expenses associated is not with the receipt and payment of cash earnings and use in calculation of predictions and estimates, therefore

the questions proposed is to what extent can these figures be trusted when making decision. The answer to this question is important due to incorrect decision because of insufficient and incorrect information causes to be incorrect resources allocation. In terms of empirical researchers found that high-income accruals indicate earnings were higher than cash flow that results in lower yields (Alavi, 2009). As well as, importance of earning quality, stock liquidity including issues those investors should have enough consider in their decision. Once reduced liquidity in capital markets, corporate equity investor will experience different degrees of withdrawal. This situation is more important particularly for companies with low earnings quality, because investors demand for this type of stock is reduced due to more uncertainty. Also, on the contrary, when market liquidity increases, investors are willing to invest in companies stocks with higher earnings quality (Pastor&Stambaugh, 2003). Considered increase or reduce liquidity risks. Such main risk is market liquidity. Market liquidity defined as risk of deterioration of the situation in market liquidity when companies need to deal with is a share. The risk associate with the securities that are traded in the market. Those investments that can be easily bought and sold and there is no fee to top exchange and has a high liquidity. Whatever uncertainty about timing and price factors uncertainty is a high also increases degree of liquidity risk. For example treasury bonds liquidity risk is very low or zero, while the liquidity risk is higher inmarket out of stock exchange (Jones, 1993).

According to these matter, Jeffrey (2011) examine relationship between information quality (include earning quality) and American enterprise liquidity risk in1983 to 2008 (including to 306624 month-company). In this research use a model that designed by Pastor&Stambaugh(2003) and in order to liquidity risk variable use stock returns covariance estimates to unusual changes in liquidity market. Results show that there is a converse and

meaningful relationship between information quality and liquidity risk. It means that whenever decreased liquidity in the capital markets with higher earning quality would experience lower earning quality.

In recent years following by specific economic conditions and significant fluctuations in liquidity in the capital markets the need to address the issue in this regard is clearly felt.

Thus, accounting earning quality and undeniable its effect could be considered in economic decisions. Therefore, most investors are aware of this issue and its impact on their investment. But it does more important for them than it is; influence the quality of accounting earnings on stocks liquidity risk that indicates need more research in this topic. So, by revealing the impact of accounting earnings quality on stock liquidity risk in Tehran Stock Exchange can choice more accurate decisions according to rate of relation between variables and reduces the possibility of loss.

So, the present research examines relationships between earning quality and liquidity risk in Tehran Stock Exchange. Thus, main research question propose as follow that whether firms with higher earnings quality, has less liquidity risk or not.

Research Background

Salavei(2011)in a research titled “Financial Information quality and stock liquidity "examinerelationship between stock liquidity and financial Information quality, through long term analysis in field ofstock lack of liquidity in companies that restatement the financial statement. Examine through revenue overview to stock liquidity conclude that since companies information examine by the auditors and revenue overview related to revenue decrease, reduce stock return fluctuations and rises stock liquidity.

Jeffrey (2011)in a research titled “Effect of information quality on stock liquidity risk” examines sensitivity of stock returns to unexpected changes in market liquidity. Its conclusion indicates that is quality of information can

affect the cost of capital through liquidity risk. Liquidity risk estimates by covariance calculation between stock return and unexpected changes in market liquidity. Research empirical plane shows that high quality of information to low liquidity and less cost of capital. As well as, research results shows that high quality of information reduce stock liquidity risk and thus whenever changes in market liquidity is high there is a negative relationship between information quality and stock liquidity risk.

Mouselli & Jaafar (2009) in a research titled "Is Accruals Quality a Risk factor in the UK" examine effect of accrual items quality on London Stock Exchange premium risk, and related information risk. Research results shows that companies with low accruals quality than firms with high accruals quality, show higher efficiency. As well as, find that accruals item quality predicts cross-section stock return and accruals quality factor, explain times deviation (series) in portfolio's risk premium.

Alokeet.al (2009) examine quality of earnings and earnings response coefficients, in circumstances that increase with the stability in profits accompanied by increased with the stability in income. Research results shows that companies with profit growth along with increased revenue have higher earnings quality than firms with decrease in costs.

