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**Investigating into Earnings Management and the Performance of Selected Listed Firms
in Ghana**

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INVESTIGATING INTO EARNINGS MANAGEMENT AND THE PERFORMANCE OF
SELECTED LISTED FIRMS IN GHANA

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of

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DECLARATION

I hereby declare that this submission is my own work towards Master of Business Administration (Accounting) and that, to the best of my knowledge, it contains no materials previously published by another person or materials which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the paper.

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ABSTRACT

Earnings management is crucial for the growth and survival of a firm. Most firms indulge in earnings management in order to report a certain target earnings, but the practices of earnings management has led to the collapse of lot of firms such as Royal A-hold, Worldcom in the U.S.A and lot more across the world.

The extent of earnings management among listed firms in Ghana was still not well studied and therefore there was the need for a detailed research on earnings management. This thesis investigated the existence of earnings management among some selected listed firms in Ghana and their performances from the period of 2008 to 2013. Discretionary accruals which were used as a measure for earnings management were derived from the modified Jones model and return on assets (ROA) were also used as firm performance indicator. The thesis also determined the impact of earnings management on performance. The results showed that firms in Ghana indulged in earnings management. Also the results indicated that earnings management had a negative impact on performance.

The study recommends that prospective investors must analyse financial statements of firms critically in order to avoid throwing their monies into firms that suffer from going concern problems. Also the study proposes that corporate governance practices and regulations should be wholly enforced in firms in order to protect the interest of shareholders

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CHAPTER ONE

INTRODUCTION

1.0 Background of the study

Davidson et al (1985) define earnings management as the process of taking a carefully thought out steps, within the rules of generally accepted accounting practice (GAAP), in order to achieve a planned level of earnings. Managers take opportunity in the flexibility of the Generally Accepted Accounting Principles (GAAP) to employ techniques to manipulate or massage the accounting figures of their firms. Management also take opportunity of the insider knowledge to manipulate earnings, since investors do not have any idea of what is truly going on in the affairs of their firms. This is because not all investors are part of the people who manage the day to day activities of the firm.

Even though management may manage earnings to achieve certain objectives, these objectives do not match the objectives of their shareholders. Healy (1985) tested the bonus plan hypothesis and found that managers select the accounting policies that help to maximize earnings. Also watts and Zimmerman (1990) claims that managers do not always manipulate earnings upwards but they sometimes select the accounting choices that bring earnings downwards so that they can enjoy huge bonuses in the future.

In Ghana many micro finance firms have collapsed and investors and customers are the few who suffered the most among the numerous stakeholders. For example in 2014 a micro finance firm called Noble Dream in Ghana collapsed. It failed due to lack of working capital but no investigations have been done to prove that its failure was due to earnings management. Such situations bring fears to investors of other firms. Management uses various methods to manage earnings of firms. Examples of such methods are early recognition of revenue, using estimates to inflate earnings, deliberately delaying earnings and

a lot more. These methods impair the transparency, reliability and accuracy of financial reports and can lead to dysfunctional decision making, Mintz (2006).

For an investor to have confidence in a particular firm the firm must maintain clean and transparent financial statements. For a firm to maintain a clean and a transparent financial statement means a lot to bunch of stakeholders. For an investor it can mean improved returns, for an auditor it can mean avoiding being sued, for an analyst it can mean maintaining his reputation, and for a regulator it can lead to improved investor protection and less investment failures, Marinakis (2011).

The introduction of International Financial Reporting Standards (IFRS) in various part of the world has seen a drastic reduction of earnings management in countries which prepare their financial statement in accordance with International Financial Reporting Standards (IFRS). For example Cai et al (2008) conducted a study on effect of IFRS and its enforcement on earnings management, the study was done across 32 countries and they found that earnings management in IFRS adoption countries has been reducing in current years.

This research investigates whether some selected firms in Ghana indulge in earnings management or not. The research also goes on to examine the effect of earnings management on the performance of these selected firms

1.1 Statement of the Problem

According to Healy and Wahlen (1999), earnings management comes about when managers of an entity use judgement in communicating financial information and in organizing transactions to falsify financial reports to either misguide some stakeholders about the performance of the entity or to influence contractual outcome. Since 1970 there has been an increase in multidisciplinary empirical research on earnings management in the developed

countries (e.g., Dechow et al 1995; Degeorge et al 1999; Healy and Wahlen 1999; DeAngelo et al 1994).

In the developed countries like U.S.A companies such as Enron in 2001, Worldcom in 2002 and Royal A-hold in 2003 used earnings management to achieve certain targeted earnings.

In the Ghanaian context little research has been conducted regarding earnings management. For example Agyekum et al (2014) did a study on corporate governance and its relation with earnings management and they found that there was an increasing trend for earnings management for listed firms. However the extent of earnings management among firms is still not well studied and therefore there is the need for a detailed research on earnings management in order to deepen the current understanding of earnings management.

1.2.1 Research Objective

Investors do not only want high returns for their investment, they also want to be satisfied that the firm is a going concern firm. Managers therefore needs to work harder to satisfy investors, but where it is beyond managers to achieve the desires of investors by true and fair means, managers then employ earnings management techniques to falsify and achieve the desires of managers. This study seeks to investigate earnings management among some selected firms and the effect of earnings management on the performance of these firms in Ghana.

1.2.2 Objectives of the study

To find out whether listed firms in Ghana manage their earnings

To assess the performance of the listed firms

To evaluate the effect of earnings management on firms' performance

1.3 Research Questions

Do reported earnings show a sign of earnings management?

What is the level of performance of the listed firms?

Does earnings management have a positive or a negative impact on firms' performance?

1.4 Hypothesis Development

The study sought to validate or otherwise the following hypotheses:

H₀: Listed firms in Ghana are not involved in Earnings management

H₁: Listed firms in Ghana indulge in Earnings Management

H₀: Earnings management positively impact on firm's performance

H₁: Earnings management negatively impact on firm's performance.

1.5 Significance of the study

First of all the study will deepen the understanding of earnings management and bring to bear some managerial activities that amounts to earnings management in Ghana.

Also the findings of this study will be of importance to many stakeholders. For example listed firm's regulators such as the Ghana stock exchange will be interested in knowing the quality of earnings of its member firms.

Investors will also be interested in the findings since it will help them in taking better investment decisions. Also the findings of this study will help future researchers who will want to use the accrual models to detect accrual earnings management.

1.6 Brief methodology

When studying earnings management researchers do not use interview or questionnaire to investigate whether reported earnings are of high quality or not. This is because managers will not confirm that they falsify transactions when they did. The researcher used the modified Jones model (1995) to calculate for discretionary accruals which was used as a proxy for earnings management. Also return on assets (ROA) was used as firms performance measure to measure the performance of the selected listed firms.

Ten companies were selected, two companies from five industries were selected. Secondary data was used in this study. Data was obtained from Ghana stock exchange website and also www.annualreportsghana.com . In total 70 firm years was obtained, the year 2007 was used as estimating year and therefore earnings management was calculated for 60 (sixty) firm years that is six (6) years for each firm. Return on assets was also calculated for all the 6 years and compared with discretionary accruals to identify the effect of earnings management on firm performance.

1.7 Scope of the study

The study is centred only on firms which have been listed on the Ghana stock exchange. It excludes insurance and financial institutions. The study looked at ten companies out of the thirty five listed companies on the Ghana stock exchange.

The study only used the annual financial information from the year 2007 to 2013. It is limited to the accrual based manipulations and the performance of these selected firms. Factors such as time and convenience were also taken into consideration.

1.8 Limitations of the study

Lot of limitations were encountered in the collection of data from the various websites. There were lot of frequent power cuts and also inconsistent supply of internet service by the service providers. Also accrual model which was used in detecting earnings management has been criticized by other researchers that it has low test power.

1.9 Organization of the study

This work was organized and presented in five chapters. Chapter one is the introduction and covers the background of the study, statement of the problem, research objectives, research questions, significance of the study, scope of the study, brief methodology, limitations of the study and the hypotheses of the study. Chapter two of this study also presents review of

literatures on the subject. This includes review of key papers, books, similar topics and publication of early writers.

Chapter three of this study also presents the methods used in investigating earnings management and the performance of some selected listed firms in Ghana. It also explains the data collecting procedure into details. Chapter four presents the analysis and discussion of the data collected. Finally, chapter five presents the summary of major findings, conclusion and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter reviews related literature on earnings management and firms performance measures. The chapter is organized as follows, a brief description of the Ghana stock exchange comes first then some selected earnings management supporting theories are explained. They are the stakeholder theory, the agency theory and the positive accounting theory (PAT). Review of earnings management literature follows, it includes the motivating factors of earnings management, the techniques used to manage earnings, the models used in measuring earnings management and also firm performance indicators were briefly explained.

2.1 The Ghana Stock Exchange

The Ghana Stock Exchange was established in 1989. It started trading in 1990, currently there are about 38 equities listed on the Ghana Stock Exchange. It is a company limited by guarantee. According to Agyeman (2010) a stock exchange is defined as a regulated financial market where securities are bought and sold at prices which is set and controlled by the forces of demand and supply. He went on to say that stock exchange serves as a primary market where firms and governments raise capital to finance their business. Firms listed on the Ghana Stock Exchange are regulated by the Companies Code 1963, Act 179, Securities and Exchange Commission Regulations 2003, LI 1728 and Ghana Stock Exchange Membership Regulations 1991, LI 1510 as amended.

