CHRISTIAN SERVICE UNIVERSITY COLLEGE

GREEN ACCOUNTING DISCLOSURES AND PERFORMANCE OF LISTED MANUFACTURING FIRMS IN GHANA

BY

BEATRICE MENSAH BONSU

JUNE, 2018

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Dissertation submitted to the Department of Accounting and Finance, of the School of Business, Christian Service University College, in partial fulfillment of the requirements for the award of the Master of Science Degree in Accounting and Finance

JUNE, 2018

DECLARATION

Candidate's Declaration

I hereby declare that this dissertation is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature ………………………….. Date ……………………
Beatrice Mensah Bonsu
(Student)

Supervisor's Declaration

I hereby declare that the preparation and presentation of the dissertation were supervised in accordance with the guidelines on supervision of dissertation laid down by the Christian Service University College.

Supervisor's Signature ………………………….. Date ……………………
Mr. Abraham Osei-Wusu
(Supervisor)

ABSTRACT

The main objective of the study was to examine empirically the green accounting disclosures and performance of listed manufacturing firms in Ghana. Its specific objectives were to determine the firms size and performance of listed manufacturing firms in Ghana; to assess the profitability of the organization and performance of listed manufacturing firms in Ghana; to determine the leverage and performance of listed manufacturing firms in Ghana and to assess the total sales of the organization and performance of listed manufacturing firms in Ghana. The study used five (5) manufacturing firms for the analysis. The study adopted descriptive survey design and quantitative research approach. Based on the findings shows positive and statistically significant relationship between firm size and performance of the manufacturing companies in Ghana. This implies that the higher the firm size the more profitable firms become. Listed manufacturing companies with higher firm size have high profitability. The study recommends that the manufacturing firms should increase in the amount of money spent on the environment. Secondly, it is advised that there should be measurement of the impact of organization activities on the environment to enable the government formulate policies and programmes to regulate the activities of the organization which may have effect on the environment. Thirdly, the financial statements of the manufacturing firms should also be published to keep the general public and the government agencies to be abreast with the happenings in their environment. Finally, intensive education initiative should be undertaken to stimulate environmental awareness.

DEDICATION

I dedicate this thesis first and foremost to the Almighty God for seeing me through my educational ladder. I also dedicate this to my father, Mr. Sampson Yaw Oppong who has been of great help to me and my love ones for their immense support while I was in school.

My final dedication goes to my supervisor Mr. Abraham Osei Owusu who guided me through this dissertation.

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LIST OF ABBREVIATIONS

ROA	Return on Asset
ROE	Return on Equity
IASB	International Accounting Standard Board
GDP	Gross Domestic Product
GSE	Ghana Stock Exchange
FVL	Firm Value
ROCE	Return on Capital Employed
CSR	Corporate Social Responsibility
IFRS	International Financial Reporting Standard
EVA	Economic Value Added

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CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Green accounting, also known as Environmental accounting, is to measure, record and disclose the impacts of corporate environmental activities on its financial status through a set of accounting systems. Green accounting is one of the important areas in today's corporate social accountability. Companies are integrating the concept of environmental element in their business operations. Green accounting helps every organization to identify their resource employed on the corporate social responsibility and their incurred cost. The data and information provided by environmental accounts are determined to be in relation to the contribution of natural resources in economic development and costs occurred due to pollution or resource degradation. The advantage of corporate environmental accounting initiative is identified as the ability to determine and create awareness regarding costs related to environment, which in turn helps in identifying the techniques for reducing and avoiding costs of such type. Due to this advantageous feature, the performance of the environment has also been improved. The environmental costs that occur due to the financial outcomes of the firm's operation can be determined by means of a green accounting tool. Environmental accounting at organizational level aims to address the needs of organization to measure the economic efficiency of their environmental conservation and the business activities of the company as a whole (Kundu & Hauff, 2009). Environmental accounting includes environmental management accounting.

The harshness of environmental problems as a global occurrence has its adverse impact on the quality of our life. Measures are being taken both at the national and international level to reduce, prevent and mitigate its impact on social, economic and political domains (GRI, 2002; GRI 2006). The occurrence of corporate environmental reporting in Ghana has been an important development, both for the betterment of environmental management and overall corporate governance (Banerjee, 2002). Global awareness of stakeholders on corporate environmental performance has already made traditional reporting redundant. Corporate houses run into the risk of loss of faith of their stakeholders, if in future, environmental performance information is not included in their main stream reporting (Swift, 2001). The relationship between business organisation and their environment in contemporary times has witnessed drastic changes. Until recently, environmental and social issues were not seriously considered in management objectives because they were deemed not to have any significant financial impact (Pereira et al. 2013). But in a bid to gain acceptability, most organisation have recognized the relevance of their environment to the business and the need to safeguard it. As (Diez-Martin et al. 2013) advocate, a number of institutions have failed not because they lack resources or because of faulty product, but due to complete loss or decline of their lawfulness. Consequently, research on environmental disclosures has gain importance in recent times. The growth in research focus on environmental disclosures issues has been accepted out of the because of the going concern over the harmful effect of business activities on the environment. Major stakeholders have expressed concern in diverse ways over how the environment could be conserved for our next generation to come (Gray et al. 2001; Jenkins & Yakovleva 2006). Adequate disclosure that is made by a listed firms in its annual reports is very important in order to avoid information asymmetry and increase a firm's reputation. The International Accounting Standards Board (IASB) has set and continues to set standards that have helped improve disclosure of business transactions thereby enhancing the quality of annual reports of companies. Even though the international financial reporting standards that are set by the IASB play meaningful roles in the preparation, presentation and disclosure of information, virtually no standard is set on environmental disclosures.

According to Hauber (2002), the term performance describes the contribution of specific systems (organizational units of differing sizes, employees, and processes) to attain and validate the goals of a company. Performance refers to the degree of the achievement of objectives or the potentially possible accomplishment regarding the important characteristics of an organization for the relevant stakeholders. Performance is therefore principally specified through a multidimensional set of criteria. The source of the performance is the actions of players in the business processes (Krause 2005). Performance measures are either quantitative or qualitative ways to characterize and describe performance. They are an apparatus used by organizations to manage progress towards achieving preset goals and in the process identify the key indicators of organizational performance and customer satisfaction. A good performance measure should be able to adequately describe the population to be measured, the mode of the measurement, and the data source and time period for the measurement.

The Ghana Stock Exchange (GSE) is the only stock exchange in Ghana. The securities traded on the exchange include equities and both corporate and government bonds. Currently, there are 35 companies listed on the GSE with 1 preference shares, 1 corporate bond and 3 government bonds. The listed companies include mining, brewery, banking, oil and manufacturing firms, all of which represent the key sectors of the economy.

1.2 Statement of the Problem

According to Brammer and Pavelin, (2006) green accounting has assumed important features in firm's corporate governance. This is because of the social costs occasioned by the production externalities on the environment. In view of this, firms are now moving from only maximization of shareholder's wealth to corporate social responsibilities.

Moreover, accountants seek to bridge the gap between the marginal social cost and the marginal private cost by the firm. Again, it is possible that firms who are managing these costs well have incentives to provide voluntary environment disclosures. Companies that neglect environmental considerations could experience loss of customer's confidence, high-legal costs and high- rectification cost of the environmental problems they caused.

Existing international studies have documented the increased provision of green accounting, in annual reports for companies worldwide, with a number of alternative theories suggested to explain the existence of voluntary environmental disclosures. In Ghana the government is spending huge sums of money to correct the pollutions of our land and water bodies by illegal miners and not to talk of the health related issues they cause the indigenes of that town. In view of this, the government has taken an entrench position to take action against these illegal miners in the Country (Stanny and Ely, 2008).

However, there is no clear understanding on how manufacturing firms choose their environmental accounts and what factors influence their financial decision. Likewise the relationship between green accounting on their Firm's value, maximization of shareholder's wealth and profitability is one that received considerable attention in the finance poetry. Therefore, given the unique features of manufacturing companies' financial structure and the environment in which they operate, there are strong grounds for a separate study on the impact of green accounting on firm's value and profitability of manufacturing firms in Ghana by emphasizing on their core business operations profitability. However, the majority of previous studies have adopted an aggregated view of environmental disclosures rather than disaggregating disclosures into main themes or categories (Campbell, 2004). Although these studies included some sort of classification scheme of environmental disclosures, they did not separately identify such disclosure groupings or individually incorporate them into empirical analyses Deegan and Gordon, 1996; Deegan and Rankin, 1996; Halme and Huse, 1997; Post et al., 2011;).

