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The Quarterly Earnings Predictive of Quarterly Earnings Components (Cash Flow and Accruals)

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This study examines the ability of quarterly earnings components to predict future quarterly earnings using quarterly financial data. This study replicates Dechow and Schrand (2004) test of earnings predictive power, however, using quarterly data. Prior studies have shown that accrual component of earnings is prone to managerial manipulation and, therefore, has low quality. This study contributes to the debate on the quality of earnings components, particularly, by looking at its relevance in a short-term earnings prediction. Consistent with Dechow and Schrand (2004) it is found that accrual component of earnings can predict earnings two (2) quarters and three (3) quarters ahead while cash flow component can predict earnings two (2) quarters ahead. This findings indicate that accrual component of earnings can be used for longer period prediction (2 and 3 quarters ahead) while cash flow component of earnings can be used for shorter period prediction (2 quarters ahead). The use of quarterly earnings reveals that unaudited interim financial information has relevance.

Key words: earnings quality, accrual quality; earning predictive power; earnings management; information

INTRODUCTION

This paper examines the ability of earnings components, namely, accruals and cash flow, to predict future earnings. The ability of earnings and its components to predict future earnings depicts the quality of earnings. This study revisits the issue of earnings predictive ability, however, it uses quarterly financial data. The use of quarterly financial data enables this study to test the short-term predictive ability of quaterly earnings and its components. This study will also be able to determine how many quarters into the future can current quarter earnings components predict. Since interim financial information is not audited, this study will also be able to examine the quality of unaudited earnings number (quality is measured by its predictive ability).

Earning is one of many accounting information needed by investors to make investment decisions. To make sound decisions investors need information, thus, the quality of information influence the quality of their decisions. Investors make investment decisions such as buying, selling, or continuing to hold shares. In the real sector, investors have to decide on whether to enter into a project, sell their business, and/or expand their business. Investors need information to ensure that their investment decisions are sound and, therefore, can be reasonably assured that their investments will create value

There are numerous sources of information with varying cost associated with the effort to obtain them. Investors' willingness to sacrifice economic resources to obtain information depends on the value of the information, which is a function of its benefit and its cost. Therefore, it can be said that sources of information are competing against each other to attract investors' demand.

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Financial statement is one source of information that is needed by investors in making investment decisions (Frankel & Xu, 2004). Ikatan Akuntan Indonesia (IAI), the accounting standard setting body in Indonesia states that the general purpose of a financial statement is to provide information about the financial position, performance, and cash flow of a firm which is necessary for most users to make economic decisions and to account for management's stewardship regarding the use of resources entrusted to them. Financial statement helps users in predicting future cash flow, particularly in terms of the timing and uncertainty of cash flow. Furthermore, IAI states that to be useful, financial statement has to be relevant to the need of financial statement users (that is in decision making) and has to be reliable. Reliability can be achieved if the financial statement faithfully represents the financial position of the firm, represents substance over form, neutral, reflects care, and includes all material items (IAI, 2007).

IAI's statement on the objective of financial statement mirrors the International Accounting Standard Boards (IASB), although, it should be noted that IAI is less clear in regards to the characteristics of relevance. Mirza, Holt, and Orrel (2006) wrote on their workbook and guide to IFRS standards that to be relevant financial statement should,'help evaluate past, present, or future events or confirming, or correcting, their past evaluations.

Scott (2006) also wrote regarding the relevance of financial statement when he claimed that to be relevant financial statement has to enable the prediction of firm performance. Generally, the predictive ability of financial statement influences the usefulness of financial statement.

