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SCHOOL OF BUSINESS

EFFECT OF SUSTAINABLE PROCUREMENT PRACTICE ON SOCIAL AND ENVIRONMENTAL PERFORMANCE OF FIRM, THE MODERATING ROLE OF TOP MANAGEMENT SUPPORT.

BY

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(Msc. Procurement and Supply Chain Management)

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DECLARATION

I hereby declare that this submission is my own work towards the **Master of Science Logistics and Supply Chain Management** degree and that, to the best of my knowledge, it contains no material previously published by another researcher which has been accepted for the award of any other degree of the University except where due acknowledgement has been made in the text.

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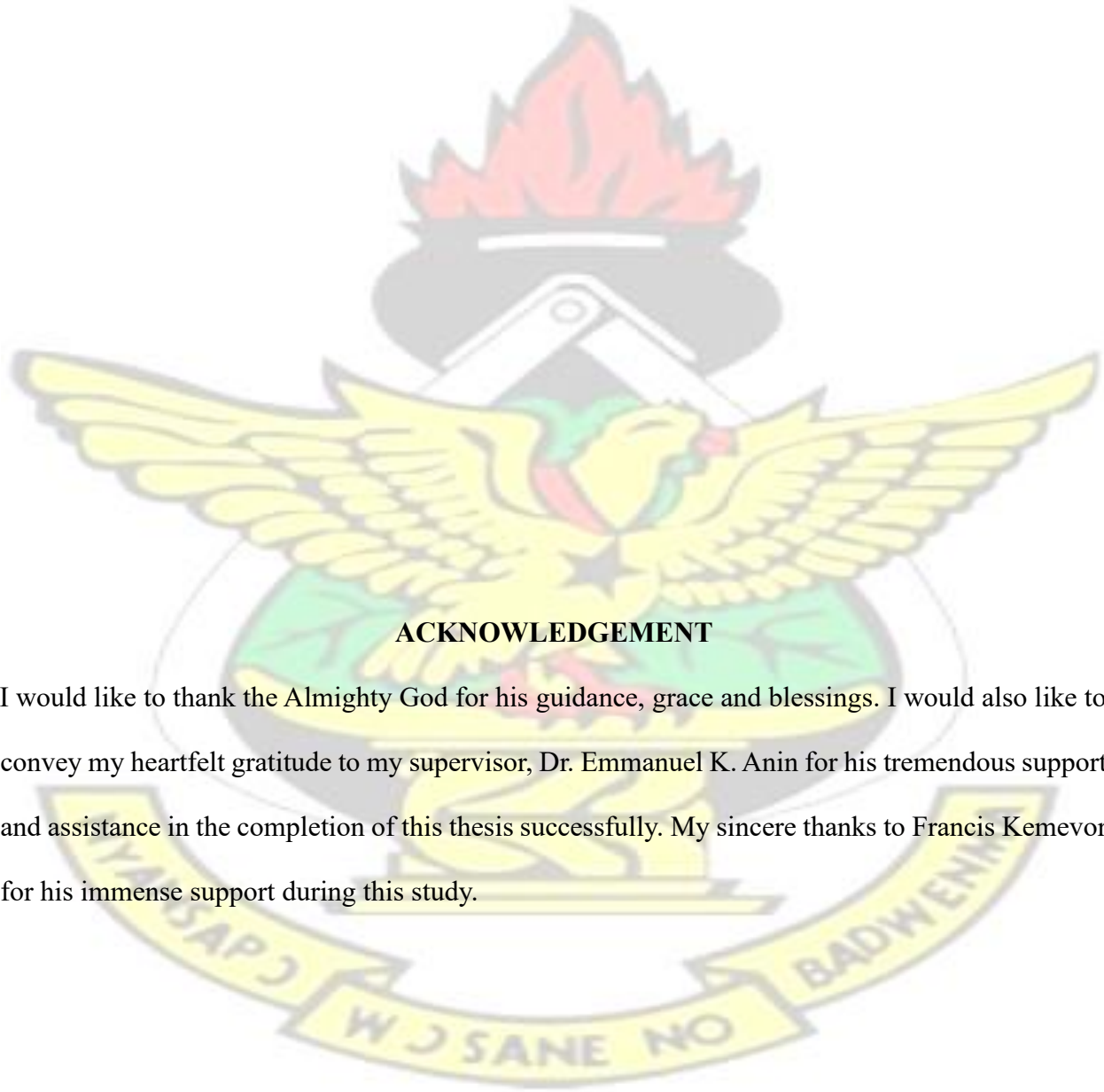
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DEDICATION

This thesis is dedicated to Mr. Solomon Obiri, the manager of Eastern Regional Medical Store.

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ACKNOWLEDGEMENT

I would like to thank the Almighty God for his guidance, grace and blessings. I would also like to convey my heartfelt gratitude to my supervisor, Dr. Emmanuel K. Anin for his tremendous support and assistance in the completion of this thesis successfully. My sincere thanks to Francis Kemevor for his immense support during this study.

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ABSTRACT

Sustainable procurement has become an important agenda for both private and public organisations across the globe and plays an important role in the push for sustainable development. The execution of the entire procurement process must incorporate sustainability principles in light of recent trends in the field of procurement. With a focus on how environmental issues and issues relating to other parts of the sustainable development pillars (society and economy) can be included in the procurement activities, procurement organizations are becoming more significantly involved in formulating and executing sustainable procurement policies. The main objective of the study is to examine the effect of sustainable procurement practice on social and environmental performance of firm, and the moderating role of top management support. The target population of the research was the various organizations in the New Juabeng Municipality of the Eastern region of Ghana. A cross sectional survey design was employed to select 108 procurement practitioners and managers. The instrument used in collecting data for this study is questionnaire. This research uses descriptive

and inferential (regression) statistics to analyze the data with the aid of Statistical Product and Service Solution (SPSS version 25 and process macros model 1). The findings of the study indicate that socially responsible procurement practices have positive and significant effect on environmental performance but its effect on social performance is insignificant. Green procurement practices have a positive effect on both social and environmental performance. The relationship between green procurement practices and social performance was a direct relationship and moderated by top management support. The study concludes that sustainable procurement practices have positive effect on social and environmental performance of firm, and that this relationship is moderated by top management support. It is recommended that top management should give the required attention to education in green procurement practice to enhance social performance and also support to strengthen the direct sustainable procurement practices performance –link by extending the existing knowledge.

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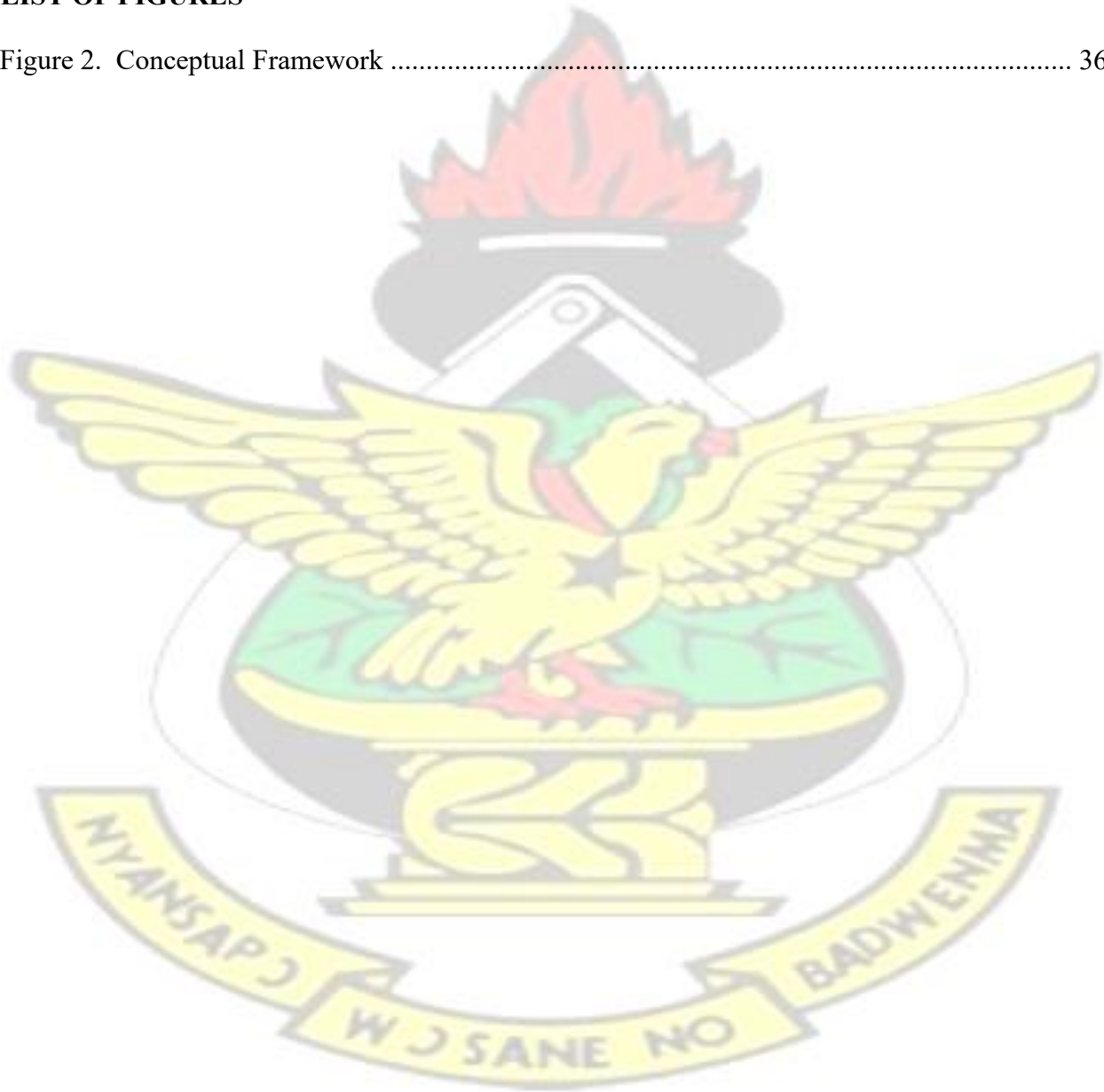
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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Researchers tend to be interested in incorporating sustainability considerations into supply chain management strategies (Chetthamrongchai and Jernsittiparsert, 2019; Jernsittiparsert et al., 2019; Somjai and Jernsittiparsert, 2019). Public awareness is growing, and in the face of stringent environmental and sustainability legislation, sustainable procurement practice (SPP) and its impact on social and environmental performance are becoming increasingly essential to enterprises.

