

Comparing Relationship between Quality of Earning and Stock Return of Companies Listed in Tehran Stock Exchange

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Abstract

In this research, role of accruals in description of earning quality of the companies listed in Tehran Stock Exchange has been studied and relationship between quality of earning, through accruals and its constituents, and normal stock return has been studied. Correlation analysis and historical information of the companies used as the research method. The statistical sample includes 109 companies in Tehran Stock Exchange during 2009-2013. For data analysis and hypothesis testing, Multiple Linear Regression Model based on panel data has been used with Estimated Generalized Least Square (EGLS) by applying Eviews and Stata softwares. Three hypotheses were developed to determine relationship between earning quality and stock return. Results of the research indicated that there is a direct and significant relationship between accruals and normal stock return in Tehran Stock Exchange. No significant relationship was found between non-discretionary accruals and normal return.

Keywords: Quality of earning, abnormal stock return, accruals, discretionary accruals and non-discretionary accruals.

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Introduction

Users of financial statements such as managers, financial analysts and investors pay more attention to the earning reports of companies and follow their benefits. For example, most managers try to preserve and increase their reward and income which are usually related to earning of the company by keeping growing trend of earning. Proper understanding of the reported earning quality is important in playing this role optimally for financial analysts who try to process and interpret information. Publication of good news about earning of companies has considerable effect on stock price and it is worth noting that focus of market on net profit considerably reduces attention to other performance indicators of companies. Considering that estimations has remarkable role in accounting process and this factor can be used as a tool for directional computations. It should be found if net profit was the final result of accounting process of the managers. Evaluation of earning quality will help users of financial statements having proper judgment and evaluation of the earning in the current period and estimation of the future earnings.

Earning quality has been studied in many papers and discussions in recent years. Earning quality is an important issue in financial reporting which affects trust of investors in capital market. Role of accruals in prediction of the future cash flows is an essential question about financial reporting. Considering that accruals are temporary adjustments which solve problems relating to timing of actual cash flows and change or correct identification of cash flows. The higher the quality of accruals, the better the identification of cash flows relating to them and the better the prediction of future earnings. In the cases that the reported earnings of company are persistent and have significant relationship with the future cash flows of company, the earnings will be regarded as high quality earnings and disclosure of high quality earnings along with reaction of investors lead to change in stock price.

In this research, effect of accruals, which have been defined as difference between accounting earnings and cash flows, on earning quality of the companies listed in Tehran Stock Exchange is studied. Accruals are divided into discretionary and non-discretionary components. Further, Relationship between stock return and accruals and its related components is studied.

Statement of the problem

Shareholders and investors should consider quality in determination of corporate value in addition to earning quality. Earning quality means closeness to cash fund, growth and continuity. In other words, share price of a company doesn't only depend on dividend of the current year but also on our expectations of the future of the company and profitability of the future years and confidence factor relative to future profits (Jahankhani and Zarif Fard, 1995).

Accruals are important indicator for recognition of the earning quality and are applied in valuation of shares. Accruals are the difference between accounting earning of a company and its essential cash flows. High positive accruals are defined as the difference between accounting earning of company and its essential cash flows. High positive

accruals indicate that earnings are much higher than cash flows of company. This difference is due to identification of incomes and principle of matching. Experimentally, researchers have found that earning with high accruals shows that earnings are higher than the cash flows and as a result, they will have lower return (Ghaemi et al., 2008).

This research deeply studies prediction power of accruals for stock return in Tehran Stock Exchange and the reason for this study is that if stock returns indicate information about quality of current earnings of the companies listed in Tehran Stock Exchange.

Research goals

In some recent decades, issue of “earning quality” has attracted special attention of specialists and many attempts have been made to evaluate earning quality by achieving a logical and reliable methodology and identify factors affecting it. Role of accruals is to change or correct identification of cash flows and the adjusted prices (earning) are better criterion for measurement of corporate performance according to accounting concepts declaration No. 1. Anyway, accruals are almost based on hypotheses and estimations which should be corrected in accruals and future earning if they are mistaken. Therefore, quality of accruals and earning is reduced considering size of their estimation errors. In this research, attempt is made to study and compare relationship between quality of earning through accruals and its constituents and stock return of the companies listed in Tehran Stock Exchange. Since earning plays important role in decision-making of users, it is hoped that evaluation of its quality and study of its relationship with stock return can help playing this role better and increase information transparency of capital market.

