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The Impact of Earnings Management on the Earnings Quality of Companies Listed on the Tehran Stock Exchange

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ABSTRACT

This study tests the theory of opportunistic earnings management. To test this theory, the effect of earnings management on four proxies of earnings quality that originate from three different earnings characteristics was examined. The variable used for earnings management is the absolute value of discretionary accruals, and the proxies used for earnings quality include earnings smoothing, accruals quality, conservatism, and relevance. Earnings smoothing and accruals quality are based on accounting information, and conservatism and relevance are market-based criteria. Data from companies listed on the Tehran Stock Exchange were used to test the hypotheses. The research period is between 2006 and 2017, and 135 companies were selected as a sample. Panel data was used to test the models. The test results confirmed the hypothesis of earnings management being opportunistic for the accounting information-based earnings quality criteria, namely smoothing and accruals quality, and were not confirmed for the market-based criteria, namely conservatism and earnings relevance. Also, the determinants of earnings quality were considered as control variables in the estimation of the models.

Keywords: Discretionary accruals, earnings quality, earnings management, earnings characteristics.

INTRODUCTION

Growth and development depend on attracting capital and maintaining current investments and using new investment opportunities and potentials. Therefore, many researches in the financial field revive around the capital market. Investors need to check two factors in order to enter their small capital into the capital markets; first, they should consider the capital markets as a suitable place for investment and consider the ratio of return and risk to be balanced and proportionate. Second, after a positive evaluation of the entire market, they can find a company that will give them a reasonable return according to their investment horizon; for this reason, financial and management reports as an important source of information have an undeniable role in these decisions (asnaashri, et.al 2020).

The information provided by the accounting system can be useful and used in the economic decision-making process of users only when it meets the minimum standards. These prescriptive standards, called “qualitative characteristics” of accounting information, can increase the usefulness of the information (etemadi, et.al 2012).

The review of the literature related to earnings management shows the efforts of researchers to understand why managers seek to manipulate earnings, how they manage earnings and what are the consequences of such behavior. Answers to these questions have been assigned a large part of empirical research in the field of accounting and financial reporting (mashayekhi, et.al 2006).

However, the question has always been raised as to whether earnings management improves the qualitative characteristics of accounting information or reduces its information content. The earnings management research literature does not help much in judging the favorable or unfavorable impact of earnings management on the usefulness of accounting information and does not provide a clear answer to this question. In fact, the evidence presented is largely contradictory and inconclusive. One of the main reasons for this is the lack of attention paid by research to the various dimensions of accounting information quality (etemadi, et.al 2012). The main objective of this research is to provide evidence on the relationship between earnings management and accounting information

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quality, as we seek to examine the hypothesis of whether earnings management is opportunistic and it affect what aspects of earnings quality.

In this study, discretionary accruals are considered as an indicator of earnings management, and the characteristics of earnings quality are measured from three different aspects (criteria resulting from time series characteristics, criteria resulting from the relationship between earnings, accruals and cash flows, criteria related to information quality characteristics) and using four proxies including earnings smoothing, accruals quality, conservatism and relevance. Among these proxies, smoothing and accruals quality are criteria based on accounting information, and conservatism and relevance are market-based criteria. Also, the determinants of earnings quality are considered as control variables. The aim of this study is to determine the effect of discretionary accruals as a measure of earnings management on three different aspects of earnings quality.

LITERATURE REVIEW

In the financial literature, there is an assumption that there is a relationship between management reporting decisions and the characteristics of a firm's information, and it assumes that earnings are the primary source of firm-specific information. For example, previous research has shown that investors rely on earnings more than any other measure of performance. In addition, managers also consider earnings as a key measure because investors and analysts use them in their assessments (etemadi, et.al 2012). The inherent flexibility of accounting standards and the accrual basis allows managers to exercise their discretion and judgment in financial reporting, including reporting earnings. The exercise of judgment by managers and their discretion in the financial reporting process has come to be known as "earnings management" (Ahmadpoor, et.al 2013).