Kim & Oi (2009) in a research titled "Accrual item quality, stock return and macroeconomic conditions" according to used information in Core & et al (2008) research and in a same period time. Adjusted stock return indicates that there is a meaningful relationship between accrual item qualities and corporate equity risk premium and financial information user in economic decision making have to consider related informational risk. In Kim & Oi (2009) adjustments conducted on companies' return, in order to eliminate the effect of abnormal returns on the results.

Kim & Qi (2008) in a research title "Accounting information quality, stock return and macroeconomic condition" examine that does quality of

accounting information is pricing or not. The purpose of this study was to investigate whether the quality of accounting information is indicative of accruals quality, the may be affected on stock price. This issue consider in tow way: First of all, is there meaningful relationship between accruals items quality and stock return or not. However after separation of low-priced stocks are more likely affected by non-recurring transactions and speculators traders. Second, examine relationship between accruals quality as indicators of the macroeconomic conditions and political factors. Find that the quality of accruals in terms of statistical and economic risk factors pricing after isolated low stock prices. Also, there is a relation between accrual item qualities with fundamental risk that approve in several ways:

1. Whatever firms accruals quality is lower are more sensitive to changes in macroeconomic conditions.
2. Risk premium associated to accruals quality is different and change systematic with macroeconomic conditions and the business cycle.
3. Accruals quality risk premium and accruals quality disparity between poor and good quality of accounting firms is associate with future economic activities. Generally, results support these issues that accounting information quality is a pricing risk factor.

Core et al (2008) in a research title “Is accruals item quality as calculation risk factor information?” In this research examine accruals quality, effect of information risk arising from accruals item quality on investment baskets risk premium. The study conclusion that conducted time-series regression in Francis et al (2005), doesn't provide necessary evidence to prove that accruals item quality is an information risk factor. Follows by using Fama & Machbeth (1973) two-stage cross-sectional regression method examine accruals item quality on investment baskets risk premium, thus, assess the related informational risk. By use these test, they have found no evidence that prove risk factor accruals item quality related to return.

In domestic research, there are no cases that examine effect of accounting earning quality on stock liquidity risk. Other conducted researches in these fields proposed as follow:

Sheikhi (2011) investigate accruals item quality on stock risk premium in Tehran Stock Exchange. Findings shows that accruals item quality aren't able to explaining the behavior of companies stock risk premium. Follows again, with a dummy portfolio selection and a two-stage cross-sectional regression examined the effect of accruals on companies stock risk premium. The result of the test for each of the dummy portfolio indicates accrual item quality has lack of explanatory power for companies stock risk premium.

Ezadinia & Resaeian (2010) investigate the dispersion of ownership and stock liquidity. Findings suggest that the ownership scattering is the most important factors that influence the difference between buying price and shares selling. The difference between the bid to buy and stock shares sell is the most important measures of liquidity.

Yahyazadehfar & et. al (2010) investigate the relationship between liquidity and return on the Tehran Stock Exchange. Examine relationship between flow rate and return on equity as a measure of liquidity in the shares on the Tehran Stock Exchange for the period 2002 to 2008. The results indicate a positive and significant relationship between flow rate coefficient and stock return.

Ezadineai & Resaeian (2009) investigate the relation between earnings quality and the difference between the sales prices paid for the shares. In order to test the research hypotheses, bivariate regression, using fixed effects use panel data. Selected sample consist of 110 listed companies in Tehran Stock Exchange for the period of time between the years of 2002 and 2006. The results indicate that approximately 27% of the variation in price between buying and selling shares, is explained by changes in the earnings quality.

Yahyazadeh&Khoramdin(2008)examine the role of liquidity and liquidity excess returns risk on the Tehran Stock Exchange. The results showed that all independent variables have a significant effect on the dependent variable of the study.This means that the company's lack of liquidity and the size of the excess stock returns, negative; but the impact of the market excess return and the excess return is positive on book value to market value of equity.

Resaeian&Hosseini (2008), examine the relationship between accruals quality and cost of capital used in the study. Findings show that components can be projected cash accounting earnings and market value of firms have explanatory power, but the three components of accrual accounting earnings (including receivable accounts, inventory andpayable accounts) that is used in this study, can predict and explain the company's market value. The cash component of the accounting profit is much more to the company's market value and the accrual component of earnings.

Khajavi&Nazemi(2005)review relationship between earnings quality and stock returns, with an emphasis on the role of accruals in 96 companies belongs to Tehran Stock Exchange during the years 1998 to 2003 results shows that the average return on stocks and companies are not affected by the accruals and related components. In other word it's not acceptable that there is meaningful relationship between reported average efficiency of firms with the lowest and highest accrual.