Theoretical fundamentals of research

Quality of earning

In recent years, many studies have been conducted by international professional associations on quality of earning, earning management and the related issues. After great financial fiascos in recent years occurred in stock exchange markets in the world, quality of earning and financial reporting were considered by professors, experts and professional societies. In this regard, many activities have been conducted resulting in some cases such as review of accounting and auditing standards and introduction and enforcement of laws relating to corporate governance (Esmail Zadeh et al., 2014). Characteristics of the large companies are structure of ownership and separation of ownership from management. This means that shareholders don't apply effective control on managers and as a result, the managers will be opportunistic in achieving their special benefits. Recent accounting fiascos in known companies such as Enron, Worldcom, Taiko, Xerox and Health South indicate acute examples of such opportunistic behaviors which have reduced trust of investors and exposed managers and auditors in the global level to queries of legislators (osma et al., 2007). As a result of these fiascos, many of these companies experienced decline of value of their equity securities and decline of credit rank of their securities (based on junk bonds). Disclosure of the facts relating to invalidity of the reported earning is increasing. Increase in frequency of earning restatement by companies in recent years indicated this claim. Weakness of internal controls is the cause of inability in financial

reporting. Concern about issues of accounting has been the reason for decline of share market after these fiascos (Ebrahimi and Ebrahimi, 2012).

Two characteristics have been determined in different papers for determination of earning quality in definition of the quality of earning; one is the decision usefulness and relationship between this concept and economic earning. According to Hicks, quality of earning means honest statement of the reported earning. Honest statement means match between the performed description and what it claims (conceptual statement No. 2, paragraph 63). In other words, high quality of earning indicates usefulness of earning information for decision of the users and also more matching with economic earning of Hicks but it is not possible to provide comprehensive definition of earning because people use information in different decisions.

Some financial analysts regard quality of earning as normal and continuing, repeatable earning from operation. They believe that quality of earning is a figure between reported net earning and cash flow from operation minus unrepeatable figures.

Financial specialists couldn't achieve independent calculation of earning which are thought by them to have necessary quality. In this case, financial specialists can achieve the scope which more properly indicates quality of earning in relation to the reported net profit by performing suitable adjustments. Therefore, concept of quality of Earning is not a fixed defined issue which can be achieved but a relative conceit which depends on relationship with attitudes (Esmaeil Zadeh et al., 2014).

Stock return

One of the important investments in capital market is investment in normal stocks. Investors should conduct broad studies at time of investment in normal stock. In other words, they should consider different factors at time of investment because they convert the cash asset into normal stock. If investors invest irrespective of some factors, they will not gain desirable results from investment and there is no need for extensive studies on securities in the countries whose stock exchange is efficient because share market price is close to actual value of those securities.

One of the most important goals of the companies is to create value and increase wealth of shareholders in long term and increase of wealth will be caused only by desirable performance. To evaluate performance of the commercial units, different criteria have been presented up to now and the most important criterion for evaluation of performance. Profitability of institutes is based on stock return rate and has key role in investment. This criterion solely has information content for investors and is used for evaluation of performance and operation of a commercial unit. When this criterion is reduced, it is an alarm for the company and shows that the performance is not suitable. Perhaps, this criterion has more information content than accounting-based criteria because market-based performance evaluation does not reflect information of investors well.

Stock return means ratio of stock price changes (stock price changes at the end and beginning of year) divided by the share price at the beginning of year (Mashmool Bonab, 2004).