The goal of earnings management is to demonstrate reasonable earnings quality in accordance with shareholder expectations or in accordance with the requirements of obtaining relevant authorization from regulators. Earnings management has many similarities with earnings quality in assessing the financial health of the company, such that higher earnings management implies lower earnings quality. However, the absence of earnings management (low earnings management) does not mean that high earnings quality is guaranteed, because other factors such as the capital market are also involved in earnings quality; however, if we assume other participating factors are constant, we can draw a closer relationship between earnings management and earnings quality (Ahmadpoor, et.al 2013).

earnings management

According to Generally Accepted Accounting Principles (GGAP), managers can use their knowledge to make decisions and judgments (Smith, 2021). So that management's use of judgment in decision-making creates opportunities for earnings management (Healy, et.al 1999). On this basis, various definitions of earnings management have been formed. Some definitions focus on the goal of management, such that some researchers defined earnings management as purposeful management intervention in the external reporting process, with the aim of obtaining personal benefits.

According to some researchers, earnings management can be legitimate or illegitimate depending on the type of objective. The incorrect and erroneous application of GAAP generally accepted accounting principles to hide the company's poor financial performance is actually illegitimate earnings management or earnings manipulation. In contrast, the correct application and application of accounting procedures to achieve stable financial results is a form of legitimate earnings management.

Due to the widespread understanding of earnings manipulation in the financial community, much research has been conducted in the field of earnings management. Some studies have examined the environmental characteristics that affect illegitimate earnings management (Smith, 2021). An example of this research showed that managers manage earnings to increase their compensation, which is based on earnings (Healy, et.al 1999).

Some research has also examined the tools of earnings management. Evidence has shown that managers use specific accruals, such as bank loan loss provisions, to manage earnings (Healy, et.al 1999).

The impact of earnings management on the capital market is another aspect of research conducted in this field. As evidence showed that earnings management affects resource allocation (Healy, et.al 1999). Li et al. (2011) showed

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that bankrupt companies in the Shanghai and Shenzhen stock exchanges prefer opportunistic earnings management and as earnings quality decreases over the period, the number of bankrupt firms increases (Li, et.al 2011).

earnings quality criteria

The earnings quality measures used in this study examine three different dimensions of earnings quality. These dimensions include measures resulting from time series characteristics, measures resulting from the relationship between earnings, accruals, and cash flows, and measures related to information quality characteristics, which are measured using four proxies including earnings smoothing, accruals quality, conservatism, and relevance.

Smoothing:

In earnings smoothing, management tries to make earnings changes less over time. When smoothing occurs, reported earnings may be lower or higher than economic earnings (Goel, et.al 2003). On the other hand, this feature means the absence of temporary fluctuations in earnings; so that smoothed earnings have a closer relationship with actual cash flow. Therefore, cash is used as a reference structure in measuring smoothness. This type of earnings smoothing is different from earnings that are smoothed by management's chosen accounting procedures. Usually, investors want earnings with minimal volatility. In a way, they use the size of the earnings fluctuation directly as a measure of the company's risk (Etemadi, et.al 2012).

Accrual quality:

In recent years, accounting accruals have been introduced as one of the most important measures of earnings quality. Many methods of assessing earnings quality focus on the fact that earnings are more desirable when they are closer to cash. The longer the time between revenue recognition and cash receipt, the lower the quality of earnings (Etemadi, et.al 2012). The effect of cash flow fluctuations on the quality of accruals has also been considered in many studies. As Christensen et al. (2023) concluded in their study that the quality of accruals is inversely related to cash flow fluctuations. Also, according to them, changes in company characteristics over time may affect both the quality of accruals and cash fluctuations. On the other hand, changes in regulatory standards and laws can affect accounting operations. Some researchers have examined the regulatory effect of the Sarbanes-Oxley Act of 2002 on the quality of accruals and concluded that this law has led to an increase in the quality of accruals. Some studies have also examined the effect of increasing specific items in accruals on the quality of accruals, and their results have shown that the quality of accruals has decreased due to specific items (Christensen, et.al 2023).