Table 2.0 List of firms currently listed on the Ghana Stock Exchange

S/N	Name of company	S/N	Name of company	S/N	Name of company
1	African Champion industries	13	Cocoa processing Company	25	Ayrton Drug Manufacturing
2	AngloGold Ashanti	14	Ghana Commercial Bank	26	Unilever Ghana
3	Aluworks	15	Ghana Oil Company	27	Golden Star Resources
4	Fan Milk	16	Benso Oil Palm Plantation	28	Ecobank Transnational Incorporated
5	Golden Web	17	Guinness Ghana Breweries	29	Produce Buying Company(PBC)
6	Cal Bank	18	HFC Bank(Ghana)	30	Mechanical Llyod Company
7	Clydestone (Ghana)	19	Mega African Capital	31	Pioneer Kitchenware
8	Camelot Ghana	20	Standard Chartered Bank	32	Societe Generale Ghana
9	PZ Cussons Ghana	21	SIC Insurance Company	33	Transaction Solution (Ghana)
10	Ecobank Ghana	22	Starwin Products	34	Tullow Oil Ghana
11	Enterprise Group	23	Total Petroleum Ghana	35	UT Bank
12	Sam Woode	24	Trust Bank	36	

Source: Ghana Stock Exchange Website

2.2 Stakeholder Theory

Freeman and Reed (1983) described stakeholders as those groups of people or institutions who have interest in the action of the firm. From the definition of Freeman et al (1983) stakeholders includes a wide range of individuals and institutions that have contractual relationships in connection with the firm's specific assets Loy (2015). Freeman (1994) looks at the stakeholder theory in two perspectives. The first one talks about the purpose of the firm that is, is the firm able to deliver and achieve the main reason why it is in business? Are

managers working hard enough? Are they working towards the achievement of firms specific goals or they are just working to achieve individual interest instead of the firm's interest?

The second one talks about the responsibility that management have towards stakeholders. It is the responsibility of firm managers to bring smiles to the faces of their stakeholders. For instance shareholders expect managers to give them value for their investments. Shareholders expect to see a stable and profitable business. The government also expects the various firms to pay their statutory payables without manipulating the figures to cheat the system. The community at large expects to see more employment opportunities, infrastructure and other things from these firms. Now the big question is, are firms delivering or giving back to the society that they find themselves? Or they are using earnings management techniques to escape from these responsibilities.

2.3 Agency Theory

Agency theory predicts that, both the principal and the agent will aim to maximize their own utility and therefore agents do not always act in the best interest of the principal, Gelderen (2013). We assume that instead of managers to fulfil the expectations of the shareholders they rather fulfil their own expectations. The separation of control and ownership and the conflicts of interest lie at the bases of the agency theory, Salah (2010).

According to Holthausen et al (1995) managers manipulate earnings downwards when their bonus is at uppermost. To Roman (2009), Earnings management occurs when an organizations management has the chance to take decisions that alter reported income and exploit those chances. The main aim of the shareholder would be to receive the maximum returns on investment.

However, there is an assumption that the agent will act in an opportunistic manner to maximize his utility or rewards. Hence, the interests of shareholders are in conflict with the

interests of the agents. Due to the insider knowledge of the agent, information asymmetry may exist between the agent and the shareholder which will give opportunity to the agent to manage earnings.

According to ICAEW (2005) as a result of information asymmetries and self interest, shareholders' lack reasons to trust their agents and will seek to resolve these concerns by putting in place mechanisms to align the interests of agents with principals and to reduce the scope for information asymmetries and opportunistic behaviours of their managers. The idea behind agency theory is that the shareholder is too busy or lacks the knowledge to do his work and so hires the manager but the shareholder being too busy also means he cannot monitor the activities of his manager very well. Therefore he employs other means of monitoring and this brings about the agency cost which is borne by the shareholder.

2.4 Positive Accounting Theory

Positive Accounting Theory (PAT) was developed by Watts and Zimmerman (1986). This theory is interested in explaining and predicting actual accounting practices.

A Positive Accounting Theory tries to predict and describe economic accounting behaviour. Normative Theory is the opposite of PAT and it is the judgments about in which way companies should or should not act. The Positive Accounting Theory focuses on the choices of accounting methods and the implications of these choices.

Three hypotheses have mostly been formulated and tested by Positive Accounting Researchers. These are the Bonus plan hypotheses, Debt/Equity hypotheses and the Political cost hypotheses. According to Watts and Zimmerman (1990) Bonus plan is used because it can be observed. Also managers with bonus plans are likely to select accounting choices that will increase reported income. They later argued that bonus plans do not always give managers the motivation to increase earnings. Healy (1985) also tested the bonus plan

hypothesis; he found that managers with bonus plans manipulate earnings in order to maximize reported earnings.

Watts and Zimmerman (1990) stated that with the Debt/Equity hypothesis the higher the firms debt/equity ratio the more likely that managers will choose accounting methods that will inflate reported earnings because such firms are more closer to violating the debt covenant. Dichev and Skinner (2002) tested Debt/Equity hypotheses; they found that managers work harder to avoid breaking the first debt covenant by selecting accounting policies that will maintain the debt covenant ratios.

Finally, the Political cost hypotheses predicts that bigger firms are likely to choose the accounting methods that reduces reported earnings Watts and Zimmerman (1990). Jones (1991) tested the Political cost hypotheses and found that firms deliberately choose accounting policies that are consistent with improving their case of import protection.

2.5 Earnings management

The term earnings management encompasses a lot of strategies used by management to achieve certain targeted earnings. These strategies or techniques used by management would be dealt with later in this chapter. Earnings management is likely to occur where there are no proper monitoring systems in place. Also some managers take opportunity of the flexibility of the accounting standards. The accounting standards have given managements the chance to use their own judgement in applying the standards, for instance the estimation of depreciation percentages or changing depreciation methods and a lot more others. Management can apply discretion in forming estimations required by certain accounting standards, in order to manage earnings towards a favoured direction Marinakis (2011). That is Firms manipulate earnings through accrual estimation, Timing of transaction and others. We will only look at these two mentioned above.

Earnings management has been defined by lot of researchers therefore there is not just one acceptable definition.

To Levit (1998), “Earnings Management is a gray area where accounting is being perverted, where managers are cutting corners; and, where earnings reports reflect the desires of management rather than the underlying financial performance of the company”.

According to the definition above management prefer to report what they desire rather than the true performance of the company. It is assumed that managements have certain motives to achieve and it is on these motives that they report such earnings. For instance, if management’s incentive is tied to earnings then management will prefer to report higher earnings in order to earn higher incentives, Watts and Zimmerman (1990).

To Dechow and Skinner (2000) Earnings Management is “the intentional, deliberate, misstatement or omission of material facts, or accounting data, which is misleading and, when considered with all the information made available, would cause the reader to change or alter his or her judgment or decision”.

According to the definition above management will deliberately cause an error in the accounting data, and it is base on this data that stakeholders of the entity would take their decisions. In larger firms that have high political cost, management would love to manipulate earnings in order to reduce profit. High earnings because of political cost would attract the interest of stakeholders of those firms, Watts and Zimmerman (1990).

Hall et al (2013) defines earnings management as the use of accounting discretion, intentional accounting misstatement, or use of real transactions to alter the numbers reported in the financial statements to influence outcomes that depend on reported accounting numbers. They went on to explain that improper revenue recognition to meet targeted goals is an example of using deliberate misstatement. Also regularly changing methods used in

calculating depreciation to maintain ratios used in debt contracts is an example of using accounting discretion to influence an outcome that depends on reported numbers.

2.5.1 Accrual Estimation

Accruals are the difference between net income and cash flow. Many researchers have conducted a study on firms that use accrual based earnings management strategies to meet targets. Accrual estimation has been divided into two components. They are discretionary accruals and non discretionary accruals. The discretionary accruals can be seen as where managers use their judgement in estimating accruals taking advantage of the flexibility of the accounting standards.

Non discretionary accruals are mandatory expenditures that have been recorded but it is yet to be realised. Examples are the method of depreciating assets should be the same method prescribed by the accounting standards and the method of valuing inventory should also follow the same method prescribed by the standards. The discretionary accruals give managers the more opportunity to manipulate earnings.

2.5.2 Timing of Transactions

Roman (2008) said that earnings can be managed through timing of transactions. Rahman et al (2013) also stated that managers can choose when to buy in order to manipulate earnings. A firm may decide to manage earnings by timing end of year purchase when they use the Last-In-First-Out method of valuing inventory. Also the firm can decide to buy something new or do something new and then report lower profit in the year that particular activity was done.

DeGeorge et al (1999) did a research on earnings management to exceed threshold. They found managers who are monitored by stakeholders of the firm have strong drive to manage earnings. They introduced three behavioural thresholds which are to report positive profit,

meet analyst expectation and sustain recent firm performance. They concluded that the positive profits threshold proves predominant while they argue that the future performance of firms suspect for boosting earnings across these thresholds is poorer.

Graham et al (2005) conducted a research on the economic implications of corporate financial reporting. According to them, Managers refrain from breaking regulations of the GAAP in order to falsify the earnings of their companies. They found that 78% of the sample was willing to sacrifice long-term profits to smooth earnings. Managers make voluntary disclosures to reduce information risk and boost stock price while at the same time, try to avoid disclosure performance that will be difficult to maintain.

Dechow et al (2003) did a study on why earnings are kinky? An examination of earnings management explanation. They found that small profit firms have huge accruals relative to other firms, and this means that systematically they are involved in earnings management. Other studies done on earnings management reports that there are circumstances that motivate management to manipulate earnings, example is CEO changes. Dechow et al (1995) discovered that CEOs tend to reduce spending on research and development in their final employment years, possibly to increase reported earnings.

Rahman et al (2013) also did a study on techniques, motives and controls of earnings management. They focused on qualities of earnings and the techniques of earnings management, they concluded that rigorous accounting standard, awareness of audit committee, corporate governance and consciousness and the morality of the stake holders play a vital role to control earnings management. To Rahman et al op cit, there are two methods that could be used to manage earnings. The first one talk about the flexibility in the GAAP to alter earnings and it's known as accounting earnings management. The second one is also about the situation where management changes operating decisions such as changes

delivery service or maintenance so that management can manage underlying cash flows which they referred to as structuring of transaction.

Kaszink (1999) investigated whether managers manage earnings towards annual forecast in order to escape the wrath of stakeholders like investors and also escape loss of reputation for accuracy. His empirical findings are in line with the prediction that managers manage reported earnings upwardly through positive discretionary accruals where real earnings could have been below the annual forecast. Doyle et al (2007) did a study on accrual quality and internal control over financial reporting system. They documented that firms that have weak internal control have poor accrual quality. Roychowdhury (2006) conducted a study on Earnings Management through real activities manipulation. He chose factors like debt, growth opportunities, stock inventories and receivables and he found a positive relation between these factors and real activities manipulations. He also documented that firms try to avoid negative forecast errors by engaging in real activity manipulations.