García-Ayuso and Larrinaga, (2003) hence, the main focus of the study is to examine the impact of green accounting disclosures and performance of listed manufacturing firms in Ghana. Even though a lot of studies have been done outside Ghana, the issue of green accounting on firm's value and profitability is important but jet to be answered in the Ghanaian's content, hence a vast research gap exist to be filled. Most, of these studies attempted to test the environmental accounting and firms profit and factors affecting profitability using comprehensive measures of profitability return on asset (ROA) and return on equity (ROE) as well as debt to total asset and capital adequacy as measure of leverage. In addition, in relation to explanatory variables past studies failed to investigate the impact of the green accounting on firm's value and profitability, as to the knowledge of the researcher there is no studies related to this topic. In Ghana, Kusi (2017) examined environmental performance rating tool. Implications for environmental disclosures using 25 companies over a period of four years. The study revealed that mining companies perform better than manufacturing companies and make environmental disclosures to legitimize their operations in the society. Amoako

(2012) also investigated the sustainability and environmental reports of a mining firm in Ghana, using Ahafo and Akyem.

The study revealed that there was limited information on monetary measurement in sustainability and environmental issue. Even though a lot of studies have been done in Ghana, the issue of green accounting on firm's value and profitability has not been looked at. This leaves a wide knowledge gap that this study seeks to fill. This study looks at the impact of green accounting on firm's value and profitability. This study builds upon the initial literature and goes further to examine the impact of the green accounting on firm's value and profitability.

1.3 Research Objectives

1.3.1 General Objectives

The prime objective of this study was to examine empirically the green accounting disclosures and performance of listed manufacturing firms in Ghana.

1.3.2 Specific Objectives

The study was guided by the following research objectives:

1. To determine the firms size and performance of listed manufacturing firms in Ghana.
2. To assess the profitability of the organization and performance of listed manufacturing firms in Ghana.
3. To determine the leverage and performance of listed manufacturing firms in Ghana.
4. To assess the total sales of the organization and performance of listed manufacturing firms in Ghana.

1.4 Research Hypotheses

Based on the main research objective stated above, this study tests empirically the following hypothesis.

1. H_0: There is a negative relationship between the firms' size and performance of listed manufacturing firms in Ghana.

H_1: There is a positive relationship between the firms' size and performance of listed manufacturing firms in Ghana.

2. H_0: There is no link between the profitability of the organization and financial performance of listed manufacturing firms in Ghana.

H_1: There is a link between the profitability of the organization and financial performance of listed manufacturing firms in Ghana.

3. H_0: There is no significant difference between the leverage and performance of listed manufacturing firms in Ghana.

H_1: There is a significant difference between the leverage and performance of listed manufacturing firms in Ghana.

4. H_0: There is no link between the total sales of the organization and performance of listed manufacturing firms in Ghana.

H_1: There is a link between the total sales of the organization and performance of listed manufacturing firms in Ghana.

1.5 Significance of the Study

This study has significant role to play in filling gap in understanding of the impact of green accounting decisions on firm's value and profitability of core business operations of manufacturing companies in Ghana.

Moreover, even though, some studies conducted in Ghana have looked into environmental accounting and Firm profitability, Environmental disclosures and performance, Determinants of environmental disclosures of listed Firms in Ghana but the key question of whether environmental accounting disclosure impacts on firm's value and profitability is important but yet to be answered in Ghana. Therefore, the study is conducted to investigate the effect of green accounting disclosures on firm's vale and profitability

Regulatory Bodies

Regulations on accounting standards in Ghana entail environmental regulation in the Protection on Environment Management. The study would help regulators to identify the processes of standard setting, monitoring and imposing sanctions to protect the environment. The study has help determine any change in the internal policy of the existing legislations on environmental issues. The study would also serve as a base for policy makers such as International Accounting Standards Board (IASB) to set standards on environmental disclosures.

Firms listed on the Ghana Stock Exchange

The study would enhance organizational reputation and increase sales of entities in view of the fact that customers are likely to engage the services or patronized the products made by companies who are engaged in green accounting and have good corporate social responsibility records.

Stakeholders

The study will serves as reference for financial managers to equip themselves with applied knowledge of the potential problems in financing decisions and listed Manufacturing firms value, as well as determining their optimal level of profitability to achieve optimum level of firm's profitability to meet wealth maximization goal of firms.

Relevance for Further Studies

This study has significant role to play in filling gap in understanding the impact of green accounting decisions on firm's value and profitability of core business operations of manufacturing companies in Ghana. Besides, it will also serve as a reference for other researchers in the area of corporate finance.

In conclusion the study will serve as reference for financial managers to equip them with applied knowledge of the potential problems in financing decisions and firms value, as well as determining their optimal level of profitability to achieve optimum level of firm's profitability so that to meet wealth maximization goal of firms. In addition, it will serve as a base for policy makers such as International Accounting Standards Board (IASB) to set standards on environmental disclosures. Besides, it will also serve as a reference for other researchers in the area of corporate finance. The result intends to equip financial managers with applied knowledge of the potential problems for not disclosing green accounting on their financial statement. Furthermore, it intends to serve as a base for policy makers in considering setting standard on environmental disclosures.

1.6 Delimitation of the Study

The primary objective of this study was to examine empirically the green accounting disclosures and performance of listed manufacturing firms in Ghana. The work was limited to all listed industrial firms on the Ghana Stock Exchange. The study employed annual financial reports of manufacturing firms between a period of 2013-2018. Thus, a period of 5 years. The choice of manufacturing firms was as results of availability and easy access to their annual financial reports.

1.7 Limitations of the Study

This research experienced limitations in the areas of limited information, limited time period for conducting the research and financial constraints. There were also limitations for secondary data as much study has not been done on the subject matter in Ghana. However, the above limitations do not render the findings of this research non-reliable and replicable since the researcher carefully managed these limitations to make sure the research objectives were achieved.

1.8 Organization of the Study

The study is organized into five chapters. Chapter one discuss the background of the study, statement of problem, objectives of the study, research questions, significance of the study, scope of the study, and organization of chapters.

The chapter two reviews both theoretical and empirical literature found to be relevant to the investigation and understanding of issues under study. It is organized into themes based on the major variables of interest to be studied.

The third chapter which describes the research methodology employed to gather the needed data, include the description of the research design, population, sample and sampling techniques and instruments among others.

Chapter four cover data presentations, analyses, and discussions while chapter five summaries the work with conclusion and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter embraces both the theoretical and empirical literature with regard to the green accounting disclosures and financial performance of listed manufacturing firms in Ghana. The theoretical review will guide the framework of the study which includes all the relevant theories upon which this study is anchored and aid in the clarity of the study perspective. Empirical literature discusses the relevant studies which have been done on the variables under study. The conceptual framework attempts to explain the relationships between variables under study.

2.2 Theoretical Framework

According to Defee et al., (2010), a good research should theoretically be grounded. The study was therefore guided by the power of legitimacy theory, stakeholder theory; and institutional theory.

2.2.1 Power of Legitimacy Theory

Manufacturing firms have a social contract with the societies in which they operate. Legitimacy theory argues that organizations can only continue to exist if the society in which they are based perceives the organization to be operating to a value system which is commensurate with the society's own value system (Gray *et al.*, 2006). It posits that for the company to have a right of existence, it must ensure that its values are coherent with the expectations of the society in which it operates (Cho, Guidry, Hageman, & Patten, 2012; Magness, 2006; Shehata, 2014). According to Suchman (1995), legitimacy is a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions. Legitimacy theory is based on the idea that in order to continue operating successfully, manufacturing firms must act within the bounds of what society identifies as socially acceptable behaviour.

According to Guthrie and Parker (1989), if the legitimacy theory holds true, then corporations will react by disclosing more information when there are major social and environmental events. This has been confirmed by a study by Deagan et al. (2002). According to O'Donovan (2002), organizations need to continually maintain their legitimacy because society's expectations change from time to time. The author also notes that different organisations have different levels of legitimacy to maintain. Legitimating strategies can be used to change the perceptions of the society about a company without changing the real activities of the organisation (Milne & Patten, 2002).