Traditionally, procurement was approached by issuing request for quotes (RFQ) to two or three possible vendors. When the quotations were received, the decision to award an order was typically based on the lowest quoted cost (Crandall et al., 2010). Many successful organizations now regard procurement as a critical strategic function. Procurement is now handled at the board level rather than at the departmental level (Bailey et al., 2008).

Today, procurement is recognized as a crucial managerial technique that tries to support an organization's strategic goals. The purpose of procurement as a boundary-spanning process the mechanism by which organizations acquire commodities, services, and labour must not be undervalued (Stuckhart, 2005). Specifically, procurement plays a crucial role in the management of a company's external resources to ensure that the supply of all goods, services, capabilities, and knowledge required for operating, maintaining, and managing the company's primary and support activities are secured at the most advantageous terms (Van Weele, 2010). As it helps the firm accomplish long-term, high-level goals like profitability, competitive advantage, and sustainability, procurement is evolving from a support function to a strategic one. Due to this, establishing

exceptional procurement is essential and critical in enhancing an organization's overall performance and competitiveness.

The influence of sustainable procurement practices on social and environmental performance of businesses cannot be disregarded when talking about procurement and its effect on an organization's strategic objectives. By meeting their needs for goods, services, works, and utilities in a way that maximizes value for money while minimizing harm to the environment throughout the supply chain, organizations can benefit not only themselves but also society and the economy. This process is known as sustainable procurement (Defra, 2006).

SPP is used to advance organizational sustainability goals and make sure they adhere to the sustainable development goals' (SDGs') guiding idea of bettering society, the environment, and governance (Brammer and Walker, 2011). SPP can be viewed as the main contributor to the SDGs since it affects how organizations throughout the supply chain approach the environment, the local economy, and society (Islam et al. 2017).

The critical sector and policy area of procurement is one where organizations and countries may, and increasingly do, work to advance social and environmental sustainability. The fundamental principles of efficiency should be embodied in procurement, including transparency, fairness, nondiscrimination, competition, accountability, and efficient use of public funds, while also including the social, environmental, and economic aspects of sustainable development. Therefore, understanding the whole impact of a purchase across the course of a product or service's life cycle, regardless of where it is made, from the sourcing of natural resources to end-of-life management (such as reuse, recycling, and disposal), is necessary for sustainable procurement (Govindan, Rajendran, Sarkis, and Murugesan, 2015).

Sustainable procurement is used by both public and private sector organizations to make sure that purchases are consistent with broader objectives related to resource efficiency, climate change, social responsibility, and economic resilience. Implementing sustainable development into operations and collaborating with suppliers to create relationships that minimize unfavorable social, economic, and environmental impacts in the procurement system are two major challenges that governments and other organizations must overcome in order to achieve the goal of sustainable procurement. According to studies, firms and procuring organizations place a greater emphasis on sustainable procurement (Appolloni, Sun, Jia, and Li, 2014; Mosgaard, 2015; Flammer, 2018). However, due to concerns about cost, quality, dependability, and flexibility, the integration of the environmental and social components into the procurement supply chain is still difficult (Ghadimi, Wang, and Lim, 2019; Zimmer, Fröhling, and Schultmann, 2016).

In addition to the role that sustainable procurement plays through green and socially responsible procurement in achieving environmental and social performance, it is critical to recognize the significance of top management support for an organization's successful procurement system and strategy. This is due to the fact that management assistance, such as creating the essential organizational culture and environment, strengthens sustainable procurement practices.

Support from management for adopting environmentally friendly practices can be characterized as management participation and support for the organization (Boiral et al., 2018; Cantor et al., 2015). The manager's psychological ties to the surroundings and long-term outlook on it (Graves et al., 2019). When a management is committed to the environment, he or she is more likely to encourage environmentally beneficial actions within the company (Chan et al., 2017; Liu and Jie, 2019). The management's support for the procurement process takes many different forms, including policies that direct it and provide it with the necessary budgetary allocation and other resources (Kemunto and Ngugi, 2014). As a result, management support is essential for advancing sustainable

procurement practices within organizations, and the effectiveness of these practices in terms of social and environmental performance may depend on how much management support has been given to setting up the right conditions. The purpose of this study is to assess how much sustainable procurement practices affect a firm's social and environmental performance and how top management support matter.

1.2 Problem statement

Since 2002, sustainable procurement practices have emerged as a significant area of research focus. Scholars have recognized the substantial benefits and impact of these practices as a means to enhance organizational value (Bobis and Staniszewsk, 2009). Sustainable procurement is seen as a powerful instrument for various positive outcomes, including market transformation, heightened competitiveness of eco-industries, cost savings, preservation of natural resources, and the promotion of job creation. Ultimately, these practices play a pivotal role in contributing to overall sustainable development.

Sustainable procurement practices and strong management support are essential for successful procurement, as they are the major drivers and requirements for success in this area. Particularly, management support is essential to ensuring that the business process is in line with the goal and course of stakeholders' interests. Managers with experience in sustainability can assist organizations in achieving the SDGs by directing trained personnel, resources, encouraging improvement, and streamlining procurement procedures. Management support has been identified as the driving force behind sustainability practices in organizations (Robertson and Barling, 2015; Dubey et al., 2012). More specifically, management is in charge of establishing policies, formulating strategies, offering advice, putting those strategies into action, making corporate decisions, managing resources and operations, disseminating information to the operational level,

and developing the necessary culture to support organizational activities like procurement. (Walls and Berrone, 2017; Huang, 2013).

Although research has examined management support and sustainable procurement practices in separate studies (Walter et al. 2012; Oyuke and Shale, 2014; Kemunto and Ngugi, 2014), there appears to be scant evidence regarding how sustainable procurement practices affect social and environmental performance. In addition, sustainability programs are resource-intensive and need management assistance, indicating that top management support is essential for fostering a commitment to sustainability. Yet, an understanding of the contingency role of top management commitment remains relatively limited. In addressing this gap, this study is set out to investigate how sustainable procurement practice affect social and environmental performance of firm and the extent to which top management support matter.

1.3 Research objectives

The primary aim of the study is to examine the roles of Sustainable procurement practice on social and environmental performance of firm, and management support in achieving performance in selected institutions in New Juabeng Municipality. Specific objectives are to;

1. Examine the effect of socially responsible procurement practice on social and environmental performance of firm.
2. Examine the effect of green procurement practice on social and environmental performance of firm.
3. Assess the moderating effect of top management support in the relationship between socially responsible procurement and green procurement practice on social and environmental performances of firm.

1.4 Research Questions

The research questions are

1. What is the effect of socially responsible procurement practice on social and environmental performance of the firm?
2. What is the effect of green procurement practice on social and environmental performance of the firm?
3. What is the moderating effect of top management support in the relationship between socially responsible procurement and green procurement practice on social and environmental performance of firm?

1.5 Significance of the Study

The study offers contributions to practitioners, policymakers and researchers.

Firstly, this study extends literature by showing how sustainable procurement drives social and environmental performance. It also sheds new insight on the contingency role of management support in the relationship between sustainable procurement and social and environmental performance.

Additionally, the outcome of the study will assist policymakers and practitioners in comprehending the issues associated to social and environmental performance and sustainable procurement methods. Moreover, the study's findings would show how important management support is for encouraging sustainable procurement practices. To improve performance, this will serve as a decision- and policy-making framework for sustainable procurement processes. Findings from this study would also shade light and guide supply chain, and procurement professionals to make

informed decision regarding sustainable procurement practice, provide insight for researchers, academicians and decision makers in the public and private sector who may be interested in studying sustainable procurement practices and the impact on society and the environment.

1.6 Overview of Methodology

Quantitative method with a survey strategy was adopted in the study. The target population of the research was the various organizations in the New Juabeng Municipality. Using purposive sampling technique, a sample size of 150 was used in the study and relied on primary data. The primary data was obtained from the researcher's generated survey where procurement practitioners and managers were purposively selected to participate in the study. The instrument used in collecting data for this study is questionnaires. This research uses descriptive and inferential (regression) statistics to analyze the data with the aid of Statistical Package for Social Sciences (SPSS Version 25.0). The Results and discussion of the study were presented in the proceeding chapter.

1.7 Scope of the Study

The study focuses on sustainable procurement practice on social and environmental performance and management support as they drive procurement practices and performance. The geographical area selected for the study is the Eastern region of Ghana. To enable the researcher tests the proposed theoretical framework empirically, firms within New Juabeng Municipality were targeted. Since the proposed framework is a universal one, it implies that findings obtained could be generalized to a large extent in Ghana.

1.8 Limitations of the Study

Several challenges are realized in most field research and this study is not an exception. Unwillingness of some participants to share their opinions through the administration of questionnaires, even after being assured of their anonymity of their personalities, some respondents still declined to offer any assistance to the researcher, and in situations where respondents were not met at all, and even those present had misplaced their questionnaires and had to be given new ones. Furthermore, the study was conducted over a relatively short period of time, and as a student who also works full-time, the researcher was bound by time, and the number of firms limited the breadth of the study. Notwithstanding, the enumerated and other challenges did not affect the credibility of the result significantly.