IAI (2007) states that to achieve its objective(s), financial statement should include the following

information: assets; liability; equity; revenue and expenses (including earnings and losses); and cash flow. Earnings (losses) is a summary of the firms performance and is a function of both revenue and expense and together with the firm's cash flow is of interest to users of financial statement, particularly, investors. The pioneering study by Ball & Brown, (1968) found that earnings have information content (relevant to investors' decision process). Their study initiated a large body of research that looked into the information content of earnings number (Chan, Jegadeesh, & Sougiannis, 2004; Collins, Maydew, & Weiss, 1997; Dechow & Schrand, 2004; Easton & Harris, 1991; Easton, Harris, & Ohlson, 1992). Dechow and Schrand (2004) showed that earnings consists of two major components: cash flow and accrual. Cash flow is a component of earnings that is objective as it represents the actual cash flow in (out) of the firm while accrual is more subjective as it represents management's choice and judgment which leads to the possibility of earnings manipulation. Sloan (1996) and Finger (1994) found that cash flow can better predict future earnings relative to accrual earnings. Richardson et al. (2005) found that the quality of accrual as a component of earnings influences earnings persistence. Overall, the above studies found that the predictive ability of current earnings is influenced by the quality of its accrual component.

This study revisits the question regarding the quality of the two components of earnings: cash flow and accruals, using quarterly reports. Quality is defined as the ability to predict future earnings.

Objective and Significance of Research. This paper aims to test the ability of earnings components, namely, accrual earnings and cash flow, to predict future earnings. Specifically, there are two questions that this paper addresses: do accrual earnings relate to future earnings and does cash flow from operations relate to future earnings. Answers to these questions will contribute to the issue of whether accrual earnings and cash flow has the predictive quality and, therefore, contributes to their relevance.

Research that tests the predictive ability of accrual earnings and cash flow as components of earnings is of interests to standard setting bodies because the objective of financial statements is to help users (particularly investors) predict future cash flows and earnings. Accrual earning is a component of earnings that may contain noise due to the ability of management to exercise judgment that could influence the reported earnings amount. Whether earnings management through accrual earnings component has value to investor is of interest to standard setters and to accounting knowledge. If accrual earnings is proven to be significant in predicting future firm performance then accrual earnings is relevant for investors. This could imply that management's judgment that result in earnings management contains valuable private information that should continue to be communicated through channels such as accrual earnings.

Prior studies have looked into these issues and provided mixed results. Studies by Ball and Brown (1968), Easton and Harris (1991), Easton, Harris, and Ohlson (1992) provided empirical evidence that earnings contained information relevant to investors; however, they are not reported on a timely basis. Further study by Collins, Maydew, and Weiss (1997), Francis and Schipper (1999) showed that used in conjunction, the relevance of both book value of equity and earnings have increased. However, in reality, the relevance of earnings has actually been declining while the relevance of book value of equity has increased. In contrast, Ely and Waymire (1999) found that there is no indication of a decline in the relevance of earnings.

Sloan (1996) found cash flow as a component of earnings has better persistence relative to accrual, thus, indicating higher quality. Dechow and Schrand (2004) explained that the use of accrual as a basis of financial measurement and reporting has enabled management to manage earnings through temporal items that will be reversed in the future (under accrual basis, recognition is a matter of timing) and, therefore, earnings with high level of accruals will have low persistence (due to its reversal nature). However, conceptually, the use of accrual can be used to pass on management knowledge about the firm's future prospect and, therefore, may have value (Bartov & Bodnar, 1996; Christie, 1990; Diamond & Verrecchia, 1991). Parawiyati and Baridwan's (1998) findings are consistent with this view. They found that accrual earnings as a component of earnings has better capability to predict future earnings.

Past studies have showed inconclusive conclusions regarding the predictive ability of earnings and, thus, motivating this study to revisit this issue. This study differs from prior studies in the following way: firstly, unlike most prior relevant studies that use annual data, this study uses quarterly data (quarterly financial statement) consistent with (Bandyopadhyay, 1994), and secondly, this study uses Indonesian data and, thus, enabling comparison with prior results that uses data from a more developed economies.

This study is significant in the following ways: 1. This study allows retesting whether management judgment reflected in the use of accrual earnings has any information content (relevant) in predicting future earnings. 2. This study will be able to determine how many quarters into the future can the components of current quarterly earnings predict (cash flow and accrual earnings). 3. Given the unaudited nature of quarterly data, this study will provide empirical evidence regarding the relevance of unaudited financial data. 4. Findings to this study will indicate whether quarterly earnings and its components can be used by investors in their trading strategies. 5. Related Theories and Literature

This section reviews literatures that are related to this study. Firstly this study discusses the dynamics of decision making, secondly, this study discusses information asymmetry within the context of agency problem, and finally, in the context of signaling theory, this study discusses how the use of accrual basis in the measurement and reporting process could be used to reduce information asymmetry.