2.2.2 Stakeholder Theory

According to Figueroa, Orihuela & Califucara (2010), stakeholder includes individuals and a group of people who are affected by the decisions and the accomplishment of an organization's goals and objectives. Jensen (2010) referred to stakeholder as a group of people of individuals who are affected by an organization in the process of accomplishing the objectives and goals of the organization. According to Figueroa et al (2010), stakeholders include shareholders, managers, creditors, employees, customers, supplies and interest group. The stakeholder theory states that the organization should have the ability to provide the demands of the stakeholders and the organization's objective (Deegan, 2002). This implies that the organization must include the social and environmental needs of their stakeholder's in their business objective.

Moreover, Figueroa et al (2010), grouped stakeholders into primary and secondary group. The primary groups consist of individuals who are directly influenced by the decision of the organization. They include managers, employers, shareholders, customers, employees and government. According to Jensen (2010), the survival of organization depends on the primary groups. The secondary group also refers to group of people who are not directly affected by the decisions and policies of organization. According to Jensen (2010), the stakeholder theory implies that the organization should broaden its objective by including stakeholder satisfaction. The managers of various organizations are also expected to identify their target stakeholders and make policies and decision that will satisfy them. Figueroa et al (2010) indicated that corporate social responsibility is measured by how the stakeholders are satisfied with the corporate performance of the organization.

2.2.3 Institutional Theory

Institutional Theory states that external factors influence the way organizations operate (Figueroa et al (2010). Forces outside the organization influence the operations of the organization. The forces include stakeholders and competitors. According to Brammer, Jackson & Malten (2012), forces influence organization to engage in accounting. Figueroa et al (2010) revealed that corporate social responsibility influences the organization to conform to standard acceptable norms. This also helps the organization to gain competitive advantage, increase in market shares and sale revenue.

According to Brammer et al (2012), institutional theory is about how organizations take decisions by observing issues in the competitive market. Thus green accounting decisions of an organization are dependent on the force within the industry.

2.3 Empirical Studies on Green Accounting Disclosure

The section examines various studies that are dealt at international and national levels with respect to green accounting. Figueroa et al. (2010) examined green accounting and sustainability of the Peruvian metal mining sector. They used model of green economic income as measurement tools. The results show that the total loss of natural capital represents between 31% and 51% of the metal mining GDP and between 2% and 4.9% of Peru's GDP. On the other hand, correcting the usual GDP measure produced by the traditional National Account System for the total loss of natural capital caused by mining activities shows that the GDP traditional measure overestimated by 51–64% the true economic income generated by Peruvian's metal mining sector during the period 1992–2006 (Figueroa et al., 2010).

Gray, Owen & Adams (2010) investigated the level of Green Management Accounting implementation in companies within environmentally sensitive industries in Malaysia, as well as gaining insights into pressures for implementation. They found that the elements of environmental-related management accounting within some of the organizations in which interviews were conducted. Implementation was driven by a motivation to reduce costs rather than environmental conservation. Apart from that, companies' reactions to environmental issues stem from pressures from customers who demand environmentally sensitive workplaces, procedures and processes in the companies with which they are in business (Gray et al., 2010).

Andrew & Cortese (2011) explores how dominant environmental discourses can influence and shape carbon disclosure regulation. Carbon-related disclosures have increased significantly in the last five years, and many of these disclosures remain voluntary. Their paper considers both the construction of self-regulated carbon disclosure practices and the role that this kind of carbon information may have in climate change-related decision making. They focused on the Carbon Disclosure Project and the use of the Greenhouse Gas.

El Serafy (1997) tried to capturing all environmental change, and the economically or environmentally usefulness of national accounts. They argued that green accounting can only ensure income sustainability, which should be considered as a step leading ultimately to an ecological sustainability (El Serafy, 1997).

Ellison, Lundblad, & Petersson (2011) undertook a study on the cost-effective strategies for climate change mitigation and the efficient and balanced use of forest resources at its center. They recommended paying far greater attention to potentially compatible interests surrounding the promotion of standing forests particularly, the purposes of carbon sequestration, biodiversity protection and ecosystem promotion/ preservation, harvested wood products and bioenergy use. Their data suggest the benefits of such a broadly based carbon accounting strategy and the inclusion of national and international accounting and emission trading mechanisms far outweigh potential disadvantages (Ellison et al., 2011).

2.4 Green Accounting Concept

Green accounting is that part of the development of accounting where non-monetary, physical and quality factors receive great emphasis. In green accounting, environmental expenditure is made a part of operational cost (Zhan & Zhang, 2013).

Schaltegger & Burritt (2010) established that green accounting comprises environmental accounting and ecological accounting. Environmental accounting deals with the financial effects induced by environmental protection, which includes environmental expenditures and savings.

Thornston (2013) revealed that environmental accounting is the collection and analysis of pieces of information derived from environmental costs and other costs. It also includes the preparation of internal analyses as well as the supporting of the rational decision making of management.

Sumiani, Haslinda & Lehman (2007) identified several environmental costs that may be included under the cost category services such as cost of waste removal, cost of waste management, maintenance of environmental equipment, cost of environmental training and various licensing fees. The cost of other services includes fees connected to environmental protection, such as insurance premiums (Sumiani et al., 2007). According to Ying, Gao, Liu, Wen & Song (2011), personnel costs may include the salaries and contributions payable on staff dealing with environmental protection, such as the personnel costs of auditors, trainers and employees working in waste management facilities. The depreciation of environmental equipment should be highlighted in the depreciation cost category.

Ying et al. (2011), ecological accounting on the other hand deals with the environmental impact of the economic activities of an entity. Ecological accounting includes changes that natural environment undergoes as a result of the operation and activities of an entity

(Unerman, 2010). Ecological accounting emphasizes the analysis of changes that occur in nature as a result of corporate entities activities (Ying et al. (2011). Zhan & Zhang (2013) revealed that green accounting prepares reports for external interested parties about environmental obligations and expenditures of an entity that have an effect on the financial position of the entity.

2.4.1 Various Definitions of Green Accounting

According to Schaltegger & Burritt (2010), green accounting is a branch of accounting that deals with activities, methods and system of recording, analyzing and reporting environmentally induced financial and ecological impacts of a defined economic system.

Kolk (2003) also defined green accounting as a sub-branch of accounting that records, analyses and discloses environmental problems of a defined economic system, or the economic effects of an environmental activity. Green accounting tasks include the presentation and examination of the financial consequences of environmental protection as well as the analysis of the effects of economic activity on certain environmental factors (Schaltegger & Burritt, 2010).

2.4.2 Characteristics of Green Accounting

The characteristics of green accounting includes; voluntary; managing externalities; multiple stakeholder orientation; alignment of social and economic responsibilities; practices and values and philanthropy.

Managing Externalities

According to Tagesson, Blank, Broberg & Collin (2009), externalities in green accounting refer to factors that negatively affect the stakeholder which are not the responsibility of the business organization to take care of. Even though rules and regulations can force an organization to pay the cost of externalities, green accounting is among the methods used to solve the dangers caused by externalities. Swati (2014) noticed that green accounting externalities includes: maintaining good relationship with stakeholders and development of a community and workers' rights.

Mandatory

Green accounting may be mandatory in certain countries. According to Brammer & Pavelin (2006), in Europe corporate entities are required to report on the green tax (environmental taxes) they pay. In Ghana it is mandatory for corporate to report on green accounting. However, 1nternational Accounting Standards 41 mandates corporate entities to report on agriculture which includes biological assets. Moreover, IAS 37 mandates corporate entities to make provision for environment cost and report them as liability when the environmental cost can be accurately estimated.

Voluntary

Studies show that corporate social responsibility involves voluntary activities by the organizations. According to Ahmad, Multakin & Siddiqui (2013), most organizations voluntarily engage in environmental programs as part of their core mandate. This helps to satisfy the needs of stakeholders. Even though most organizations focus more on profit maximization pursuing environmental programs help reduce the burden on the government (Swati, 2006).