1.9 Organization of the Study

The study is organized in to five chapters. Chapter one outlines the background of study, problem statement, objectives of the study and research question. The significance of the study, research methodology, Scope of the study and limitation of the study. Chapter two reviews literature which relates to the study and secondary data available on the topic. Chapter three discusses the study's methodology used for collecting data, the appropriateness of quantitative questionnaire designed and developed. The criterion for the selection of the sample size is also disclosed in this chapter. Chapter four focuses on data analysis, result presentation and discussion of findings and its implication for theory and practice. Chapter five summaries key findings, final conclusion and recommendation from the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter examined some of the literature on the major ideas investigated in this study. The chapter examined the impact of sustainable procurement practices on social and environmental performance, as well as the function of senior management support. A theoretical review follows. The resource basis perspective hypothesis is the theoretical foundation of the study. The theoretical review is followed by the production of hypotheses and, lastly, the establishment of a conceptual framework to guide the study.

2.2 Conceptual Review

This section presents a conceptual review of major concepts used in this study. These concepts include sustainable procurement practice on social and environmental performance, and top management support. These concepts are discussed below;

2.2.1 Sustainable Procurement

Bals and Tate (2018) contend that taking into account environmental, economic, and social factors are necessary for a thorough assessment of sustainability. The concept of sustainability is crucial to comprehend in light of the foregoing. The goal of sustainable procurement is to create, advance, and safeguard a lifetime value for everyone involved in providing goods and services to customers on an economic, social, and environmental level. The triple bottom line, which combines economic, environmental, and social considerations, can help achieve this, albeit, in most cases (Khan, Hussain, and Ajmal, 2016). Research in the past has revealed that supply chains are the focus of many studies on sustainability in the corporate world (Aboelmaged, 2018; Carter and

Rogers, 2008a; Gast, Gundolf, and Cesinger, 2017). As a result, only a sustainable supply chain can offer sustainable products (Bals and Tate, 2018; Esfahbodi et al., 2017).

At the United Nations Conference on the Human and Environment in 1972, the concept of sustainability became a source of concern. Because of the poisons released by the businesses and illegal activities at this time, the ecosystem began to deteriorate (unlawful mining). Delegates at the meeting were torn between these two issues—financial progress and environmental watchman, one of which was also fascinating. After much explanation, the conference saw that both the financial progress and the environmental gatekeeper were frequently being removed (Blackburn, 2012). The key point made was that enhancing one's living and working conditions, controlling air and water pollution, and draining the environment and resources will all contribute to the prosperity of people both today and in the future. According to Blackburn (2012), the UN Conference at that time embraced the concept of sustainability, which establishes the individuals' (social), the planet's (environmental), and the benefit's (financial) considerations.

The economic perspectives of sustainability control the cash flowing in. Depending on the situation, it may consider looking into the benefit and rate of expenditure, company culture, key management, and the firm's competitive edge in the market. This idea may be best addressed in the realm of procurement through fiscal responsibility, inventory control, and effective observation Adebini (2015).

The environmental aspects of sustainability are concerned with preventing the natural resources and environment from depleting and making the planet a safe place to live for the present and the future (Egbadzor et al., 2014). It is important to consider the quality of natural resources, energy use, waste management, and land use as part of environmental protection. Before making any decisions about the procurement cycle, an assessment of the environmental effects should be made.

The assessment of the influence may take into account energy age and consumption (power, fuel), contamination from its early activities, untamed life, and public insurance (Egbadzor et al., 2014).

According to Warner and Ryall (2001), a significant portion of the native partners incorporated environmental consideration into their purchase methods. They also realized that beginning such a methodology had resulted in increased expenditure on the practical item, which was a hindrance, but they were incredibly successful in obtaining environmental maintainability. Such accidents could occur due to lack of planning on environmental-related concerns, insufficient information and preparation, and a failure to recognize associated danger. According to Handfield et al. (2002), an evaluation of all major risks and provider effects must be conducted before any beneficial activity is carried out, and the results must be shared with all relevant parties. Receiving a checking plan is also crucial for determining whether the desired outcome was attained.

The social component of sustainability is to provide communities with resources such as education (excellent infrastructure and accessibility of teachers), openness to social backings, clinics and wellbeing, accommodation, and accessible roadways. The manufacturing sector could address this viewpoint by showcasing corporate humanitarian initiatives that seek to eradicate poverty, human rights fundamentals, such as schools and emergency clinics, and sponsorship (Egbadzor et al., 2014).

2.2.2 Sustainable procurement Practices

Managers who practice sustainable procurement must not only choose the suppliers with the lowest prices, but also those who offer high value, quick turnaround, and the ability to manage the social and environmental impacts of the production process (Krause, Vachon, and Klassen, 2009; Hussain and Al-Aomar, 2017). The problem from the perspective of operations is implementing social and environmental practices with relation to operations (Gimenez, Sierra, and Rodon, 2012; Sodhi,

2015). According to the research, while selecting buyers for sustainable procurement, economic, environmental, and social consequences must be considered (Kalubanga, 2012; Zhou and Xu, 2018). According to Brammer and Walker (2011), the first step toward sustainable procurement is to recognize the importance of information. Only roughly 83 percent of public procurement professionals working for European governments, according to their poll, are capable of providing sustainable purchasing solutions. This study emphasizes the need of providing professionals with the resources they need to create innovative solutions and undertake in-depth studies of economic performance as well as the social and environmental consequences of procurement.

Procurement agencies' understanding of and attention to environmental and social issues, as well as internal expertise, are thus required for the implementation of a sustainable supply policy. The providing and purchasing departments have a significant impact on an organization's ability to meet sustainability goals and develop minimal criteria for supply and control of procurement activities (Appolloni et al., 2014; Mosgaard, 2015; Ghadimi, Wang, and Lim, 2019). Leading companies are now using sustainability to enhance the level of environmental awareness in their procurement supply chains. Developing supply department capabilities for the use of sustainable suppliers is favorably connected with proactive corporate environmental policy, according to Bowen, Cousins, Lamming, and Farukt (2001). However, it takes time and is a difficult process to establish the capacity that enables suppliers to take advantage of opportunities. In addition, Pagell and Wu (2009) and Tate, Ellram, and Dooley (2012) say that qualifications should reach beyond an organization's boundaries and must concentrate on raising awareness among suppliers when it comes to developing capacity through training and qualifications. According to Tate et al. (2012), buyers should require suppliers to meet environmental criteria as a condition of doing business with them. This requirement must be mutually agreed upon and involve training for suppliers to

assist them in creating socio-environmental criteria. The backing of top management and administration is necessary since sustainable supply chains are becoming increasingly important (Bowen et al., 2001; Defra, 2006; Mosgaard, Riisgaard, and Huulgaard, 2013). As a result, a politically supported sustainable strategy should include a comprehensive definition of the roles, assets, and suitable monitoring practices along the supply chain. By putting knowledge into practice, according to Mosgaard (2015), sustainable procurement can be seen as an organizational skill. Enhancing sustainable corporate direction helps the supply function for businesses including the economic, social, and environmental aspects, according to Meehan and Bryde (2011).

Studies show that those purchases don't always adhere to the basic social and environmental criteria, which could increase the likelihood that they won't follow the rules for sustainable purchasing (Walker, Miemczyk, Johnsen, and Spencer, 2012). It is crucial to abide by sustainable requirements when buying goods and services given the increasing legal strictness of environmental and social norms (Brammer and Walker, 2011; Jabbour and Jabbour, 2016; Meehan and Bryde, 2011; Zhu, Geng, and Sarkis, 2013). Later, the focus switched from choosing suppliers based on pricing to supply chain innovation and incorporating social and environmental factors (Carter and Jennings, 2004). As a result, the addition of socio-environmental requirements in purchasing necessitates the use of tools, methods, and models that enable the buyer to systematically handle the complexity that results from this while also ensuring the success of the purchase.

In the literature, sustainable procurement practices are described in a variety of ways and terminology, and various instruments are recognized for use by businesses. The supplier-self assessment, audits, and certificates are the next most popular and straightforward tools for businesses to use in controlling their sustainable procurement (Turker and Altuntas 2014), with

audits being the most commonly utilized (Fraser, Schwarzkopf and Müller 2020). According to Beske Gold, Beske, Schreiber, and Morana (2008) and Seuring and Muller (2008), there are two key practice groups. Topics including supplier evaluation and assessment, as well as minimum supplier standards, are included in the first category. The second theme looks at issues including improved communication and supplier development, which are further divided into supplier collaboration.

Additionally, Tachizawa et al. (2015) divided similar procurement practices into two groups, namely monitoring and collaboration. With the aid of eco-labels, standards, audits, and formal supplier assessments, monitoring examines whether a supplier's environmental compliances are met. Collaboration can take the form of developing environmentally friendly procedures, working together to reduce waste, and developing ecologically friendly products.

2.2.3 Green procurement

Supply chains are frequently regarded as the major enabler to establishing business agenda in contemporary economies due to the position of green procurement and potential to impact external surroundings through procurement function (Meehan and Bryde, 2011).

According to Darnall et al. (2008), "green procurement" is the practice of different organizations buying products and services (along with utilities and labor) in order to maximize value over the course of a production cycle, benefit organizations in particular and gain social, economic, and environmental benefits.