2.6 Motivations for Earnings Management

Managers who indulge in earnings management are pushed by a certain cause. They do not manipulate earnings just for its sake but they manipulate earnings for various reasons which are important to them. Some of the things managers hope to achieve are to look good on paper and still keep their reputation, to meet analyst expectation or even cover up financial fraud. The following are some of the motivating factors that researchers have provided evidence on.

2.6.1 Bonus Plan Motivation

Bonus plan also known as managerial compensation, aside the normal salary received by managers shareholders make a promise to pay a certain extra amount (bonus) to managers if they are able to achieve a certain target. If managers are to receive a higher compensation

then they are to achieve a higher target. Managers would therefore employ earnings management techniques in achieving the targeted earnings when they cannot achieve it by true and fair means.

Lot of researchers have found evidence concerning bonus plan motivation (Healy 1985; Holthausen et al 1995; Gaver et al 1995). Healy (1985) found that managers were decreasing reported earnings to increase future compensations. Bergstresser et al (2006) and Efendi et al (2007) studies are in support of Healy (1985). However studies by Armstrong et al (2008) and Lewis (2008) found no evidence that managerial compensation cause managers to manipulate earnings. Eckles et al (2011) investigated earnings smoothing, executive compensation and corporate governance and they found that bonus plan is associated to earnings management.

2.6.2 Political Cost Motivation

Political costs are the costs that can be levied or imposed on the firm by external stakeholders such as government and organised labour. For instance when a firm's annual profit is higher than previous profits stakeholders might use this as an opportunity to demand for high share of the profit, therefore managers of such firms may adopt earning management techniques that decrease profits in order to avoid the attention of such stakeholders, Watts and Zimmerman (1978).

Monem (2003) also states that when profits of a firm are the basis for computing the tax a firm should pay then there might be large tax avoidance incentives for earnings management. From a study conducted by Chen et al (2009) they found that firms listed on the Chinese stock exchange reversed the impairment of previously recognize assets impairment. They used it as an earning management tool in order to escape delisting.

2.6.3 Capital Market Motivation

The interaction between a firm's earnings and the capital market reaction can motivate management to manage earnings of the firm, Verbruggen et al (2008). Investors want to get value for their investment, therefore before investing in a firm they employ techniques to check the current performance of the firm and also predict its future performance. Management upon knowing this are also motivated to achieve or even beat investors and analyst expectation by indulging in earnings management.

Burgstahler and Eames (2003) documented that firms avoid small losses and decrease in earnings by manipulating earnings but investors and analyst are not able to identify such firms. Jain and Kini (1994) also documented that firms seem to indulge in window dressing before their public offerings so that investors and analyst can view them as firms with good prospect.

According to Ducharme et al (2001) prior earnings management activities reduce investors returns in the future. They also documented that indulging in aggressive earnings management increases firm's earnings. Therefore investors are misled into investing in such firms. Sarayi et al (2013) did a study on the impact of earnings management on stock returns and they documented that earnings management gives way for increasing abnormal positive stocks returns for bigger Tunisian firms and decreases abnormal negative stocks returns for small Tunisian firms. Even though other researchers have documented evidence of capital market motivation, but Armstrong et al (2009) and Dechow et al (2000) also argue that studies on IPO's do not adequately analyze management's motivation to manipulate earnings. Roosenboom et al (2003) documented no earnings management in 64 Dutch firms. They did the investigation in the year before the IPO's.

2.6.4 Regulatory motivation

In Ghana almost every kind of institution is regulated by at least one or two regulatory bodies. A company in Ghana must comply with the companies Act, 1963 (Act 179). Also a listed company must comply with the Securities and Exchange Commission Regulations 2003, LI 1728 and the Ghana Stock Exchange Membership Regulations 1991, LI 1510 including its industry regulations. Firms either want to meet the requirement of those regulations or want to benefit from what the regulations offers at a particular moment and therefore manipulate earnings in order to enjoy the benefit. For instance Jones (1991) documented that managers reduced the earnings figure during the period where there is an investigation on import relief in order to benefit from import relief regulations. (Beatty et al. 1995; Moyer 1990; Scholes et al. 1990) also documented evidence of some institutions like banks who manipulated their earnings in order to satisfy industry regulations.

2.6.5 Leverage (Debt) Motivation

Borrowing on a long term basis mostly comes with a covenant to protect lenders. Since managers when left alone acts in an opportunistic manner needs to be managed by the covenant. When the debt covenant is broken by management they are sanctioned by lenders, therefore in order for management to escape breaking the terms of the debt covenant they indulge in earnings management to achieve the results that they want Scott (2009).

Healy et al (1993) and Holthausen (1981) are among the researchers who examined whether firms changed their accounting methods and estimates in order to avoid making any heavy changes that will affect shareholders. Defond et al (1994) found that companies who violate their debt covenant used earning management techniques to increase earnings the year before the covenant was violated.

2.7 Techniques for Earnings Management

Earnings of a firm are managed in different ways. The ones which come about due to the flexibility of the standards are legal. The following are some of the techniques used by managers to manipulate and smooth earnings of a particular period; Cookie jar reserve technique, Big bet on the future technique, Big bath technique, Throw out a problem child and Flushing in the investment portfolio.

2.7.1 Cookie Jar Reserve Technique

According to Levitt (1998) cookie jar reserves is a technique used by management in adopting unrealistic assumptions to estimate liabilities for items like sales returns and allowances, inventory write downs, loan losses or Warranty costs. Under cookie jar reserve managers overstate sales returns and warranty cost in the period when business is good and then use these overstatement to reduce similar charges in bad periods. The reserve is created by management in order to continue to obtain regular earnings even in times when earnings should be lower for the firm.

2.7.2 Big Bath Technique

Big bath is a technique that refers to the practice where a firm makes its earnings seem less compared to the actual earnings in a particular year. Watts and Zimmerman (1990) bonus plan hypothesis explains it more. According to them managers who are motivated by bonus plan do not always manipulate earnings just to increase it but they are also motivated to manipulate earnings downwards so that they can enjoy huge profit and bonuses the years ahead. Therefore managers use big bath accounting to increase expenses and decrease earnings for the current year in order to enjoy huge bonus in future.

Healy (1985) definition of earnings management talked about restructuring transactions, big bath technique is the technique used by management to manage earnings when the firm is

going through a restructuring. During this period management will consider income decreasing activities so that in the next year management could take the opportunity to report huge profit. Also a manager who knows he cannot achieve the targeted earnings for this year will reduce profit and report better profit the next year.

2.7.3 Big Bet on the Future Technique

When there is an acquisition, the firm purchasing the other or the parent company is said to have made a big bet on the future Rahman et al (2013). Under this technique firms write off research and development cost for the firm acquired, that is they increase current expenditure by writing of a huge part of the purchase consideration as research and development expenditure. This will increase future earnings by reducing future expenditure. Parent companies also immediately add the profit of the newly acquired subsidiaries to their profit and this increases the earnings of the parent company for that particular period.

2.7.4 Flushing the Investment Portfolio

When a firm invest in another and its investment is less than 20% of the total ownership we call it a Passive investments. It can be classified as trading securities which appears in the operating income or it's classified as available-for-sale securities which are not reported in operating income until it is sold. Firms manage earnings by timing of sales, they sell securities that gained or lost value to increase or decrease earnings or they even reclassify the security portfolio from trading securities to available for sale securities in order to move a gain or a loss from or to the income statement.

2.7.5 Throw out a Problem Child

When a firm acquires majority of the shares of another firm, the majority share owner becomes the parent company and the other firm becomes a subsidiary. Now when a subsidiary is not able to achieve its target, it reduces the overall firm earnings. It is usually

expected to cause a bigger decrease in the future. Firm managers act in different ways to counter that. Managers sell the underperforming subsidiary firm and consequently report a gain or a loss based on the managers' discretion. Another way managers manage earnings using this technique is that they spin-off the subsidiary by distributing or exchanging the shares with current shareholders and in this way the burden is transferred to the latter.

2.8 Detecting Earnings Management

Managers manipulate earnings when they exercise their discretion in estimating items like staff salary expenses. Detecting earnings management using the accrual models, total accruals are divided into two. That is discretionary accruals and non discretionary accruals. Total accruals are firstly calculated by subtracting operating cash flow from earnings or net income:

$$TA = NI - OCF$$

Where:

TA is total accruals

NI is net income

OCF is operating cash flow

In detecting the portion of the earnings which is being managed, Total Accruals (TA) is divided into discretionary accruals and non discretionary accruals.

$$TA_t = DA_t + NDA_t$$

Where:

TA_t is total accruals at year t

DA_t is discretionary accruals at year t

NDA_t is non discretionary accruals at year t

Total accruals can also be calculated as change in current assets minus change in cash minus change in current liability plus change in short term debt minus total depreciation.

$$TA = (\Delta\text{Non-cash current assets} - \Delta\text{Current liabilities excl. current portion of long term debt} - \text{Depreciation and Amortization}) / \text{Lagged total assets}$$

Since it is difficult estimating discretionary accruals, researchers have developed lot of models to measure or detect earnings by using non discretionary accrual to estimate discretionary accruals. The following are some of the models we can use to measure earnings management in firms. They are the Jones model (1991), Modified Jones model (Dechow et al 1995), the Healy model (1985), the DeAngelo model (1986), the Industry model (1991) and the Beneish model (1999).