Stakeholder Orientation

Green accounting involves identifying stakeholder orientation based on power, legitimacy and urgency. When organization identifies stakeholder orientation, it enables them to take step by step approach in preparing the needed action that should be done. According to Ahmad et al. (2013), lack of stakeholder's orientation leads to crises and failure to satisfy the needs of the stakeholders. Stakeholder orientation is done to avoid mistakes, risk management and also adopt the right technique of satisfying multiple stakeholder expectations (Tagesson et al. 2009).

Alignment of Social Economic Responsibilities

Tagesson et al. (2009) organizations are expected to balance the different stakeholders interest. By doing that, the organization is required not only to focus just on profit maximization but also how the stakeholders can benefit from the organization both socially and economically. This helps to reduce the government stress. It also helps the government to focus on areas which needs much development and attention in the country (Ahmad et al., 2014).

2.4.3 Reasons for Embracing Green Accounting

There are several reasons for embracing green accounting. The reasons include the following

Shrinking Role of Government

According to Unerman (2010), green or environmental accounting has become necessary due to the shrinking role of government. Moreover, distrust of regulation has also led to the springing up of voluntary and non-regulatory initiatives which are championing corporate issues in the various communities in Ghana.

Increased Customer Interest

According to Unerman (2010), customers are more interested in companies which are interested in embracing and protecting the environment as part of their corporate social responsibility. Lodhia (2006) found out that customers are willing to patronise products and services of companies which honour their corporate social responsibility to their communities. Consumers are also interested in patronizing products and services of companies which are interested in protecting the environment from degradation and providing the needs of the communities.

Growing Investor Pressure

According to Unerman (2010), investors are more interested in investing in companies which are interested in embracing protecting the environment. Moreover, investors are willing to buy shares or enter into partnership with companies which protect the environment and ecology as part of their corporate social responsibility to their communities (Huang & Kung, 2010). Investors are interested in investing in companies which are interested in protecting the environment from degradation and providing the needs of the communities.

Competitive Labour Market

According to Huang and Kung, 2010), employees are more interested in working in companies which are interested in protecting the environment and ecology as part of their corporate social responsibility. Employees are willing to gain employment opportunities in companies which are engaged in green accounting. In recent times, employees are interested in working in companies which are interested in protecting the environment from degradation and providing the needs of the communities (Swati, 2014).

Supplier Relationship

According to Unerman (2010), suppliers are more interested in doing business with companies which are engaged in green accounting. Swati (2014) established that suppliers are willing to do business with companies which are involved in green accounting, irrespective of the companies' ability to pay for the goods and services supplied to such entities. Suppliers are interested in supplying to companies which are interested in protecting the environment from degradation and providing the needs of the communities (Unerman, 2010).

2.4.4 The Effect of Green Accounting on the Beneficiary Community

The impact of green accounting to an organization include: Positioning organizational brands and product to stakeholders; behaving and acting in ethical manners and; and social-economic impact (Ahuji, 2014).

Positioning Organizational Brands and Product to Stakeholders

According to Ahuja (2014), green accounting helps organizations to position their brands and products to their stakeholders. It enables most organizations to communicate their brands to the people. According to Buniamin (2010), communication about environment and ecology helps organizations to discuss their achievement and their organizational goals.

Behaving and Acting in Ethical Manners

According to Buniamin (2010), green accounting helps organizations to behave and act in ethical manners. It also helps improve the community where the organization is operating. The impact of green accounting helps organization to measure it business performance (Andrikopolous & Samitas, 2011). In addition, green accounting helps organization to gain competitive advantage. This is because by engaging in green accounting, they are creating good brand and reputation Buniamin (2010). Also, green accounting enables business organization to create goodwill which often leads to positive working ethic of the employee.

Social-economic Impact

As part of measures to ensure green accounting, Ahmad et al., (2013) established that communities protect the environment. According to Arevalo & Aravind (2011), there are negative social impacts on corporation's activities. Companies particularly mining companies use large amounts of water and energy and thereby exerting pressure on the already strained water, land and energy resources (Ahuja, 2015). The existence of companies in the community will create jobs. By employing members of the community to engage in environmental protection, their standard of living would rise and thereby reducing the level of poverty.

2.4.5 Benefits of Green Accounting

Benefits of green accounting include: enhancing organizational reputation; increased sales; increased ability to attract better employees; reduces company's operating costs; commitment to increase productivity and reduce error rates; and reduction in labour turnover (Ahuja, 2014).

Enhances Organizational Reputation

According to Chatterjee and Mir (2008), green accounting enhances organizational reputation. Customers are likely to engage the services or patronized the products made by companies who are engaged in green accounting and have good corporate social responsibility records. Enhanced organizational reputation is more likely to lead to growth companies. Companies which are engaged in green accounting are more likely to increase their customer and investor loyalty.

Increased Sales

Green accounting is more likely to lead to increased sales. In view of the fact that green accounting programs are more likely to increase customer base and investor loyalty, the sales of the company are more likely to increase. Motwani (2012) cited an example of a company which was able to increase its sales as a result of engaging in vigorous green accounting. According to Arevalo & Aravind (2011), Americans are more willing to pay more for corporate entities which are more willing to be socially responsible.

Increased Ability to Attract Better Employees

Corporate entities with better green accounting programmes are more likely to attract better employees into their organization. According to Arevalo & Aravind (2011), there is a positive relationship between organizations which are more socially responsible and employee attractiveness to an organization. Companies with green accounting programmes are more likely to gain competitive advantage in attracting a large pool of employees to select from. Moreover, green accounting programmes helps improve employee relationship in the organization.

Reduces Company's Operating Costs

Arevalo & Aravind (2011) revealed that green accounting reduces company's operating costs. Green accounting which aims at reducing environmental pollution end up reducing company's operating costs. Operating cost reduction may be achieved by implementing simple measures such as reducing wrapping material and planning optimal routes for delivery trucks (Motwani, 2012).

Commitment to Increase Productivity and Reduce Error Rates

According to Chatterjee & Mir (2008), green accounting ensures increased commitment to enhance productivity and reduced error rates. Motwani (2012) revealed that green accounting is of tremendous benefit to stakeholders. Stakeholders include employees, customers and communities. Arevalo & Aravind (2011) revealed that stakeholder pressure is the main reason for implementing CSR.

Reduces Labour Turnover

According to Motwani (2012), environmental accounting practices ensure that employees are first attracted and then retained in the company. Green accounting ensures that cost of labour turnover, recruitment, and training and development are reduced.

2.5 The Relationship between the Size of the Firm, and the Environmental Information that will be Disclosed

It is expected that for more profitable firms to disclose more of information on their environmental practices. There are two reasons for this. The first is that more profitable firms are more likely to have available the necessary funds for activities like environmental reporting (Brammer & Pavelin 2006). Environmental reporting enhances the firm's relations with its stakeholders and it is the peripheral to its core business and impact on shareholder wealth in the long term. The second is that profit-seeking organizations may want to expand the social acceptance of their profitable operations so that society continues to provide these organizations with necessary resources such as legitimacy of their existence and growth (Castelló & Lozano, 2011). This is especially the case when corporate operations may invoke negative externalities on their stakeholders and the environment (Palazzo & Scherer, 2006).

2.5.1 The Relationship between Green Accounting and Profitability

Green accounting is associated with the firm's use of capital and the market valuation of shareholders' wealth (Brammer & Pavelin, 2006). As the firm's management needs access to capital, it strives to lower the cost of capital and a principal element of this effort is the reduction of the investors' perceived uncertainty. In the case of firms with large deviations between the book value and the market value of equity, market valuation is largely driven by perceived company prospects, especially focusing on the off-balance sheet, non-codified drivers of value. One such source of market value is the firm's socially responsible practices (Plumlee, Brown, Hayes and Marshall, 2010). As investors are the principal audience of social and environmental reports (Spence, 2009), more detailed reporting practices on these drivers of value will provide information to the investors, thus reducing their perceived uncertainty about the firm's operations and, therefore, reducing the cost of capital and increasing the firm's valuation in the capital market.