The United Arab Emirates (UAE) government has consistently demonstrated its commitment to sustainability by actively promoting a greener economy (Akkaş and Yapin, 2017). A key aspect of this effort involves the newly established Ministry of Climate Change and Environment, which

collaborates with relevant agencies to implement green public procurement strategies aimed at addressing the impact of climate change in a manner that is economically viable and environmentally responsible (Aamir, 2017). Notably, the UAE government allocates approximately 24 percent of its gross domestic product to public procurements, envisioning a greener economy through the adoption of green products and services (Oxford Business Group, 2018). However, despite these efforts, the journey towards green procurement in the UAE is not without challenges, and the government faces several serious obstacles in its pursuit of global sustainability (Robeco Sam, 2018; Sustainable Development Solution Network, 2018; Sustainable Society Index, 2018). Implementing green procurement practices brings about significant challenges, some of which are highlighted in the literature, including higher costs, lack of corporate commitment, insufficient knowledge, limited alternatives, and resistance to change (Klassen and Johnson, 2004; Walker et al., 2012). It is widely recognized that a strong commitment to change is crucial for the successful adoption of green procurement initiatives (Cameron and Green, 2004).

2.2.4 Socially responsible procurement

Social and ethical concerns within supply chains are becoming increasingly significant across various organizations. As a response to this, both public and private entities have begun implementing socially responsible purchasing practices. The notion of sustainability is widely accepted as a morally favorable imperative (Eriksson and Göran, 2016), and it is now being integrated more frequently into the strategic and operational decision-making processes of firms (Thomas and Lamm, 2012). The sustainability domain emphasizes the importance of the structure, design, and operation of supply chains, given their profound impact on society.

There is a rising interest in effectively introducing and disseminating socially responsible procurement practices throughout the supply chain, with a specific focus on benefiting individuals and communities. Additionally, the immediate effects of socially responsible procurement practices on workers within the supply chain have been observed. For instance, Huq et al. (2014) demonstrate that in Bangladesh, a competitive labor market empowers skilled workers to leave companies lacking adequate social standards and seek employment elsewhere.

Procurement professionals acknowledge the significance of social responsibility, as it involves being conscious of the implications of their actions throughout the supply chain. Social responsibility is intrinsically connected to ethical principles, employing many of the same concepts to encourage morally upright behavior.

2.2.5 Social Performance

According to several studies, the concept of social sustainability is best understood by putting an emphasis on individual needs including work, education, income, and skills (Spangenberg et al (2002). Similar to this, Whooley (2004) defined social sustainability as workers' satisfaction in supply chains with regard to areas including education, health and safety, remuneration, benefits, retirement funds, training and development (Mani et al., 2015).

For example, (Cramer, 2008; Sudusinghe and Seuring, 2020) developed a methodology where corporate social responsibility indicators were used to quantify social sustainability. Many researchers have utilized social sustainability pointers to explain social sustainability. The following are some of the factors taken into account when determining social sustainability: fair trade and transparency (Ni, Li, and Tang, 2010); safety (Ni et al., 2010; Pullman and Dillard, 2010; Munny et al., 2019); health (Eltayeb et al., 2011; Pullman and Dillard, 2010; Abid et al., 2020); poverty reduction (Ni et al., 2010); education (Patriya, 2007). In a similar line, Kusi-sarpong et al.

(2019) hold that social sustainability implementation is influenced by work safety, labor health, education, openness to collaboration, social responsibility toward society, and excellent working circumstances. However, a few organizations who abandoned the plan to promote social sustainability ended up with major issues that had a detrimental impact on the organizations (F. Huq et al, 2014). Having said that, the majority of sustainability issues have focused primarily on social sustainability out of concern that any endeavor in that direction would have a detrimental impact on the business in question.

The management must assess how much the investment in SPE and SPC has actually contributed to enhancing employee capacities and creating an atmosphere that is enabling for the community in order to evaluate the firm's success on the social dimension for both employees and the community. Employee-centered social performance (ESP) and community-centered social performance (CCSP) typically encompass an organization's performance in this area (CSP). ESP is demonstrated by a decrease in wage disparity (Welford and Frost, 2006; Boyd et al., 2007; Hutchins and Sutherland, 2008; Zhu and Zhang, 2015; Mani et al., 2016a; 2016b; Zhu et al., 2016); an improvement in employees' health, working conditions, and living conditions. CSP is related to corporate social responsibility (Duarte et al., 2014), increase of employment/business opportunities for the neighborhood, and promotion of the community's health, education, and literacy levels (Mani et al., 2016a, 2016b; Zhu et al., 2016; Hutchins and Sutherland, 2008; Zhu and Zhang, 2015).

2.2.6 Environmental Performance

It consists of things people do or things that happen that have an impact on the environment (Aan et al., 2016; Suhi et al., 2019). Vachon and Klassen (2008), Carter et al. (2008)a, Wu and Pagell

(2011), Pulido-fernández et al (2016), Bai et al (2016), and Vachon and Klassen (2011), among others, have discussed some of these activities or events. Environmental supply chain sustainability is increasingly viewed as a quality attribute that will enable organizations to reap premium prices from the market (Luthra et al., 2015; Yusuf et al., 2013). Significant evidence also suggests that sustainability in supply chains has helped firms to achieve better performance (Crowder and Reganold, 2015b).

The existing empirical research on environmental performance and its determinants is both limited and plagued by various weaknesses (Elmagrhi et al., 2019; Orazalin, 2020; Tran, Beddewela, and Ntim, 2020). One notable weakness is the lack of focus on the influence of top management structures and good governance practices on environmentally friendly activities, despite suggestions that these factors significantly impact corporate strategic decisions (Shahab et al., 2020). Previous studies have predominantly examined the effects of board structure variables on governance disclosures, corporate social responsibility, and corporate performance (Elmagrhi, Ntim, and Wang, 2016; Ntim, Soobaroyen, and Broad, 2017; Liao, Lin, and Zhang, 2018; McGuinness et al., 2017; Carter, Simkins, and Simpson, 2003; Jackling and Johl, 2009).

Moreover, research exploring the influence of board structure variables on corporate environmental performance is scarce (De Villiers et al., 2011; Elmagrhi et al., 2019; García-Martín and Herrero, 2020; Rupley, Brown, and Marshall, 2012), leading to a lack of comprehensive knowledge in this area. Furthermore, the few studies that do focus on environmental performance have primarily been conducted in developed countries such as Australia, the United States, EU, Japan, and the United Kingdom (Rao, Tilt, and Lester, 2012; Post, Rahman, and McQuillen, 2015; Aslam, Elmagrhi, Rehman, and Ntim, 2020; Brammer and Pavelin, 2006, 2008; Liao et al., 2015), with limited attention paid to environmental performance in the context of developing/emerging

economies, including China (Alnabsha, Abdou, Ntim, and Elamer, 2018; Haladu and Salim, 2016; Iatridis, 2013). This is particularly concerning for China, where environmental issues like land degradation, air and water pollution, and deforestation significantly threaten public health and well-being (Elmagrhi et al., 2019; Shahab et al., 2020). Fourth, earlier research has looked at the effect of a few boards structure factors on companies' environmental performance, including board independence and gender diversity (Brammer and Pavelin, 2008; Ben-Amar, Chang, and McIlkenny, 2017; Harjoto, Laksmana, and Lee, 2015). On the other hand, it appears that there aren't enough empirical investigations looking into how different board structure factors affect environmental performance. Fifth, previous empirical research has used dummy variables or Rakins' database to quantify companies' environmental performance in China (Liao et al., 2018; Shahab et al., 2020; Jia and Zhang, 2011). However, according to Elmagrhi et al. 2019), such measurements might not correctly reflect how environmentally responsible a company is. This casts doubt on the conclusions of these studies' applicability to other industries.

Businesses that use EMP or GSCM procedures are more likely to assess their environmental performance (EPR). EPR is assessed using a variety of performance metrics. The cost of effluent treatment and discharge, the frequency of environmental accidents, the discharge of solid, liquid, gaseous, and hazardous waste, among other things, are reduced. (Zhu and Sarkis, 2004; Zhu et al., 2007; Zhu et al., 2008; Rao et al., 2009; Harms et al., 2013; Esfahbodi et al., 2016) Another suggestion was made by Welford and Frost (2006): fewer accidents on the shop floor. The preservation of bio-diversity was also taken into account by Harms et al. (2013) and Pullman et al. (2009).

2.2.7 Top Management Support

The position of top management is crucial for every successful company that is moving forward

(Teece, 2016). Top management support (TMS) has been reported by many researchers to be one of the extensively explored organizational elements recognized to influence work behaviors and to promote continuous development (Pham, Pham, and Pham, 2016; Weiss et al., 2002). Hence, the TMS definition. TMS is defined by Ahmed and Azmi (2016) and Ismail, Majid, Jibrin-Bida, and Joarder (2021) as the provision of material, human, and financial assistance to a group of individuals in order for them to successfully complete a task. The belief that managers have about investing in people while conducting strategic planning is known as top management support (Boada-cuerva, Trullen, and Valverde, 2018). According to belief and involvement, top management support is a key factor in a company's initiative (Liang, Saraf, Hu, and Xue, 2007; Liu, Liu, and Yang, 2020). The current study reviews the TMS definition in order to fit its needs. Based on the aforementioned definition, this study defined TMS as any management-related actions, including time and resources of any kind, that affect the firm's performance in the direction of sustainability (Shishir Goyal, Srikanta Routroy, 2018).

TMS refers to the most influential senior members within an organization, which typically includes key individuals such as the Managing Director (MD), Operations Manager, Human Resource Manager (HRM), and Director of Finance (Nesheim, 2021). These senior executives, including the Chief Executive Officer (CEO), MD, and other managers or directors, play a vital role in comprehending the impact of Supply Chain Management (SCM) activities on the organization's overall performance. They are responsible for providing effective leadership and offering financial, material, and motivational support to ensure successful outcomes. TMS also involves the official recognition and endorsement by senior executives for internal and external alliances of the company (Vermeulen et al., 2016).