Research Hypothesis

The purpose of this study is to determine the association between accounting earnings quality and companies liquidity risk. For more precise control variables in this study, hypothesis tested as follows:

Companies that have a higher quality of accounting earnings have less liquidity risk.

Research Methodology

Community and statistical sample

In this study, the Tehran Stock Exchange listed companies is consider as the population. The selected sample consists of all listed companies in Tehran Stock Exchange for the time period 2001 to 2011 were eligible for the following and exclude remaining subjects.

- The fiscal year ending 29th March of each year.
- During the study period, have not changed the financial year.
- Since 2001 financial information that is available fully and continuously.
- In order to homogeneity information are not part of investment firms and financial intermediation (banks and leasing).
- Book value of the company is positive at the time the study (Due to use the Fama & French (1993) model).

According to noted conditions, select the 100 companies in the period 2001 to 2011.

Research Model

In this study to identify the determinants of earnings quality for liquidity risk, use Equation 1. This model is consistent with the model used in Jeffrey (2011) study.

Equation 1

$$B_{i,t}^L = \alpha_0 + \alpha_1 AQ_{i,t} + \alpha_2 RVO_{i,t} + \alpha_3 SIZE_{i,t} + \alpha_4 BM_{i,t} + \alpha_5 GS_{i,t} + \alpha_6 OC_{i,t} + \alpha_7 CI_{i,t} + \alpha_8 CR_{i,t} + \alpha_9 FP_{i,t} + \varepsilon_{i,t}$$

In this equation:

$B_{i,t}^L$: Per share liquidity risk belongs to i company in year t

$AQ_{i,t}$: Accruals Quality belongs to i company in year t

$RVO_{i,t}$: Return volatility belongs to i company in year t

$SIZE_{i,t}$: Firm size belongs to i company in year t

$BM_{i,t}$: Ratio of per share market value to book value belongs to i company in year t

$GS_{i,t}$: Sales growth belongs to i company in year t

$OC_{i,t}$: Length of Operating Cycle belongs to i company in year t

$CI_{i,t}$: Capital Intensity belongs to i company in year t

$CR_{i,t}$: cash ratio belongs to i company in year t

$FP_{i,t}$: Financial performance belongs to i company in year t

$\epsilon_{i,t}$: Model residual

Dependent Variable

In this study, correspond to Jeffrey (2011) research, in order to calculate the dependent variable (liquidity risk) use Fama and French (1993) model the liquidity factor is added to the model. This model describes the relationship between second equation.

Equation 2

$$r_{i,t} = a_i + \beta_{i,t}^m MKT_{t,t} + \beta_{i,t}^S SMB_t + \beta_{i,t}^H HML_t + \beta_{i,t}^L LIQ_t + \epsilon_{i,t}$$

In this equation:

$R_{i,t}$: i Company monthly returns in t month excess of the risk-free rate share (R_{Ft})

MKT_t : Market risk premium is reported on a monthly basis by the Tehran Stock Exchange

SMB_t : Risk factors belongs to stock returns are related to firm size

HML_t : Risk factors belongs to stock returns that related to book value ratio to market value of the firms in t month

LIQ_t : liquidity risk factor that is unexpected changes in market liquidity

Marshall & Young (2006) examine the relationship between excess return and beta risk factors such as common stocks in the Australian market and the size of the company and the sales price, turnover rates and lack liquidity ratio. Results shows that the different measures of liquidity, provided by

Amihud ratio that better justified excess stock returns (Yahyazadehfar, 2008). Thus, in this study, lack of liquidity factor Amihud (ILLIQ) simply due to better calculate and justify the return on equity, the relationship according to third equation liquidity Factor alternative (LIQ) that propose in equation 2 by Pastor and Stambaugh to calculate it as follows:

Equation 3

$$ILLIQ_{it} = \frac{1}{D_{it}} \sum_{d=1}^{D_{it}} \frac{|R_{idt}|}{V_{itd}}$$

ILLIQ_{it}: lack of liquidity ratio

R_{idt}: (i) Stock return in d day and t month

V_{itd}: (i) Stock trading volume in d day and t month

D_{it}: trading day belongs to (i) stock in t month

As liquidity amount ratio is high, its contribution is facing a lack of liquidity. This is much higher ratio the share price in response to a low turnover, has many changes. This benchmark turnover is interpreted as a response to the daily stock prices (Yahyazadehfar, 2008).