2.8.1 Jones Model (1991)

Jones (1991) conducted a study that tested whether firms use downward earnings management during import relief investigations. She used a total accrual estimate. In her model there were two assumptions. She assumed that managers manage earnings by using their discretion and her second assumption was that accruals which are free from the manager's discretion are constant. She also added that variables she included in her model like PPE, Revenue and lagged Total assets are not control by management. Models such as Healy (1985), McNichols (1988) and Kaplan (1985) are the studies Jones build upon. In estimating discretionary accruals using Jones model, firstly total accruals is calculated by using this formula:

$$TA = (\Delta\text{Non-cash current assets} - \Delta\text{Current liabilities excl. current portion of long term debt} - \text{Depreciation and Amortization}) / \text{Lagged total assets}$$

The next step is to identify the estimation period by examining the topic under study before the correct period could be chosen. This formula is used in detecting the firm's specific parameters

$$TA_t/A_{t-1} = \beta_1 [1/A_{t-1}] + \beta_2 [\Delta REV_t/A_{t-1}] + \beta_3 [PPE_t/A_{t-1}] + \varepsilon_t$$

Where:

TA_t is total accruals

A_{t-1} is total assets

ΔREV_t is change in revenue

PPE_t is gross property, plant, and equipment

Thirdly after the estimation of the company's parameters non discretionary accruals can be calculated by this equation.

$$NDA_t = a_0 [1/A_{t-1}] + a_1 [\Delta REV_t/A_{t-1}] + a_2 [PPE_t/A_{t-1}]$$

And discretionary accruals calculated as:

$$DA_t = TA_t - NDA_t$$

2.8.2 The Modified Jones Model (1995)

After Jones model, Dechow et al (1995) modified the original Jones model by subtracting receivables from revenue because they saw that total revenue in the original Jones model made the model weak. Therefore they modified the original Jones model to improve it. This modification was applied to decrease the measurement error of discretionary accruals when firms apply discretion over sales Dechow et al (1995). The original Jones model was modified into this

$$NDA_t = a_0 (1/A_{t-1}) + a_1 (\Delta REV_t - \Delta REC_t) + a_2 PPE_t$$

Where:

NDA_t is non-discretionary accruals in period t

ΔREC_t is change in receivables when moving from t-1 to period t scaled by lagged total assets

A_{t-1} is total lagged assets

ΔREV_t is change in revenue when moving from t-1 to period t scaled by lagged total assets

PPE_t is gross property, plant, and equipment scaled by lagged total assets

a_0, a_1, a_2 = firm specific parameters

This indicates that the Modified-Jones model groups all changes of credit sales as earnings manipulation by management and the underlying assumption is that managements are able to manage earnings that is credit sale revenues through management discretion than sales revenues based on cash sales Gelderen (2013).

2.8.3 The Healy Model (1985)

The Healy model also separates the non-discretionary accruals (NDA) from total accruals (TA). The model uses the mean of total accruals scaled by lagged total assets as a measure of non discretionary accruals. Under this model there is an assumption that earnings management occurs systematically in every period.

The model for NDA in the event year t is:

$$NDA_t = \sum_t TA_t / T$$

Where:

NDA_t is estimated non-discretionary accruals at year t

TA_t is total accruals scaled by lagged assets at year t

T is a year subscript for years included in the estimation period

2.8.4 The DeAngelo Model (1986)

DeAngelo model is also like the Healy (1985) model; they are both total accrual models. The model holds the assumption that the difference between the total accruals gives you the earnings management and this model expect earnings management to be zero where there is a hypothesis of no earnings management Gelderen (2013). DeAngelo (1986) documented that NDA can be calculated better if total accruals in the year of investigation is subtracted from total accruals in the previous year. The model for NDA in the year t is:

$$NDA_t = TA_{t-1}/A_{t-2}$$

Where:

NDA_t is non discretionary accrual at year t

TA_{t-1} is total accruals in prior year

A_{t-2} is total assets at t-2

DeAngelo model just like Healy model (1985) also proxy NDA by using total accruals from the estimation period.

2.8.5 The Industry Model (1991)

Dechow and Sloan (1991) modelled the industry model. Just like Jones model (1991) this model also assumes that non discretionary accrual is constant over time but the major difference between the two models is that the Jones model gives the determinants of the non discretionary accruals directly whiles the industry model assumes that these determinants are the same across all firms operating in the same industry Gelderen (2013). The industry model assumes that non discretionary accruals is obtained from the median value of total accruals at year t scaled by the lagged total assets for all non sample firms in the same two digit SIC code. The model for the NDA in year t is:

$$NDA_t = a_1 + a_2 \text{ median}_j (TA_t / A_t - 1)$$

Where:

NDA_t is non discretionary accruals in year t

$\text{median}_j (TA_t / A_t - 1)$ is the median value of total accruals scale by lagged assets for all non sample firms in the same two digit standard industrial classification.

2.8.6 The Beneish Model (1999)

Guay et al (1996) is one of the numerous papers that heavily criticize the discretionary accrual models over its precision especially when compensations are correlated with performance. Beneish (1999) developed a model which is not a discretionary accrual model but has been used to detect earnings management by using a variety of financial statement variables. His model contains ratios and variables that help to determine whether a firm has manipulated its earnings or not.

If Beneish model is used in calculating for earnings management the variables are added up to achieve an M-Score. He documented that the median probability of earnings management for non manipulators in his estimation sample is 0.011 while's manipulators median probability of earnings is 0.099. Also an M-Score less than -2.22 indicates that the firm may not be involve in earnings manipulation, but an M-Score of more than -2.22 shows that the firm may be a manipulator of firms earnings. The model is as follows

$$MI_{it} = -4.840 + 0.920DSRI_{it} + 0.528GMI_{it} + 0.404AQI_{it} + 0.892SGI_{it} + 0.115DEPI_{it} - 0.172SGAI_{it} + 4.679TATA_{it} - 0.329LVGI_{it}$$

Where:

MI_{it} = Manipulation Index which converted to a probability of earnings manipulation using a normal standard distribution table.

$DSRI_{it}$ = days sales receivable index

GMI_{it} = Gross margin index

AQI_{it} = Assets quality index

SGI_{it} = Sales growth index

$DEPI_{it}$ = Depreciation index

$SGAI_{it}$ = Sales, General and Administration expense index

$TATA_{it}$ = Total accruals to total assets

$LVGI_{it}$ = Leverage index

2.8.7 Limitations of the Discretionary Accrual Models

Lot of papers have criticized the discretionary accrual models, examples are Katz (2009), Dechow et al (1995) and Bernard et al (1996). They indicated that discretionary accrual models suffer from a correlated-omitted variable problem and this causes the researcher to find manipulations where there are no manipulations and vice versa. Also as indicated earlier Guay et al (1996) argues that discretionary accrual models does not give a precise estimate of discretionary accruals of a firm when they are used.

2.9 Advantages and Disadvantages of Earnings Management

Earnings management is seen as a double edge sword, it can make a firm look good on paper and also cause a going concern issues in the firm if care is not taken. Even though some firms have successfully used earnings management and have got good result for it but it didn't actually work out well for others. Most people believe earnings management is unethical and strict rules should be put in place to check firms who manage their earnings.

The following are some of the advantages and disadvantages of earnings management.

2.9.1 Advantages of Earnings Management

Earnings management gives firms opportunity to improve their performance on paper when some methods of operating are changed for a different one with the intention of achieving a

target. Example is adopting new depreciation method because it will boost the profit of the firm.

When income smoothing methods are applied by the firm, it helps the firm to maintain a stable level of profits for many years, which sends a signal to shareholders that their investment is in good condition.

When a firm is made up of more debt capital and less equity capital they are often bound by a covenant. Managers are able to work around these covenants to achieve their targeted earnings with the help of earnings management

2.9.2 Disadvantages of Earnings Management

Earnings management will not physically increase a firm earnings, a good financial performance may be reported when in actual fact the firm is on the verge of collapsing. Earnings management can destroy the hopes of shareholders.

Earnings management also sends a wrong picture to the firms stakeholders. Investors, lenders, analyst and employees will take their decisions base on the earnings reported by the firm. So if firms reported earnings were manipulated then it may lead stakeholders into taking decisions which may be wrong too.

Investors lose interest in firms which have been reported managing earnings. To some stakeholders earnings management is unethical so they try their best to avoid doing business with firms which have been caught managing earnings.

2.10 Indicators of Firm Performance

In measuring the performance of a firm, financial ratios play a strong role. Financial ratios were developed more than two decades ago and it is the most used tools for managers and analyst to determine the performance of firms. Return on assets and return on equity (ROE)

are the two main profitability ratios we shall look at but Return on assets (ROA) is the performance indicator we will use in this work to determine the performance of selected firms.

2.10.1 Return on Assets (ROA)

Return on Assets is considered a useful and practical tool in financial analysis. It is mostly defined as net income over total assets. ROA is a productivity ratio that shows in percentage wise the relationship between the earnings of a firm to its total assets. Even though ROA is not a perfect measure of firm's performance it is most effective measure available to assess a firms performance. The formula is stated as follows:

$$ROA_{it} = \text{net income}_{it} / \text{total assets}_{it}$$

2.10.2 Return on Equity (ROE)

Return on Equity is a profitability ratio just like Return on Asset. ROE measures how profitable a firm is by indicating the amount of earnings a firm makes with the monies that members of the firm have invested. With return on equity of a firm the higher the ratio the better.

$$ROE_{it} = \text{net income}_{it} / \text{shareholders equity}_{it}$$

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

The chapter presents the methods used for the study. The chapter gives details about the research design, the models used in detecting earnings management and firms performance, the method used in collecting data, the population, sample size and sampling procedure, type and sources of data, the data collection instrument and data analysis technique.

3.1 Research Design

According to Burns and Grove (2003), research design is a blueprint for conducting a study with maximum control over factors that may interfere with the validity of the finding.

This study used the quantitative research design to investigate whether listed firms in Ghana indulge in earnings management. Secondary data were collected and processed to generate the figures for earnings management.

To investigate expectations and relations between different concepts, the expectations should be tested by comparing related theory and empirical data. The findings of this study were therefore presented in tables and were also analysed quantitatively.

Also according to Verschuren and Doorewaard (2007) examination based research is often used for empirical investigations. They continue to elaborate that this kind of research is quantitative because particular numerical relations are being investigated.

This means that, to begin with, expectations should be expressed in one or more hypotheses. These hypotheses are based on related theory and previous (empirical) literature Baarda and de Goede (2001).