Previous researches

Ogneva (2008) in his research studied relationship between accruals quality and expected returns and showed that there was a negative and significant relationship between accruals and future stock return. Hirshleifer et al. (2009) studied relationship between quality of accruals, cash flows, and aggregate stock returns. According to their findings, there is a considerable positive relationship between size of accruals and stock return while there is a negative relationship between size of cash flows and stock return.

Kim et al. (2010) studied relationship between quality of accruals and stock return and there is a positive relationship between quality of accruals and stock return. The inflation rate was effective on this relationship.

Ghaemi et al. (2008) studied relationship between earning quality through accruals and its discretionary components and normal and abnormal stock return. The studied sample includes 136 companies in 1998 to 2005. Accruals have been divided into discretionary and non-discretionary components. Results showed that stock return of companies is affected by accruals and its related components. In other words, there is a significant relationship between returns of the companies whose accruals are reported to be minimum and maximum.

Hashemi and Sadeghi (2009) in a research studied relationship between discretionary accruals and stock return and concluded that there was significant and negative relationship between these two variables indicating that stock return rate of the companies with positive and large discretionary accruals is lower than that of other companies.

Mehrabi et al. (2010) studied role of accruals in elaboration of earning quality of companies listed in Tehran Stock Exchange and relationship between earning quality through accruals and its constituents and normal stock return. The studied sample included 109 companies in 2004-2008. Accruals have been divided into discretionary and non-discretionary components. To determine relationship between quality of earning and stock return, three hypotheses had been tested. Results showed that stock return of companies was affected by accruals and its related components. In other words, there was significant difference between return of the companies whose accruals are reported to be minimum and maximum.

Azimi (2014) with a balance sheet approach studied relationship between persistence of accruals and stock return. In this research, the statistical population includes companies listed in Tehran Stock Exchange in 2001 to 2008 and a sample size of 141 companies had been selected. The research findings showed that there was no significant negative relationship between accruals and stock return.

Research hypotheses

In this research, accruals have been considered as important index for evaluation of earning quality in determination of share value. These accruals which are the difference between accounting earning and cash flows affect earning quality due to the presence of principles of realization and matching, trading schedule and selection of accounting

procedures. Earning quality can be defined as closeness of company's earning to cash flows; therefore, the main hypothesis is as follows:

H₁: There is a significant relationship between accruals and normal stock return of the companies listed in Tehran Stock Exchange.

The criterion for recognition of accruals of the companies' earning has been considered to be normal stock return in this research. The more (less) the quality of reported accruals, the more (less) the return of those companies will be predicted.

Accruals are divided into discretionary accruals and non-discretionary accruals and their effects have been separately tested with normal stock return. This research has two subsidiary hypotheses:

H_{1a}: There is a significant relationship between discretionary accruals and normal stock return of the companies listed in Tehran Stock Exchange.

H_{1B} There is a significant relationship between non-discretionary accruals and abnormal stock return of the companies listed in Tehran Stock Exchange.

Research Scope

The scope of the current research includes all companies listed in Tehran Stock Exchange in Islamic Republic of Iran. Time scope of this research is a 5-year period from 2009 to 2013. Information of the three periods before the base year is required to calculate discretionary and non-discretionary accruals according to the provided model. The reason for selection of 2013 as the end period is that the required information for collection of data should be available until performance of the research by the researcher.

Statistical sample

The selected sample of this research includes 6 industries of Tehran Stock Exchange in which the following limitations are applied:

- ✓ It includes cement, pharmaceutical, chemical, oil, automotive industries and basic metals.
- ✓ It should not be part of investment companies, banks and financial mediator.
- ✓ They should be present in Tehran Stock Exchange between 2009 and 2013.
- ✓ Due to comparable increase, their financial period ends to Esfand for Iranian companies its financial year has not changed in 2009 to 2013.
- ✓ Company has continual activity between 2009 and 2013.
- ✓ Company is profitable between 2009 and 2013.

In the selected industries, systematic review method is used by applying limitations. It means that all companies of the selected industries which are qualified for the above conditions and criteria are regarded as statistical sample and the companies which are not qualified for the above conditions are excluded from the sample.

