An Investigation on the effect of diversified stocks on the relationship between capital cost and the quality of accruals for companied listed on Tehran stock exchange

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Abstract: In the stock market, one important issue is to diversify stock sand to build a stock portfolio. The term portfolio refers to any collection of investments created to reduce investors' risk by an investing individual or company. This research aims to study the effect of diversified stocks on the relationship between capital cost and accruals for companies listed on Tehran Stock Exchange. Accordingly, three hypotheses were developed and the required data gathered from the statistical sample. The statistical sample included 144 companies listed in the Stock Exchange for a 7-year period from 2007 to 2013. The empirical evidences derived from tested hypotheses revealed that there was a direct and significant correlation between discretionary accruals and diversified stocks and companies' capital cost. Results though revealed that the diversification of stocks did not affect the correlation between the capital cost and the quality of accruals.

Key words: Diversified Stocks; Capital Cost; Quality of Accruals

1. Introduction

From the perspective of financial information users, accounting earrings is one of the most important values reported by companies. According to previous theoretical and empirical evidences, this value composes of cash and accrual items. Cash flows result from real events and reliably get credit from auditors. On the contrary, some components of accruals require managers' subjective judgments and their legitimacy potentially depends on such assessments (for example, accounts receivable, depreciation, and probable debts). This may divert accounting estimates and potentially affect the reported items (Piot, 2008).

In addition to net income, accrual items should be also considered and the net income should be moderated in order to reflect the quality of accruals. Accruals state the difference between accounting earnings and the related cash flows including any change in inventories, account receivables and account payables. According to literature reviews, for users of financial statements, the accrual component of earnings (discretionary and non-discretionary accruals) is as important as operational cash flow. Therefore, deviations from subjective judgments affect the reliability of reported values. This shows that the accrual component of earnings is affected more by inconsistent events than the cash component. As such, the coefficient of the accrual component of earnings is considerably less than the case component (Charitou et al., 2001).

According to research literature, capital market potentially reacts to the quality of accruals. The reaction of capital market explains the companies' capital cost. Capital cost means the ratio used by investors in order to reduce future expected cash flows to reach the current stock values. Theoretical evidences show that disclosing higher quality information reduces capital costs, because higher quality information abates information asymmetry. Recent evidences verify the reversed relation between information quality and capital cost (Hou, 2013).

Since the information about earnings is more important for stockholders than other reports, it is necessary to carefully consider the attributes of such information. The most important attribute of accounting earnings, according to researchers, is that they are accrual. This research, thus, studies the relationship between the quality of accruals and companies capital cost.

In the stock market, one important issue is to diversify stock sand to build a stock portfolio. The term portfolio refers to any collection of investments created to reduce investors' risk by an investing individual or company. Portfolio management includes managing a set of good prices in relation to buying and selling stocks. Portfolio is selected to reduce risks and when the probability of return (including purchased stocks) reduction is close to zero (Miller, 2010).

Diversifying stocks decline the risk of applying low qualify information. Thus, diversified stocks affect seemingly the relationship between the quality of accruals and companies' stock cost. The leading question of this research is, thus, that how

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diversified stocks can affect the relationship between the quality of accruals and companies' stock cost?

2. Research literature

2.1. Capital cost

The capital cost is basically considered from intra and inter organizational dimensions. From the intra organizational perspective, capital cost is used in appraising securities and the organizational performance. On the inter organizational side, the capital cost plays a key role in decisions made in relation to investment and investment priorities, optimal structure of capital and the evaluation of performance. One important subject in the financial literature is making decisions and selecting optimal approaches about investing cashes and the capital structure in order to increase the total value of economic enterprise. In such case, the subject of financial supply is considered in general and the capital cost is taken into account in particular.

Economic enterprises are financially supplied in different ways and by using different resources. Several factors contribute to the best types of financial supply the most important of which is the cost of financial supply which is called capital cost. The minimum capital cost is the acceptable return on capital. The capital cost is the border between companies' good and bad performance and the minimum is a rate acquired to make value. In definition, capital cost is the cost of employing financial and monetary capital at a certain time. Combined with capital cost, the term capital has a wider concept than the implication of capital in the area of accounting. This means that it includes both shareholders' equity and interest-bearing long-term liabilities. The capital cost is not necessarily a cash cost but an opportunity cost equaling to the sum of return on capital expected for shareholders. Put it differently, capital cost is acquired from a balance between risk and return. The higher the risk is, the higher the capital cost would be (Osmani, 2002).

