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Earning Management: From Agency and Signalling Theory Perspective in Ethiopia

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors have participated in designing and conducting the study as well as preparing the report. Both authors read and approved the final manuscript.

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ABSTRACT

Aims: To examine earning management from agency and signalling theory perspectives. Agency theory was used as a clogging factor for earning management practice whereas, signalling theory relates to managements intention to reflect insider information for the market.

Study Design: Considering the nature of the problem, explanatory research design with mixed research approach was employed.

Place and Duration of Study: Sample: large manufacturing companies from the period of 2009 to 2017, Addis Ababa, Ethiopia.

Methodology: The study used audited financial reports of 14 large manufacturing companies in Addis Ababa operating from the period of 2009 to 2017 for which random effect regression model was used.

Results: From agency theory proxies, leverage and audit quality had significant positive and negative impact respectively on earning management. The finding for signalling theory proxies showed that, size of the firm had a positive significant relationship with earning management.

Conclusion: The study concluded that signalling and agency theories partially explained earning management in Ethiopian Large Manufacturing Share companies.

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Originality/value: There were numerous studies explaining earning management from signalling and Agency theory self-reliantly, but this study has modeled earning maneuver motives of management (signalling motive) and controlling mechanisms (Agency theory proxies) set by stakeholders, in one model. Further, the study was conducted in developing country perspective with lower legal requirement on information asymmetry, higher reporting laxity and non-standard/mixed reporting experience.

Keywords: Earning management; signalling theory; agency theory; financial reporting.

1. INTRODUCTION

Earning management is the management's action to window dress the real image of the business to misrepresent or attract eye of the users. In a corporate organization's stewardship relationship between management and investors creates a divergence of interests between shareholders and management which can lead to suboptimal management decisions. Such decisions are possible because the goals of the managers and their shareholders are not necessarily aligned, rather managements can act on their interest and create misrepresented fact on their report [1]. This spots managers to opportunistically manage earnings to maximize their utility at the expense of other stakeholders [1]. Surprisingly, the one holding stewardship duty is solely responsible to inoculate information for investors [2].

The first decade of 21st century has thrown up an impressive string of accounting and financial scandals. Most highly published case of the financial statement manipulation involves, starting from Enron, HealthSouth, Tyco and WorldCom to AIG, Lehman Bros., Bernie Madoff and Satyam. With the increasing number of financial scandals, which have reduced investors trust on information published in capital market, earning management has caught the attention of literatures. So far, managements manoeuvre in earning is explained by their motivation or signalling intentions [1,3].

Agency theory explains management's engrossment in earning management, considering stewardship and agency-principal relationship. At the cost of stewardship relationship, management of a firm, in a shadow, will protect their interest ahead of investors (Nurul, et al. 2015). If shareholders, creditors, independent of BOD and auditors fail to properly angulate the light, using controlling mechanisms, the management will use the shade of their light to satisfy their interest [4,2,5,6,7,8,9,10].

Moreover, management will also engage in earning management to signal its users about the performance of the firm [11]. The theory explains managements signalling motive in relation to their performance. Management's whisper inside information to investors about their expectations in future opportunities by creating a smooth and growing earnings string over time, that will capacitate them to affect the stock price. The theory evidenced that performance of a firm; proxied by size of the firm, profitability and liquidity, will force managers to engage in earning management [12,13,14,15, 16,17,18,11]. Researches have explained the two theories self-reliantly, even so, the empirical evidence shows greater variation [19,20,21,22, 23,24,25].

IMF have considered Ethiopia as one of the five fastest growing economies [26]. The government is implementing a strategy that can change the countries current agrarian economy to industrial economy, with in this the government is promoting private investment and foreign direct investment. The country's current reporting practice by itself (excluding the economic shift and its complexity) is in alarming rate with lower legal requirement on information asymmetry, higher reporting laxity and non-standard/mixed reporting experience. International institutions have observed the reporting practice and noted that the report prepared by the firms is not accepted by government and banks. Even so the reporting practice shows alarm, earnings management is not yet considered as a problem and the earnings reported by companies are not examined from earnings management viewpoint. Specially, considering the country's higher reporting laxity and non-standard reporting experience, it will be exploitive to explain the theoretical evidence. Therefore, the study pushed through both agency theory and signalling intentions to provide cumulative and in action evidence on earning management from Ethiopian companies.