Thus, equation 2 converts to equation 4:

Equation 4:

$$r_{i,t} = \alpha_i + \beta_{i,t}^M MKT_t + \beta_{i,t}^S SMB_t + \beta_{i,t}^H HML_t + \beta_{i,t}^L IMV_t + \varepsilon_{i,t}$$

IMV_t: Liquidity factor

In this equation, a higher Beta liquidity index β^L in own structure shows higher covariance between stock return and unexpected changes in market liquidity. This issue shows higher liquidity risk in subjected stock.

Independent Variable

As the purpose of present study is to examine the effect of accounting earning quality on liquidity risk, so independent variable to measure that variable use accrual quality by Farancis&et. al (2005). This variable calculates as follow:

Equation 5:

$$TCA_{i,t} = Q_{0,i} + Q_{1,i}CFO_{i,t-1} + Q_{2,i}CFO_{i,t} + Q_{3,i}CFO_{i,t+1} + Q_{4,i}\Delta REV_{i,t} + Q_{5,i}PPE_{i,t} + \varepsilon_{i,t}$$

In this equation:

$TCA_{i,t}$: Total current accrual (i) company in end of t fiscal year

$Cashflow_{t-1}$: Operational cash follow in t-1 year

$Cashflow_t$: Operational cash follow in t year

$Cashflow_{t+1}$: Operational cash follow in t+1 year

$\Delta Revenue_t$: Changes in sale revenue the year between t and t+1

$PPE_{i,t}$: Cost of gross real statement, equipment and supply in end of t fiscal year

ε : Residual belongs to criteria model that determine accrual quality.

In other to determine accrual quality, first of all examine the capital accrual for every 100 sample companies by use equation 6 in 2002 to 2010. In first calculation stage that is related to changes in total current asset, total current debts, changes in cash amount, changes in long term debts and sales changes in t year to t-1 year, for selected sample belongs to (i) company. Then, examine total current accrual in t year for (i) company.

Equation 6

$$TCA_{i,t} = (\Delta CA_{i,t} - \Delta Cash_{i,t}) - (\Delta CL_{i,t} - StDEBT_{i,t})$$

As seen in equation 5, to assess the model in t fiscal year have to enter the previous fiscal year (t-1) net operational cash follow and future fiscal year (t+1) to the model. It should be noted operational cash follow amount is extracted directly from www.codal.ir. Equation 5 variable after test compare to average of total assets. It means that above variable amount for (i) company in t year divide to average of total assets in t fiscal year. Average of total assets in t fiscal year consist average of total assets at end of t fiscal year and t-1 fiscal year. These amounts for 2002 to 2010 study time period is enter to

R statistical software and according to noted estimation, model residual, calculated for each company and each year.

In next stage, these residuals are entering to Excel environment and use in other to examine scaled accrual quality. Accrual quality scale is obtained from equation 7 for each company and in t year in shape of residual standard deviation between t-4 to t fiscal year.

Equation 7

$$STDEV^{14} = \sqrt{\frac{\sum_{t-4}^t (\varepsilon_{i,n} - \bar{\varepsilon})^2}{4}}$$

$\varepsilon_{i,n}$: Model residual in t year for (i) company

$\bar{\varepsilon}$: Residual yearly average for each (i) company

Controlling Variable

In this study, In addition to the dependent and independent variables use a complex of controlling variable named firm and market characteristic are presented in research model. Expected features market liquidity risk is determine firm characteristics factor to reduce the correlated variables deviation (Jeffrey, 2011). The method of calculation of the controlling variables can be expressed as follows.

1. Return Volatility: Standard deviation of return volatility efficiency helps a company to control the quality of information that appears to be negative (Jeffrey, 2011). In other to examine return volatility, first of all gather monthly return for (i) company to 2006 to 2010 enter in Excel environment. Then, in Excel environment calculate the monthly return standard deviation for 12 previous months according to 8 equations.

¹⁴Standard Deviation

Equation 8

$$\text{monthly return standard deviation} = \sqrt{\frac{\sum(x_i - \bar{x})^2}{n - 1}}$$

x_i : Stock monthly return related to (i) company

\bar{x} : Average monthly returns of each (i) share

2. Size: Size of company is applied to this process differences in the liquidity risk of the stock market capitalization to control levels (Jeffrey, 2011). In this study, the natural logarithm of market value based on the relative size 9 is used as a benchmark.