Method of analysis

Data of this research were analyzed and its hypotheses were tested with Excel, Eviews and Stata software. In this regard, the information provided by the database has been first classified and sorted in Excel software and then transferred into Eviews and Stata software to conduct statistical tests on them. In this research, to test hypotheses, multiple linear regression model based on panel data has been used with Estimated Generalized Least Square (EGLS) and t, F statistics and coefficient of determination (R^2) are used to study total validity of regression and justifying power. We describe these methods and their characteristics in detail:

Operational definition of the research variables and their measurement

Each of the variables has been presented by separating and classifying their type with their measurement method:

Dependent variable of the research

Dependent variable is the variable which is affected by independent variable. Considering the above definition and review of literature, the dependent variable in this research is abnormal stock return of company which is defined and measured as follows:

Normal stock return

Stock return means total ratio of earning (loss) obtained from investment in a definite period to the capital which has been spent to gain this earning at the beginning of the spending period. Stock return is one of the important criteria for evaluation of companies' performance which is considered by investors. Return on investment indicates benefits obtained from investment and investors seek to find investment opportunities which increase their capital return. In this research, the following action is performed to measure normal stock return (Ghaemi et al., 2008).

Normal stock return =

$$\frac{\text{Market value at the end of the year} - \text{Market value at the beginning of the year} + \text{Approved dividend} - \text{Capital increase}}{\text{Market value at the beginning of the year}}$$

To calculate each of the items, we have:

market value of the company at the beginning (end) of the year =
 number of stock at the beginning(end)of the year ×
 stock price at the beginning(end)of the year

Approved dividend=cash dividend × number of stock at the end of the year

Capital increase percent from cash contribution and credits \times (first of period capital-end of period capital) = Capital increase from cash contribution and credits

Cash dividend: this dividend means cash dividend approved in general assembly of shareholders of the companies accepted in Mumbai Stock Exchange.

Capital increase: company with capital increase is the company which has increased capital in 2009-2013. Capital increase from cash contribution and credits has been considered in calculation of stock return.

Abnormal stock return

To calculate this variable, companies of each period are independently classified into 5 classes based on natural logarithm of assets at the end of the financial year (corporate size) and price-to-book ratio. Result of difference of these 10 groups is 25 states. For each group with the obtained portfolio, mean corresponding return was obtained. The reason for this classification is the control of effect of systematic risk with corporate size variable because the presence of significant relationship between corporate size and systematic risk has been shown (Namazi and Khajavi, 2004). Anyway, abnormal return is equal to difference of return of each company and mean portfolio return of the company in that class.

Natural logarithm of assets at the end of the financial year = corporate size

Market value of the company at the end of the period /company's capital at the end of the period – price-to-book ratio

Research independent variables

Independent variable is a feature of physical or social environment which accepts some values after selection, interference or alteration by the researcher to observe its effect on another variable. Considering the main research question and based on the conducted studies, independent variables of the research and their measurement method are as follows:

Accruals

Accruals express the difference between accounting earning and cash flow from operation. It means that large positive accruals indicate reported excess earning relative to cash flow produced by the company. This difference is result of accounting constraints to see when income and cost should be identified (principle of realization and matching). One of the important roles of accruals, transfer or modification is identification of cash flows over time. So, the modified numbers (earning) better evaluates performance of the company.

Cash flow from operation – operating earning = accruals

This value is in terms of assets of sample companies at the end of the standard financial year.

- A- Operating profit: loss or profit from ordinary and continual activities of the commercial unit. This value is also obtained in terms of mean of total assets from division of profit obtained from ordinary and continual activities by assets of the sample companies at the end of financial year. This price is extracted from loss and profit statement provided in financial statements of the companies.
- B- Cash flow from operation: it is obtained in terms of mean of assets of company which is obtained by dividing cash flow from continuing operation by assets of the sample companies at the end of the financial year. This value is extracted from cash flow statement. In this definition, payable cash fund for income tax and return on investments and payable profit for financing are not considered for the reason of observance of accounting standards. This price is extracted from cash flow statement provided in financial statements of companies.