2. LITERATURE REVIEW

2.1 Theoretical Review

2.1.1 Agency theory

The agency concept stresses the complexities that can arise due to agent principal relationship. It suggests that separation between ownership and control leads to a divergence between manager and owner interests [27]. Agency theory bases its foundation on conflict of interest between investors and stakeholders, in that managers act to exploit their own personal interests. Whereas, stakeholders act in a rational way to maximize their personal utility [28].

The agency relationship leads to information asymmetry problem, due to the fact that managers can access information more than shareholders [29]. This will allow the pursuit of self-interest, where, management alter the company's reported earnings in order to meet or beat earnings targets. Leuz et al. [30] assert that the effects of such behavior will ultimately be reflected in the company earnings. Therefore, strict monitoring of managers by the principals or external auditors is seen as a checkpoint to restore shareholders' interest by blocking predicament intentions of managers.

One element that enhance efficient control is the number of shareholders. The agency conflict, that arise due to separation of ownership and control may be more important when shares are widely distributed than when they are held by one person [31]. Managers can therefore voluntarily disclose information as a means to reduce agency conflicts with the shareholders. According to the agency theory [32] or transaction costs theory [33], annual reports is a main source of information for shareholders who cannot incur large expenditures in order to ascertain manager's opportunistic behaviors. Managers of firms whose ownership is diffuse thus have an incentive to increase disclosure quality in order to help shareholders monitor their behavior. Stronger ownership diffusion should weaken secrecy traditions. So, based on the assumption that higher owner diffusion will improve reporting quality, the first hypothesis was developed:

H1: Share dispersion has significant and negative effect on earning management.

The other way to fully depict someone's action is to let them deal with an expert in the BOD's. Independent directors can be officers of others companies or representatives of financial institutions. Based on their experience, independent directors can contest decisions made by managers and therefore exercise more effective control.

H2: Proportion of independent directors on the board has significant and negative effect on earning management.

Another proxy for agency cost is audit type. Some authors argue that to defuse information asymmetry gap, shareholders mostly rely on audited information. An audit firm with large size has a strong incentive to maintain their independence and to impose more stringent disclosure standards because they have more to lose from damage to their reputation. The large audit firms invest more to maintain their reputation as providers of effective control than small audit firms [34]. They assume that the better the quality of auditor, the more adequate and increased the information will be. Also, the presence of big audit firm is considered as a signal quality of the disclosure of the company and the integrity of financial information [35].

H3: Audit size has significant and negative effect on earning management.

Agency theory has largely been used also to explain the relationship between firm leverage and earning quality. According to the agency theory [31], a company with a higher debt ratio has an incentive to disclose more information. Empirical evidence appears to be inconclusive for some cases. While [36,37,38,39] have all found a positive relationship between leverage and earning quality, many researchers have found no relationship [40,41,42]. On the other hand, [43,4] found a negative relationship between leverage and disclosure, suggesting that highly leveraged companies tend to disclose private information to their creditors which may not be reflected in their annual reports. These conflicting results provide genuine incentive for further investigation of this relationship. From the above theoretical explanations, the study anticipated that the relationship between the earning management and leverage is negative.

H4: Firm leverage have significant and negative effect on earning management.

2.1.2 Signalling theory

Signalling theory was originally developed to clarify the information asymmetry in the labor market [44] it has also been used to explain voluntary disclosure in corporate reporting [45]. The theory argues that the existence of information asymmetry can also be taken as a reason for good companies to use financial information to send signals to the market [45]. Information disclosed by managers to the market reduces information asymmetry and is interpreted as a good signal by the market. With an intent to signal their performance, management of a company will engage in earning management [11]. Further, the theory depicts that managers manoeuvre earnings to convey their inside information about firms' prospects and thus it serves as a signalling mechanism. Managers engaging in earnings management to creating a smooth and growing earnings string over time that will enable them affect the stock price.

Studies have modelled some form of information asymmetry and showed earning management as rational equilibrium behavior [46,47,48,49,12,13,14,15,16,17,18]. These studies documented signalling evidence of earnings management.

Further, the signalling perspective also implies that earning management is sometimes demanded by shareholders. [50,51] argue that shareholders will demand for earning management for two reasons. First, managers can reduce the cost of capital through a smoother, more predictable income stream. Second, Dye [49] states that a more stable income stream influences prospective investors' perception of firm value. [51,15] revealed that current shareholders will sell their shares to the next generation of future shareholders and managers will act on behalf of the current shareholders and has an incentive to manage earnings for their advantage.