Equation 9

Size = Ln (Daily share price * Number of company shares)

3. Growth opportunities: To calculate the book value per share growth opportunities i , with data on market value per share of company i in year t is the Excel environment. The growth opportunities are calculated according to equation 10:

Equation 10: (B/M) Growth opportunities = per share book value / per share market value

4. Sale Growth: Companies that have the greatest volatility in sales may be the least accruals stability. Volatile selling is possible to show that the operating environment with high uncertainty it may due to use of estimates and approximations in the accruals (NonahalNahr, 2010). Measure changes in sales compared to the year t to $t-1$ is calculated according to equation 11.

Equation 11

$$\text{Sale Growth} = \frac{REV_{i,t} - REV_{i,t-1}}{REV_{i,t-1}}$$

$REV_{i,t}$ = Net sales of i company in year t

$REV_{i,t-1}$ = Net sales of i company in year $t-1$

5. Operation Cycle: Companies with longer operating cycles are least likely to have persistent accruals. Long operating cycle, use represents the largest

and the most uncertainty of estimates and approximations in the accruals (NonahalNahr, 2010).

Operation cycle length is calculated according to equation 12.

Equation 12

$$OC = \frac{365}{\frac{S_t}{AAR_t}} + \frac{365}{\frac{CGS_t}{AI_t}}$$

In above equation:

S_t : Amount of company sales

AAR_t : Average receivables trading account

CGS_t : Cost of solid good

AI_t : Average inventory

6. Capital Intensity: This variable by dividing the book value of property, machinery and equipment to total assets of the company at the end of each year calculated according to equation 13.

Equation 13

Capital Intensity = book value of property, machinery and equipment/ total assets.

7. Cash Ratio: Companies that have the greatest likelihood of having the lowest volatility in cash flows have high persistence in accruals. In other to calculate the cash on the basis of 14, the cash balance at the end of each period, divided to total current assets.

Equation 14

Cash Ratio = Cash follow in end of fiscal year/ Total current asset

8. Financial Performance: To measure the financial performance use zero and one value that show net profit after tax equal one and net loss on equal to zero.