During the research, the hypotheses are tested with empirical data. The aim is to investigate whether the hypothesis are true or false. Based on the comparison of the hypothesis with empirical data conclusions were drawn.

3.2 Model specification

Many studies have used different models in detecting earnings management among firms (McNicholas and Wilson 1988; DeAngelo 1988; Dechow et al 1995). This study followed the model by Dechow et al (1995). Again the model used by Dechow et al (1995) is in three parts as shown below.

The model specification is in three parts. The first three models were used in detecting earnings management. The fourth model was used in calculating for the performance level of the various firms and the fifth model was used to find the impact of earnings management on firm's performance.

$$TAC_{it}/A_{i,t-1} = \alpha_{1t}[1/A_{i,t-1}] + \alpha_2[\Delta REV - \Delta REC_{it}/A_{i,t-1}] + \alpha_3[PPE_{it}/A_{i,t-1}] + \epsilon_{it}$$

$$NDA_{it} = \hat{\alpha}_{1t}[1/A_{it-1}] + \hat{\alpha}_2[\Delta REV - \Delta REC_{it}/A_{it-1}] + \hat{\alpha}_3[PPE_{it}/A_{it-1}]$$

$$DA = TAC_{it}/A_{t-1} - NDA_{it}$$

Where:

TAC_t is total accruals at time t

ΔREV_{it} is change in revenue in firm i in year t

ΔREC_{it} is change in receivables in firm i in year t

PPE_{it} is gross property, plant and equipment in firm i in year t

A_{it-1} is total assets in firm i in year t-1

$\alpha_1, \alpha_2, \alpha_3$ is firm specific parameters

ϵ_{it} is the measurement error in firm i in year t,

NDA_t is estimated non discretionary accruals at time t

$\hat{\alpha}_1, \hat{\alpha}_2, \hat{\alpha}_3$ is the ordinary least squares of the firms specific parameters

DA is the discretionary accruals

The second part of the model specification looks at measuring the performance of the selected listed firms. Many studies have used Methods such as ROA, ROE, ROI and ETA to measure firm performance.

This thesis used return on assets (ROA) as a firm performance measure, as calculated by Palmer (2012). The study used ROA which is defined as net income of a firm divided by its total assets to measure firm performance. Return on Assets measures a firm's profitability and its effectiveness. We calculated the ratio of ROA for all firms' years. The formula below was used in calculating return on assets for the firms.

$$ROA_{it} = NI_{it} / A_{it}$$

Where:

ROA_{it} is return on assets for firm i at year t

NI_{it} is net income for firm i at year t

A_{it} total assets for firm i at year t

The third part of the model specification looks at the model used in testing the impact of discretionary accruals on return on assets. The averages of both variables were used in this model. The model is as stated below

$$AROA = \beta_0 + \beta_1 ADAC + e$$

Where:

AROA is Average return on assets

ADAC is Average discretionary accruals

β_0 is Y intercept

β_1 coefficient of ADAC

e is the error term

3.3 Types and sources of data

The study used secondary data as its type of data. The study used annual financial reports of the following firms: Fan Milk Limited, Starwin Products Limited, Guinness Ghana Breweries Limited, Unilever Ghana Limited, PZ Cussons Ghana Limited, Golden Star Resources Limited, Artyon Drug Manufacturing Limited, AngloGold, Total Petroleum Ghana Limited and Ghana Oil Company Limited from the period of 2007 to 2013.

Total assets, net income, cash flow from operations, revenue, receivables and gross property, plant and equipment were the variables collected from the various firms' annual financial report to calculate for earnings management. Also to calculate for ROA net income and total assets were collected and used. These annual reports were sourced from the Ghana stock exchange website and also www.annualreportsghana.com.

3.4 Population of the study

The population of the study is defined as the complete set of subjects that are being studied and from which the sample is obtained. The population of this study considers all the firms whose characteristics are relevant to this study. The population consists of all firms listed on the Ghana stock exchange. Thirty five (35) listed firms were investigated in this study. Refer to chapter two for the list of the listed firms on the Ghana stock exchange.

3.5 Sample size and sampling procedure

The study used a sample size of 10 listed firms. A purposive sampling method was used in selecting the sample for the study. A purposive sampling is the process of selecting the sample based on the researchers' judgment that those chosen are the key individuals who can provide the required information for the study. The purpose of the study was to exclude financial and insurance firms, also firms without adequate yearly data was excluded from the study. Firms which do not fall within the selected industry were also excluded. We also

required that data needed had the observations required to calculate for discretionary accrual which is a proxy for earnings management in this study. The final sample contains 60 firm year observations.

3.6 Variable Description

This section describes the dependent variables and the independent variables used in this study.

3.6.1 Dependent variables

This section presents the description of the dependent variables

3.6.1.1 Total accruals (TAC)

The study used four different dependent variables to match the four models (models 1- 4). The first dependent variable used was total accruals scaled by total assets (TAC/A). Healy (1996) used total accrual as a measure for earnings management. Total accruals were calculated by deducting operating cash flow from net income. Total accruals were then scaled by total assets (TAC/A) before being used as a dependent variable.

3.6.1.2 Non-discretionary accruals (NDA)

Non discretionary accrual (NDA) was also used as a dependent variable in equation (2) to determine the level of total accruals which managers did not manipulate. Studies such as Dechow et al (1995) and Nurdiniah and Herlina (2015) used non discretionary accruals as a dependent variable in determining the level of discretionary accruals.

3.6.1.3 Discretionary accruals (DAC)

Discretionary accrual (DA) was the third dependent variable used in this study. Discretionary accrual is the part of total accruals which managers exercised their discretion over. Jones (1991) and Dechow et al (1995) used discretionary accrual as a measure for earnings management. Earnings management is present when discretionary accrual is greater than zero

(DA>0). This thesis anticipates finding discretionary accruals to be greater than zero for all firm years.

3.6.1.4 Return on assets (ROA)

Palmer (2012) used return on assets to measure for firm's performance. In determining the performance of firms using return on assets, Palmer (2012) used net income (NI) scaled by total assets (A) to arrive at the ROA figures. This study also used the same idea in measuring the performance of firms in all firms.

3.6.1.5 Average return on assets (AROA)

Average return on assets was used as the dependent variable for a simple linear equation. The average return on assets represents the mean for all the firms summed up.

3.6.2 Independent variables

The independent variables are the variables that can influence the dependent variable. This section presents the description of the independent variables.

3.6.2.1 (REV-REC/A_{t-1})

The first independent variable to be explained is change in revenue less change in receivables scaled by total assets (REV-REC/A). Dechow et al (1995) modified the original Jones model by deducting change in receivables from change in revenue. They assume that receivables are attributable to earnings management. Similar to Jaaffar et al (2002) the researcher expects a positive effect of change in revenue less change in receivables scaled by total assets on total accruals which is the dependent variable in all firms because increase in revenue leads to increase working capital accruals.

3.6.2.2 (PPE/A_{t-1})

The next variable to be explained is property, plant and equipment scaled by total assets (PPE/A), Jones (1991) used PPE scaled by total assets to control for changes in non

discretionary accruals that emerges from charging of depreciation. The researcher also used the same idea from her study. In Witteveen (2013) study, PPE consistently had a negative effect on the dependent variable (total accruals). The current study expects a negative effect of property, plant and equipment (PPE) on the dependent variable in all firms because an increase in PPE leads to an increase in depreciation. A high depreciation has a negative effect on accruals.

3.6.2.3 ($1/A_{t-1}$)

The variable one scaled by assets ($1/A_{t-1}$) was also used by both Jones (1991) and Dechow et al (1995). The researcher used the variable as the variable was used by Dechow et al (1995).

3.6.2.4 (ADAC)

Average discretionary accrual is the mean for the discretionary accruals for all the selected firms. The study expects a negative effect on the dependent variable AROA.

3.7 Data collection instrument

The instrument used in collecting data for this study was archival records. In this quantitative type of study, archival online records are analyzed to ascertain earnings management among listed firms in Ghana. Data for this study were collected in April 2015 by visiting the Ghana stock exchange website and also www.annualreportsghana.com.

3.8 Estimation Technique

In the determination of the level of earnings management in the selected listed firms the thesis went through three stages. During the first stage Total accruals (TA) were determined by deducting the cash flow from operations from the net income of the various firm years. During the second stage α_1 , α_2 and α_3 from equation (2) were determined by running a panel data regression in the statistical software (Stata) and the resulting coefficients together with each firm data were processed to generate non discretionary accruals (NDA) for the year,

scaled by end year total assets. During the third stage non discretionary accruals were subtracted from total accruals to arrive at the estimated discretionary accruals.

3.9 Data analysis

The study examined a quantitative data and it also investigated the relationship between two variables. There are three different kinds of analysis that depend on the relationship between variables. These are univariate analysis, bivariate analysis and multivariate analysis Bryman and Bell (2007). Our study fits into a bivariate analysis of two variables because it investigates whether or not two variables are related. This type of analysis applies correlation to describe the relationship between variables selected using a statistical tool. We examined our hypothesis based on the following variables, total assets (TA), Property, plant and equipment (PPE) and revenue less receivables to measure discretionary accruals (DA). We also measured firm performance using return on assets (ROA).

Data collected was coded into an excel work sheet. It was then exported into a Stata work sheet, panel data regression was run and the coefficients for the ten firms collected. Individual firm performance was also calculated using excel. Results obtained from running the regression was inserted into equation (3) to calculate for non discretionary accruals (NDA). The results from equation (3) were then deducted from total accruals which have already been scaled by total assets using equation (1) to arrive at discretionary accruals (Earnings management). A mean for both the discretionary accruals (ADAC) and return on assets (ADROA) was calculated. A simple linear regression was run using SPSS statistical tool to determine the impact of ADAC on AROA.

CHAPTER FOUR

DATA PRESENTATION ANALYSIS AND DISCUSSION OF FINDINGS

4.0 Introduction

This chapter presents the results of the empirical research conducted as described in chapter three. There are two parts; the first part of this chapter presents the results of the regression analysis for all the ten selected firms. The results for return on assets and discretionary accruals (earnings management) are presented in tables and are analysed. The second part presents the results for the impact of earnings management on firm performance.