The capital cost is defined based on this supposition that the company intends to maximize its shareholders' wealth. Considering such hypothesis, there are many definitions for capital cost. One definition comes from this fact that any company is exposed to some risks and has its own return. Any of investing groups, including holders of securities, preferred stocks, and ordinary stocks, are looking for a level of return appropriate to risk. Therefore, the capital cost is the minimum return a company has to achieve to obtain shareholders' expected return. This is the most practical concept of capital cost and states that if the return on capital is higher than the capital cost, and if it goes up without increasing risks, the shareholders' wealth will increase. The capital cost consists of two components: cost of debt and cost of shareholders' equity (Sajadi et al., 2013).

Capital cost is widely used and this has turned it into an important subject in financial literature.

Some of its applications are (Setayesh and Mahmoudi, 2010):
1. As a discount rate for calculating the current value of free cash flows (economic value added);
2. As an acceptable return in accepting new project;
3. As a capital expenses for calculating economic value added; and
4. As a measure to find the return on capital.

2.2. Factors affecting capital cost

In economic and commercial settings, there are many factors affecting companies' capital cost and may increase or decrease it (Young and O'Byrne, 2001):

2.2.1. General economic conditions

The general economic conditions define the supply and demand of capital and the projected inflation. As the money demand changes depending on supply, investors also change their expected return. And if demand does not increase with money supply, shareholders escalate their expected return. As such, if inflation decreases the power of purchase, shareholders expect higher return to make up such loss.

2.2.2. Market conditions

As investment risk goes up, shareholders increase their expected return. Such increase is called risk premium. An increase in the expected return means increased capital cost. The higher the ability to sell securities is, the more the expected return decreases. This would result in reduced companies' capital cost.

2.2.3. Operational decisions and financial supply

Decisions made in a company would affect risks. If management accepts a high risk enterprise or uses a large amount of debts or preferred stock, the company risk goes up. Investors consequently expected higher return. This would then increase the capital cost.

2.2.4. Level of financial supply

The more the level of financial supply increases, factors such as costs of issuing and selling securities, leverage ratio, and high issued securities would increase the capital cost.

2.3. The quality of accruals

In their research study titled "the effect of pricing the quality of accruals", Feransis et al. (2005) know the sustainability of accruals and their predictability as the reason of their quality. The sustainability of accruals means that their continuity and the repeat of earnings in next years. In another point in this

research, they refer to the value of accruals as the effective factors of accrual qualities.

2.4. Discretionary and non-discretionary accruals

Accruals are divided into two groups of discretionary and non-discretionary. Non-discretionary accruals are those created in the companies' commercial model and operational environment and the management of the enterprise does not have any role in their creation. Another type of accruals is created by accounting methods, discretionary allocation, managerial decisions, judgments and estimates. The type and value of these accruals vary from one company to the other, because they are affected by the policy and procedure selected by the company. And the more freedom managers have, the higher effect these accruals would have on earnings. This is a phenomenon called earning management (Sharbati, 2010).

2.5. Investing in stocks and diversifying stock portfolio

Shareholders seek to predict the future price trend. If appropriate criteria of financial ratios are applied to select stocks, companies with better financial ratios are hoped to offer better return to shareholders. Even if the stock value in short-term moves in the inverse route of financial ratios, the analysis hypothesis is that there would be a strong correlation between the value stated by financial ratios and stock market value (Edirisinghe, et al., 2008).

In a research study titled "selecting stock portfolio based on financial power measure by applying data cover analysis", Edirisinghe et al. (2008) used a set of financial ratios to estimate the companies' financial power and the correlation of these criteria with the real return on equity. Here, the employed financial ratios are classified into 6 groups including productivity criteria (i.e. return on capital, return on asset, net income margin, and earnings per share), operational efficiency criteria (i.e. account receivables, return on inventory, return on assets), liquidity criteria (i.e. current ratio, immediate ratio, and debt to shareholders' equity ratio), companies' perspective criteria (i.e. cost to income ratio and market to book value ratio), and growth criteria (i.e. earnings growth, net earnings growth, and earnings per share growth).