Scott (2006) describes the dynamics in decision

process through what he called the decision model. model assumes that an individual makes decision under uncertainty, which is consistent with the current state of the world. Under this model, an individual is seen as having prior information that shapes up his (her) prior expectations. As new relevant information becomes available, it is immediately incorporated into his/her information set and may result in revision to prior expectations. If revision of prior expectation has economic consequence, it will lead to a decision. This model of decision making assumes an individual that is consistent with the rational investor assumption underlying the efficient market hypothesis (EMH) introduced by (Fama, 1991, 1970, 1969, 1965; Fama & Blume, 1966).

Given the underlying decision model discussed in Scott (2006), it is beneficial for an investor to continue searching for new information because in a non-ideal world characterized by uncertainty and imperfections in information infrastructure, insiders (for example managers) may have more information regarding the firm's past, present, and future performance compared to outsiders (for example investors). This situation is also known as information asymmetry (Frankel & Xu, 2004). Investors need to continue searching for information that could shed light on the past, present, but most importantly future performance of the firm. This information could revise investors' prior expectation about the firm and cause them to make investment decisions such as: buy additional shares, sell shares, or keep their size of holdings.

The Agency Theory that are introduced and made famous by Jensen and Meckling (1976) states that owner of a firm hires agent to act on his/her behalf. The agent's role is generally to create value for owners while the role of the owner is to provide capital, bear risk, and create incentives (Lambert, 2001). This arrangement leads to what is known as the Agency Problem, a situation where the agent did not fulfill his/her duty (creation of value for the owner) but look after his/her own interest first. The existence of information asymmetry makes it even easier for managers (agent) to pursue his/her personal interest above the interest of the owners or perhaps information asymmetry is a consequence of an agency problem? When agency problem exists managers have the motivations to choose accounting policies or choose managerial strategies that do not maximize value for owners but maximizes value for the manager. For example: managers may choose accounting policy or may decide to offer ease of credits to increase current earnings so as to boost current firm performance and, therefore, may improve his/her image as a successful manager.

A study by Bandyopadhyay (1994) proves this point when he studied the impact of successful effort (SE) accounting versus the full cost (FC) accounting used in the oil and gas industry on the quality of earnings. SE requires the cost of unsuccessful explorations to be expensed and, therefore, resulting in a more conservative earnings number.

On the contrary, FC permits the capitalization of unsuccessful exploration costs, consequently, resulting This
in higher earnings number. The study observed the earnings response coefficient (ERC) of firms using SE and FC surrounding their quarterly announcements and found that on average, SE firms have larger ERC relative to FC firms. This means that firms adopting SE, which results in a more conservative earnings number, has a higher quality earnings relative to firms that adopt FC. However, their findings are sensitive to period of decline in exploration activity. Furthermore, their study documented that firms adopting SE and FC on average have the same persistence, however, they differ in ERC, indicating, that market do not value persistence if persistence do not represent underlying economic characteristics. Walker & Oliver (2005) in their conceptual work argued consistently with Bandyopadhyay (1994) when they question the wisdom of capitalizing in-house software development cost. The issue identified in their conceptual work is which of the software development expenditure should be capitalized and which to be expensed. Management judgment affects this decision. Bias in management judgment is exacerbated with a performance-based compensation or efforts to secure job. They quoted media reports of large Australian firms such as, Telstra, Australian large banks, and the Australian Commonwealth Government capitalizing huge amount of in-house software developments. Four largest Australian firms are reported to have written-off $400 million worth of software and capitalized $ 1.97 billion, indicating, arbitrary decisions in capitalization (why capitalize software and later writing them off?). Walker and Oliver (2005) argued that capitalizing in-house software development cost introduces bias and reduces earnings quality. They recommended to immediately expense in-house software development cost, report material in-house development cost as a separate expense line item, and to disclose in the notes to the financial statements large software development projects.