4.1 Analysis of total accruals results

This section presents the analysis for total accruals results for all the ten selected firms. One significant thing is that all the variables for all the firms were found to be insignificant. This might be explained by the fact that the number of observation years for each firm was short, the number of variables used in the model were also few. This may be due to the reason that the entire period used to conduct the study was very short.

However, the researcher is only interested in the direction of the variables that is whether they have a positive or a negative impact on the dependent variable. The following tables give the total accruals regression results for all ten selected firms.

4.1.1 Analysis of result for Unilever Ghana Limited

This section presents the analysis of total accruals results for Unilever Ghana Limited.

Table 4.1 Results for total accruals for Unilever Ghana Limited

Regressors	Coefficient	Standard Error	T-Ratio
1/A _{t-1}	-6.103507	4.59e+07	-0.13
REV-REC/A	0.4164438	0.5585806	0.75
GPPE/A	-0.7177879	1.41262	-0.51
Constant	0.1455042	0.7589737	0.19
F Statistic = 0.8620		R-squared = 0.2670	

Dependent variable: TAC/A_{t-1}

From Table 4.1, the results indicated a negative relationship between the variables TAC/A_{t-1} and 1/A_{t-1}. Also the table portrays a positive coefficient of the variable (REV-REC/A_{t-1}) which was consistent with our expectation and the result of prior studies, example Jaaffar et al (2002). This implies an increase in revenue influences both accrual decreasing and accrual increasing accounts. The coefficient for the variable PPE/A_{t-1} is negative which is also consistent with our expectations and the result of other studies, example Witteveen (2013). This is explained by the fact that an increase in PPE will lead to an increase in depreciation which has a negative effect on accruals.

From Table 4.1 the amount of non-discretionary accruals (NDA) can be expressed in the following formula:

$$NDA = 0.1455042 - 6.103507 \frac{1}{A_{t-1}} + 0.4164438 \frac{REV-REC}{A_{t-1}} - 0.7177879 \frac{PPE}{A_{t-1}}$$

4.1.2 Analysis of results for PZ Cussons Ghana

This section presents the analysis of total accruals for PZ Cussons Ghana

Table 4.2 Results for total accruals for PZ cussions Ghana

Regressors	Coefficient	Standard Error	T-Ratio
1/At-1	-2.52e+08	4.00e+08	-0.63
REV-REC/A	1.517794	1.504984	1.01
GPPE/A	26.1068	40.38248	0.65
Constant	-0.2251732	0.2861066	-0.79
F Statistic = 0.6364		R-squared = 0.509	

Dependent variable: TAC/A_{t-1}

The coefficient of the variable 1/A_{t-1} from Table 4.2 was negative. This implies that 1/A_{t-1} has a negative influence on the variable TAC/A_{t-1}. Which implies a unit decrease in variable (1/A_{t-1}) will cause further decrease in TAC/A_{t-1}. The coefficient of the variable (REV-REC/A_{t-1}) was positive as expected and consistent with the study of Jaaffar et al (2002). The variable PPE/At-1 had positive coefficient which was different from the expected sign of negative coefficient and this therefore suggest that depreciation will not have a negative effect on accruals.

From Table 4.2 non discretionary accruals (NDA) in PZ Cussons can therefore be expressed as:

$$NDA = -0.2251732 - 2.52e+08 (1/A_{t-1}) + 1.517794 (REV-REC/A_{t-1}) - 26.1068 (PPE/A_{t-1})$$

4.1.3 Analysis of results for Starwin Product

This section presents the analysis of total accruals for Starwin Products

Table 4.3 Results for total accruals for Starwin Product

Regressors	Coefficient	Standard Error	T
$1/A_{t-1}$	4.8089e+06	3.466e+06	1.39
REV-REC/A	-0.1839468	0.2288916	-0.80
GPPE/A	-2.237539	1.296167	-1.73
Constant	-0.2704459	0.4391734	-0.62
F Statistic = 0.4602		R-squared = 0.6629	

Dependent variable: TAC/A_{t-1}

From Table 4.3 the coefficient of the variable $1/A_{t-1}$ was positive. Table 4.3 although exhibit a negative relationship between TAC/A_{t-1} and $REV-REC/A_{t-1}$ however, the results was not consistent with our expectation. The researcher expected the effect of the coefficient of this variable to be positive but Table 4.3 portrays a negative coefficient and this suggests a reduction in the working capital accruals. Also the variable PPE/A_{t-1} had a negative coefficient which is consistent with the expectation of the study. This is explained by the fact that an increase in PPE will lead to an increase in depreciation which has a negative effect on accruals

From Table non-discretionary accruals (NDA) in Starwin Product Ltd can therefore be expressed as:

$$NDA = -0.2704459 + 4.8089e+06 (1/A_{t-1}) - 0.1839468 (REV-REC/A_{t-1}) - 2.237539 (PPE/A_{t-1})$$

4.1.4 Analysis of results for Aryton Drugs Manufacturing

This section presents the analysis for total accruals for Aryton Drugs Manufacturing

Table 4.4 Results for total accruals for Aryton Drugs Manufacturing

Regressors	Coefficient	Standard Error	T
$1/A_{t-1}$	1.055e+06	2.094e+06	0.50
REV-REC/A	0.2622621	0.289774	0.91
GPPE/A	1.074493	2.395769	0.45
Constant	-0.3564574	0.6534502	-0.55
F Statistic = 0.6331		R-squared = 0.5125	

Dependent variable: TAC/ A_{t-1}

Table 4.4 showed the coefficient of the variable $1/A_{t-1}$ to be positive. This means the variable had a positive impact on the dependent variable. The coefficient of the variable REV-REC/ A_{t-1} was also positive which was in line with the expectations of the study and was also consistent with the study of Jaaffar et al (2002). This results implies an increase in the variable suggest an increase in working capital accruals. Table 4.4 also indicate a positive coefficient for the variable PPE/ A_{t-1} which contradicts our expectations and also contradicts the study of Witteveen (2013) and suggest that even when depreciation increase it will not have a negative effect on accruals.

From Table 4.4 the amount of non-discretionary accruals (NDA) can be expressed in the following formula:

$$NDA = -0.3564574 + 1.055e+06(1/A_{t-1}) + 0.2622621 (REV-REC/A_{t-1}) + 1.074493 (PPE/A_{t-1})$$

4.1.5 Analysis of results for Fan Milk Limited

This section presents the analysis of total accruals for Fan Milk Limited

Table 4.5 Results of total accruals for Fan Milk limited

Regressors	Coefficient	Standard Error	T
$1/A_{t-1}$	-4646201	1765676	-2.63
REV-REC/A	0.0092781	0.0657348	0.14
GPPE/A	-0.1907013	0.3043589	-0.63
Constant	0.0968469	0.1990956	0.49
F Statistic = 0.1642		R-squared = 0.8873	

Dependent variable: TAC/A_{t-1}

Table 4.5 portrayed a negative coefficient for the variable $1/A_{t-1}$. The variable $REV-REC/A_{t-1}$ had a positive coefficient which is consistent with the expectation of the study and also consistent with the study of Jaaffar et al (2002). The results also showed the variable PPE/A_{t-1} to have had a negative coefficient as expected which is consistent with the study of Witteveen (2013). This is explained by the fact that an increase in PPE will lead to an increase in depreciation which has a negative effect on accruals.

From Table 4.5 the amount of non-discretionary accruals (NDA) can be expressed in the following formula:

$$NDA = 0.0968469 - 4646201 (1/A_{t-1}) + 0.0092781 (REV-REC/A_{t-1}) - 0.1907013 (PPE/A_{t-1})$$

4.1.6 Analysis of results for Guinness Ghana Breweries

This section presents the analysis of total accruals for Guinness Ghana

Table 4.6 Results for total accruals for Guinness Ghana Breweries

Regressors	Coefficient	Standard Error	T
$1/A_{t-1}$	-8372373	8.83e+07	-0.09
REV-REC/A	-0.7221768	1.227161	-0.59
GPPE/A	-0.753246	0.7468254	-1.01
Constant	0.6801665	0.6553091	1.04
F Statistic = 0.5890		R-squared = 0.5528	

Dependent variable: TAC/A_{t-1}

Table 4.6 portrayed a negative coefficient for the variable $1/A_{t-1}$. This implies the variable $1/A_{t-1}$ had a negative impact on the variable TAC/A_{t-1} . The table also portrayed a negative coefficient for the variable $REV-REC/A_{t-1}$ which is different from the expectation of the study. This implies a decrease in the working capital accruals. The coefficient for the variable PPE/A_{t-1} was also negative, which was the same as the expectation of the study and also consistent Witteveen (2013) and this, confirms that a high depreciation has a negative effect on accruals.

From Table 4.6 the amount of non-discretionary accruals (NDA) can be expressed in the following formula:

$$NDA = 0.6801665 - 8372373 (1/A_{t-1}) - 0.7221768 (REV-REC/A_{t-1}) - 0.753246 (PPE/A_{t-1})$$

4.1.7 Analysis of results for AngloGold Ashanti

This section presents the analysis total accruals for AngloGold Ashanti

Table 4.7 Results for total accruals for AngloGold Ashanti

Regressors	Coefficient	Standard Error	T
$1/A_{t-1}$	-345157848	5133924900	-0.067
REV-REC/A	0.850	0.661	1.287
GPPE/A	0.142	0.490	0.290
Constant	-0.178	0.430	-0.413
F Statistic = 0.961		R-squared = 0.590	

Dependent variable: TAC/A_{t-1}

Table 4.7 showed a negative coefficient of the variable $1/A_{t-1}$. The variable REV-REC/A_{t-1} had a positive coefficient which was in line with the study's expectation and also consistent with the study of Jaaffar et al (2013). This suggests an increase in working capital accruals PPE/A_{t-1} also had a positive coefficient which was different from the expectation of the study.