Senior-level employees typically need to have management and leadership abilities. TMS offers enterprises a helpful and facilitating work environment that helps them perform better. TMS has been described as the force that brings together several functional groups. The first step towards achieving success within an organization is often initiated by decisions made by top management. These decisions can lead to various positive outcomes, including increased employee engagement, a cultural shift, improved knowledge management, committed employees, enhanced empowerment of employees, and the establishment of effective organizational rewards and incentives systems. Additionally, top management can promote success through the provision of valuable trainings, effective communication sessions, and the development of strong teams within the organization (Mazzei, 2016; Mayan, 2017; Bhavan, 2017).

While top management plays a crucial role in driving the organization towards success, customer satisfaction remains the primary objective of any organizational structure. Employees of the business must be attentive to the needs of these customers, in addition to top management. It is the responsibility of top management to ensure that the business is equipped with all the necessary resources for smooth operations, understanding and addressing customer wants and requirements, and making concerted efforts to fulfill those needs (Mantyneva, 2020). TMS is essential for inspiring employees and fostering an environment that supports their growth throughout the firm.

Al Shobaki et al. (2016) investigated the effect of TMS for strategic planning on crisis management in the Gaza Strip field in Palestine, and it was discovered that top management provides the necessary human resource for organizational strategic planning but without financial assistance. The study made the proposal that senior management must offer the necessary financial support for strategic planning, regular meetings to prepare for potential crises in the future, the creation of a specialized team, and the provision of all necessary resources.

Abu Naser and Al Shobaki (2016) conducted a study in the Gaza Strip, Palestine, to investigate the utilization of decision support systems, operational re-engineering, and business-applied research at Palestinian universities. The research revealed a notable adverse effect on the efforts of Top Management Support (TMS) to facilitate the adoption of decision support systems in the re-engineering of operations and business within the Gaza Strip universities. Furthermore, the study identified statistically significant differences in the mean estimates of the impact of decision support systems on operational re-engineering and business practices in Palestinian universities. Additionally, the type of decision support systems utilized was found to have an effect on promoting their adoption in operational re-engineering and business processes at Palestinian universities in the Gaza Strip.

Additionally, using information from an Australian survey, Yigitbasioglu (2015) investigated the influence of institutional elements on the top management team's choice to use cloud computing services. It was discovered that the senior management team's perceptions of the advantages of cloud computing are influenced by mimetic and coercive forces. Additionally, the senior management team's engagement is influenced by their beliefs, which in turn affects their intention to promote the use of cloud computing technologies. The report advised the top management team to exercise extreme caution when choosing the sorts of applications to be outsourced as organizational requirements due to variations in performance and security.

Ahmed et al. (2016) used cross-sectional data gathered from 208 project management professionals around the world to investigate the impact of multidimensional top management assistance on project success. The outcomes showed that top management's power and resource provision have a substantial impact on project success. TMS therefore plays a key role in the effective execution of projects.

Iqbal et al. (2015) conducted research on the interaction between TMS and the relationship between project managers' transformational leadership and project success, involving 125 project managers chosen using a systematic sampling technique and a mail survey method in Pakistan's higher education sector. The study came to the conclusion that, especially in developing nations, project success can be improved by exploring the connections between project managers' transformational leadership and TMS.

This suggests that TMS has a possibility to remain one of the most crucial success elements in the sector. They are in charge of creating the company's strategy, so they need to be well-versed on current organizational conditions. They act as the key interface between organizational functions, supporting team decisions and getting involved in resolving any issues that might develop. Again, they established the organization's vision, mission, goals, and strategies before integrating its departments, units, and sections.

2.3 Sustainable Procurement in Ghana

Professionals, researchers, and other decision-making bodies have begun to pay attention to the requirement for sustainability in the procurement procedures. The main issue is that the cost of goods and services has an impact on firms' profit margins. The majority of manufacturing companies will need to rely on raw materials bought from a reputable supplier. These raw materials must satisfy the requirements specified in the purchase order, which also specifies the amount and delivery window that the seller must meet. The capacity of produced goods to satisfy final consumers while maintaining a sustainable supply depends heavily on the provider of those raw materials. Since the organization generating it previously produced it to serve the final consumers, when raw materials don't meet specifications, their component might not meet the expected final product as requested by the end users. As a result, the supply chain must be improved in order to

save costs (Humphreys, 2003). Australian Government (2013) defines sustainable procurement as a system of purchasing that takes into account a variety of factors, such as the needs of the immediate environment, the interests of the customers, ethical and other economic considerations, as well as the requirement that the practice be carried out in a more effective and efficient way. The majority of firms have sensitive procurement policies, particularly those in the public sector because purchases of products and services account for the largest share of the national budget's expense category. Some officials are not adhering to the proper procedures to ensure transparency, accountability, and efficiency, as well as the economy as expected to assess performance at the public sector, which results in a continuous record of corrupt practices and the inability to get the quality of goods and services as expected to be used at the public sector to meet the expected desires for a specified period.

Since the mid-1990s, there has been an increase in procurement, and its effects have been felt within environments, economies, and other social institutions, necessitating those businesses ensure green procurement or purchasing, which is thought of as a subset of the larger sustainable procurement concept (Van Calster, 2002). This has led to the adoption of procurement practices across all industries, and modern procurement practices have introduced e-procurement processes to improve operations, ensure cost savings, and prevent officials from engaging in other unethical procurement practices in order to benefit themselves rather than the organizations they represent or to address the high resource consumption of people generally in the 21st century (Williams et al., 2007). Government policies, as well as other institutional and legislative measures, have been implemented in Ghana to control how organizations operate and to greatly increase public understanding of economic issues and greater social and environmental protection (Thomson and Jackson 2007). The benefits and impacts of obtaining value for money in public and commercial

procurement as well as sustainable purchasing practices are further fueled by enhanced sustainable procurement methods, notwithstanding the difficulties. Procurement professionals play a crucial role in understanding the benefits and drawbacks of sustainable procurement, ensuring that purchases are made without harming the environment or driving up supplier costs. New guidelines for public procurement in Ghana have been implemented by the Public Procurement Act 2014 (Act 914 as amended).

Despite the benefits accruing, Ghana has been one of the developing countries that has been hesitant to execute its policy-driven approach to boosting effective implementation of sustainable procurement. For many nations, especially in Africa, the policy program for sustainable procurement is growing, but awareness is still insufficient (Muraguri, 2013). In order to progress towards sustainable procurement, the Ghanaian government has developed policies as well as legislative and other institutional concerns. Government commitment to sustainable procurement is demonstrated by the formation of the Environmental Protection Agency, Public Procurement Act 2003 (Act 663 as modified), National Sustainable Development Coordination Body, and Environmental Impact Assessment Law. The adoption and execution of sustainable procurement have been gradual, resulting in a lower diffusion rate in Ghana, despite the formation of the acts and legislation (Dza, 2017).

The sensitive nature of procurement, particularly when it comes to the supply of medicines and other medical equipment, has prompted numerous studies, the majority of which were carried out in developed countries, on the need for sustainability, including green supply chain management practices (Ross, 2013), as well as on the necessity for businesses to assume their responsibilities within societies (McWilliams and Siegel, 2000), and on the fact that they must exercise purchasing discretion (Ho et al. 2010). But only a small number of these studies were carried out in Ghana

(Thomson and Jackson, 2007; Sasaka, 2014).

However, as scholars have pointed out, there is a need for sustainable procurement to help organizations combat various social vices, such as global warming and climate changes (LundThomsen and Costa 2011). However, private purchasing is not entirely exempt from procurement restrictions, particularly those imposed on the private sector by laws and regulations (Harland et al. 2013). The regulatory framework for government procurement, which includes the plurilateral Government Procurement Agreement (GPA) of the World Trade Organization, primary and secondary legislation of the European Union, and specific titles in the United States code (Harland et al., 2013), recognized the need for enforcement of rules and regulations to ensure that the procurement practices are carried out in a more transparent and ethical manner. Unlike the private sector, which has considerable latitude about how raw materials and other services are bought, Harland et al. (2013) noted that the restrictions relating to procurement procedures within the public sector added to the complexity within the public sector. Compared to private purchase, public procurement is different and more complicated.

2.4 THEORETICAL REVIEW

2.4.1 Resource- Based view theory (RBT)

According to the RBT, resources and competencies that are uncommon, valuable, and difficult to duplicate can provide significant sources of sustainable competitive advantage (Barney, 1991). According to Grant (1991), resources are both tangible (like equipment) and intangible (like process knowledge), which improve the production and supply of goods and services. The talents, assets, information, competencies, and procedures that an organization controls to enable them to implement strategies and increase competitiveness are sometimes referred to as resources,

according to Grant (1996) and Barney (1991). According to Wernerfelt (1984), a resource is anything that may be used to strengthen or weaken an organization. Examples of resources include information, skilled workers, effective procedures, machinery, a reward system, capital, etc.

More specifically, Barney (1991) and Peteraf (1993) have thought about the five characteristics of resources that can allow a business to achieve a real sustained competitive advantage. The resource must be valued and should improve the efficacy and efficiency of the organization. Second, when one exercises control over the resource, it must be rare so that the organization may use it against its rivals. Thirdly, the resource ought to be something that rivals can't duplicate. In order for the resource to be controlled by the organization alone, it must be one that is difficult to move, meaning that every attempt to do so must result in damage. In order to prevent competitors from offering an alternative, the resource should not have a near substitute.