In order to address agency problem, owners establish control measures, such as, the Board of Directors (BOD) to ensure managerial prudence, which may result in value creation for owners. A control that is widely employed by owners through BOD is the use of performance-based compensation scheme (Laux & Laux, 2009). Under this scheme, the manager's compensation may be influenced by some performance measures such as, earnings or share price performance (Lambert, 2001).

Such a scheme will ensure that managers' interests are aligned with owners' interests and, therefore, reduce the agency problem. Managers will be motivated to improve performance as it would increase their compensation and at the same time improved performance will lead to creation of wealth for owners. This notion is consistent with Watts and Zimmerman's (1986, 1978) well known Positive Accounting Theory. The Positive Accounting theory provides a framework where the behavior of managers can be explained rationally.

The use of accrual principles in the measurement and reporting of financial performance provides an

opportunity for management to use their judgment in the choice of accounting policy to manage earnings to a level that can maximize managers' value. Managers may increase current earnings to ensure achievement of set targets or to ensure job security or if management compensation is influenced by share price performance. Managers may smooth earnings to reduce volatility in earnings as it is a sign of firm riskiness and is negatively associated with share price. In the above cases, financial statement lost its reliability because information presented in the financial statement does not faithfully represent facts that it purports to present. Furthermore, the financial statement declines in its usefulness because the reported earnings losses its predictive ability. The use of accrual to manage earnings (temporal items) will result in future reversals and, therefore, low persistence of earnings Dechow and Schrand (2004) and, therefore, low quality (Scott, 2006).

Doyle, Ge, and McVay (2007) empirically tested the relationship between internal control and accrual quality. Their study is based on the notion that weaknesses in internal control enable management to introduce bias into earnings number and allows unintentional errors in accrual estimations. Consistent with Dechow, Dichev, and McNichols (2002) they measure accrual quality as the extent to which accrual is realized as cash flow.

They found evidence that the quality of accrual declines with weaknesses in internal control and vice versa. Their finding is consistent when other proxies of accrual quality are used, such as, persistence, discretionary accruals, historical restatements, and average absolute value of residuals. Dechow, Dichev, and McNichols (2002) uses average absolute value of residuals as a measure of accrual quality. Consistent with Doyle, Ge, and McVay (2007), Ashbaugh-Skaife et al. (2008) also found that weaknesses in internal control have implications on the quality of accrual and, therefore, earnings.

The study by Katz (2009) is consistent with the findings of Doyle, Ge, and McVay (2007) when they tested the influence of ownership structure, particularly, the role of private equity (PE) ownership leading to initial public offering. They found and argued that firms with PE sponsorship have higher earnings quality due to robust control, concern for reputation, and professional ownership. They argued that the high earnings quality of PE sponsored firms is due to lower up-wards earnings management, more timely loss recognition, and more conservative recognition practice, both, before and after IPOs.

Research that studied the quality components of earnings revealed mixed findings. Richardson et al. (2005), Chan, Jegadeesh, and Sougiannis (2004), Francis and Schipper (1999), Collins, Maydew, and Weiss (1997), and Sloan (1996) found that generally cash flow component of earnings has better quality relative to accrual component of earnings. These studies provided evidence on a hazardous use of accrual principles in the context of information asymmetry and agency problem (utility maximization)

On the other hand, accrual principle as the basis of financial measurement and reporting has its own merit. Manager's ability to apply judgment reflected in accruals may be used to signal insider information regarding the firm's future performance and, therefore, reduce information asymmetry (Bartov & Bodnar, 1996; Christie, 1990; Diamond & Verrecchia, 1991). Christie (1990) findings indicate that the choice of accounting policy could explain the market value of equity. Diamond and Verrecchia (1991) and Bartov and Bodnar (1996) provided evidence consistent with Christie (1990).

They provide evidence that the choice of accounting policy that reduces information asymmetry will improve market value of the firm. Market value of the firm is a function of share price and shares outstanding. Scott (2006) states that share price is an unbiased predictor of firm value as it reflects investors expectation regarding firm's future performance and, therefore, improvement in market value of equity is a reflection of improved investors' expectation regarding the firm's future performance.