Conservatism:

Conservatism, one of the limiting principles of accounting, affects the quality of accounting information. There are two different views regarding the function of conservatism. According to the first view, conservatism has an informational role and leads to improved information quality. Proponents of this view believe that conservatism reduces earnings management, information asymmetry, and agency costs, and therefore helps improve the reporting and decision-making process (Meshki, et.al 2019); ultimately, it improves economic efficiency (Ewert, et.al 2012). However, the opposing view states that conservatism not only lacks information content, (Meshki, et.al 2019) also reduces the relevance of information (ewert, et.al 2012) and leads to targeted bias and distortion of economic realities and understatement of profits. (Meshki, et.al 2019) In this article, we examine the first theory about conservatism.

Relevance:

Financial reporting is one of the sources of information for those who make economic decisions about a business entity (Arabmazar, et.al 2008). Financial information must also include two characteristics of validity and relevance in order to be useful for decision-making (Burlaca, et.al 2024). Considering the economic aspects of information, financial reporting and the accounting system play a vital role in an efficient capital market. Accordingly, the compilers of accounting standards try to increase the compatibility of accounting system information with the information needed by investors. They consider the main purpose of accounting to be to meet the information needs of the capital market. Therefore, evaluating the usefulness of accounting information in stock valuation or the relevance of accounting information to company value, which has received much attention in recent research, has been proposed as a main model in financial accounting research (Arabmazar, et.al 2008).

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In efficient capital markets, all available information is expected to be reflected in the price of securities quickly. If the stock price changes after the publication of financial reports, accounting information is relevant to the stock price and has information content (Meshki, et.al 2019). The relevance of accounting information leads to this information being attributed to a reliable source for predicting stock prices and returns (Burlaca, et.al 2024). The relevance of accounting information to stock price is the operationalized form of two important and primary characteristics of financial reporting information, namely the relevance and reliability of accounting information; because accounting figures only have relevant value when investors consider them relevant in their assessments of the company and reflect them in the stock price (Meshki, et.al 2019). Some researchers found in their research that earnings management leads to incorrect stock pricing by weakening value relevance (Burlaca, et.al 2024). Accordingly, in this study, another quality criterion on which the effect of earnings management is measured is value relevance.

Previous research

The earnings management literature has examined the effects of earnings management on financial information and the capital market from various aspects, some of which are examined below. Etemadi et al. (2012) examined the effect of earnings management on four characteristics of earnings quality in the Tehran Stock Exchange, and their results showed that with increasing earnings management, desirable earnings characteristics are reduced. Asnaashri et al. (2020) examined the effect of earnings management models on investor perceptions in the Tehran Stock Exchange. They found that the earnings management model based on accruals has an inverse relationship with investor perceptions, while earnings management through actual activities has a direct relationship with investor perceptions. Arabmazar et al. (2008) examined the effect of earnings management on the characteristics of earnings relevance and book value in the Tehran Stock Exchange. According to their results, earnings management reduces earnings relevance and increases book value relevance. Jalali et al. (2024) examined the effect of earnings management in two aspects, real earnings management and aggressive real earnings management, on audit quality in the Tehran Stock Exchange. Their findings showed that real earnings management leads to a decrease in audit quality, but no significant relationship was observed between aggressive real earnings management and audit quality. Tariverdi et al. (2018) examined the effect of incremental earnings management and dilutive earnings management on the quality of financial reporting in the Tehran Stock Exchange. Their results indicated a negative effect of incremental earnings management and dilutive earnings management on the quality of financial reporting. Also, earnings management had no effect on earnings sustainability. Cug et al. (2021) examined the impact of earnings management on earnings quality, and in their opinion, if earnings management distorts information in a way that reduces the predictability of future cash flows, it has a negative effect on earnings quality. Aljifri et.al (2024) examined the effect of earnings management on earnings quality in Gulf Cooperation Council companies. Their analysis showed that accrual-based earnings management reduces earnings quality. Li et al. (2011) examined earnings management and the effect of earnings quality on stress and bankruptcy in Shanghai and Shenzhen stock exchanges. Their results showed that stressed/bankrupt companies prefer opportunistic earnings management and Firms that are not bankrupt and not under stress are more likely to choose more efficient earnings management than firms that are not bankrupt but under stress. They also find that earnings management performs better than earnings quality in predicting future earnings. Burlaco et.al (2024) examined the effect of earnings management on the value relevance of financial statements in the Bucharest Stock Exchange. Their findings show that earnings management reduces the value relevance of earnings due to the negative effect of earnings management on the reliability of accounting information. Susanto et.al (2017) examined the effects of accrual earnings management and real earnings management on firm value in the Indonesian stock exchange. They found that accrual earnings management has a direct and significant relationship with firm value, but real earnings management has an inverse and significant effect on firm value. Purwaningsih et.al (2020) examined the relationship between earnings management and earnings quality between domestic economic clusters including Indonesia, the Philippines and South Korea and foreign economic clusters including Singapore, Malaysia and Hong Kong. Their results showed that accrual earnings management and real earnings management are related to earnings quality in the domestic economic cluster, and the relationship between accrual earnings management and earnings quality is stronger than that between real earnings management. Their results also showed that real earnings management and accrual earnings management are related to earnings quality in the foreign economic cluster.