Empirically, several studies have studied signalling influence on reported earnings and have concluded that performance measures, namely: profitability, firm size and liquidity, motivate managers to engage in earning management [52,53]. The theory argues that directors who believe their company can perform better than other companies will signal its shareholders in order to attract more investments. Directors may do this in a sort of disclosure in excess of any information that is

required by regulations. Signalling theory suggests that when a corporation's performance is good, managers will signal companies' performance to their investors, stakeholders and the market by making disclosures that poorer companies cannot make. By enhancing disclosures, directors wish to receive more benefits: a better reputation and the firm's value will increase [54]. In contrast, firms with poor performance may choose to keep silent rather than reveal unflavored performance. However, investors may misinterpret this silence as withholding the worst possible information [55].

H5: Profitability has significant and positive effect on earning management.

H6: Liquidity has significant and positive effect on earning management.

H7: Firm size has significant and positive effect on earning management.

2.2 Empirical Measurement of Earning Management

Evidencing earning management has been one of the dominant aspects since the 1980's. Even though the current literature does not evidence a genuine guiding model, there have been different efforts on capturing earning management. Such enquires require a model that estimates discretionary component(s) of reported income. Existing empirical models range from models that use discretionary accruals as total accruals to models that attempt to separate total accruals into discretionary and nondiscretionary components [56].

Management of a company does not mostly lay hand on cash flow from operating activities, since this cannot be changed [57], rather greater hand of a management is in Accruals. In principle, accruals consist of non-discretionary accruals and discretionary accruals. So, for identifying whether or not earnings management exists, non-discretionary accruals should be calculated.

As stated by Healy [58], Healy's model tested for earnings management by comparing mean total accrual (lagged total assets) across the earnings management partitioning variable. The mean total accruals from the estimation period then represent the measure of nondiscretionary accruals. DeAngelo followed the same procedure to Healy's model except that DeAngelo's model computed first differences in total accruals, and assumed that the first differences have an

expected value of zero [34]. This model nondiscretionary accruals is measured by last period's total accruals (scaled by lagged total assets).

Both of the above models fail to depict actual accruals because, they assume nondiscretionary accruals are constant over time and discretionary accruals have a mean of zero in the estimation period. In reality, nondiscretionary accruals change from period to period. Another factor ignored is firm growth, companies have tendency of development, to some extent, this affects the business activities, including total accruals.

The Model of Jones complemented the weakness of the above two models by considering firm growth in the model [59]. The model depends on two stages, first measuring non-discretionary accruals and second measuring parameters of each firm. Jones admitted the limitation that the model orthogonalizes total accruals with respect to revenues and will therefore extract this discretionary component of accruals, causing the estimate of earnings management to be biased toward zero. Dechow et al. [60] modified Jones model by eliminating the estimated tendency of the Jones Model to measure discretionary accruals with errors.

The other model considered is the Industry Model used by Dechow and Sloan [56]. Similar to the Jones Model, the Industry Model relaxes the assumption that nondiscretionary accruals are constant over time. However, instead of attempting to directly model the determinants of nondiscretionary accruals, the Industry Model assumes that variations in the determinants of nondiscretionary accruals are common across firms in the same industry.

Kothari et al. [61], incorporated a robust factor (ROA) to modified Jones model. The problem of the modified Jones model was lack of ability to capture extensive growth of the firms. To mitigate the problem Kothari et al. model incorporated return on assets (ROA) in the model [61].

2.3 Summary of Literature Review

Earnings management is defined as a decisive intervention in the external financial reporting process with the intent to obtaining one private gain [62]. Earnings management, therefore, occurs through manipulations in accounting tools such as balance sheet and income statements, yet, these changes, though comply with the law,

may mislead some stakeholders [63]. The empirical literature provides three reasonings to explain company's incentive to engage in earning management. The first argument was related to company executives, executives of a company will manipulate earning to beat earning targeted, [64], to receive a premium and increase their chances in the job market [65] and participate in the company's capital if there is a compensation system based on the results achieved [66,67, 68]. The second reason provided was to the company, a company may engage in earning management to avoid losses, avoid declines of the result and to achieve earnings forecasts. The third argument was related to investors and financial analyst, executives are compelled to engage in certain earnings management to meet investors' and financial analyst expectations for future growth.