The findings of Parawiyati and Baridwan (1998) is consistent with Dechow and Schrand (2004), may reflect the positive side of earnings management. Their findings indicate that relative to cash flow, accruals can better improve earnings ability to measure performance.

The reviewed related theories and studies lead this study to hypothesize that both accrual and cash flow as components of quarterly earnings can explain future quarterly earnings. This study do not have any expectations regarding how many quarters into the future can the components of quarterly earnings predict.

METHODOLOGIES

Firms that are included in this study are firms listed with the Indonesian Stock Exchange during the period 2004-2007. This period was chosen because the full financial statements of IDX listed firms are only available in the IDX websites as early as financial year end 2004. Only firms that have their quarterly financial statements available in the IDX websites are included in the final sample. Data are handpicked from the financial statements. In total there were 270 firm observation used in the prediction of earnings one quarter ahead, 252 firm observation used in the prediction of earnings two quarters ahead, and 234 firm observation used in the prediction of earnings three quarters ahead.

The objective of this study is to test the ability of earnings components, namely, accrual earnings and cash flow, to predict future earnings and, therefore, the following basic earnings autoregressive model which is consistent with Dechow and Schrand (2004) is used in developing the final regression model used in this study.

$$E_{jt+n} = \alpha + \beta E_{jt} + \varepsilon \qquad (1)$$

Where,

E_{jt+n}*: Earnings of firm j at quarter t plus 1, 2, and 3 quarters ahead*

E_{jt} *: Earnings of firm j at quarter t*

α *: Intercept of the model*

β *: Coefficients of earnings*

ε *:Error term of the model which represent variables not included in the model*

Consistent with (Dechow & Schrand, 2004), this study decomposes earnings into the two components of earnings that are of interest, accrual and cash flow.

$$E_{jt} = A_{jt} + CFO_{jt} \qquad (2)$$

Where,

Ejt :Current Earnings of firm j at quarter t

A_{jt} *: Accrual components of earnings for firm j at quarter t*

CFO_{jt} *: Cash from operation for firm j at quarter t*

Substituting equation 2 into equation 1 leads to the following regression model

$$E_{jt+n} = \alpha + \beta_1 A_{jt} + \beta_2 CFO_{jt} + \varepsilon \qquad (3)$$

Where,

All variables are as described in equation 1 and 2

Test to H1 (accrual component of quarterly earnings can predict future quarterly earnings) is done by running a simple regression model with the variable A as the sole independent variable. This model is presented in the following equation

$$E_{jt+n} = \alpha + \beta_1 A_{jt} + \varepsilon \qquad (4)$$

Where,

All variables are as described in equation 1 and 2

This study tests H1 using the t-test with 95% level of confidence. Equation 4 will be used to test the ability of accrual component of current quarter earnings, A_{jt}, to predict earnings one, two, and three quarters ahead, E_{jt+n}.

Test of H2 is done by running another simple regression model with the variable CFO as the independent variable as presented in the following equation,

$$E_{jt+n} = \alpha + \beta_1 CFO_{jt} + \varepsilon \qquad (5)$$

Where, All variables are as described in equation 1 and 2

This study tests H2 using the t-test with 95% level of confidence. Equation 5 will be used to test the ability of cash flow component of current quarter earnings, CFO_{jt}, to predict earnings one, two, and three quarters ahead, E_{jt+n}.

FINDINGS AND ANALYSIS

Firstly, this section answers the research question, 'does accrual earnings relate to future earnings?' Regression equation 4 is run in 3 different forms. The first form uses earnings one quarter ahead, t+1, as the dependent variable, the second form uses earnings two quarter ahead, t+2, as the dependent variable, while the third form uses earnings three quarter ahead, t+3, as the dependent variable.

Running regression equation 4 in these three different forms enable this study to ascertain which future earnings could current earnings predict, 2nd quarter, 3rd quarter, or 4th quarter. All three forms of regression have been adjusted for heteroscedasticity because tests revealed that all three forms of regression breached the assumption of homoscedasticity. Table 2 presents the summary statistics for the three forms of regression.