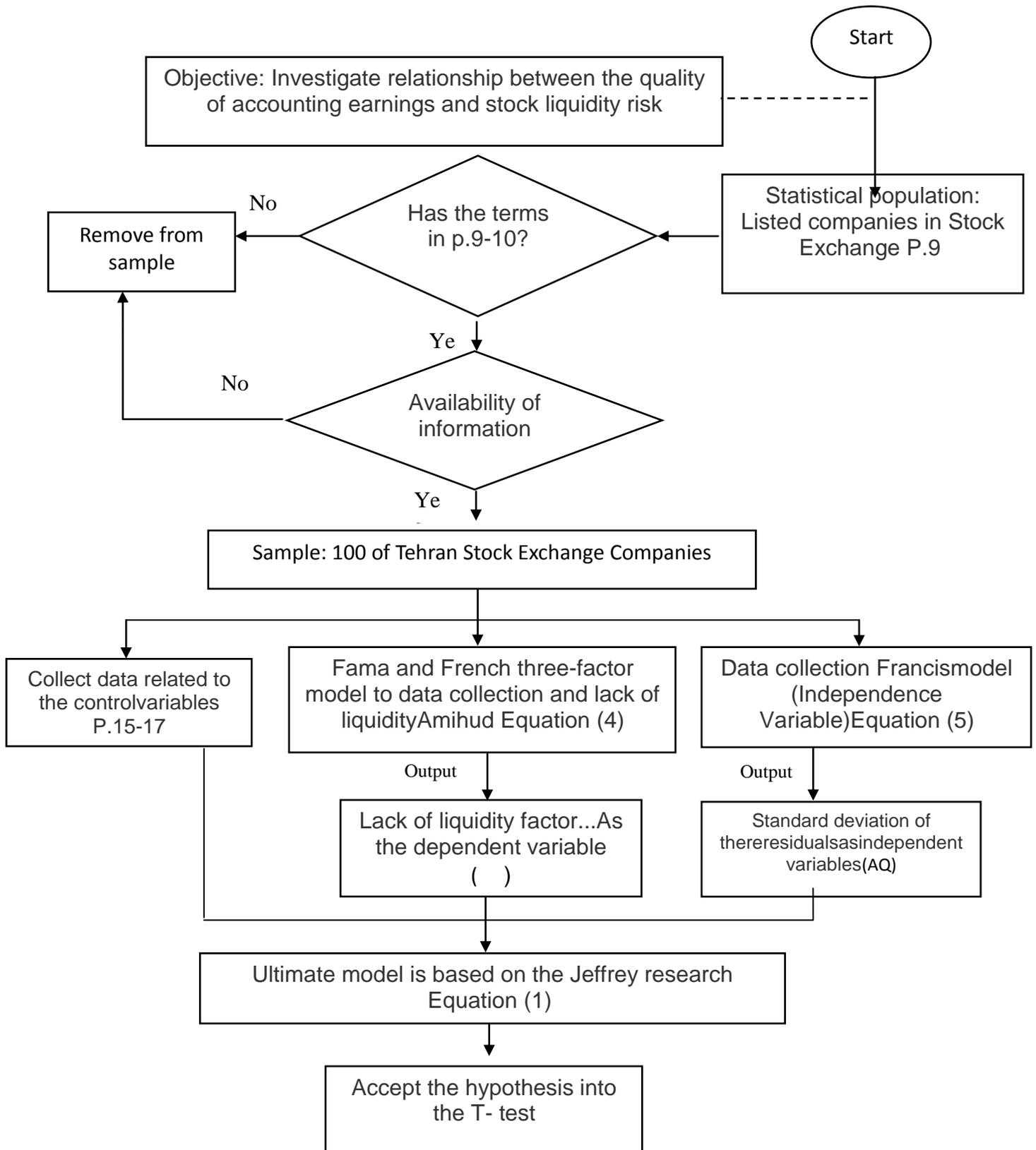


Figure 1. Research stage framework

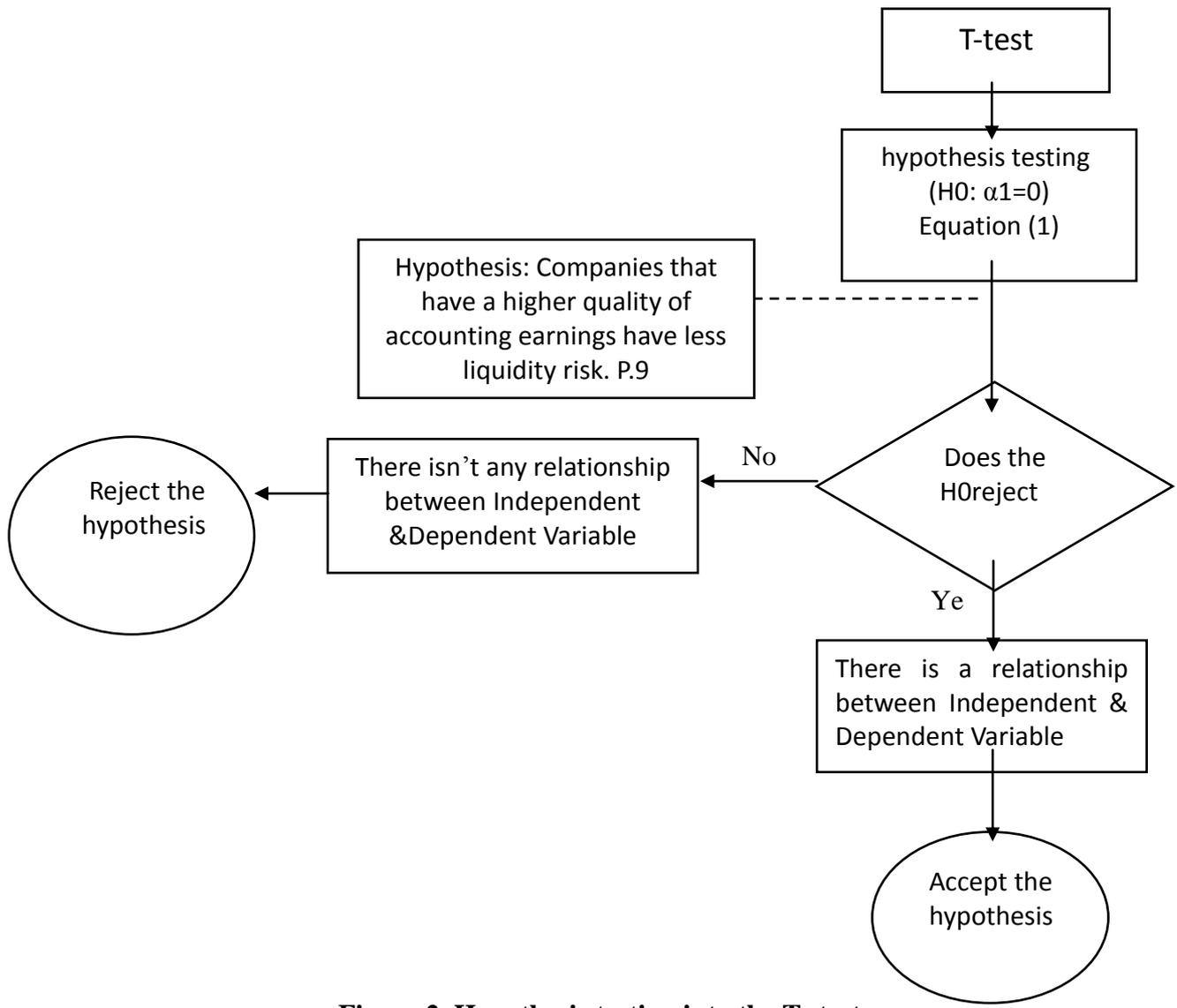


Figure 2. Hypothesis testing into the T- test

Research Results

Descriptive Statistics

To analyze and understand the data first of all, some of the indicators of central tendency and dispersion of the resulting data are described in Table 1.

Table 1.Descriptive statistics of the final model

Min	Max	S.D	Mean	Average	sign	Variable
-7.350	12.474	0.960	0.027	0.152	β^L	Liquidity Risk
0.008	0.854	0.088	0.098	0.117	AQ	Accrual quality
0	278.672	25.160	11.317	18.095	AVO	Return validity
22.875	31.883	1.601	26.371	26.639	SIZE	Firm size
-0.405	5.550	0.593	0.587	0.738	BM	Book value to Market value
-0.775	1.904	0.311	0.147	0.175	GS	Sale Growth
31.225	803.292	132.966	255.033	271.389	OC	Operational cycle length
0	160.092	7.150	0.224	0.575	CI	Capital Intensity
0.001	0.409	0.054	0.045	0.061	CR	Financial Ratio
0	1	0.248	1	0.934	FP	Financial Performance

Research hypothesis test

$B^L_{i,t}$ and AQ after calculating the values of other parameters are listed along with the remaining research model for evaluating the equation 1, enter the R statistical software environment.

To confirm or reject the study hypothesis examine the following statistical hypotheses:

This hypothesis can be rewritten as follows:

There is no relationship between accounting earning quality and liquidity risk.

There is relationship between accounting earning quality and liquidity risk