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RESEARCH HYPOTHESES

1- Earnings management has a negative and significant relationship with earnings smoothing

2- Earnings management has a negative and significant relationship with accrual quality

3- Earnings management has a negative and significant relationship with earnings conservatism

4-Earnings management has a negative and significant relationship with earnings value relevance

4- methodology

1-4- Population, statistical sample and research period

The statistical population of the study includes all companies listed on the Tehran Stock Exchange during the 12-year period from 2006 to 2017. The research sample includes companies that have the following characteristics:

1- They have not changed their fiscal year during the period under study.

2- They are active in the stock exchange and securities during the research period.

3- The company's fiscal year ends on March 19.

Considering the above conditions, 135 companies were selected to constitute the statistical sample of the study.

variables

Earnings smoothing: Earnings variability is a measure of risk in earnings. Steady growing earnings are preferred by investors due to their low volatility, because their expected returns are reliably positive. Such an earnings pattern is called an earnings smoothing flow (Ahrens, 2010). In this study, the Leuz et al. (2003) and Francis et al. (2004) criteria were used to calculate earnings smoothing, which is calculated based on the ratio of the standard deviation of operating income to the standard deviation of operating cash flow, with the numerator and denominator adjusted for total assets:

$$\text{Smooth}= \frac{\sigma_{NI}}{\sigma_{CFO}} \qquad (1)$$

In this regard, NI is operating income adjusted by assets and CFO is operating cash flow adjusted by assets.

Quality of accruals: Given the impact that accruals have on value-unrelated and value-related changes in cash flows, they will affect the quality of earnings. The standard deviation of the residuals from the original model of Dechow and Dichev is used to calculate the quality of accruals, which is presented as a regression model (2) to measure AQ:

$$\Delta wc_t = b_0 + b_1\, 1/TA_{t-1} + b_2\, CFO_{t-1} + b_3\, CFO_t + b_4\, CFO_{t+1} + \varepsilon_t \qquad (2)$$

In this model, CFo represents operating cash flow, TA represents the company's assets, and wc represents current accruals. So, wc is calculated as follows:

Wc= (changes in current assets - changes in cash) - (changes in current liabilities - changes in short-term financial facilities received)