Table 2. Summary Statistics of Earnings Predictive Ability of Accrual earnings

Variables	(1) E_{t+1} as dependent variable		(2) E_{t+2} as dependent variable		(3) E_{t+3} as dependent variable	
	Coef.	t-value (prob.) [a]	Coef.	t-value (prob.) [a]	Coef.	t-value (prob.) [a]
Intercept	2.02E+10	2.789 (0.000)*	2.15E+10	3.317 (0.001)*	1.57E+10	2.097 (0.037)**
A	0.206	1.569 (0.118)	0.604	4.466 (0.000)*	0.320	2.048 (0.042)**
N	270		252		234	
Adj. R^2	0.062		0.327		0.096	
F-stat (prob.)	18.655	(0.000)	122.848 (0.000)		25.614 (0.000)	

[a]Adjusted for heteroscedasticity using *White Heteroscedasticity Consistent Standard Error & Variance*

*Significant at 99% level of confidence
**Significant at 95% level of confidence

F-Statistics (prob < 0.05) in column 1 indicates that one or both of the variables (intercepts and A) are not statistically equal to zero. Observation of the individual variables indicates that the coefficient of current quarter accrual as component of earnings, A, is statistically equal to zero (prob > 0.05) thus the rejection of H1 for E_{t+1}.

On the other hand, the coefficient of intercept is statistically different from zero (prob < 0.05). The above findings indicates that current accrual cannot predict earnings one quarter ahead and that there are other factors omitted in this regression model that influences earnings one quarter ahead (coefficient for intercept is statistically different from zero).

F-Statistics (prob < 0.05) in column 2 indicates that the coefficients of one or both of the independent variables (intercept and A) are statistically different from zero. Observation of the individual variables indicates that the coefficient of both intercept and current quarter accrual, A, are statistically different from zero (prob < 0.05).

This finding indicates that current accrual can predict earnings two quarters ahead and that there are also other factors omitted in this regression model that also influences earnings two quarters ahead (coefficient of intercept is statistically different from zero). Their coefficients are positive indicating a positive correlation with earnings two quarters ahead.

F-Statistics (prob < 0.05) in column 3 indicates that the coefficients of one or both of the independent variables (intercept and A) are statistically different from zero. Observation of the individual variables indicates that the coefficient of both intercept and current quarter accrual, A, are statistically different from zero (prob < 0.05). This finding indicates that current accrual can predict earnings three quarters ahead and that there are also other factors omitted in this regression model that also influences earnings three quarters ahead (coefficient of intercept is statistically different from zero). Their coefficients are positive indicating a positive correlation to earnings three quarters ahead.

Findings regarding the ability of accrual component of quarterly earnings to predict future quarterly earnings are consistent with the notion that accrual principle can be used by management to pass on valuable inside information (signaling theory) regarding the future performance of the firm and, therefore, reduce information asymmetry (Diamond & Verrecchia, 1991; Bartov & Bodnar, 1996). This finding is also consistent with Dechow and Schrand (2004) and Parawiyati & Baridwan (1998).

Findings to this research question indicates that investors may use first quarter accrual component of earnings as basis for predicting earnings third and fourth quarter earnings or investors may use second quarter accrual component of earnings as basis to predict earnings on the fourth quarter and first quarter of the next fiscal period. By using this as a trading strategy, investors can gain upper hand and gain larger return.

Secondly, this section answers the research question, 'thus cash flow component of earnings relates to future earnings?' Regression equation 5 is run in 3 different forms. The first form uses earnings one quarter ahead, t+1, as the dependent variable, the second form uses earnings two quarters ahead, t+2, as the dependent variable, while the third form uses earnings three quarters ahead, t+3, as the dependent variable.

The first and third form of regression equation 5 has been adjusted for heteroscedasticity because tests indicate that they breached the assumption of homoscedasticity. Table 3 presents the summary of regression for these three forms of regression.