In their research titled "Multi-Criteria Decision Making (MCDM) to select share based on Gordon's model", Lee, et al. (2008) identified effective criteria of share prices. Regarding the research literature, they extracted criteria affecting three key elements of Gordon's model. Criteria affecting the key elements of Gordon's model (predicted dividend, discount rate, and growth rate) include industry perspective, incomes, operational cash flow,

dividend payout ratio, market beta, risk free rate of return, and dividend growth rate.

To study the criteria which determine the prosperity, Johnson et al. (2003) prepared a paper titled "measured of companies successful in choosing stocks". In this paper, they referred to 10 success measures. These measures included market to book value ratio, sustainable growth rate, return on assets, capital structure, liquidity, and return on cash flow, income volatility, cost of research and development, and cost of advertisement.

Based on the theoretical principles of this research and considering the major variables relating to the mentioned hypotheses, the research question is that how the diversification of stock relating to the capital cost can affect the research beneficiaries' decisions.

3. Research hypothesis

First Hypothesis: there is a significant correlation between capital cost and the quality of accruals.

Second Hypothesis: there is a significant correlation between capital cost and the diversification of stocks.

Third Hypothesis: the diversification of stocks affects the correlation between capital cost and the quality of accruals.

4. Research methodology

This is a correlational descriptive research study which is practical in terms of purpose and is of empirical accounting research. Data were gathered from the audited financial statements of companies listed in Tehran Stock Exchange, companies' documents, the databases of Tadbirpardaz and Rah Avard Novin, and based on the theoretical principles of research.

The statistical population includes all non-financial companies listed on Tehran Stock Exchange from 2007 to 2013. The studied samples were selected regarding the following criteria:

1. Being producing companies. Due to the different performance nature of producing companies from other companies, insurance companies, investment companies, holdings, banks, financial dealers, were left aside.
2. Their financial reporting period of sample companies ending in 19/3/20XX.
3. They should not have any change in their financial period during their research period (2008-2013).
4. They should not have any trading pause during research period (2008-2013).
5. Information should be available and complete.
6. The book value of shareholders' equity should be positive during the research.
7. They should be listed on Tehran Stock Exchange from 2008 to 2013.
8. The companies' financial information should be available during the research.

To consider all above criteria, about 144 companies were screened as the research sample.

Models developed by Hue (2013) were employed then to test the hypotheses. These models are as follows:

4.1. Testing first and second hypothesis

$$COC_{i,t}=\beta_0+ \beta_1 BETA_{i,t} + \beta_2 LnM_{i,t-1} + \beta_3 LnBM_{i,t-1}+ \beta_4 Lev_{i,t-1} + \beta_4 MMT_{i,t-1} + \beta_4 FBIAS_{i,t+1} + \beta_4 AQ_{i,t-1} +€$$

COC: the company's capital cost as the dependent variable

BETA: the systematic risk of companies' stock (stock's beta coefficient) as the controlling variable

LnM: the natural logarithm of the market value of company's share as a controlling variable

LnBM: the natural logarithm of the shareholders' equity to the market value of company's share ratio

Lev: the company's financial leverage as a controlling variable

MMT: Logarithm 1 adding to return on stocks

FBIAS: the error of predicted earnings (difference between the real earning per share with the predicted earnings per share) as a controlling variable

AQ: the quality of accruals as an independent variable

In above regression model, β8 reflects the correlation between the quality of accruals and capital cost and is used for the first hypothesis.

4.2. Testing the second hypothesis

$$COC_{i,t}=\beta_0+ \beta_1 BETA_{i,t} + \beta_2 LnM_{i,t-1} + \beta_3 LnBM_{i,t-1}+ \beta_5 Lev_{i,t-1}$$
$$+ \beta_6 MMT_{i,t-1} + \beta_7 FBIAS_{i,t+1} + \beta_8 Div_{i,t-1} +€$$

Div: versification of stocks as the independent variable

According to the above regression model, β8 reflects the correlation between the diversification of stocks and capital cost and is used for making decision about the second hypothesis.