Additionally, procurement officers' environmental knowledge reflects their perspectives and thinking on environmental concerns, which should be priceless and irreplaceable. However, according to Xu et al. (2014), it can serve as the foundation for distinct resources that provide one firm an advantage over another. This justifies the inclusion of environmental knowledge in the proposed model. According to RBT, it is necessary to categorize as capabilities the capacity and skill to manage connections among partners and organizations along the supply chain (Dyer and Singh, 1998). For instance, Rungtusanatham et al. (2003) also linked relationships to capabilities and resources, and Antony Paulra and Augustine A. Lado (2008) connected partner communications to relational capacities. Boonstra (2013) asserts that environmental knowledge is valued as a scarce resource that is essential to managing an organization's procurement function (Ward et al., 1994). Resources (such as instruction on environmental issues) enable firms to think

about and create plans that increase the effectiveness and efficiency of the company. Hart (1995) discovered that intangible resources may be developed in response to environmental concerns.

These intangible assets may serve as the cornerstone for increases in sustainable performance, which may also produce a competitive edge. Carter and Rogers (2008) discovered that intangible resources, like the knowledge shared or acquired in managing the buyer and supplier relationship in collaboratively working to improve sustainable procurement, can be viewed as a resource that is uncommon, valuable, and difficult to imitate (Barney, 1991). These resources can result in improved sustainability. According to Pagell et al. (2010), management's capacity to form cooperative relationships to boost sustainability is a crucial asset that results in a sustained competitive advantage when creating procurement that is goal-oriented or financially successful. So it makes sense to include a variable for procurement sustainability in the suggested model. RBT offers a very good point of evaluating sustainability resources, according to Mohsen et al. (2014). Initiatives to explore the connection between sustainability and RBT have been made for some time (Pagell and Wasserman, 2010; Rao and Holt, 2005). It's crucial to understand that from the perspective of RBT, the information, procedures, and skills that enable a supply chain to achieve economic, social, and environmental sustainability can be viewed as organizational resources (Sarkis et al, 2011). Sustainable business practices are one of the things that enhance a firm's reputation and image. It is a crucial supply-chain resource (Sarkis et al., 2011; Shang Lu, and Li, 2010). This hence examine the effect of sustainable procurement practice on social and environmental performance and management support interact to affect procurement practice through the lens of the RBT.

2.5 Empirical Review

In Nairobi County, Nzau and Njeru (2014) conducted research on the variables influencing public university procurement performance. The study employed a descriptive survey research design.

There were 166 people working in the procurement department, who were recruited from three of Nairobi's four main public institutions. Questionnaires were used as data gathering tools. Both descriptive statistics, like frequency tables and charts, and inferential statistics, like regression, were used to analyze the data. The study found that the departments created procurement plans for the tasks listed in the work plans, that the procurement staff in the ministry lacked adequate supply chain management skills, and that the management of the ministry provided the procurement department with adequate professional support, training, and educational opportunities. According to the study's recommendations, purchases should be made by the procurement department in accordance with predicted prices, planned monetary values, and delivery timetables.

Omanji and Moronge (2018) investigated how Kenyan public sector performance was impacted by procurement practices. A Narok County Case. The employees and management of Narok County served as the study's population, and a descriptive survey research design was used. The study used a sample size of 196 respondents using a stratified sampling technique. Furthermore, the study's principal methods for gathering primary data from respondents were structured questionnaires. In order to estimate the relationship between the dependent and independent variables and to provide an objective method of evaluating the strength and nature of the relationship between the dependent and independent variables, data was collected and analyzed using multiple linear regression analysis. According to the study, 3 factors—ICT Adoption, Green Purchasing Policy, and Procurement Planning—were responsible for 77.1% of the total variability

in the County's Performance. The report suggested using these procurement methods throughout all public sector procurement procedures in order to improve performance and service delivery.

In Western Kenya, public sugar manufacturing enterprises were studied by Odero and Ayub (2017) to see how procurement practices affected those firms' performance in that area. Establishing the impact of procurement practices on the performance of public sugar production enterprises in Western Kenya was the primary goal of the study. Descriptive survey research was used in the study. By administering surveys to the procurement department's staff, primary data was gathered. Two publicly traded sugar producers in Kenya that are based in Western Kenya made up the study's sample. The results of the study showed that staff competence had a strong positive and substantial impact on the procurement performance of the sugar production enterprises in Western Kenya investigated, whereas procurement planning had a positive but small impact on that performance. The report specifically suggests that businesses should improve their planning, ensure that procurement strategies are followed, recruit competent employees in the procurement department, and provide staff training opportunities. Although numerous research on procurement methods have been conducted in various geographic locations, it appears that no study has been done in higher institutions in Anambra State. Therefore, the justification for the current investigation is strengthened by this disparity.

A case study of the construction of a power plant at Kenya Petroleum Refineries Limited in Mombasa, Kenya, conducted by Oloo (2013) investigated the impact of procurement procedures on the success of construction projects. According to the study, the use of strategic procurement procedures results in a 58.3 percent increase in completion time over the anticipated duration. The client was happy with the service and the project's quality, but not so much with the cost and time

it took to complete. The report advised taking project management and contract management training for all project participants.

Kiromo (2015) asserts that strategic procurement and supply chain practices positively influence organizational performance through various means, such as the implementation of supplier relationship management, ethical procurement, green supply chain management, and adherence to professional ethics. These practices not only contribute to higher product quality but also enhance the organization's ability to meet demand effectively. To enhance the performance of construction firms, the researcher recommends the preparation and frequent review of annual procurement plans. Furthermore, the procurement process should be managed by qualified, competent, and experienced procurement professionals to ensure high levels of efficiency and effectiveness.

According to Ooko (2018), the performance of housing construction projects in Nakuru County is impacted by various challenges in the procurement lifecycle faced by construction firms. These challenges include insufficient funding for purchases, compromised quality due to subpar items, supply and delivery delays, and political influence. To address these issues, the study recommends that construction companies establish complex payment plans for supplies, educate key stakeholders about the importance of adhering to procurement rules and regulations, and provide training to enhance the skills of creating product specifications.

Masiko's (2013) study aimed to investigate strategic procurement practices among Kenyan commercial banks. The findings revealed that Kenyan commercial banks are well aware of strategic procurement procedures, and there is a strong positive correlation between strategic procurement and the benefits it brings to commercial banks. Furthermore, the study highlighted that strategic procurement practices significantly impact procurement performance in these banks.

2.6 Hypotheses formulation

This section describes the hypotheses for the proposed conceptual model for the current study.

2.6.1 Effect of Sustainable Procurement Practice on Social Performance

Increasing focus has been given to social performance in supply chain management as a result of increased awareness of workplace health and safety and organizational education (Seuring and Muller, 2008; Eriksson and Svensson, 2015). SPP seeks to enhance supply chain company social performance (Wang and Dai, 2017). However, the majority of empirical studies on GSCM deal with the economic and environmental sectors (Golicic and Smith, 2013). There isn't many empirical research on supply chain management's social sustainability (Mani et al., 2016a; 2016b). Esfahbodi et al. (2016), for instance, did not include social performance while confirming the good impact of SPP on environmental and financial performance. So, a thorough sustainable supply chain practice performance model is suggested for Vietnamese building material manufacturing enterprises, and it is empirically evaluated. Indicators of social performance include expanding access to health care in the neighborhood (Hutchins and Sutherland, 2008; Main et al., 2016a, b, Das, 2018). According to Das (2018), social performance is also reflected in the community's increased access to employment and business prospects. The relationship between sustainable procurement practice and social performance can be drawn on the resource-based view (RBV) theory. The RBV theory suggests that a firm's competitive advantage and success depend on the resources it has access to. In the context of sustainable procurement practices, this theory can be used to explain how a firm's sustainable procurement practices can create a competitive advantage, which then leads to improved social performance. For example, sustainable practices that focus on reducing the environmental impact of a firm's activities can create a competitive advantage, as

consumers increasingly seek out sustainable-minded companies. Drawing on the logic of RBV theory, the study hypothesizes as follows;

H1a: Socially responsible procurement practices and social performance are positively related.

H1b: Green procurement practices and social performance are positively related.

2.6.2 Effect of Sustainable Procurement Practice on Environmental Performance

The adoption of green practices has enhanced organization performance and society's health while reducing environmental mishaps (material, waste production, and liquid waste) (Das, 2018). A business must recognize environmental problems in areas including purchasing, manufacturing, and transportation (Azevedo, Carvalho, Machado, and review, 2011). The company uses the least number of resources and causes the least amount of pollution to the soil, water, air, and hazardous waste. The ability of the company to reduce dangerous substances, pollution, environmental accidents, and solid waste is ensured by environmental performance (Esfahbodi, Zhang, and Watson, 2016).

With reference from the RBV theory it is suggested that when an organization has capable employees who practice green innovative behavior, it is likely for the employees and managers to translate these green practices into the operations of their organization and this could drive environmental performance (Chin et al., 2020). For example, firms that focus on reducing the amount of energy and resources consumed in their production processes can create a competitive advantage, as consumers increasingly seek out businesses that strive to be more eco-friendly. This can lead to an improvement in environmental performance, as well as other benefits such as cost savings and improved resource efficiency. Various factors contribute to measuring environmental performance. These factors encompass waste reduction, decreased usage of dangerous and

hazardous materials, as well as reduced energy consumption (Yang et al., 2013; Laari, 2016). Another crucial aspect of environmental performance is the reduction in the occurrence of environmental accidents, as suggested by Zhu et al. (2008) and Das (2018). Additionally, Esfahbodi et al. (2016) emphasize the importance of enhancing an enterprise's environmental position. Based on the discussion above, it is predicted that:

H2a: Socially responsible procurement practices and environmental performance are positively related .

H2b: Green procurement practices and environmental performance are positively related.