2.5.2 The Relationship between the Market Value of Equity Capital and the Environmental Disclosure

Environmental disclosure is also associated with the reporting firm's financial structure. The use of external financing is well-known to be associated with agency problems. The suppliers of capital need to design the contracts and employ monitoring mechanisms so that the users of capital make the best use of the available funds. The suppliers of external capital are major stakeholders and, to the extent that a stakeholder's resources are critical to the success of a corporation, there is higher probability that the stakeholder's demands will be satisfied (Ullmann, 1985). Environmental reporting is affected by capital structure in two-folds. On the one hand, green accounting or environmental disclosure informs the creditors about the ways in which the firm makes use of extra-contractually employed resources, such as the environment, in the firm's production process that is financed by the mix of debt and equity capital. On the other hand, excessively leveraged firms may not available the required funds for largely discretionary practices of communication with stakeholders, such as environmental reporting (Andrikopoulos & Samitas, 2011).

2.5.3 The Distinction between Traditional Accounting and Green Accounting

One of the basic features of accounting is that it records events within the company which can be verifiably proven and business events that be expressed in terms of monetary value (Spence, 2009). Taking environmental factors into account may be problematic, because environmental impacts appear primarily outside organizations (Schaltegger & Burritt, 2010).

Traditional accounting focuses on economic transactions and disregards social costs and the exploitation of natural resources (Spence, 2009). However green accounting focuses on social costs and the exploitation of natural resources. Environmental regulations may be some of the reasons why it is becoming more and more important for decision makers to factor environmental regulation and information into their decisions (Milne & Patten, 2002).

Traditional accounting provides even less information than environmental accounting on how corporate activity impacts the environment or how high social cost is. The main reason for this is that natural resources are not owned by the company and as such are not featured in the balance sheet; therefore, their depreciation cannot be shown (Schaltegger & Burritt, 2010).

The most important task of accounting is to provide true and fair information for stakeholders, which can be used for decision making (Milne & Patten, 2002). If the system builds on deficient information, this goal cannot be achieved. Traditional accounting is a standardized system of statements that cannot quantify and take into account the limited quantity of natural resources (Gray, 2010). On the other hand green accounting quantifies and takes into account the limited quantity of natural resources.

According to Schaltegger & Burritt (2010), traditional accounting gives priority to profit and cannot fully address environmental and social factors. Traditional accounting uses money as the standard unit of measurement and basically valuates at past value. Green accounting involves internal decision making which requires information from environmental accounting. There is also increasing demand from external interest holders, such as government bodies, other organizations, buyers, and banks.

Traditional accounting cannot provide adequate information on the financial efficiency of environmental activity to internal and external interest holders (Zhan & Zhang, 2013). Jensen (2010) established that in order to be able to provide information on the environmental performance of an organization, appropriate data is required, which in many cases is reached through information expressed in physical units. Green accounting analyzes input-output processes. It examines the volume of output expressed in material units which do not appear in traditional management accounting (Jones, 2010).

2.6 Conceptual Framework

According to Kombo and Tromp (2006), a concept is an abstract or general idea inferred or derived from specific instances. A conceptual framework is a set of broad ideas and principles taken from relevant fields of enquiry and used to structure a subsequent presentation. In this study, the conceptual framework has shown on figure 2.1 shows the relationship of the independent and dependent variables. The independent variables of this study include firms size, profitability of the organization, leverage, and total sales of the organization. The dependent variable under this study is the performance of listed manufacturing firms in Ghana.

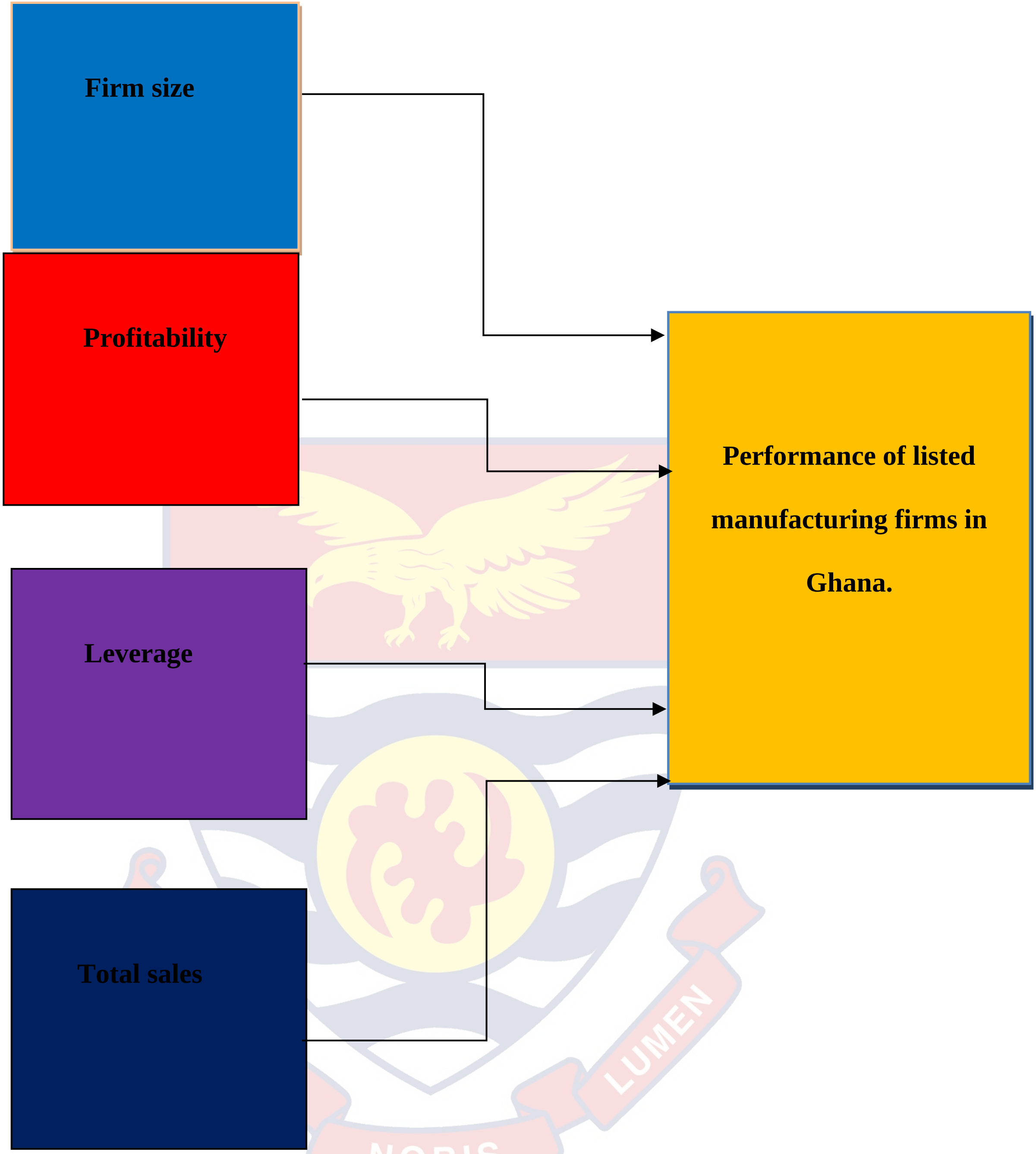

Figure 2.1: Conceptual Framework

2.7 Factors that Influence Green or Environmental Accounting

According to Swati (2014), there are five factors which influence entities to pursue green accounting. The factors include: the firms size, profitability of the organization, leverage, size of the market and total sales of the organization.

The Laws of the State and Reporting Standards

According to Swati (2014), the laws of the state influence corporate entities to engage in green accounting. The environmental laws of a country influence entities to engage in green accounting. In Ghana, there is no separate regulation for entities to report on environmental accounting. There is minimal mention of environmental activity in the company's code of 1963. However, IAS 41 mandates entities to report on agriculture which includes biological assets. IAS 37 on the other hand discusses provisions, contingent assets and liabilities which include provisions on environment and provisions for future repairs or refurbishment.

Firms' Size

Most large organizations are involved in various activities that have a positive influence on the economy. Large organizations employ large number of people in the country. This help reduces the rate of employment in the country. Moreover, large organizations have enough resources to partake in environment repairs or refurbishment and other charity works in the country (Swati 2014).

Profitability

The profitability of an organization has a significant influence on green or environmental accounting (Swati 2014). A firm profitability refers its ability to generate enough profit to help promote its long and short term growth. The level of a firm's profit influences the organization's involvement in green accounting (Andrew & Cortese, 2011). This implies that if an organization earns high profit, it is more likely to engage itself in green accounting and vice versa.