Discretionary and non-discretionary accruals

Discretionary and non-discretionary accruals mean to what extent the managers have freedom of action in preparing and reporting them. Discretionary accruals are part of the accruals which reflect application of power by manager in economic setting of the company. Non-discretionary accruals mean the accruals which cannot be controlled and refer to the accruals which reflect fundamental performance of company.

To calculate the discretionary and nondiscretionary accruals, accruals of every year should be predicted with mean of sale and accruals of the past three years such that:

$$E_t(Acc_{it}) = \frac{\sum_{k=1}^3 Acc_{it-k}}{\sum_{k=1}^3 Sales_{it-k}} Sales_{it}$$

$E_t(Acc_{it})$ = prediction of accruals of company i in period t:

$Sales$ = corporate sales and k is 3-year time period before the desired current year.

To calculate numerator of the accruals, we calculate three years before the desired year and put mean of these three numbers in numerator of the fraction. To calculate dominator of the fraction, we consider sales of the past three years. Finally, we multiply the number obtained from the desired fraction by the current year sales and the resulting figure shows prediction of accruals in the current period.

Discretionary accruals

$$DA_{it} = Acc_{it} - E_t(Acc_{it})$$

To calculate the discretionary accruals, we deduce the predicted accruals which were calculated as above from total accruals of the current year.

Non-discretionary accruals

$$NDA_{it} = E_t(Acc_{it}) - Acc_{it-1}$$

Acc_{it-1} = shows the first of period accruals.

To calculate non-discretionary accruals, we deduce accruals of the year before the current year from the predicted price of accruals. Due to limitation of the time period, the considered mean for prediction of accruals is three periods and these figures are standardized based on mean of assets of each company in the desired period.

Research control variables

In a research, effect of all variables on each other cannot be studied concurrently; therefore, the researcher controls effect of some of these variables and neutralizes them which have been selected in this research as follows considering the previous studies:

Corporate size

In the present research, a control variable of which effect should be neutralized is corporate size effect. To omit corporate size effect, each of the independent variables is divided by assets of company at the end of the financial year so that the results obtained from the research can be reliable.

Research Data analysis

To test the research hypotheses, panel data regression test will be used. Generally, estimation of the model with panel data includes the following stages:

1. Reliability recognition test on data
2. Model estimation test as panel data
3. Fixed effects or random effects determination test
4. Estimation of parameters

Reliability recognition test on data

To study reliability of variables in this research, Dicky *Fuller* (ADF) test which is one of the most important unit root tests has been used. In Table 1, Dicky *Fuller* statistic probability shows that it is below 0.05 for all variables. Therefore, all variables of the research are reliable in Tehran Stock Exchange.

Table 1 Dicky Fuller (ADF) test to study reliability of research variables

Variable	Statistic	Statistic probability
Accruals	284.202	0.0017
Discretionary accruals	259.949	0.0272
Nondiscretionary accruals	270.337	0.0091
normal return	349.830	0.0000

Model estimation test as panel data and fixed effects or random effects determination test

In panel data, F-Limer test is used to choose among panel data methods and pooled data methods. If probability of F-Limer test is smaller than 5%, panel data will be used; otherwise, pooled data will be used.

Table 2 F-Limer test for selection of the variable or fixed intercept model

Hypothesis	Test type	Statistics value	Statistic probability	Result
H ₁	F-Limer	0.755	0.960	Null hypothesis is confirmed and the panel data model is not confirmed.
	Chi square	93.687	0.835	
H _{1a}	F Test	0.775	0.945	Null hypothesis is confirmed and the panel data model is not confirmed.
	Chi square	95.930	0.790	
H _{1b}	F Test	0.770	0.949	Null hypothesis is confirmed and the panel data model is not confirmed.
	Chi square	95.342	0.802	

Considering that P-value obtained from F-Limer test is above 5% In Table 2, null hypothesis is confirmed and the panel data model is confirmed. Therefore, there is no need for execution of panel data there is no need for Hausman test. To estimate this model in all three hypotheses, panel data method was used.