The regression residuals reflect accruals. The standard deviation of the residuals calculated for the 5-year period reflects the company-specific measure of accrual quality, with the higher the standard deviation, the lower the quality. To establish a positive relationship between earnings quality and standard deviation, the value obtained for the standard deviation of the residuals is multiplied by the negative value as follows:

$$AQ = -\,\sigma_{\epsilon} \qquad (3)$$

Conservatism: Conservatism, as one of the limiting principles of accounting, affects the quality of accounting information. Considering the role of information that conservatism has, it leads to improvement of information quality (Meshki, et.al 2019). In this study, the Ball and Shivakumar model has been used to estimate conservatism, which is calculated based on the regression model (4):

$$ACC_t = b_0 + b_1\, DCFO_t + b_2\, CFO_t + b_3\, DCFO_t * CFO_t + V_t \qquad (4)$$

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In this model, ACC represents accruals, CFO is operating cash flow, and DCFO is a dummy variable that is equal to one if operating cash flow is negative and zero otherwise. Operating cash flows and accruals are standardized by the assets at the beginning of the period. In this regard, the coefficient b3 represents conservatism, and the higher it is, the greater the level of conservatism and the higher the quality of earnings. Therefore:

$$Cons = b_3 \quad (5)$$

ACC is calculated as the difference between net income and operating cash flow plus depreciation expense.

Relevance: According to Francis et al. (2004), this concept is often measured based on the ability of earnings to explain the variability of returns. In many studies, including Francis et al. (2004), value relevance is calculated based on the following regression:

$$RET_{j,t} = a_{o,j} + a_{1,j}\, EARN_{j,t} + a_{2,j}\, \Delta EARN_{j,t} + \varepsilon_{j,t} \quad (6)$$

In the above model, RET represents the stock return, EARN is the earnings before extraordinary items, and ΔEARN is the change in earnings before extraordinary items, both adjusted by the market value at the beginning of the period. The coefficient of determination of the model represents the value relevant. The higher the coefficient of determination, the greater the degree of relevant of earnings and the higher the quality of earnings. Therefore:A

$$Relevance = R^2 \text{ (determination coefficient of model)} \quad (7)$$

Discretionary accruals: Discretionary accruals measure Management's use of accruals in earnings reporting; that is, earnings are managed with more discretionary accruals (Etemadi, et.al 2012). In this study, the modified Jones model was used to calculate discretionary accruals:

$$TACC_t = a + b_1\, 1/TA_{t-1} + b_2(\Delta REV_t - \Delta AR_t) + b_3 PPE_t + \varepsilon_t \quad (8)$$

In this model, AR is accounts receivable, REV is sales revenue, PPE is gross property, plant and equipment, and TACC is total operating accruals, which are calculated as follows:

TACC= (Changes in current assets - Changes in cash) - (Changes in current liabilities - Changes in short-term financial facilities received) - Depreciation expense of tangible and intangible assets

The absolute value of the model residuals indicates the amount of earnings management, and the higher it is, the greater the earnings management. Therefore:

$$DA = |\varepsilon| \quad (9)$$

In this study, the determinants of earnings quality are considered as control variables. According to Aherns (2010), these variables include company size (size), issuance of securities (Is), operating cycle (OC), and auditor's opinion (OP). Company size is obtained through the logarithm of assets, and operating cycle is calculated as follows:

$$OC = \log \text{ of } \frac{AR_t + AR_{t-1}/2}{REV/360} + \frac{INV_t + INV_{t-1}/2}{COGS/360} \quad (10)$$

In this case, AR is total accounts receivable, INV is inventory, COGS is cost of goods sold, and REV is net sales.

The proxy used for securities issuance is the dummy variable (Is). It is equal to one if the company has raised capital or received long-term financing for the current year or two years later, and zero otherwise. The dummy variable OP is used for the auditor's opinion. It is equal to one if the auditor's opinion is unmodified (accepted), and zero otherwise.