4.3. Testing the Third Hypothesis

$$COC_{i,t}=\beta_0+ \beta_1 BETA_{i,t} + \beta_2 LnM_{i,t-1} + \beta_3 LnBM_{i,t-1}+ \beta_5 Lev_{i,t-1} + \beta_6 MMT_{i,t-1} + \beta_7 FBIAS_{i,t+1} + \beta_8 Div_{i,t-1} + \beta_9 AQ_{i,t-1} + \beta_{10}AQ*Div_{i,t-1} +€$$

Div: versification of stocks as the independent variable

According to the above regression model, β10 reflects the effect of diversified stocks on the relation between the quality of accruals and the capital cost and is used for making decision about the third hypothesis.

In this research, we used multivariable linear regression model to test the hypotheses. The statistical method used here was panel data method. Data were then analyzed by Eviews. To estimate the model parameters, the ordinary least squares method was used.

5. Data Analysis

5.1. Testing the normality of dependent variable

Jarque-Bera statistic was employed to test the normality of the dependent variable.

Table 1: Testing results for normality of the dependent variable

Variable	Jarque-Bera Statistic	Sig
Company's Capital Cost	1415.833	0.000

As the significant level of Jarque-Bera statistic is less than 0.05 (0.0000), the H1 is confirmed based on the fact that their distribution is not normal at the confidence level of 95%. This shows that the variable of capital cost does not have normal distribution. Before testing, thus, hypothesis should be normalized. In this research, to normalize data, Johnson transfer function was used. The results of Jarque-Bera test after normalizing data are as follows:

Table 2: Testing results for normality of the dependent variable after normalization

Variable	Jarque-Bera Statistic	Sig
Company's Capital Cost	2.291	0.3179

Given the above table, as the significant level of Jarque-Bera statistic after normalization is greater than 0.05, the H0 is confirmed at the confidence level of 95%. This shows that the research dependent variables have normal distribution after normalization.

5.2. Correlation between Research Variables

According to the Pearson statistic results, cost of capital is positively and significantly correlated with discretionary accruals (AQ_{t-1}), the size of stock diversification (DiV_{t-1}), systematic risk (BETA), stock market value (LnM_{t-1}), and the earnings forecast errors (FBIAS), and negatively correlated with financial leverage (LEV_{t-1}). On the other hand there is a positive and significant correlation between discretionary accruals (AQ_{t-1}) with the size of stock diversification (DiV_{t-1}) and the earnings forecast errors (FBIAS). And, there is a negative and significant correlation between discretionary accruals (AQ_{t-1}) with financial leverage (LEV_{t-1}). At the same time, there is a positive and significant correlation between stock diversification (DiV_{t-1}) with systematic risk (BETA), stock market value (LnM_{t-1}), and the earnings forecast errors (FBIAS).

And, there is a negative and significant correlation between stock diversification (DiV_{t-1}) with financial leverage (LEV_{t-1}).

Table 3: Pearson's correlation coefficient matrix between research variables

Correlation									
Probability	COC	AQ_{t-1}	Div_{t-1}	BETA	LnM_{t-1}	$LnBM_{t-1}$	LEV_{t-1}	MMT_{t-1}	FBIAS
COC	1								
AQ_{t-1}	0.279	1							
	0.000								
DIV_{t-1}	0.242	0.161	1						
	0.000	0.000							
BETA	0.126	0.010	0.178	1					
	0.000	0.756	0.000						
LnM_{t-1}	0.076	0.034	0.295	0.218	1				
	0.026	0.320	0.000	0.000					
$LnBM_{t-1}$	-0.047	-0.011	-0.041	0.019	-0.324	1			
	0.167	0.729	0.232	0.566	0.000				
LEV_{t-1}	-0.112	-0.107	-0.129	0.015	-0.197	0.017	1		
	0.001	0.001	0.000	0.648	0.000	0.621			
MMT_{t-1}	0.046	0.049	-0.030	0.055	0.169	-0.358	-0.108	1	
	0.181	0.149	0.375	0.104	0.000	0.000	0.001		
FBIAS	0.641	0.150	0.131	0.110	-0.041	-0.020	-0.095	0.023	1
	0.000	0.000	0.000	0.001	0.228	0.548	0.005	0.503	