To estimate the best way to solve the multiple regressions different test
perform variety by use of R statistical software.

Table 2. Results of different research model

Test results	P-value	Statistic test	Null hypothesis(H ₀)	Test
H ₀ Rejected Panel model is better	0.03589	1.3158	Preferred OLS method	F-Leamer
H ₀ Approved Random model is better	0.4651	8.7032	Using a random effects	Hauseman
H ₀ Approved Could Integration the individual effect	0.2623	1.2565	Integration of individual	Breusch-Pagan
H ₀ Rejected Couldn't Integration the time effect	5.494×10^{-16}	65.6108	Integration of time effect	Breusch-Pagan
H ₀ Rejected Couldn't Integration of time and individual effect	3.02×10^{-15}	66.8672	Integration of time and individual effect	Breusch-Pagan
H ₀ Approve Time series isn't stationary	0.1056	1.6183	Time series is stationary	Unit-root into the Hadri
H ₀ Rejected Variances are heterogeneous within sections	2.2×10^{-16}	2984.846	Homogeneity of variance	Homogeneity of variance into the Breusch-Pagan
H ₀ Rejected There is a serial correlation	2.2×10^{-16}	110.5293	No serial correlation	BPG

As can be seen in the table above 95% confidence level, test scores and other tests such as F-Leamer integration test confirms fact that use panel data methods. In order to choose the best method of panel data methods of random and fixed effects models Hausman test was performed according to the above results, solve the model in random effect.