In the empirical literature it can be noted that, the measure of earning management seemed consistent except for the usage of multiple models to measure earning management. The use of a specific model is more appropriate and selection of measurement model should be based on the fitness of the model assumptions and underlying economic environment. For instance, modified Jones (1995) and Kothari et al. (2005) models are the same except for the consideration of industry effect in Kothari et al. model. The choice of a model has to be based on the compatibility of assumptions laid but not the popularity or recentness of the model in the literature. So, to mitigate this effect the study used modified Dechow and Dichev's (2002) model since, the study was in similar industry and the proxies for accrual in the model captures almost all variables considered in previous model.

The other problem in the empirical evidence was lack of proper organization of explanatory variables, in which most of the variables used in the study were not related to a theory or the results were contrary to the theories. Based on a limited ground set on the empirical literature and the operationalized concepts of agency and signalling theory, the study used firm leverage, number of board of directors, quality of audit firm, independent board of directors, profitability, liquidity and firm size as explanatory variables.

3. METHODOLOGY

The study adopted explanatory research design with mixed research approach. The population of

this study were manufacturing share companies found in Addis Ababa, Ethiopia classified under large tax payers¹ with audited financial statements from 2009 to 2017. According to the records held by Ethiopian revenue and custom Authority (ERCA), there were 29 manufacturing share companies categorized under large tax payer in Addis Ababa of which 14 companies with a nine-year audited financial statement were considered in the study.

3.1 Variable Measurement and Expected Outcome

The most frequently used measurement for earnings and accrual quality was the modified Dechow and Dichev (2002) model.

The modified Dechow and Dichev's (2002) model is specified as:

$$\Delta WC_{it} = \beta_0 + \beta_1 CFO_{it-1} + \beta_2 CFO_{it} + \beta_3 CFO_{it+1} + \beta_4 \Delta REV_{it} + \beta_5 PPE_{it} + \varepsilon_{it} \quad (1)$$

Where: ΔWC is the change in working capital accruals or current accruals from the statement of cash flows, CFO denotes the cash flows from operating activities, ΔREV is change in revenue and PPE is property, plant and equipment.

The residuals for the modified DD model, after inserting the sampled firms' data represented earning management in the second regression model specified for the study. As stated by McNichols [69] the residual determines the accrual quality, the larger the absolute value of residuals, the higher the earning management vice versa.

The measurement of the remaining variables and their expected outcome is listed on Table 1.

3.2 Model Specification

To examine earning management in manufacturing share companies in Addis Ababa the following general empirical research model was developed from previous studies and theoretical framework of Agency and signalling theories [4,2,70,6,7,8,9,10].

$$DACC_{it} = \beta_0 + \beta_1(LEV_{it}) + \beta_2(COMP_{it}) + \beta_3(PROF_{it}) + \beta_4(LIQ_{it}) + \beta_5(SIZE_{it}) + \beta_6(AUD_{it}) + \beta_7(DISP_{it}) + \varepsilon_{it}$$

¹ According to ERCA companies are classified as large taxpayers when they have annual turnover (revenue) more than 37 million Ethiopian birr.

Where:

$DACC_{it}$ = Discretionary Accruals of Company i at time t

β_0 = Intercept

LEV_{it} = Firm Leverage of Company i at time t

$COMP_{it}$ = Board Composition of Company i at time t

$PROF_{it}$ = Profitability of Company i at time t

LIQ_{it} = Liquidity Ratio of Company i at time t

$SIZE_{it}$ = Firm Size of Company i at time t

AUD_{it} = Type of Auditor of Company i at time t

$DISP_{it}$ = Share Dispersion of Company i at time t

$\beta_1 - \beta_7$ = Coefficients parameters

ε_{it} = Error term where i is cross sectional and t time identifier

Table 1. Variable measurement and expected outcome

Variables	Measurement	Expected outcome
Dependent variable		
Earning Management	Modified Dechow and Dichev's (2002) Model	
Independent variable		
Firm Size	Natural Logarithm of Total Assets	(+)
Leverage	Noncurrent liability/equity	(-)
Shares dispersion	number of shareholders	(-)
Board Composition	proportion of independent directors	(-)
Profitability	return on asset	(+)
Type of Auditor	1 for big firm otherwise 0	(-)
Liquidity	current assets/current liabilities	(+)

4. RESULTS AND DISCUSSION

4.1 Descriptive Statistics

Table 2 presented descriptive statistical values of variables used in the analysis. The residual value of modified Dechow and Dichev's (2002) model, which represented earning management had a mean of 7.24 percent which evidenced the existence of earning management in Ethiopian manufacturing firms. The variation in earning management was considerably high with a range of 2.31 percent whereas, minimum, maximum and standard deviations are 5.87, 8.18 and 0.51 respectively. Furthermore, the independent variables liquidity, leverage, profitability and board of directors had high range value.