However, the systematic risk (BETA) is positively and significantly correlated with stock market value (LnM_{t-1}) and the earnings forecast errors (FBIAS), and negatively correlated with book to market value ratio ($LnBM_{t-1}$) and financial leverage (LEV_{t-1}). But it is positively correlated with return on stocks logarithm (MMT_{t-1}). A negative correlation is also observed between earnings forecast errors (FBIAS) and financial leverage (LEV_{t-1}), and between book to market value ratio ($LnBM_{t-1}$) and return on stocks logarithm (MMT_{t-1}).

5.2.1. First hypothesis

H_0= there is no significant correlation between capital cost and the quality of accruals.

H_1= there is a significant correlation between capital cost and the quality of accruals.

To test the hypothesis, we used model 1 which is a regression model and estimated using panel data method:

$$COC_{it}=\beta_0+ \beta_1 BETA_{it} + \beta_2 LnM_{i,t-1} + \beta_3 LnBM_{i,t-1}+ \beta_4 Lev_{i,t-1}+ \beta_4 MMT_{i,t-1} + \beta_4 FBIAS_{i,t+1} + \beta_4 AQ_{i,t-1} +€$$

In this model, to determine whether or not using panel data is efficient in estimating models, we used F-Limer test, and to find that which method is more useful for estimation, we employed Hausmantest. Table 4 presents these tests' results.

Table 4: Results of selecting model for estimating model 1

Test Type	Test Statistic	Test Statistic Value	Degree of Freedom	P-Value
F-Limer test	F	2.435	(690,143)	0.0000
Hausmantest	X2	50.279	7	0.0000

Regarding the F-Limer test results, as p-value is less than 0.05 (0.0000), the parallelism of y-intercepts was rejected and should be used in estimating model by panel data. Given the Hausmantest results, as p-value is less than 0.05 (0.0000), fixed effects model should be used for estimation. Table 5 presents the estimation results of model 1. In studying the general significance of model, as P-value of F is smaller than 0.05 (0.0000), the significance of model is confirmed at the confidence level of 95%. According to the determination coefficient, 77.28% of changes in capital cost are predicted by the variables of model.

5.2.2. Second hypothesis

H_0= there is no significant correlation between capital cost and the diversification of stocks.

H_1= there is a significant correlation between capital cost and the diversification of stocks

Table 5: Estimation results of model 1

Dependent variable: Cost of Capital	Number of Observations: 841 year- company			
Variable	Coefficient	t-statistic	P-value	VIF
Fixed Coefficient	-5.6365	-4.865	0.0000	-
Systematic Risk	0.0652	2.762	0.0059	1.088
Stock Market Value	0.4119	4.970	0.0000	1.255
Book to Market Value Ratio	0.7411	14.117	0.0000	1.279
Financial Leverage	0.7643	4.256	0.0000	1.081
Return on Stock Logarithm	0.2341	1.059	0.2898	1.169
Earnings Forecast Errors	2.9976	21.230	0.0000	1.055
Discretionary Accruals	0.2703	3.209	0.0014	1.034
Moderated determination coefficient of model 0.7728				
F statistic 20.054 P-value 0.0000		Jarque-Bera Statistic 21.371 P-value 0.0000		
Breusch-Pagan statistic 3.383 P-value 0.0014		Durbin-Watson statistic 2.045		

To test the hypothesis, we used model 2 which is a regression model and estimated using panel data method:

$$COC_{it} = \beta_0 + \beta_1 BETA_{it} + \beta_2 LnM_{i,t-1} + \beta_3 LnBM_{i,t-1} + \beta_5 Lev_{i,t-1} + \beta_6 MMT_{i,t-1} + \beta_7 FBIAS_{i,t+1} + \beta_8 Div_{i,t-1} + €$$

In this model, to determine whether or not using panel data is efficient in estimating models, we used F-Limer test, and to find that which method is more useful for estimation, we employed Hausmantest. Table 6 presents these tests' results.