Table 3. Result of parameter estimation and significance testing them using a random effects panel

P-value	t-statistic	S.D	Coefficien t(α)	Variable sign	Variable
0.9206	0.0997	1.1942	0.1190	α_0	Intercept
0.0073	-2.6947	0.6220	-1.6761	AQ	Accounting earning Quality
2.95×10^{-6}	4.7293	0.0019	0.0088	AVO	Return validity
0.8922	0.1356	0.0441	0.0060	SIZE	Firm Size
0.9251	0.0941	0.0915	0.0086	BM	Book value to Market value
0.6055	-0.5169	0.1410	-0.0729	GS	Sale Growth
0.7801	-0.2793	0.0005	-0.0001	OC	Operational cycle length
0.3198	0.9958	0.0063	0.0063	CI	Capital intensity
0.7281	0.3479	0.9492	0.3302	CR	Cash Ratio
0.6745	-0.4202	0.1828	-0.0768	FP	Financial Performance

According to Table 4, the F-statistic equal to 3.344 and the P-value equal to 0.0005, this confirms the adequacy of the model at 95% confidence level. So can assume that the model generally explained by the variability of the independent variable.

Table 4. Meaningful test model

Amount	Title
365.52	Residual sum of squares
3.3441	F-statistic
0.0005	p-value

Discussion and conclusions

The results indicate that the quality of accounting earnings with P-value of 0.007 (Table 3) and a P-value of 6 to 102.95 return volatility (Table 3) have the greatest impact on liquidity risk. Also, the negative coefficient in the regression accounting earnings quality is related to 1.676-(Table 3) and the 2.695-(Table 3) t-statistic, can conclude that the quality of accounting earnings and liquidity risk has significant inverse relationship. Return volatility as well as the positive coefficient of 0.009 (Table 3) and the t-

statistic of 4.729 (Table 3) and P-values (Table 3) can conclude that a strong relationship between the volatility rate of return and liquidity risk is straightforward. The test results also showed that other parameters such as company size, book-to-market ratio, sales growth, operating cycle period, concentration of capital, financial performance and the cash liquidity risk have no significant effect on the dependent variable.

According to the F statistic is equal to 3.344 (Table 4) and the P-value of 0.0005 (Table 4), the model is significant at a confidence level of 95%. So this hypothesis method is confirmed by the findings of Jeffrey (2011).

Limitations

In the process of conducting scientific research, there are cases where conditions are not so much in control of the researcher. Restrictions governing such research can include:

1. Some factors affect results, including control of major political and economic crisis in 2006 (market downturn and falling prices).
2. Time limit: The period of time is an important factor in the outcome of research.

If the scope of the study will be considered for a longer period may have the ability to generalize better results.

3. HighStock Trading interval in Tehran Stock Exchange during the period of study leading to a reduction in the sample.
4. Effects of inflation adjusted financial statements of listed companies.
5. It is likely that use other approaches to calculate quality of accounting earnings measure and liquidity risk can be obtained different results.

Recommendations

Practical recommendations of research results

1. According to existence of confirmation the a negative relationship between accounting earnings quality and liquidity risk in this study suggested

gains more attention to all factors that will enhance the quality of accruals cash and cash equivalents, such as firm size, performance measurement and investment opportunities as well as the factors affecting the accuracy liquidity risk.

2. Since the negative relationship between liquidity risk and accounting earnings quality has been confirmed in this study, in particular, investors are recommend to user's elements that reflect the quality of accounting earnings in companies that have received special attention, because it would increase the quality of accounting earnings are expected to reduce liquidity risk these factors can be mentioned have a positive operating cash flow during activity and anticipate this trend continuing in the coming years, and ongoing positive change in sales revenue.

3. The SEC has proposed that the factors affecting the quality of accounting earnings between companies based on appropriate models, including identified Francis models and companies are required to prepare reports regarding these factors may having this information to the users to make informed decisions to take action.

4. According to the survey results and determined and strong and significant relationship between risk and return volatility, liquidity, (P-value of 6 to 102.95 in the regression model), perhaps as an alternative measure of return volatility and liquidity risk use to simplify the calculation.

5. Given the significant relationship between earnings quality and liquidity risk as a systemic risk is suggested in other studies examines the impact of risk on the quality of accounting earnings.

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