4.2 Stationary Test

Stationarity of the data was checked to determine whether or not the data can hold the prediction to the future. The technique used was Augmented Dickey-Fuller test, which considers a constant mean, a constant variance and a constant auto-covariance structure to determine future predictive capacity of the data. Based on the result, the variables were stationary at level, first degree and second degree.

4.3 Correlation

A correlation analysis was presented in Table 3 to indicate the relationship between regress and regressor. From the result it was noted that audit quality, liquidity and profitability had negative relationship with earning management, whereas the remaining variables had a positive relation. Furthermore, the correlation between independent variables was used to check multicollinearity problem. According to Kennedy [71] multicollinearity problem exists when the correlation coefficient among the variables is

greater than 0.70. Since the maximum correlation was -0.37, it was concluded that there was no evidence of multicollinearity.

4.4 Regression Analysis

The study adopted multiple linear regression method. Before analyzing the result, diagnostic tests were made to make sure that the classical linear regression model assumptions were not violated. Heteroskedasticity was tested through White test. The result of the test pointed out that the variance of the errors was constant or homoscedastic, since the p value was less than 0.05. Autocorrelation was also tested by Durbin Watson (DW) test and the result signified that there was no evidence for the existence of autocorrelation. Finally, normality test was performed to check whether the disturbances are normally distributed and the result revealed a p-value of Jarque-Bera 0.27 which was greater than 0.05, implying that the residuals were normally distributed.

As the study utilized panel data, regression for such data have two different alternatives; fixed effect model and random effect model. As noted by Gujarati [72], if T (the number of time series data) is large and N (the number of cross-sectional units) is small, there is likely to be little difference in the values of the parameters estimated by fixed and random effect model. Hence, the choice was based on computational convenience of Hausman specification test, the study used random effect model.

The result of the random effect model in Table 4 depicted that, the variables in the model had a pooled significant effect in explaining earning management with a p value of 0.0000. In addition, the variables used in the study had explained 44.53 percent of the variation in earning management.

Table 2. Summary of descriptive statistics

	Mean	Maximum	Minimum	Std. Dev.	Observations
DACC	7.238653	8.183293	5.869421	0.514564	126
SIZE	8.298462	9.458708	7.503575	0.411889	126
LEV	0.140614	0.735648	0	0.191945	126
PROF	0.069271	0.365009	-0.13451	0.071515	126
DISP	5.539683	10	1	2.7354	126
COMP	0.350680	0.861137	0	0.299732	126
AUD	0.531746	1	0	0.500983	126
LIQ	2.078246	5.575019	0.130647	1.082076	126

Table 3. Correlation matrix

	DACC	AUD	COMP	DISP	LEV	LIQ	SIZE	PROF
DACC	1.000000							
AUD	-0.289616	1.000000						
COMP	0.080165	0.195126	1.000000					
DISP	0.203850	-0.018440	0.031382	1.000000				
LEV	0.281331	-0.030585	-0.049463	0.121633	1.000000			
LIQ	-0.304655	0.139623	-0.194742	-0.333786	-0.124830	1.000000		
SIZE	0.477413	0.018012	0.128399	0.354033	0.160960	-0.218271	1.000000	
PROF	-0.138596	-0.097860	-0.372571	-0.158975	-0.093052	-0.014414	0.159810	1.000000

Table 4. Regression result

Dependent variable: DACC				
Independent variable	Coefficient	Std. error	t-statistic	Prob.
C	1.004472	0.978480	1.026564	0.30
AUD	-0.280353	0.066099	-4.241393	0.000
COMP	-0.118686	0.202442	-0.586273	0.56
DISP	0.005454	0.020551	0.265388	0.79
LEV	0.510563	0.216546	2.357756	0.02
LIQ	-0.070454	0.040997	-1.718521	0.08
SIZE	0.786067	0.122980	6.391810	0.000
PROF	-0.777464	0.652374	-1.191746	0.24
R-squared	0.476371			
Adjusted R-squared	0.445309			
S.E. of regression	0.337323			
F-statistic	15.33579			
Prob(F-statistic)	0.000			

From the variables used in the model, board composition and share dispersion had the highest p value. If variables in the model are insignificant at larger significance level, their contribution in explaining the dependent variable will be in question. To clear unnecessary variable from the model, the study utilized stepwise regression model. From the result it was concluded that all variables used in the study had the ability to explain earning management.