Table 6: Results of selecting model for estimating model 2

Test Type	Test Statistic	Test Statistic Value	Degree of Freedom	P-Value
F-Limer test	F	2.486	(690,143)	0.0000
Hausmantest	X2	44.562	7	0.0000

Regarding the F-Limer test results, as p-value is less than 0.05 (0.0000), the parallelism of y-intercepts was rejected and should be used in estimating model by panel data. Given the Hausmantest results, as p-value is less than 0.05 (0.0000), fixed effects model should be used for estimation. Table 7 presents the estimation results of model 1.

In studying the general significance of model, as P-value of F is smaller than 0.05 (0.0000), the significance of model is confirmed at the confidence level of 95%. According to the determination coefficient, 79.36% of changes in capital cost are predicted by the variables of model. Also, in studying the classic regression suppositions, Jarque-Bera test

results show that the remnants derived from estimating model at the confidence level of 95% are not normally distributed, as P-value is smaller than 0.05 (0.0000). Given the high number of observation and the central limit theorem, we can overlook the fact that remnants are not normally distributed. In terms of homogeneity of remnant variances, as P-value of Breusch-Pagan test is smaller than 0.05 (0.0014), the heterogeneity of remnant variances is confirmed. To solve this problem, instead of ordinary least squares, we used generalized least squares and weighted the model coefficients by statistical software.

Table 7: Estimation results of model 2

Dependent variable: Cost of Capital	Number of Observations: 847 year- company			
Variable	Coefficient	t-statistic	P-value	VIF
Fixed Coefficient	-5.3218	-4.692	0.0000	-
Systematic Risk	0.0868	5.157	0.0000	1.101
Stock Market Value	0.3891	5.134	0.0000	1.347
Book to Market Value Ratio	0.6740	10.939	0.0000	1.285
Financial Leverage	0.6470	2.129	0.0335	1.087
Return on Stock Logarithm	0.1648	0.918	0.3588	1.128
Earnings Forecast Errors	2.9838	20.018	0.0000	1.052
Diversified	0.0922	2.148	0.0320	1.151
Moderated determination coefficient of model 0.7936				
F statistic 22.691 P-value 0.0000		Jarque-Bera Statistic 23.824 P-value 0.0000		
Breusch-Pagan statistic 2.438 P-value 0.0177		Durbin-Watson statistic 2.023		

In addition, as Durbin-Watson statist is close to 2 (2.02), the independency of model's remnants is confirmed. Regarding the linearity of model's

variables, since VIF statistic for all variables is smaller than 10 and close to 1, it can be stated that

there is a strong linearity between them and this supposition of the classic regression is verified.

5.2.3. Third hypothesis

H_0= the diversification of stocks does not affect the correlation between capital cost and the quality of accruals.

H_1= the diversification of stocks affects the correlation between capital cost and the quality of accruals.

To test the hypothesis, we used model 3 which is a regression model and estimated using panel data method:

$COC_{it} = \beta_0 + \beta_1 BETA_{it} + \beta_2 LnM_{i,t-1} + \beta_3 LnBM_{i,t-1} + \beta_5 Lev_{i,t-1} + \beta_6 MMT_{i,t-1} + \beta_7 FBIAS_{i,t+1} + \beta_8 Div_{i,t-1} + \beta_9 AQ_{i,t-1} + \beta_{10} AQ*Div_{i,t-1} + €$

In this model, to determine whether or not using panel data is efficient in estimating models, we used F-Limer test, and to find that which method is more useful for estimation, we employed Hausmantest. Table 8 presents these tests' results.

Table 8: Rresults of selecting model for estimating model 3

Test Type	Test Statistic	Test Statistic Value	Degree of Freedom	P-Value
F-Limer test	F	2.527	(688,143)	0.0000
Hausmantest	X2	55.321	9	0.0000

Regarding the F-Limer test results, as p-value is less than 0.05 (0.0000), the parallelism of y-intercepts was rejected and should be used in estimating model by panel data. Given the Hausmantest results, as p-value is less than 0.05

(0.0000), fixed effects model should be used for estimation. Table 7 presents the estimation results of model 1.