Multivariate regression models

In order to examine the effect of earnings management on four characteristics of earnings quality, regression models (11) to (14) are used:

$$Smooth_{i,t} = a_o + a_1 DA_{i,t} + a_2 size_{i,t} + a_3 Is_{i,t} + a_4 OC_{i,t} + a_5 OP_{i,t} + e_{i,t} \quad (11)$$

$$AQ_{i,t} = a_o + a_1 DA_{i,t} + a_2 size_{i,t} + a_3 Is_{i,t} + a_4 OC_{i,t} + a_5 OP_{i,t} + e_{i,t} \quad (12)$$

$$Cons_{i,t} = a_o + a_1 DA_{i,t} + a_2 size_{i,t} + a_3 Is_{i,t} + a_4 OC_{i,t} + a_5 OP_{i,t} + e_{i,t} \quad (13)$$

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$Relevance_{i,t}= a_0+ a_1DA_{i,t}+ a_2size_{i,t}+ a_3Is_{i,t}+a_4OC_{i,t}+ a_5OP_{i,t}+ e_{i,t}$ (14)

In these models, the dependent variable is, in order, earnings smoothing (smooth), accrual quality (AQ), conservatism (Cons) and value relevance (Relevance), which are calculated using models (1), (2), (4), (6). All models were estimated using the panel data method and eviews software was used to estimate the model. The Limier test and Hausman test were used to determine the type of model. Also, variance heterogeneity was examined using the White test and none of the models had variance heterogeneity.

CONCLUSIONS

Descriptive statistics

Descriptive statistics of the variables are presented in table (1). This table includes center, dispersion and shape of distribution indices. The mean of the earnings management variable is 0.117, which is an independent variable in all models, which is almost close to the value obtained by Etemadi et al. (2012), i.e. 0.105. The mean of smoothing is 0.82, the mean of accrual quality is -0.27, the mean of conservatism is -0.114, and the mean of relevance is 0.63. Etemadi et al. (2012) reported in their study the mean of smoothing as 0.64, the mean of accrual quality as 0.083, which is different from the values obtained in this study due to the difference in the research period and the size of the research sample.

Table 1: Descriptive statistics

	DA	AQ	CONS	OC	RELEVANCE	SIZE	SMOOTH
Mean	0.117	-0.271	-0.114	2.4	0.632	27.778	0.822
Median	0.089	-0.227	0.000	2.397	0.690	27.683	0.717
Maximum	0.482	-0.06	2.898	3.038	0.988	31.618	4.639
Minimum	0.001	-0.744	-8.656	1.848	0.028	24.894	0.114
Std. Dev.	0.099	0.144	1.087	0.245	0.269	1.254	0.553
Skewness	1.433	-1.007	-5.554	0.051	-0.484	0.506	2.385
Kurtosis	5.075	3.457	43.174	2.505	2.023	3.373	13.392

Table (2) shows the results of Pearson correlation between the research variables. Most of the earnings characteristics have a positive relationship with each other, but only some of these correlations are statistically significant. This means that with an increase in each earnings characteristic, other characteristics also increase, and with a decrease in one earnings characteristic, other characteristics also decrease. In the meantime, smoothing and conservatism have a negative and significant relationship. Company size has a positive relationship with all the measures of earnings quality, and some of these correlations are statistically significant. This shows that larger companies have higher earnings quality than smaller companies. Operating cycle has a negative and insignificant relationship with most of the measures of earnings quality. This means that companies with longer operating cycles have lower earnings quality.

Table 2: correlation between research variables

	DA	AQ	CONS	OC	RELEVANCE	SIZE	SMOOTH
DA	1.000000						
AQ	-0.215408***	1.000000					
CONS	-0.008508	0.053354	1.000000				

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OC	0.080869	-0.007793	-0.082610	1.000000			
RELEVANCE	0.059798	0.049387	0.004635	0.010038	1.000000		
SIZE	0.003256	0.032014	0.090897*	0.039896	0.119165**	1.000000	
SMOOTH	-0.105929**	0.111573**	-0.111527**	-0.072210	0.125961**	0.035206	1.000000

*** Correlation is significant at the 1% level, ** Correlation is significant at the 5% level, and * Correlation is significant at the 10% level.