Furthermore, the finding showed that board composition and share dispersion had no significant impact on earning management. This implied that the two-agency theory operationalized concepts had no impact on management of earnings. The inconsistency observed could have been because of limited shareholders², which leads to; first the existence of agency conflict was lower, second, the effort of the BOD regardless of independence to control the management was not considerably sufficient. The finding was consistent with the study of [21].

² Secondary market doesn't exist in Ethiopia and the shareholder will hang on to the initial share with little liquidity option.

On contrary, there were other studies which evidenced a positive and negative significant impact [24,22].

The study also revealed that audit quality adversely affected earning management. Since board of directors were not providing proper control to minimize agency conflict, external auditors play a vital role in minimizing earning management. This result was consistent with recent literatures [19,22]. The other proxy used was leverage, then the result showed that there was a significant positive relationship with earning management which was in line with findings of [24]. In addition, other studies revealed a contrary evidence in the literatures [73, 22].

The other theory used to explain earning management was signalling theory. The regression result revealed that there was a positive significant relationship between size of the firm and earning management. The result was consistent with current literature and signalling theory. As firms tend to grow, they would most likely be engaged in earning management to signal investors [73,25]. Contrary

findings also existed in literatures [22,23]. The remaining variables, liquidity and profitability had no contribution in motivating earning management.

5. CONCLUSION

The study examined firm specific factors that allow managements to manage earnings with in signalling and agency theory perspectives. Empirical evidence from 14 manufacturing share companies was used from the period of 2009 to 2017. The result of the study was consistent with signalling and agency theories even though all the metrics did not evidence similar result.

Agency theory explains the cost that arises because of agent and principal relationship. Firms' stakeholders are majorly investors and creditors, sequentially. Investors will execute different actions to reduce their portion of agency cost; the variables used in the study to operationalize concept of their actions were share dispersion, independence of BOD and external auditor quality. The only significant variable was external auditors' quality. The implication was, even though firms are owned by not more than 10 investors, as the size of auditors is increased it can break the investor's and management tie. Considering a small average percentage of independent BODs and few investors in these companies, it could be concluded that investors and board of directors were not properly monitoring management of the company. Furthermore, from the context it could be noted that, firm's agency cost between management and investors was low, indicating the alignment of management and investors in earning management.

The other agent-principal relationship was between management and creditors. The relationship was examined by level of leverage, which showed a positive significant relationship. Since the country did not have any law towards information asymmetry and at the beginning of implementing its first standard (IFRS), it creates unchallenged room for the management in engaging at high degree of manipulation, to meet creditors' expectation.

Whereas, signalling theory basically focus on the motivational factors for engaging in earning management. Management's intention for earning management would be dependent on the performance of the firm; specifically, they tend to give focus on firm size, profitability and liquidity. Using the above variables in the model, firm size

significantly and positively affected earning management. This implied that firms tend to manipulate earning as their size increase. The remaining two variables were insignificant in explaining earning management, which was inconsistent with signalling theory. The major thing to note was that the current economy of Ethiopia did not have secondary market. So, as noted by signalling theory, the action of management was only dependent on impressing its current shareholders rather than signifying new ones. Managers act in favor of current shareholders and has an incentive to manage earnings for their advantage. Moreover, this effect explained the insignificant results observed in Agency theory. Management of a company had common interest with the investors than having its own interest ahead.

The concept could further be investigated by future researchers with respect to specific dimensions. The ownership influence in management (independence of management from ownership) could enlighten the outcome of this study and investigating earning management in financial institutions in Ethiopia could give genuine insight since there are many shareholders with strong board of directors and management have performance bonus. Moreover, studies with constrained economies like Ethiopia, should emphasize on reform of the governments in economic sectors, like implementation of standards and regulations in explaining earning management.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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