Leverage

Leverage is used to finance an organization (Swati 2014). Leverage can either be long or short term debt. Most organizations finance their operation through borrowing. Leverage helps them to develop and grow. However, too much leverage can affect the development and growth of an organization. High leverage can also affect green accounting. According to Schaltegger & Csutora (2012), organizations with high debt ratio often do not involve in green accounting as part of its corporate social responsibility.

The sale volume of an organization is measured by the market capitalization. This implies that the larger the market segmentation, the large sales revenue of an organization (Swati, 2014).

2.8 Conclusion

This chapter discussed the theoretical framework, empirical studies, definitions of green accounting, green accounting concept, characteristics of green accounting, reasons for embracing green accounting, the effect of green accounting on the beneficiary community, benefits of green accounting, and the relationship between the size of the firm, and the environmental information that will be disclosed the distinction between traditional accounting and green accounting, conceptual framework, factors that influence green or environmental accounting.

CHAPTER THREE

RESEARCH METHOD

3.1 Introduction

Chapter three of the study focuses on the method adopted to carry out the research. It therefore describes the research design, target population, sample and sampling procedure, data collection instrument and procedure and data analysis plan.

3.2 Methodology of the Study

Research methodology refers to the general approach to design process of a study. Methodology provides theoretical foundation to the collection of data and its analysis (Thurairajah et al., 2006). Methodology provides theoretical and philosophical assumptions of the study. The study adopted descriptive survey design and quantitative research approach. The quantitative approach was used to gather information for the study. The study relied solely on secondary data. The study collected data from the financial statements of listed manufacturing companies. The study adopted panel regression for its data analysis and presented the results in the form of tables. Panel regression was used to explore the relationship between variables.

3.3 Research Design

According to Creswell (2009), a research design is the plan and the procedure for the research that spans the decisions from broad assumptions to detailed methods of data collection and analysis. The study adopted the descriptive survey design which determines and reports the way things are. According to Polit and Hurgler (1995), a descriptive survey aims at primarily describing, observing and documenting an aspect of a situation as it naturally occurs rather than explaining it. The descriptive sample survey has been recommended by Babbie (1990) for purpose of generalizing from a sample to a population so that inferences can be made about some characteristics, attributes, or behaviour of the population. However, considering the nature of the problem and research perspective, the study used quantitative research approach. In view of that the quantitative method was mainly used to establish the relationship between green accounting and firm’s value and profitability. The financial data were collected through structured survey of documents.

3.4 Population and Sample Frame of the Study

The population for the study is the listed manufacturing companies on the Ghana Stock Exchange (GSE). It has employed data on manufacturing companies listed on the Ghana Stock Exchange over a period of five (5) years spanning from 2013 to 2018. There was collected from the Ghana Stock Exchange fact book and the internet. These listed manufacturing companies include: Accra Brewery limited; African Champion Industries Limited; Aluworks Limited; Ayrton Drug Manufacturing Limited; Cocoa Processing company; Fan Milk limited; Guinness Ghana Breweries Limited; Pioneer Kitchenware Limited; PZ cussons Ghana limited; Starwin Products Limited; and Unilever Ghana Limited.

3.5 Sampling and Sampling Procedure

The population of the study was all Manufacturing Companies registered by GSE. Therefore, only five manufacturing companies' information was used in this study to examine the green accounting disclosures and performance of the listed manufacturing firms in Ghana. The manufacturing firms are Cocoa Processing Company, Fan Milk limited, Unilever Ghana Limited, Guinness Ghana Breweries Limited and Pioneer Kitchenware Limited. For this study five years' data (i.e. from 2013 to 2018) was used.

3.6 Data Collection

The secondary data gathered include both distributed and unpublished sources. It included the annual report, financial statement, and information from the Ghana Stock Exchange website. Data collection according to Polit and Hungler (1999) is information obtained during the course of a study. A quantitative method of data collection was employed. To this effect, secondary data from annual report, financial statement, and information from the Ghana Stock Exchange website of these companies was used. In ensuring that the secondary data collected is valid and reliable, a dichotomous procedure 1 and 0 was used to measure the reporting score. A score of 1 will indicate reported, otherwise a score of 0 shall represent not reported.

3.7 Data Processing and Analysis

Data analysis according to Burns and Grove (2001) is the systematic organization and synthesis of research data, and testing of the research hypotheses, using the data. The collected data was cleaned, coded, analyzed using quantitative data analysis methods. The quantitative method involve both descriptive and inferential analysis using the StataMp. Descriptive analysis present quantitative data in form of tables. The inferential statistics analysis including regression model, Analysis of variance and correlation was used to determine significant relationship between the variables and p value < 0.05 will be accepted.

3.8 Ethical Considerations/Issues

The protocol for this study was approved by the Research Ethics Committee of the university. Permission was sought from owners of these companies. All scholarly materials resort to was dully acknowledged.

3.9 Method of Data Processing and Analysis

Data was analyzed using quantitative approach. For the quantitative analysis panel regression method was used. Panel data was developed and used for the study as it increases efficiency by combining time series and cross-section data. Panel data involves the pooling observations on a cross section of units over several time periods. Furthermore, panel data facilitates identification of effects that cannot be detected using purely cross- section or time series data. StataMp was used in the statistical analysis.

3.10 Model Specification and Estimation Procedure

To estimate the relationship between Green Accounting and performance of Manufacturing firm, Kuznetson and Muravyev (2001) was adopted and modified as:

$$Y_{it} = \alpha_i + \beta_1 X_{it} + e_{it}$$

Where:

- Y_{it} is performance measure,
- α_i = refers to time-invariant firm-specific effects
- X_{it} are the independent variables
- β1 coefficients
- e_{it} is a random disturbance.

However, the general model of the work is display below

$$PER_{it} = \beta 0_{it} + \beta 1 PROT_{it} + \beta 2\ FIRM\ SIZE_{it} + \beta 3\ LEVG_{it} + \beta 4\ TOTAL\ SALE_{it}\ \mu_{it} \ldots$$

Where,

PROT $_{it}$ = Profitability at time $_{i}$ in year $_{t}$

TOSALE $_{it}$ = Total Sales $_{i}$ in year $_{t}$

FIRM SIZE $_{it}$ = the size of the Firm at time i in year $_{t}$

LEVG $_{it}$ = the level of debt of the Firm at time $_{i}$ in year $_{t}$

μ_{it} = Stochastic error term

Variables and Measurements

Variables	Symbols	Measurement
Green Accounting	***ENVC***	Represents the amount spent on protecting the environment of firm *i* at year *t*
Total Sale	***FVL***	Represents the volume of product sold that the firms in the annual reports of firm *i* at year *t*
Profitability	**ROCE**	Represents the Return On Capital Employed disclosed in the annual report of firm *i* at year *t*
Firm Size	***FIRM SIZE***	Represents the total asset of the firm *i* at year *t*
Leverage	***LEVERAGE***	Represents ratio of total liabilities to shareholders' equity of a firm *i* at year *t*

Dependent Variables are variables that can be measured in an experiment (Kenny, 2011). According to Frank and Goyal (2003) dependent variables are affected by independent variable. From the model above dependent variables identified firm performance

3.10.1 Independent Variables

Independent Variables are variables that affect the dependent variables in a model (Almazari, 2012). Independent variables are variables that the researcher wishes to change or manipulate in an experiment. The main independent variables in the model are amount spent on environmental. They include firm size, leverage, age, profitability and total sales.

CHAPTER FOUR

ANALYSIS AND DISCUSSION

4.1 Introduction

This current chapter presents the analysis and discussion of the data collection. This is done to achieve the specific objectives of the study. With regarding this study, the research objectives will examine the relationship between firm size and performance of listed manufacturing firms in Ghana, determine the profitability and performance, to examine the relationship between leverage and performance of listed manufacturing firms in Ghana and examining the relationship between total sale and performance of listed manufacturing firms in Ghana. The secondary data used for the study was between a period of 2013-2018. Thus, a period of 5 years. The chapter focuses on the descriptive analysis, correlation analysis and regression results.

4.2 Descriptive statistics

The Table 4.1 below indicates descriptive statistic of the variables involved in they. The variables include firm size, profitability, leverage and total sales of the organization.