Estimating models and testing hypotheses

The models were estimated using mixed data. The Limier and Hausman tests were used to determine the type of model. The probability of Limier test for model (11), which is the dependent variable of earnings smoothing, is greater than one tenth, so the null hypothesis is confirmed and the pooled model is accepted. The probability of Limier test for model (13) and (14), which are the dependent variables of conservatism and value relevance, is the same as model (11), and the pooled model is accepted. The probability of Limier test for model (12), which dependent variable is accruals quality, is less than 5 percent, so the null hypothesis is rejected and the model type is panel. The Hausman test was used to determine the type of model, i.e. fixed effects versus random effects, and since the test probability was less than 5 percent, the null hypothesis was rejected and the model with a fixed effects pattern was accepted. These results have not been included in the tables due to length. Tables (3) to (6) are the estimation results of regression models (11) to (14). Table (3) shows the results of the regression of earnings management on earnings smoothing. The model is statistically significant at the 5 percent level. Also, the coefficient of earnings management is negative and significant at the 5 percent level, which indicates that earnings management has an inverse relationship with earnings smoothing. Therefore, the first hypothesis of the study that earnings management has a negative and significant relationship with earnings smoothing is confirmed. The index that was considered for smoothing in this study was such that the larger it was, the less smoothing amount and the better the earnings quality. Therefore, here, the more earnings management, the smaller this index and the more smoothing and, as a result, the lower the earnings quality. This result is consistent with the results of Etemadi et al. (2012). Among the control variables of this model, only the auditor's opinion was statistically significant at the 1 percent level and its coefficient was negative, indicating an inverse relationship between the auditor's opinion and earnings smoothing. The adjusted determination coefficient of the model is 2.4 percent, which indicates a low level of explanatory power of the model.

Table3: regression of earnings management on smoothing

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.970949	0.692331	1.402435	0.1616
DA	-0.580701	0.277051	-2.096012	0.0368
IS	0.187197	0.184135	1.016627	0.3100
OC	-0.123840	0.114742	-1.079290	0.2812
OP	-0.153011	0.056863	-2.690857	0.0075
SIZE	0.003802	0.022683	0.167630	0.8670

R-squared	0.037
Adjusted R-squared	0.024
F-statistic	2.813
Prob(F-statistic)	0.016

Table (4) shows the results of the regression of earnings management on the quality of accruals. The model is statistically significant at the one percent level. Also, the coefficient of earnings management is negative and statistically significant at the one percent level, which indicates that earnings management has an adverse effect on

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the quality of accruals, that is, the more earnings management, the lower the quality of accruals. Therefore, the second hypothesis of the study that earnings management has a negative and significant relationship with the quality of accruals is confirmed. This result is consistent with the results of Etemadi et al. (2012). Among the control variables, only the securities issuance variable (Is) has a negative and significant relationship with the quality of accruals. The adjusted coefficient of determination of the model is 5.7 percent, which indicates a low level of explanatory power of the model.

Table 4: regression of earnings management on accrual quality

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.284469	0.181429	-1.567934	0.1178
DA	-0.307025	0.075513	-4.065877	0.0001
IS	-0.075627	0.045595	-1.658653	0.0980
OC	-0.013423	0.030086	-0.446150	0.6558
OP	-0.006956	0.015040	-0.462501	0.6440
SIZE	0.005613	0.005971	0.940050	0.3478

R-squared	0.074
Adjusted R-squared	0.057
F-statistic	4.228
Prob(F-statistic)	0.0001

Table (5) shows the results of the regression of earnings management on earnings conservatism. The significance level of the model is greater than one tenth and therefore the model is not significant. Therefore, the third hypothesis of the study that earnings management has a negative and significant relationship with earnings conservatism is rejected.