2.6.3 Moderating Role of Top Management support

The success of the organization's activities has always been directly attributed to top management, which has always been in charge of managing the organization. The key to implementing an organization's sustainability plans successfully is its top management (Epstein and Roy, 1998). Therefore, the resources committed by top management enable or actualize supply chain sustainability (Huang et al., 2012). This means that top management must fully support sustainability in order to ensure it (Bakke et al., 2002; Rice, 2003). As a result, top management support is a prerequisite for supply chain sustainability practices (Zhu et al., 2005; Munny et al., 2019). This demonstrates that one of the key factors in implementing supply chain sustainability is top management support (training) (Zhu, Sarkis, and Lai, 2013). Thus, training as a top management support aids in the development of personal sustainability skills in the supply chain (Silva, Costa, and Kniess, 2019); nevertheless, training must be ongoing for all participants in the supply chain. In addition, reward as a top-management-supported activity also has a significant impact on supply chain sustainability (Fu, Teo, Li, and Wang, 2018; Kadarusman and Herabadi,

2018). Reward as a support from top management is expected to have an impact on economic sustainability and economic performance (Roscoe et al., 2019; Tang et al., 2019), improve quality (Secapramana et al., 2019) and production (Chen and Ulya, 2019; Amoah and Syllias, 2020), increase market share (Kadarusman and Herabadi, 2018), and change suppliers' attitudes (Smith, 2009). In order to achieve sustainability, reward as a management tool is crucial (Cantor et al., 2012; Nejati et al., 2017 in the supply chain). Top management's resources are thus necessary for supply chain sustainability to be achieved or made practicable (Bhardwaj, 2016; Huang et al., 2012), and saying that they promote sustainability is not overstating the case (Epstein and Buhovac, 2010). The available research has also demonstrated the need of dedication and top management support for the management of a sustainable supply chain (Abdulrahman et al. 2014; Jabbour and Jabbour, 2017). From the foregoing discussion, it can be concluded that TMS is a crucial element for the practice of supply chain sustainability, and that top managements have a significant beneficial impact on supply chain sustainability (Grimm et al., 2014).

H3a: The link between socially responsible procurement practices and social performance is moderated by top management support.

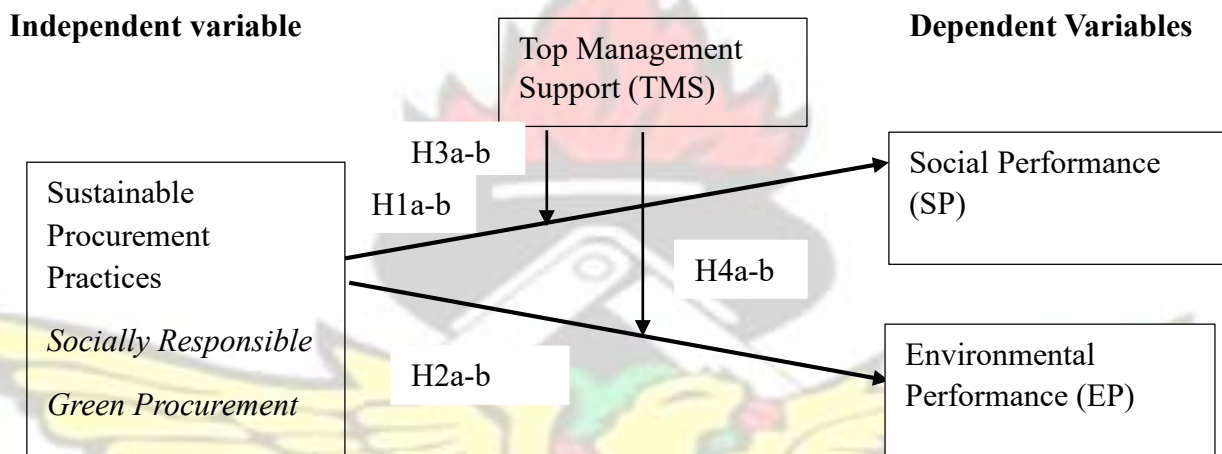
H3b: The nexus between socially responsible procurement practices and environmental performance is moderated by top management support.

H4a: The connection between green procurement practices and social performance is moderated by top management support.

H4b: The association between green procurement practices and environmental performance is moderated by top management support.

2.7 Conceptual Framework

According to the framework proposed in this study, it is hypothesized that top management support plays a crucial role in strengthening the impact of sustainable procurement practices on both social and environmental performance. The framework, illustrated in Figure 2.1, incorporates three types of variables: independent, moderator, and dependent variables. The subsequent section will provide a detailed explanation of the relationships among these variables.



Source: Researcher's construct (2021)

Figure 2. Conceptual Framework

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter deals with the study methodology by describing the study design employed, the study population, sampling and sample size determination, methods of data collection, the sources of data, methods of data analysis, reliability and validity, and ethical consideration.

3.2 Research Approach and Design

Various research designs and sub-design types exist, but the focus often centers around exploratory, descriptive, and explanatory research designs (Kapoor, 2016). Exploratory studies primarily concentrate on problem formulation, concept clarification, and hypotheses generation (Raaijmakers et al., 2008). These studies often begin with literature searches, focus group discussions, or case studies and are commonly employed when investigating areas that have limited prior research. The goal of exploratory research is to create hypotheses and theories rather than testing them. It frequently involves gathering qualitative data.

On the other hand, explanatory designs aim to explain and predict phenomena, particularly future occurrences (Buck et al., 2009). These designs are used to test existing theories and hypotheses in order to identify relationships between constructs or variables. Explanatory studies heavily rely on probability sampling to generalize the results to the study population. The data in explanatory studies are mostly quantitative, and valid relationships are established using statistical tests. Descriptive designs, on the other hand, focus on providing descriptions of situations, products, or people. They are not driven by structured hypotheses but are guided by one or more research questions. In this case, the study employed an explanatory research design to understand the impact of sustainable procurement practices on social and environmental performance and the interaction of top management support within firms in New Juabeng Municipality.

3.3 Population

This is considered to be the totality of elements through which sampling can be selected (Bryman and Bell, 2011). This general population often contains elements or units or individuals whose inclusion would violate the goals, context and or assumptions of the study as this population is characteristically crude (Asiamah, Mensah and Oteng-Abayie, 2017). The two research

populations defined from the general population are the target and accessible populations. Target population refers to all individuals or group of individuals to which researchers are interested in generalizing the conclusions (Asiamah, Mensah and Oteng-Abayie, 2017). This is the refined part of the general population. The target population which is also known as the theoretical population normally has varying characteristics. Thus, a refined form of the target population is the accessible population. The accessible population is the population in research to which the researchers can apply their conclusions. This form of population is defined by excluding all individuals of the target population that are not accessible to the researcher during the period of the study (Bartlett et al., 2001). This population that is termed as study population serves as the source of study sample. In the context of this study, the general population constitutes the firms in the New Juabeng Municipality.

3.4 Sample and sampling Approach

Sampling involves selecting individuals from a defined population to assess the characteristics of the entire population (Collis and Hussey, 2009). It is often used when it is not feasible for the researcher to access the entire population due to constraints such as time and cost (Saunders et al., 2007). There are two main sampling techniques: probability (random) sampling and nonprobability sampling. In probability sampling, every individual in the population has an equal chance of being selected, whereas in non-probability sampling, not all individuals have the same chance of being chosen (Bhattacharjee, 2012; Kothari, 2004).

Determining the appropriate sample size in research is a challenging task with varying opinions from different authors. Some argue that smaller sample sizes are suitable for larger populations, while others believe the sample should be representative and consider factors like population

homogeneity or heterogeneity (Krejcie and Morgan, 1970). Gorsuch (1983) and Kline (1979) recommend a sample size of at least 100, while others suggest researchers aim for the maximum possible sample size (Rummell, 1970; Humphreys, Ilgen, McGrath, and Montanelli, 1969; Guertin and Bailey, 1970; Press, 1972). An inappropriate or insufficient sample size can adversely affect research outcomes and findings (Bartlett, Kotrlik, Higgins, 2001). To achieve satisfactory statistical test power and avoid relying on a small sample size that could impact results (Habib, Magruder-Habib, Kupper, 1987), this study targeted procurement officers from public and private sector organizations in the new Juabeng municipality. The total sample size was 150, and the study used purposive sampling to select the participants.

3.5 Data Type and Instrument

Primary data refers to data that is collected by the researcher for the first time, in real-time, and specifically addresses the research problem. This type of data involves a process of data collection and can be obtained through various sources, such as surveys, observations, experiments, questionnaires, and personal interviews (Saunders et al., 2007). In this study, primary data was collected through a well-structured questionnaire designed to align with the study's objectives. The questionnaire was based on existing measures found in the literature, and its design was ensured to be of high quality by following the guidelines proposed by Saunders et al. (2009) for instrument design. According to Saunders et al. (2009), data obtained through questionnaires from respondents can be considered stable, constant, and have a uniform measure of variation. Moreover, using a questionnaire reduces the influence of the researcher's preconceived notions or ideas concerning the presentation of study variables. The questionnaire used in this study was sourced from previous studies. Procurement performance was measured with ten (10) items adopted from (Islam et al, (2014); Wiengarten et al, (2014); Lai et al, (2012). The first dimension

of top management support is training and it has been defined as skill and knowledge that the top management organization will give to the suppliers to enable them to improve on their work and sustained the agribusiness. The measurement items for this dimension has been adapted from Babakus et al. (2003) and Nazir et al, (2016) Another dimension of top management is reward which is defined as the incentives the supplier receives after meeting and exceeding expectation of the buyer.

3.6 Data Collection

The method employed in the data collection was the self-administered method. It simply means the questionnaire was personally given to the actual respondents to complete, with minimal assistance of the researcher. One crucial step in questionnaire development is the pre-test, which aims to ensure that the questionnaire is effectively designed for the intended study before collecting actual data. The pre-test is conducted to validate the content, question wording, format, and relevance of the questions to the study objectives. Even though the proposed items used in this research are adopted from previous studies, a pre-test is still essential to confirm that the questions are suitable for the target respondents (Kumar et al., 2013).