From Table 4.7 the amount of non-discretionary accruals (NDA) can be expressed in the following formula:

$$NDA = -0.178 - 345157848 (1/A_{t-1}) + 0.850 (REV-REC/A_{t-1}) + 0.142 (PPE/A_{t-1})$$

4.1.8 Analysis of results for Gold Star Resources

This section presents the analysis of total accruals for Gold Star Resources

Table 4.8 Results for total accruals for Gold Star Resources

Regressors	Coefficient	Standard Error	T
$1/A_{t-1}$	-8.230e+07	6.887e+08	-0.120
REV-REC/A	-0.040	0.968	-0.041
GPPE/A	-2.099	1.121	-1.872
Constant	0.673	1.131	0.595
F Statistic = 10.391		R-squared = 0.940	

Dependent variable: TAC/A_{t-1}

The result from Table 4.8 indicates a negative relationship between TAC/A_{t-1} and 1/A_{t-1}. The table also indicated a negative coefficient for the variable REV-REC/A_{t-1} which was contrary to the expectation of a positive coefficient. The variable PPE/A_{t-1} also exhibited a negative coefficient which was consistent with the expectation of the study and also consistent with the study of Witteveen (2013).

From table 4.8 the amount of non-discretionary accruals (NDA) can be expressed in the following formula:

$$NDA = 0.673 - 8.230e+07 (1/A_{t-1}) - 0.040 (REV-REC/A_{t-1}) - 2.099 (PPE/A_{t-1})$$

4.1.9 Analysis of results for Ghana Oil Company

This section presents the analysis of total accruals for Ghana Oil Company

Table 4.9 Results for total accruals for Ghana Oil Company

Regressors	Coefficient	Standard Error	T
1/A _{t-1}	-2.37e+07	7.96e+07	0.30
REV-REC/A	0.094929	0.164738	0.58
GPPE/A	-1.351976	2.451457	-0.55
Constant	0.4312208	1.383138	0.31
F Statistic = 0.8107		R-squared = 0.3297	

Dependent variable: TAC/A_{t-1}

The results from Table 4.9 showed a negative coefficient for the variable 1/A_{t-1}. The variable REV-REC/A_{t-1} recorded a positive coefficient which was in line with the study's expectation. This also suggests an increase in working capital accruals. The coefficient of the variable PPE/A_{t-1} was negative and also consistent with the study's expectation. This is explained by the fact that an increase in PPE will lead to an increase in depreciation which has a negative effect on accruals.

From Table 4.9 the amount of non-discretionary accruals (NDA) can be expressed in the following formula:

$$\text{NDA} = 0.4312208 - 2.37e+07 (1/A_{t-1}) + 0.094929 (\text{REV-REC}/A_{t-1}) - 1.351976 (\text{PPE}/A_{t-1})$$

4.1.10 Analysis of results for Total Petroleum Ghana

This section presents the analysis of total accruals for Total Petroleum Ghana.

Table 4.10 Results for total accruals for Total Petroleum Ghana

Regressors	Coefficient	Standard Error	T
$1/A_{t-1}$	-1.02e+07	3.07e+07	-0.33
REV-REC/A	0.1053696	.0918821	1.15
GPPE/A	-1.267321	1.446955	-0.88
Constant	0.3414513	0.4751885	0.72
F Statistic = 0.7266		R-squared = 0.4212	

Dependent variable: TAC/ A_{t-1}

From Table 4.10 the variable $1/A_{t-1}$ showed a negative coefficient. This implies it has a negative impact on the dependent variable. The coefficient of the variable REV-REC/ A_{t-1} was positive which is in line with the expectation of the study. Finally PPE/ A_{t-1} which is the last variable in the model recorded a negative coefficient which was consistent with our expectation. This implies an increase in depreciation will have a negative effect on accruals.

From Table 4.10 the amount of non-discretionary accruals (NDA) can be expressed in the following formula:

$$\text{NDA} = 0.3414513 - 1.02e+07 (1/A_{t-1}) + 0.1053696 (\text{REV-REC}/A_{t-1}) - 1.267321 (\text{PPE}/A_{t-1})$$

4.1.11 Analysis of Discretionary accruals (Earning Management) results

This section presents the analysis of the discretionary accrual results for all the ten selected firms, from the year 2008 to 2013.

Table 4.11 Results for discretionary accruals (Earnings management) for all the ten selected firms.

Firms/Years	2008	2009	2010	2011	2012	2013
Unilever Ghana	-0.07047	-0.15848	0.033427	0.028911	-0.25174	0.053671
PZ Cussons Ghana	-0.02007	-0.04892	0.078928	0.108537	-0.1417	0.082582
Starwin Products	-0.0187	0.040386	-0.04372	0.028299	-0.02209	0.015935
Aryton Drugs M.	-0.00357	-0.02599	0.02415	0.021948	0.087483	-0.10396
Fan Milk Ltd	-0.00769	0.008269	0.0022768	-0.02359	-0.01808	0.018322
Guinness Ghana	0.034337	0.00055	0.020341	-0.19194	0.071618	0.06509
AngloGold Ashanti	0.031632	-0.00771	0.098029	-0.1267	0.04427	-0.03904
Golden Star Resources	-0.13896	-0.11792	-0.18127	-0.04329	-0.07174	-0.10512
Ghana Oil Company	-0.04763	-0.01133	0.01628	0.007610	0.111653	-0.07855
Total Petroleum Gh.	0.048789	-0.04486	0.025006	-0.01816	-0.0934	0.081239

Table 4.11 present all the ten selected firms with the amount of discretionary accruals (DAC) or earnings management for the period of six years. The negative sign attached to some of the discretionary accrual figures does not make them lesser than the positive ones. The negative sign attached to the figures only indicate that the firms manipulated accruals downwards (income decreasing accruals) and a positive discretionary accruals indicate that the firms manipulated accruals upwards (income increasing accruals).

Table 4.11 indicate that all the firms indulged in earnings management. In 2008 it was only Aryton Drugs Manufacturing that recorded a zero percent earnings management. The rest recorded a significant amount of earnings management that approximately ranges from 1% of their total accruals to 7%. Unilever Ghana, PZ cussons Ghana, Starwin Products, Golden Star Resources and Ghana Oil Company recorded an income decreasing discretionary

accruals and these results confirm the findings of Watts and Zimmerman (1990) where they found that managers also manipulate earnings downwards in order to enjoy huge bonuses in the future. However, Guinness Ghana, AngloGold and Total Petroleum Ghana recorded an income increasing discretionary accruals and this finding was also in line with the findings of Healy (1985), where he tested the bonus plan hypothesis and found that managers manipulate earnings upwards in order to maximize their earnings.

Table 4.11 also indicates that in 2009 Guinness Ghana Breweries also recorded a zero percent earnings management. The rest of the firms recorded an amount of earnings management that approximately ranges from 1% to 15% of their total accruals. Apart from Starwin Products, Fan Milk Limited and Guinness Ghana Breweries which recorded an income increasing discretionary accruals, the rest recorded income decreasing discretionary accruals. The results are in support of studies such as (Holthausen et al 1995; Gaver et al 1995; Watts et al 1990).

Table 4.11 shows that, in 2010 Fan Milk Limited was the only firm that recorded approximately a zero percent of discretionary accruals. The study found that Starwin Products and Golden Star Resources are the only firms which recorded an income decreasing earnings management which is consistent with the study Watts and Zimmerman (1990). The rest recorded an income increasing earnings management which also supports the study of Healy (1985). The discretionary accruals for these firms for the year 2010 approximately range from 2% to 18% of their total accruals.

In 2011, Table 4.11 indicates that by approximation none of the firms recorded a zero percent earnings management. Ghana Oil Company recorded the lowest amount of earnings management which is approximately 1% of its total accrual. The table also showed that Guinness Ghana to have recorded the highest amount of earnings management which is 19% of its total accruals by approximation. From Table 4.11, AngloGold Ashanti, Total Petroleum

Ghana, Fan Milk Limited, Guinness Ghana and Gold Star Resources to have recorded negative discretionary accruals. This indicates that the firms manipulated their earnings downwards as found by Watts and Zimmerman (1990). However Starwin Products, Ghana Oil Company, Aryton Drugs Manufacturing, PZ Cussons Ghana and Unilever Ghana were found to have recorded a positive earnings management. This implies the firms manipulated earnings upwards as found by Healy (1985) and Gaver et al (1995).

Table 4.11 indicate that, in 2012 no firm recorded a zero percent earnings management. Firms such as Unilever Ghana, Starwin Products, PZ cussons Ghana, Fan Milk Limited, Golden Star Resources and Total petroleum recorded an income decreasing discretionary accruals which support the study of Watts and Zimmerman (1990) whiles firms such as AngloGold Ashanti, Guinness Ghana, Aryton Drugs Manufacturing and Ghana Oil Company recorded an income increasing discretionary accruals and this also supports the study of Healy (1985) and Gaver et al (1995).

Finally, in the year 2012, Table 4.11 shows no zero earnings management among the selected listed firms. The selected firms recorded an amount of earnings management that range from 2% to 11% approximately. Firms such as Starwin Products and Fan Milk had the lowest amount of earnings management and Golden Star Resources recorded the highest amount of earnings management in the year 2013. Aryton Drugs, Ghana Oil Company, Gold Star Resources and AngloGold Ashanti were the firms that recorded income decreasing discretionary accruals which support the findings of Watts and Zimmerman (1990). The rest of the firms were found to have recorded an income increasing discretionary accruals which also supports the findings of studies such as (Gaver et al 1995; Holthausen et al 1995; Healy 1985).

Based on the above results, the study can therefore reject the null hypothesis and accept the alternative hypothesis because all the selected firms were found to have indulged in earnings management. This study supports the study of Agyekum et al (2014) where they found existence of earnings management in Ghana.

4.1.12 Analysis of ROA results

The table below relates to the results of return on assets (ROA) calculated for all the firms from the year 2008 to 2013.

Table 4.12 Results for ROA for all the ten selected firms.