Studying the absence of autocorrelation in the research models

To discover autocorrelation, one of the existing tests is Wooldridge test. Its advantage over Durbin Watson test is that other types of autocorrelation are recognized in addition to the first order autocorrelation and when data are panel data, this test can be used. Considering that P-Value inserted in Table 3 is smaller than significance level of 5% in all three hypotheses for Tehran Stock Exchange, the model in these hypotheses has autocorrelation. To solve this problem, first order auto-regression model (AR (1)) was used.

Table 3 Results of Wooldridge test of the research models

Hypothesis	Wooldridge Test		
	Statistics Value	Statistic probability	Result
H ₁	F=34/031	0.0000	Autocorrelation
H _{1a}	F=34/114	0.0000	Autocorrelation
H _{1b}	F=33/002	0.0000	Autocorrelation

Studying Heteroskedasticity test in research models

Tables 4 show the results of heteroskedasticity test for testing the models of hypotheses with Breusch–Pagan test. When P-value is smaller than the significance level of 5%, null hypothesis of homoscedasticity is not accepted and the model has heteroskedasticity. Considering that P-Value inserted in the Table is smaller than the significance level of 5%, all hypotheses have heteroskedasticity. To solve this problem, Estimated Generalized Least Square (EGLS) was used in these hypotheses.

Table 4 Results of heteroskedasticity test of the research models

Hypothesis	Xt Test		
	Statistics Value	Statistic probability	Result
H ₁	$\chi^2=423.121$	0.0000	Autocorrelation
H _{1a}	$\chi^2=461.251$	0.0000	Autocorrelation
H _{1b}	$\chi^2=491.251$	0.0000	Autocorrelation

Testing research hypotheses

Testing main hypothesis

Main hypothesis states that there is a significant relationship between accruals and normal stock return of companies listed in Tehran Stock Exchange and this hypothesis is converted into statistical hypotheses i.e. H₁ (accepting the claim) and H₀ (rejecting the claim).

H₀: There is no significant relationship between accruals and normal stock return of companies listed in Tehran Stock Exchange.

H₁: There is significant relationship between accruals and normal stock return of companies listed in Tehran Stock Exchange.

This hypothesis has been tested with Estimated Generalized Least Square (EGLS) and panel data method. Results of this study are shown in Table 5.

Table 5 Results of testing the first hypothesis

Variable	Coefficients	Statistic t	Significance level
Constant	0.144	10.676	0.000
Accruals	0.005	2.626	0.008
R ²	0.012	Statistic F	6.896
Adjusted R ²	0.010	Probability F	0.008
Durbin Watson statistic			1.659

After establishing classic hypotheses, Estimated Generalized Least Square (EGLS) and panel data method were used to estimate the first model considering heteroskedasticity.

Durbin Watson statistic shows the absence of autocorrelation because value of this statistic is equal to 1.65 which is between 1.5 and 2.5. Therefore, there is no barrier for use of regression. Table 5 shows results of estimating the model for the first hypothesis. According to results inserted in this Table, P-value of F statistic is below 5% and it can be said that the model is significant for the first hypothesis in confidence level of 95% and considering coefficient of determination (0.01), the model is able to explain variations of the dependent variable. Considering that significance level for variable coefficient of the accruals (0.005) is equal to 0.0089 and below 0.05, it is specified that there is significant positive relationship between accruals and normal stock return so that normal stock return increases with incremental changes in accruals.

Testing the first subsidiary hypothesis

The first subsidiary hypothesis mentions that there is a significant relationship between discretionary accruals and normal stock return in Tehran Stock Exchange. This hypothesis is converted into statistical hypotheses, i.e. H_1 (accepting the claim) and H_0 (rejecting the claim). This hypothesis has been tested with Estimated Generalized Least Square (EGLS) and panel data method. Results of this study are shown in Table 6.