Table 4.1 Descriptive statistics

Variables	Mean	Standard deviation	Min.	Max.
Performance	5.363	1.6718	0.5421	4.2691
Profitability	1.6737	0.7062	2.6584	1.8401
Firm size	18.01	29.744	0.2148	6.8356
Leverage	0.2854	0.4668	0.3986	0.6214
Total Sale	**22.714**	**22.145**	**12.6960**	**21.8125**

Based on the result in Table 4.1 above, the total sales recorded the highest mean score of 22.715, followed by firm size which also recorded a mean score of 18.012, the performance of firm also recorded a mean score of 5,363, profitability also recorded a mean score a mean score of 1.673 and lastly leverage recorded a mean score of 0.4668. Also, totals sale had a maximum value of 21.81 and a minimum value of 12.969. This suggests a wide variation between the minimum value and maximum value. Also, the firm size recorded the maximum value of 6.8356 and a minimum value of 0.2148, leverage also had a maximum value of 0.6214 and minimum value of 0.3986.

4.3 Correlation Matrix

The correlation matrix was employed by the researcher to examine the relationship between the variables in the study. The correlation matrix determines whether the independent variables correlated with each other. Correlation analysis was done in this study using the variables in the study. The Table 4.2 presents the result of correlation matrix.

Table 4.2 Correlation Analysis

Variables	**1**	**2**	**3**	**4**	**5**
1. Profitability	1				
2. Firm size	.061	1			
3. Leverage	.128	.155	1		
4. Total Sales	-.070	.071	.144	1	
5. Performance	.172	.073	.672**	.479**	1
Mean score	2.2240	1.4320	3.8080	4.1451	3.0676
Standard deviation	.65825	.62651	.74732	.68361	1.14790

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

The Table 4.2 presents the analysis of the correlation between the variables in the study. Correlation analysis helps the researcher to examine the relationship variables in the study. The association between profitability and performance is (r=172, 0.05). This indicates that there is a weak and significant relationship between profitability and performance. This is in line with a study done by Clarkson et al., (2008), which indicates that there is the performance of an organization enable them to increase their performance. The result further reveals the relationship between firm size and performance, (r-0.73, 0.05) implies that firms size has a positive and significant relationship with performance of the organization. Aerts and Cormier (2009), found that the firm size has an influence on their performance. Thus, there is a positive association between firm size and performance.

In addition, the correlation analysis examines the relationship between leverage and performance. The result (r=672, p=0.05) implies that there is strong and positive relationship between leverage and performance of firms in the organization. This implies that an increase in leverage will also improve the performance of the firm. Also, the result (r=4.79, p.0.05) indicate that there is strongly relationship between total sales and performance of firms. The correlation analysis supports that there is positive and significant relationship between total sale and performance of organization. Adelopo (2011), mentioned that leverage affects the level of performance of the organization.

4.4 The Relationship Green Accounting and Performance

This section presents the relationship between variables in the study. The variables include profitability, firm size, leverage, total sales and performance. The results from the regression analysis used.

Table 4.3 Regression Analysis (Performance)

Variables	**Model 1**		
	Coefficient	**Standard Error**	**P > | z |**
Profitability	**0.106**	**0.089**	**0.003**
Firm size	**0.167**	**0.017**	**0.021**
Leverage	**0.339**	**-0.902**	**0.731**
Total Sales	**1.45240**	**0.8110**	**0.036**
Constant	**1.3679**	**3.2689**	**0.003**
R-Square	**0.356**		
Adjusted R- Square	**0.363**		
F-Statistics	**154.132**		
P-value	**0.003**		

From the regression table above, the F-statistic is 154.132 and it has a significant value of 0.003. This implies that there is a significant relationship between the independent variables and dependent variables. It also implies that at least one of the independent variables was positive and significant. The adjusted r-square of 0.363 implies that 36.3% total variation in the independent variable can be used to explain the dependent variables in the study. Again, from the regression table, the coefficient for profitability was 0.106 and its p-value was 0.003 implies which is less than 0.03. This implies that there is a significant relationship between profitability and performance of an organization. This finding is consistent with the findings of Pattern (2002), Cho and Patten (2007), which concluded that there is a significant relationship between performance and profitability of an organization. The implication is that if an organization increase it performance, it will enable the gain more profit.

In addition, with the result firm size, the coefficient value of 0.021 and a p-value of 0.021 shows that there is significant relationship between firm size and performance in the organization. Thus, the size of the organization has an influence of its performance. Cormier and Magan (2014), mentioned that the firm size significantly affects the performance of the manufacturing firm positively. This indicates that an increase in the size of the manufacturing companies will reduces in an increase in the level of performance. The finding of the study is consistent with findings of Lan, Wang and Zhang (2013), revealed that the large the manufacturing firms in Ghana, the higher the probability of the firms to increase its performance. Their study concluded that large size organizations are able to produce enough product and service which enable them to increase their performance.

Moreover, the regression analysis examines the relationship between leverage and performance of an organization. Leverage had a coefficient of 0.339 and a p-value of 0.731. The result implies that there is insignificant relationship between leverage and performance of an organization. The result shows that the effect of leverage on performance is statistically insignificant. This result implies that all other things been equal, an increase in the level of debt used by the manufacturing firms will result in a decrease in the performance of the firms. According to Adelopo (2011), leverage is found to negatively influence the performance of firms in the organization. This implies that the cost of debt finance has a negative influence on the performance of firm.

In addition, the study finds that total sales of the sample firms significantly affect their performance in the organization. The implication is that an increase in total sale of an organization is associated with firm performance. The coefficient value of 1.45240 and a p-value of 0.036 shows that there is a positive and significant relationship between total sales and the performance of firms in the organization. This can be attributed to the fact that an increase in the total sales will also increase the performance of an organization. Cho and Pattern (2007), stated that the sale volume represents the performance of an organization. The implication is that higher sales volume can be associated to an increase performance.

4.5 Robustness Test

In order to examine the consistency and reliability of the regression results, robustness was employed. According to Welbeck (2017), Clustered Standard Error model was used to determine the consistency and reliability of the regression table above.

Table 4.4 Robustness test

Variables	Clustered Standard Errors
Performance	-0.265** (0.1374)
Profitability	0.9671** (0.3722)
Firm size	-0.124** (0.1685)
Leverage	0.0278 (3.442)
Total Sales	1.2051*(0.6657)
R-Squared	0.42
Prob (F statistic)	56.284

Source: Study Result, 2019

The consistent to the result based on the regression effect model, profitability was found to profitability significant determinant of the level of performance of the sample firms. The level of significant is in line with the findings of the regression model was 5% level of significant. All the variables were found to be significant with the findings of the regression results with the exception of leverage which became significant at 5%. The result of the clustered standard error estimation confirm the robustness of the result based on the random effect of estimation model.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Introduction

This chapter concludes thesis by presenting the major findings as well as providing a discussion and empirical conclusions drawn from the research study. Finally, this section finishes by providing recommendation for future research in this area.

5.2 Summary of the Findings of the Study

The findings of the study are based on the research objective. It includes examining the relationship between firm size and performance of listed manufacturing firms in Ghana, determine the profitability and performance, to examine the relationship between leverage and performance of listed manufacturing firms in Ghana and examining the relationship between organization and performance of listed manufacturing firms in Ghana

5.2.1 The Relationship between Firm Size and Performance of Listed Manufacturing Firms in Ghana

Based on the result of the study, it was discovered that there is a positive and significant relationship between firm size and the performance of sample firm used for the study. This finding implies that an increase in the firm size will have an increase in the performance of the listed manufacturing firms in the Ghana

5.2.2 The Relationship between Profitability and Performance of Listed Manufacturing Firms in Ghana

The finding indicates that there is a positive and significant relationship between profitability and performance of the listed manufacturing firms in Ghana. This suggest that profitability of the firms is associated with the performance of listed manufacturing firms in Ghana. The implication is that there is relationship between profitability and performance of listed manufacturing firms in Ghana.

5.2.3 The Relationship between Leverage and Performance of Listed Manufacturing Firms in Ghana

In addition, the finding of the study indicates there is insignificant relationship between leverage and firm performance in the organization. This indicated that an increase in the level of debt used by the sampled firms result in a reduction in the performance of the organization. Research done by Adelopo (2011), mentioned that leverage is negatively affects the level of performance of an organization. This indicates that leverage has no influence or relationship of firm performance in the organization.