Table 9: Estimation results of model 3

Dependent variable: Cost of Capital	Number of Observations: 841 year- company			
Variable	Coefficient	t-statistic	P-value	VIF
Fixed Coefficient	-5.7441	-8.455	0.0000	-
Systematic Risk	0.0702	3.280	0.0011	1.103
Stock Market Value	0.4186	8.383	0.0000	1.370
Book to Market Value Ratio	0.7294	9.645	0.0000	1.280
Financial Leverage	0.7632	3.858	0.0001	1.088
Return on Stock Logarithm	0.1896	2.149	0.0319	1.179
Earnings Forecast Errors	3.0459	24.198	0.0000	1.078
Diversified Stocks	0.0667	0.0740	0.4592	1.282
Discretionary Accruals	0.0887	0.0469	0.6387	1.672
Discretionary Accruals× Diversified Accruals	1.1990	1.445	0.1489	1.832
Moderated determination coefficient of model 0.7610				
F statistic 18.597 P-value 0.0000		Jarque-Bera Statistic 16.685 P-value 0.0002		
Breusch-Pagan statistic 4.327 P-value 0.0000		Durbin-Watson statistic 2.056		

In studying the general significance of model, as P-value of F is smaller than 0.05 (0.0000), the significance of model is confirmed at the confidence level of 95%. According to the determination coefficient, 76.10% of changes in capital cost are predicted by the variables of model. Also, in studying the classic regression suppositions, Jarque-Bera test results show that the remnants derived from estimating model at the confidence level of 95% are not normally distributed, as P-value is smaller than 0.05 (0.0000). Given the high number of observation

and the central limit theorem, we can overlook the fact that remnants are not normally distributed.

6. Results

6.1. First hypothesis

According to statistical analysis, first hypothesis is verified at the confidence level of 95%.

Table 10: A summary of results derived from testing the first hypothesis

Dependent Variable	Independent Variable	β	t statistic	P-value	results
Cost of Capital	Discretionary Accruals	0.2703	3.209	0.0014	confirmed

This agrees with the claim posed in the first hypothesis. The level of significance of t statistic relating to discretionary accruals is smaller than 0.05 (0.0014) and the coefficient is positive (0.2703). Therefore, we can say that there is a direct and significant correlation between discretionary

accruals and the cost of capital at confidence level of 95 percent.

6.2. Second hypothesis

According to statistical analysis, second hypothesis is verified at the confidence level of 95%.

Table 11: A summary of results derived from testing the second hypothesis

Dependent Variable	Independent Variable	β	t statistic	P-value	results
Cost of Capital	Diversified Stock	0.0922	2.148	0.0320	confirmed

This agrees with the claim posed in the second hypothesis. The level of significance (p-value) of t statistic relating to diversified stocks is smaller than 0.05 (0.0320) and the coefficient is positive (0.0922). Therefore, we can say that there is a direct and significant correlation between diversified stocks and the cost of capital at confidence level of 95 percent.

6.3. Third hypothesis

According to statistical analysis, third hypothesis is not verified at the confidence level of 95%.

Table 12: A summary of results derived from testing the third hypothesis

Dependent Variable	Independent Variable	β	t statistic	P-value	results
Cost of Capital	Diversified Stocks	0.0667	0.740	0.4592	
	Discretionary Accruals	0.0887	0.469	0.6387	Rejected
	Discretionary Accruals× Diversified Stocks	1.1990	1.445	0.1489	

This does not agree with the claim posed in the third hypothesis. The level of significance (P-value) of t statistic relating to the variable of "Discretionary Accruals × Diversified Stocks" is greater than 0.05 (0.1489). Therefore, we can say that there is no direct and significant correlation between the quality of accruals and the cost of capital at confidence level of 95 percent.

7. Suggestions

1. Regarding testing results of the first hypothesis, shareholders are suggested to consider the quality of accruals as a stimulating factor in their investment decisions. In fact, high information risk can lower the quality of accruals.
2. Regarding testing results of the second hypothesis, shareholders are suggested to diversity the stock portfolio and reduce the risk of applying low quality information.

Regarding testing results of the third hypothesis, shareholders are suggested not to consider diversification a factor affecting the relationship between the quality of accruals and the cost of capital.

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