Table 5: regression of earnings management on conservatism

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.037476	1.446627	-1.408432	0.1598
DA	-0.318253	0.569008	-0.559312	0.5763
IS	-0.269672	0.361562	-0.745852	0.4562
OC	-0.363054	0.238317	-1.523409	0.1285
OP	-0.039524	0.117838	-0.335406	0.7375
SIZE	0.111406	0.047243	2.358167	0.0189

R-squared	0.023495
Adjusted R-squared	0.010227
F-statistic	1.770807
Prob(F-statistic)	0.117965

Table (6) shows the results of the regression of earnings management on the value-relevance of earnings. The model is statistically significant at the 5 percent level. The coefficient of earnings management is positive but not statistically significant, so the fourth hypothesis of the study that earnings management has a negative and significant relationship with the value-relevance of earnings is rejected. Among the control variables, only company size had a positive and significant relationship with the value-relevance. This means that larger companies have information

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with higher value-relatedness than smaller companies. The adjusted coefficient of determination of the model is 2 percent, which indicates a low level of explanatory power of the model.

Table 6: regression of earnings management on relevance

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.364976	0.343774	-1.061675	0.2891
DA	0.188296	0.136471	1.379755	0.1685
IS	0.110429	0.086674	1.274074	0.2034
OC	0.029857	0.056243	0.530846	0.5958
OP	0.041771	0.028233	1.479506	0.1399
SIZE	0.027826	0.011341	2.453479	0.0146

R-squared	0.031296
Adjusted R-squared	0.018170
F-statistic	2.384251
Prob(F-statistic)	0.037926

The explanatory power of all models was at a low level, the highest of them was related to the regression of earnings management on accrual quality with 5.7 percent.

SUMMARY AND CONCLUSION

The purpose of this study is to investigate the effect of earnings management on the quality of accounting earnings. There are two perspectives regarding the type of earnings management. In the first perspective, management manipulates accounting information with the aim of transmitting its private information. In such a situation, management's intervention in the financial reporting process should increase the quality of reported information. In the second perspective, which is more generally accepted, earnings management is opportunistic in nature and is carried out in line with management's personal motivations and interests. Therefore, it should be expected that earnings management will reduce the quality of accounting information, because managed information no longer reflects the economic content of events (Etemad et al., 2012). In this study, the opportunistic perspective of earnings management has been examined. Four proxies have been used to calculate earnings quality, which consider three different characteristics of earnings, which makes this study distinctive. These proxies include smoothing, which is related to the characteristics of the earnings time series, accrual quality, which is related to the characteristics resulting from the relationship between earnings, accruals, and cash flows, and conservatism and relevance, which are related to the qualitative characteristics of information. Also, given that earnings quality is also affected by the earnings determinants, in this study four control variables that were also earnings determinants were considered in the models, including company size, issuance of securities, auditor's opinion, and operating cycle. The results of the hypothesis test showed that earnings management has a negative and significant effect on earnings smoothing and accrual quality, so that the first and second hypotheses of the study were confirmed. These results also confirmed the hypothesis of earnings opportunism because increasing earnings management reduces earnings quality. The results of the first and second hypotheses are in accordance with the results of Etemadi et al. (2012). The results also showed that earnings management has no significant effect on conservatism and value relevance, so the third and fourth hypotheses of the study were rejected. According to the results obtained, the effect of earnings management is different according to the type of earnings quality feature. The two features of smoothing and accrual quality are based on accounting information, but the two features of value relevance and conservatism are based on market information, so that earnings management had a negative and significant effect on the two features based on accounting information, but had no effect on the two features based on market information. Among the control variables, the operating cycle was not related to any of the earnings quality features. The auditor's opinion had a negative and significant relationship with earnings smoothing. Issuance of securities has a negative and significant

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effect on the quality of accruals. Company size had a positive and significant relationship with the value relevance of information, which means that larger companies provide information with higher value relevance than smaller companies.

SUGGESTIONS

Given that the results of this study confirmed the hypothesis of opportunistic earnings management, it is suggested that organizations that determine financial reporting requirements determine these requirements in a way that minimizes the possibility of management manipulation for abuse.

In this study, four proxies from three earnings quality characteristics were used to measure earnings quality, while each earnings quality characteristic has several proxies. It is suggested that these characteristics be fully examined for future research. For example, earnings time series characteristics include three proxies: earnings persistence, earnings predictability, and earnings smoothing.

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