5.2.4 The Relationship between Total Sales and Performance of Listed Manufacturing Firms in Ghana

The result implies that total sales significant influence the performance of firms in the organization. The implication is that the total sales has a positive relationship on the level of performance of listed manufacturing firms in Ghana. Welbeck (2017), mentioned that total sales statistically significant determinates of performance of listed manufacturing firms in Ghana.

5.3 Conclusion

According to Mpuga (2002), green accounting is cost incurred to protect the environment. The main objective of this study is to examine the impact of green accounting on the performance of listed manufacturing companies in Ghana. This study applied the panel data regressions for eleven listed manufacturing companies in Ghana from 2010 to 2016 financial years. This thesis examined empirically the implication of theory of green accounting in Ghana. The results of regression analysis firm size, total sales, profitability and leverage were the dependent variables. The findings of the research were supported by theories on green accounting. The study shows that the actual relation for the model under the study on performance of listed manufacturing companies in Ghana was measured. The regression result shows positive and statistically significant relationship between firm size and performance of the manufacturing companies in Ghana. This implies that the higher the firm size the more profitable firms become. Listed manufacturing companies with higher firm size have high profitability. The lower a manufacturing company the more profitable it becomes.

5.4 Recommendations

Based on the above results and discussions the following recommendations can be made.

5.4.1 Increase in the Amount of Money Spent on the Environment

The result proves that in line with expectation increase in the amount of money spent on the environment positively affected the performance selected listed manufacturing companies in Ghana. This practice encourages manufacturing companies to increase the amount of money they spend on the environment in order to make more profit.

Therefore, the researcher recommends that managers of listed manufacturing companies increase their involvement in the environment to enhance their profitability.

5.4.2 Formulation of Policies

Environmental accounting facilitates the protection of the environment and disclosure of environmental activities. It is advised that there should be measurement of the impact of organization activities on the environment to enable the government formulate policies and programmes to regulate the activities of the organization which may have effect on the environment.

5.4.3 Introduction of Mandatory Environmental Disclosure

There should be the Introduction of mandatory environmental disclosure in their published financial statement. As part of effort to ensure manufacturing protect the environment it is recommended that the organization disclosure their activities and cost in their financial statements. The financial statements should also be published to keep the general public and the government agencies to be abreast with the happenings in their environment.

5.4.4 Education

Intensive education initiative should be undertaken to stimulate environmental awareness. Intensive education could significant increase the environmental awareness level and create new generations that are environmental well informed. When the citizenry are aware of the environmental issues they would bring pressure to bear on organization to increase the amount of money they spend in protecting the environment.

5.5 Future Research Directions

It is also important to expand the scope of the study by including unlisted manufacturing companies in Ghana. Other financial performance measuring factors such as revenue, return on assets (ROA), earnings per share (EPS) and economic value added (EVA) can be investigated as outcome of CSR activities. Moreover, the scope of the research may be extended by increasing the sample size and carrying out a cross-country examination.

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APPENDIX 1

YEAR	Firm size	Total Sale	Leverage	Profitability	Performance
2014	1671.6	1041.48		5,476.70	5,092.30
2014	192039	1101.34	-17.03	4,544.00	5,294.60
2014	226342	981.06	-4.02	4,361.20	5,676.80
2014	221819	1070.83	22.97	5,362.90	6,599.80
2014	24739	1314.88	5.27	5,645.40	7,848.10
2015	252698	1530.95	-19.66	4,535.30	10,346.30
2015	283322	1228.86	-6.58	4,236.90	10,890.80
2015	243441	1195.04	30.01	5,508.30	10,431.60
2015	211229	1450.21	0.59	5,541.00	9,247.20
2015	190394	1578.82	-10.64	4,951.70	5,424.00
2016	191937	1145.14	-4.10	4,748.70	6,292.10
2016	211066	1665.54	28.47	6,100.80	5,572.30
2016	244933	1865.11	7.42	6,553.70	6,014.30
2016	272335	2070.13	-17.39	5,414.10	6,591.10
2016	271338	1909.96	-5.74	5,103.40	6,835.70
2017	303605	2114.89	32.81	6,777.80	7,369.21
2017	334311	3104.3	0.69	6,824.90	1,071.50
2017	413366	3353.12	-10.79	6,088.70	1,188.90
2017	409983	3339.3	-1.63	5,989.20	1,098.38
2017	439182	2988.69	26.98	7,605.10	969.03
2018	411793	4118.11	2.60	7,802.80	1,046.88
2018	474716	3414.88	-2.45	7,611.50	1,045.48
2018	434433	2702.61	-10.61	6,804.20	1,047.72
2018	455375	3316.75	11.99	7,620.30	1,199.72
2018	423863	3874.61	5.04	8,004.20	1,733.47

RESPONSE TO ASSESSOR 1 COMMENTS

NAME: MENSAH BONSU BEATRICE	
INDEX NO: 14017192	
TOPIC: GREEN ACCOUNTING DISCLOSURES AND PERFORMANCE OF LISTED MANUFACTURING FIRMS IN GHANA	
Comments	Response
CHAPTER ONE 1. The background has nothing on performance of listed manufacturing firms in Ghana. 2. The background should also cover the objectives of the study. 3. The problem statement needs to revise. 4. The objectives /questions should be revised.	. 1. The background has been written again and included performance of listed manufacturing firms in Ghana. Refer to page 1-3. 2. The background covered the objectives of the study. Refer to page 1-3. 3. The problem statement has been revised. Refer to page 4-6. 4. The objectives /questions have been revised. Refer to page 6-7.
CHAPTER TWO 1.Literature review is mainly theory 2.The theory must be in line with the study 3.Write abbreviation in-full 4.Restructure the literature review 5.Conceptual framework should be added	1. The literature has been reviewed with additions to the knowledge in accordance to the work being done. Refer to page 12-32. 2. The theory is line with the study. 3.Abbreviation is fully written 4.The literature review has been restructured well with empirical analysis 5. Conceptual framework has been should be added. Refer to page 29-30.
CHAPTER THREE Amended methodology to suit the objectives of the study.	The methodology has been amended has been clearly stated. Refer to page 33-38.
CHAPTER FOUR 1. Present the results according to the research objectives. 2. Literature should be used to support the discussions of the results.	1. The results and discussion are presented according to the research objectives. Refer to page 39-45. 2. The literature has been amended.
CHAPTER FIVE 1. The summary should be for entire study. 2. The recommendations should be included.	1. The entire chapter five has been amended. Refer to page 46-50. 2. The recommendations have been amended. Refer to page 48-50.

References Something should be done about lt. Table of Contents 1. The numbering of sections should not follow the UCC style. 2. The sections should not be numbered. 3. Check grammar and punctuations 4. The abstract should be included.	The references have been amended follows APA references style 6th edition. Refer to page 51-57. 1. The UCC guidelines have been followed 2. The sections numbered have been deleted. 3. The grammar and punctuations has been checked. The abstract has been included. Refer to page iii.

Signature: ……………………………………….. Date: ………………………

RESPONSE TO ASSESSOR 2 COMMENTS

NAME: MENSAH BONSU BEATRICE	
INDEX NO: 14017192	
TOPIC: GREEN ACCOUNTING DISCLOSURES AND PERFORMANCE OF LISTED MANUFACTURING FIRMS IN GHANA	
Comments	Response
CHAPTER ONE 1. The background has nothing on performance of listed manufacturing firms in Ghana. 2. The background should also cover the objectives of the study. 3. The problem statement needs to revise. 4. The objectives /questions should be revised.	. 1. The background has been written again and included performance of listed manufacturing firms in Ghana. Refer to page 1-3. 2. The background covered the objectives of the study. Refer to page 1-3. 3. The problem statement has been revised. Refer to page 4-6. 4. The objectives /questions have been revised. Refer to page 6-7.
CHAPTER TWO 1.Literature review is mainly theory 2.The theory must be in line with the study 3.Write abbreviation in-full 4.Restructure the literature review 5.Conceptual framework should be added	1. The literature has been reviewed with additions to the knowledge in accordance to the work being done. Refer to page 12-32. 2. The theory is line with the study. 3. Abbreviation is fully written. 4. The literature review has been restructured well with empirical analysis. 5. Conceptual framework has been should be added. Refer to page 29-30.
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