Table 3. Summary Statistics of Earnings Predictive Ability of Cash From Operation

Variables	-1 E_{t+1} as dependent variable		-2 E_{t+2} as dependent variable		-3 E_{t+3} as dependent variable	
	Coef.	t-value (prob.) [a]	Coef.	t-value (prob.)	Coef.	t-value (prob.) [a]
Intercept	2.11E+10	3.011 (0.003)*	2.32E+10	2.874 (0.004)*	1.35E+10	1.728 (0.085)
CFO	-0.113	-0.817 (0.415)	-0.203	-2.576 (0.011)*	0.148	0.827 (0.409)
N	270		252		234	
Adj. R^2	0.01		0.02		0.01	
F-stat (prob.)	3.67 (0.05)		6.64 (0.01)		2.71 (0.10)	

[a] Adjusted for heteroscedasticity using *White Heteroscedasticity Consistent Standard Error & Variance*
*Significant at 99% level of confidence

F-Statistics (prob = 0.05) in column 1 indicates that one or both of the variables (intercepts and CFO) are statistically different from zero. Observation of the individual variables indicates that the coefficient of current quarter cash from operations, CFO_{jt}, is statistically equal to zero (prob > 0.05). On the other hand, the coefficient of intercept is statistically different from zero (prob < 0.05). The above findings indicates that current quarter cash from operation cannot predict earnings one quarter ahead and that there are other factors omitted in this regression model that influences earnings one quarter ahead (coefficient for intercept is statistically different from zero).

F-Statistics (prob < 0.05) in column 2 indicates that the coefficients of one or both of the independent variables (intercept and CFO) are statistically different from zero. Observation of the individual variables indicates that the coefficient of both intercept and current quarter cash from operation, CFO_{jt}, are statistically different from zero (prob < 0.05). This finding indicates that current quarter cash from operation can predict earnings two quarters ahead and that there are also other factors omitted in this regression model that also influences earnings two quarters ahead (coefficient of intercept is statistically different from zero). The coefficient of the variable CFO is negative indicating a negative correlation with earnings two quarters ahead.

F-Statistics (prob > 0.05) in column 3 indicates that the coefficients of both the independent variables (intercept and CFO) are statistically equal to zero. Observation of the individual variables indicates that the coefficient of both intercept and current quarter cash from operation, CFO_{jt}, are statistically equal to zero (prob > 0.05). This finding indicates that current cash from operation cannot be used to predict earnings three quarters ahead.

Findings to the second research question regarding the predictive ability of cash flow component of earnings are consistent with prior studies Finger (1994) and Sloan (1996) only when it is used to predict second quarter ahead earnings. This finding indicates that quarterly earnings of the sample firms used in this study contained accruals that are subjective and it is understandable that they are not correlated to cash flow components of earnings one and three quarter before.

Summary and Recomendation. This study uses quarterly data in testing the earnings predictive ability of earnings components, namely, accrual and cash from operation. It is found that accrual can be used to predict earnings two and three quarters into the future while cash from operation can only be used to predict earnings two quarter into the future.

The coefficient for current quarter accrual is positive indicating positive influence on earnings two and three quarters ahead. This implies that a higher current quarter accrual earnings is related to a higher earnings two and three quarters ahead. On the other hand, the coefficient for current quarter cash from operation is negative indicating a negative influence on earnings two quarters into the future. This implies that higher current quarter cash from operation is related to lower earnings two quarters ahead.

The result of this study indicates that components of quarterly earnings can be used in the short-term (within one year) as predictive tool.

Result of this study also has implications for investors that use financial statement information in making predictions about future performance of a firm. Investors trying to make early buy or sell decision may use second quarter accrual earnings in predicting fourth quarter earnings (the quarter when annual earnings figure is announced). Investors that do this may gain excess return over investors that wait until third quarter or fourth quarter earnings to be reported.

Review of literature indicates that earnings management has two faces: the positive and the negative. On the negative side, earnings management can be used hazardously, while on the positive side, earnings management can be used to pass on private (insider) information regarding firm future performance. This provides opportunity for future research to identify situations when earnings management is used positively and when is it used negatively and to further tests the quality of earnings under both situations.

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