Firms/Years	2008	2009	2010	2011	2012	2013
Unilever Ghana	0.263515	-0.00316	0.17688	0.237227	0.104624	0.07325
PZ Cussons Ghana	0.091453	0.021785	0.091119	0.110881	0.012261	0.107825
Starwin Products	-0.03957	-0.04132	0.022199	0.127918	0.067259	0.099274
Aryton Drugs M.	0.169808	0.223763	0.133836	0.14741	0.114459	0.014602
Fan Milk Ltd	0.214681	0.296514	0.283224	0.226514	0.28169	0.214545
Guinness Ghana	0.088113	0.053857	-0.02454	0.00261	0.074875	0.083912
AngloGold Ashanti	-0.1433	-0.02738	0.013533	0.147936	0.066877	-0.22741
Golden Star Resources	-0.17247	-0.01181	-0.01822	-0.00344	0.013366	0.91641
Ghana Oil Company	0.042671	0.052828	0.061034	0.064911	0.0574	0.06201
Total Petroleum Ghana	0.041984	0.091535	0.120327	0.100176	0.106992	0.105204

Table 4.12 shows that in the year 2008, firms like Golden Star Resources, AngloGold Ashanti and Starwin Products recorded a negative return on assets. This indicates that these firms are investing high amount of capital into their production while they keep making little income. When a firm records a high level of debt the effect of a negative return on assets is high. The rest of the firms were found to have recorded positive returns on their assets. For instance Unilever in 2008 recorded 26% return on assets and this implies for every one Ghana cedi invested in assets by Unilever, they made a return of 26 Ghana pesewas. In

general the lowest return on assets ratio was -17% which was recorded by Golden Star Resources while the highest return on assets was 26% recorded by Unilever Ghana.

Also, in 2009, Table 4.12 identifies Unilever Ghana, Starwin Product, AngloGold and Golden Star Resources to have recorded negative returns on their respective assets whereas Fan Milk, Guinness Ghana, PZ Cussons Ghana, Ghana Oil Company, Total Petroleum Ghana, and Aryton Drugs Manufacturing earned positive returns on their assets. From the results, there was all indication that four companies from the ten selected firms had invested heavily their capital into production of which they made little or no returns on their relative assets. However, Fan Milk Limited made the highest returns (29%) on its assets as compared to Starwin Products which had worst returns on its assets. Thus, it is obvious that for every one Ghana cedi invested in assets, Fan Milk Limited made a return of 29 Ghana Pesewas.

Again, in the period of 2010, it was recorded in Table 4.12 that only Guinness Ghana and Golden Star Resources recorded a negative return on their assets. The rest of the other firms displayed positive returns on their respective assets. Consistently, Fan Milk limited occupied the first position with 28% as returns on its assets, followed by Unilever Ghana with approximately 18% returns on its assets, followed by Aryton Drugs Manufacturing with 13% return on assets, Total Petroleum being the next with 12% returns on assets. The rest of the firms recorded return on assets less than 10%. The highest return on assets (28%) was recorded by Fan Milk Limited, which implies that for every one Ghana cedi invested in assets there is a return of 28 Ghana pesewas and the lowest return on assets (-2%) was also recorded by Guinness Ghana Breweries.

The year 2011 recorded only one negative return on assets. Golden Star Resources recorded the lowest and the only negative return on assets. Return on assets for this year ranges from 0% to 24% approximately. Unilever Ghana recorded the highest return on assets which was

24% and this implies for every one Ghana cedi invested in assets there is a return of 24 Ghana pesewas.

From Table 4.12, the year 2012 did not record any negative return on assets and this implies all the firms generated a certain amount of returns on their assets. The lowest amount of return on assets generated was 1% and it was generated by PZ cussons Limited. Fan Milk Limited recorded the highest amount of return on assets (28%) and this implies for every one Ghana cedi invested in assets there is a return of 28 pesewas.

Finally, Table 4.12 showed that the year 2013 saw only one negative return on assets and that was recorded by AngloGold Ashanti (-22%). The rest of the firms recorded positive returns on their assets. The lowest among them obviously was AngloGold Ashanti and the firm which recorded the highest return on assets was Golden Star Resources. They had 91% returns on their assets and this implies that for every one Ghana cedi invested in asset they made returns of 91 Ghana pesewas.

4.13 Relationship between Average discretionary accruals and Average return on assets

Table 4.13 below relates to the results of the impact of discretionary accruals (Earnings management) on ROA (Performance)

Table 4.13 Result for the impact of Discretionary accruals (Earnings management) on firm's performance (ROA)

Model	Coefficient	Std. Error	T-ratio
Const	0.0856422	0.0270879	3.162
Average Discretionary accruals	-0.466150	0.680831	-0.6847
R-squared:	0.055354	Adjusted R-squared:	-0.062726
F(1, 8):	0.468783		

Dependent variable: Average return on assets

From the regression results in Table 4.13, it was shown that the coefficient of the variable average discretionary accruals was negatively related to the dependent variable (average return on assets). The negative sign attached to the coefficient was consistent with our expectations. These results suggest that a 1% increase in average discretionary accruals reduces the average return on assets by 46.6%. The study can thus reject the null hypothesis and accept the alternative hypothesis.

The following equation can be obtained from the regression table above.

$$AROA = 0.0856422 - 0.466150 ADAC$$

Table 4.14 Hypothesis and Findings

Hypothesis	Findings
Listed firms in Ghana are not involved in Earnings management	The null hypothesis was rejected since all the selected firms recorded discretionary accruals greater than zero in most of the years. The study found that all selected listed firms are involved in earnings management.
Listed firms in Ghana indulge in Earnings Management	The alternative hypothesis was accepted since all the selected firms recorded discretionary accruals greater than zero in most of the years. The researcher found that all selected listed firms are involved in earnings management.
Earnings management positively impact on firm's performance	Since the researcher found the sign attached to the coefficient of the variable ADAC to be negative, the null hypothesis was rejected The researcher found that earnings management had a negative impact on firms performance
Earnings management negatively impact on firm's performance	Since the researcher found the sign attached to the coefficient of the variable ADAC to be negative, the alternative hypothesis was accepted The researcher found earnings management to have a negative impact on firms performance

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This thesis has investigated earnings management and the performance of some selected listed firms in Ghana. In this chapter, summary of the findings, conclusions and recommendations are presented.

5.2 Summary of findings

The researcher investigated whether listed firms in Ghana indulge in earnings management and the impact of earnings management on firm performance. Based on the results in chapter four the following are the summary of the major findings.

Firstly, listed firms in Ghana are not involved in earnings management. However, the researcher found otherwise. The researcher found that the selected listed firms indulge in earnings management. This finding confirms the finding of Agyekum et al (2014) where they found the existence of earnings management in Ghana, but the researcher cannot confirm the increasing trend of earnings management as found by Agyekum et al (2014).

Secondly, the alternative hypothesis was accepted where it states that listed firms in Ghana indulge in earnings management. The researcher found all the selected listed firms to have indulged in earnings management in most of the years. Firms such as Aryton Drugs, Guinness Ghana Breweries, Fan Milk Limited were the only firms that recorded zero earnings management in 2008, 2009 and 2010 respectively. However the researcher found many of the firms to have recorded an income increasing earnings management in some year's whiles they recorded income decreasing earnings management in other years.

Thirdly, on the performance level of the selected firms, the researcher found Fan Milk Limited to have recorded the highest mean or average of 0.25 of ROA, followed by Unilever

Ghana with a mean ROA of 0.14. Aryton Drugs Manufacturing followed with a mean ROA of 0.13, following Aryton Drugs Manufacturing was Gold Star Resources with a mean ROA of 0.12. The rest of the firms recorded a mean ROA less than 0.10. The study found that AngloGold Ashanti was the only firm that recorded a negative average of ROA (-0.03).

Fourthly, earnings management positively impact on firm performance. The researcher however found otherwise. The sign attached to the coefficient of the variable average discretionary accruals (ADAC) was negative.

Finally, the alternative hypothesis was accepted where it states that earnings management negatively impact on firm's performance. The alternative hypothesis was accepted because the sign attached to the coefficient of the variable ADAC was negative. This implies earnings management had a negative impact on firm's performance, and this was consistent with our expectation.

5.3 Conclusion

The study was set out to investigate the existence of earnings management among some selected listed firms in Ghana and also to test the impact of earnings management on firm performance. Agency theory as treated in the literature review explains why managers decide to indulge in earnings management. The theory assumes that managers will act in an opportunistic manner to satisfy their utility instead of satisfying shareholders. Positive accounting theory (PAT) also provides explanations into why managers manipulate earnings.

Based on the review of the literature and also propel by the gaps in the literature, four hypotheses were tested in this study. The first hypothesis was used to test whether listed firms in Ghana do not indulged in earnings management. The second hypothesis was used to test whether listed firms in Ghana indulge in earnings management. The third hypothesis considers test whether earnings management positively impact on firm performance. The

final hypothesis was also used to test whether earnings management negatively impact on firms performance.

All the null hypotheses were rejected in the study; however the alternative hypotheses were all accepted. Which means the study found the presence of earnings management among listed firms in Ghana. The study also found the impact of earnings management on firm performance to be negatively related.

5.4 Recommendations

Based on the major findings the following recommendations have been made.

This study recommend that when further studies are being conducted to determine the level of earnings management among firms in Ghana using the modified Jones model, additional independent variables should be added to the model to improve it. Also longer firm year observations should be used. Also the study recommends additional performance measure such as ROE to be added to ROA to improve the performance measure test.

The study also recommends that the various regulatory bodies could introduce a system that can regulate the amount of discretion that can be exercised by managers or firms in order to reduce the amount of earnings management through manager's discretion.

The study proposes that prospective investors must analyse the financial statement of firms they intend to invest in, in order to determine the financial activities and performance of these firms before investing.

Even though this thesis has revealed that firms in Ghana manipulate earnings through accruals and therefore there is an evidence of accrual earnings management among listed firms in Ghana, however this thesis does not cover real earnings management. In order to

gain a complete overview and know the trend of earnings management among listed firms in Ghana these firms should be tested for real earnings management activities.

Finally, the study recommends that shareholders of firms should request periodic report from Board members on weekly activities and any changes affecting the firm. Corporate governance activities and regulations should be wholly enforced in firms in order to protect the interest of shareholders.

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