Table 6 Results of testing the first hypothesis

Variable	Coefficients	t Statistic	Significance level
Constant	0.144	10.676	0.000
Discretionary Accruals	0.005	2.626	0.008
R^2	0.012	Statistic F	6.896
Adjusted R^2	0.010	Probability F	0.008
Durbin Watson statistic			1.659

Durbin Watson statistic shows the absence of autocorrelation because value of this statistic is equal to 1.65 which is between 1.5 and 2.5. Therefore, there is no barrier for use of regression but F statistic probability in Table 6 relating to results of testing the first subsidiary hypothesis for Tehran Stock Exchange shows that there is a significant linear relationship between variables of the research because F statistic probability is below 5%. Significance level of the variable of discretionary accruals is equal to 0.008 which is below 0.05. Considering coefficient of 0.005, it is found that that there is a positive significant relationship between discretionary accruals and normal stock return. The adjusted R^2 is equal to 0.01 which indicates ability of the model to explain variations of dependent variables (normal return) by 1%.

Testing the second subsidiary hypothesis

In the second subsidiary hypothesis, there is a significant relationship between nondiscretionary accruals and normal stock return in Tehran Stock Exchange. This hypothesis is converted into statistical hypotheses, i.e. H_1 (accepting the claim) and H_0 (rejecting the claim). This hypothesis has been tested with Estimated Generalized Least Square (EGLS) and panel data method. Results of this study are shown in Table 7.

Table 7 Results of testing the second subsidiary hypothesis

Variable	Coefficients	t Statistic	Significance level
Constant	0.144	10.622	0.000
Non-discretionary Accruals	0.006	2.882	0.008
R ²	0.006	Statistic F	3.544
Adjusted R ²	0.004	Probability F	0.060
Durbin Watson statistic			1.624

Durbin Watson statistic shows the absence of autocorrelation because value of this statistic is equal to 1.624 which is between 1.5 and 2.5. Therefore, there is no barrier for use of regression but F statistic probability in Table 7 relating to results of testing the second subsidiary hypothesis shows that there is a significant linear relationship between variables of the model because F statistic probability is below 5%. t statistic for independent variable of the research indicates the presence of significant positive relationships between independent variable (nondiscretionary accruals) and dependent variable (normal return) because t statistic in error level of 5% shows the presence of direct significant relationship between nondiscretionary accruals and normal return. The adjusted R² is equal to 0.004 which indicates ability of the model to explain variations of dependent variables so that independent and control variables of the model could explain variations of the normal return by 0.4%. Table 8 summarizes the research results.

Table 8 Summary of results of studying hypotheses

Hypothesis	D-W	Coefficient of determination	Probability value	t Statistic	Test result
H ₁	1.659	0.012	0.008	0.008	Confirmation/direct
H _{1a}	1.659	0.012	0.008	0.008	Confirmation/direct
H _{1b}	1.624	1.006	0.060	0.060	Rejection

Conclusions and recommendations

Accruals are noncash component of accounting earning and are obtained from difference between accounting earning of company and essential cash flows of company. when this part of accounting earning increases, quality of earning decreases and stock return decreases and when the accruals decrease and get close to 0 so that accounting earning is equal to cash flows, quality of earning increases and stock return of the company also increases.

Considering that there is a significant and direct relationship between discretionary accruals and normal stock return in Tehran Stock Exchange, companies pay more attention to discretionary accruals when they sell and purchase shares of the company because when discretionary accruals increase, stock return of company increases. In other words, if stockholders seek for more stock return, they will seek for more discretionary accruals.

Accruals have no significant relationship with normal stock return in Tehran Stock Exchange and nondiscretionary accruals are not controlled by manager and result from

main and continual activities of company, study of nondiscretionary accruals has no effect on prediction of stock market of the companies. Result of the present research is more in line with results of research by Ghaemi et al. (2008). Results of the present research are not in line with results of research by Haji Zadeh and Shoaee (2014) regarding the presence of positive relationship between quality of earning and stock return. Considering finding of the research by Azimi (2014) regarding the absence of negative relationship between return and quality of earning is in line with results of the present research regarding Tehran Stock Exchange.

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