In this study, the pre-test was carried out through discussions with experts in the academic field related to the study area, including academic thesis supervisors and industry experts. These individuals were considered authorities in the field. The pre-test process focused on reviewing the proposed questionnaire for its content validity, clarity, and the timing required for respondents to answer the questions. A selected group of respondents participated in the pre-test by answering the questionnaire, and their feedback during this period was used to improve the questionnaire's design and effectiveness.

3.7 Data Analysis

Data processing involves converting raw data into meaningful output or information (Anagnostou et al., 2015). This process includes a series of activities aimed at transforming raw data into a usable form. In this study, before data processing, the raw data underwent a thorough cleaning process to identify and eliminate any errors, redundant, incomplete, or incorrect data. After cleaning, the data was coded and entered into Microsoft Excel format and then imported into the Statistical Software Program for Social Sciences (SPSS) for further analysis.

The data in SPSS format was processed for interpretation, and process macros were used for validating the measurement items through dimensional reduction. Exploratory and Confirmatory Factor Analysis (CFA) were employed to reduce the dimensions. Additionally, the reliability of the construct dimensions was assessed through Cronbach Alpha analysis. The results of the data were reported using descriptive statistical tools, including frequency, percentage, mean, and standard deviation. To evaluate the relationship between variables, process macros model 1 was used.

3.8 Reliability and Validity

Reliability reflects consistency and replicability over time (Taherdoost, 2016). Likewise, reliability is seen as the degree to which a test is free from measurement errors since measurement processes or tests with a high level of errors are less reliable (Fraenkel and Wallen, 2012; McMillan and Schumacher, 2006). The reliability of the measurement items was upheld through a pilot survey of the questionnaire with selected organizations. Measurement items with less than 0.70 Cronbach Alpha values were deleted from the questionnaire due to their low level of internal constancy. In the main study, internal reliability was further checked through Cronbach Alpha analysis as well.

Nonetheless, the reliability of measurement items does not necessarily imply validity. Validity explains how well the collected data covers the actual area of investigation (Ghauri and Gronhaug, 2005). Face validity of the measurement items was ensured through consultation with several professionals in the management of organizations. Content validity was also ensured through the reliance on already existing validated measurement items in the extant literature. Construct validity in the form of convergent was tested in this study through exploratory and confirmatory factor analysis.

3.9 Ethical Issues

Ethics are the moral standards that a person must adhere to regardless of location or time (Akaranga and Makau, 2016). The moral norms that researchers must follow in their particular fields of research are the subject of research ethics (Fouka and Mantzorou, 2011). A permission form was submitted to the authorities of all selected firms in order to inform them of all the benefits and hazards associated with participation in the study and to obtain their consent to be included in the study. Selected companies have the option to decline participation in the survey. In the consent form, the researcher said that all types of anonymity and confidentiality would be respected. Organizational privacy was also noticed in terms of the ability to define the time, extent, and conditions of exchanging information. The researcher avoided any deceptive behavior in their interactions with individuals. The researcher also avoided all sorts of plagiarism and data manipulation.

3.10 Chapter Summary

The chapter details the methodology of the study. The study employed explanatory research design to understand how sustainable procurement practice impact on social and environmental performance and the moderating role of top management support within the firms in New Juabeng municipality of the eastern region of Ghana. The study targeted procurement officers in public and private sector organizations and data for this study were through questionnaire

The result of the data was reported using both descriptive and inferential statistical tools. The descriptive statistical tools employed were frequency, percentage, mean and standard deviation. The relationship between the variables was evaluated using SPSS version 25 and process macro model 1.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND DISCUSSION

4.1 Introduction

In the fourth chapter, the empirical results of the analysis, interpretation, and discussion from the field are presented. The response rate is detailed in the first section. The demographic characteristics of the study participants are reported in the second section. A descriptive assessment of critical variables is found in the third part. The fourth portion covers confirmatory factor analysis, and structural model evaluation. The analysis was carried out using SPSS version 25 and PROCESS MACROS. The data gathering period lasted a month, from 1st December to 30th December 2021. After evaluating the individual questionnaires for acceptability, 108 were deemed to be usable out of 150 sent yielding an 89 percent response rate.

4.2 Demographic Information

Table 4.1 below indicates the Nature of firm involved in the study, out of the one hundred and eight (108) respondents that were involved in the study, the results showed that (N=14) representing (13.0%) were manufacturing organization, (N=81) representing (75.0%) were service organization while the remaining (N=13) representing (12.0%) were Pharmaceutical Industry. The results as obtained from the study implied that majority of the organization were service organization. The results again showed that (N=17) representing (15.7%) were Private firms, while (N=91) representing (84.3%) were public firms. The results obtained from the study implied that majority of the organizations included in the study were public firms. The study further reveals years of the firms existence, the results showed that 2 (1.9%) were firms that exist within 1-5 years, and 6-10 years respectively, 26 (24.1%) were firms that exist within 11-15 years, while 78 (72.2%) were firms that exist over 15 years. The results as obtained from the study implied that majority of the firms exist over 15 years. The results as presented below revealed that 4(3.7%) were firms with 2-30 employees, 92 (85.2%) were firms with 31 – 99 employees, while the remaining 12(11.2%) of the respondent's firms have more than 100 employees. The results as obtained from the study implied that majority of the respondent's firms were having 31 – 99 employees. The study further shows the employees kept in the firm, the results as presented below revealed that 11(10.2%) were firms with less than 50 employees, 83(76.9%) were firms with 51-100 employees, 9(8.3%) were firms with 101-150 employees, while the remaining 5(4.6%) of the respondent's firms have more than 150 employees. The results as obtained from the study implied that majority of the respondent's firms have 50-100 employees in the firm. The study also envisaged whether the firms have research and development unit, the results shows that 96(88.9%) of firms has research and development unit whiles 12(11.1%) of firms have no research and development unit.

Hence majority of firms involved in the study have research and development unit. The gender distribution was also captured in the study, the results shows that 70(40.0%) were males while 38(35.2%) were females. Hence most of the respondents were males. The respondents' ages were also envisaged in the study. The results revealed that, 2(1.9%) of respondents were less than 20 years, 3(2.8%) were respondents between the ages of 20 to 29 years, 43 (39.8%) were respondents between the ages of 30 to 39 years, 40 (37.0%) were respondents between the ages of 40 to 49 years and 20 (18.5%) were respondents over 50 years. The results implied that majority of the respondents involved in the study were within 30-39 years. The educational level of respondents was also envisaged, the results obtained showed that 11 (10.2%) of the respondents were Diploma /HND certificate holders, 73 (67.6%) of the respondents were 1st degree holders and 24 (22.2%) of the respondents were 2nd degree or more certificate holders. Hence most of the respondents were 1st degree holders.

Table 4.1: Profile Information

Variable	Category	Count	%
Nature of firm	Manufacturing	14	13.0
	Service	81	75.0
	Pharmaceutical Industry	13	12.0
Type of firm	Private	17	15.7
	Public	91	84.3
Firm Age	1-5 years	2	1.9
	6-10 years	2	1.9
	11-15 years	26	24.1
	Above 15 years	78	72.2
Number of employees	2 – 30	4	3.7
	31 – 99	92	85.2
	100+	12	11.2

Number of employees kept over the past three years	Less than 50	11	10.2
	50-100	83	76.9
	101-150	9	8.3
	More than 150	5	4.6
R and D unit	Yes	96	88.9
	No	12	11.1
Gender	Male	70	64.8
	Female	38	35.2
Age (years)	Less than 20	2	1.9
	20 to 29	3	2.8
	30 to 39	43	39.8
	40 to 49	40	37.0
	50+	20	18.5
Educational level	Diploma /HND	11	10.2
	1 st degree	73	67.6
	2 nd degree or more	24	22.2
Current position	Owner-manager	6	5.6
	Supervisor	6	5.6
	Manager (e.g. head of department)	73	67.6
	Top (e.g., CEO, managing director)	23	21.3
Years in current position	1-5 years	54	50.0
	6-10years	44	40.7
	Above 10 years	10	9.3
	Total	108	100.0

Source: Field Survey, 2021

The study further captured the position of respondents in the study, the results shows that 6 (5.6%) of the respondents were owner-manager and supervisors respectively, 73 (67.6%) of the respondents were managers, while 23(21.3%) of the respondents were at the top management

position. The study, however, shows that most of the respondents involved in the study were managers. The study finally reveals the number of years in current position, the results showed that 54 (50.0%) of respondents were in their current position between 1-5 years, 44 (40.7%) were respondents in the current position between 6-10 years while the remaining 10 (9.3%) were respondents in current position over 10 years.

4.3 Descriptive Statistics

The responses to the study variables were described using a descriptive technique (mean and standard deviations) in this phase of the analysis (Sustainable procurement practices on social and environmental performance and top management support). The results obtained are shown in the sections below.

4.3.1 Socially Responsible Procurement

Socially responsible procurement was measured with five indicators. The items had average mean scores of at least 4.08. Overall, the construct mean score was 4.22 which means that on average, firms that were studied moderately engaged socially responsible procurement practices. The skewness and kurtosis values also showed that the data was normally distributed.

Table 4.2: Socially Responsible Procurement

Items	Min	Max	Mean	SD	S	K
SRP1	1	5	4.08	.779	-.882	1.611
SPP2	3	5	4.25	.674	-.351	-.794
SPP3	2	5	4.24	.787	-.816	.153
SPP4	2	5	4.24	.698	-.542	-.148
SPP5	2	5	4.29	.740	-.665	-.371
<i>Average</i>			4.22			

Notes:

SD = Standard Deviation; S = Skewness; K= Kurtosis **Source:**
Field Survey, 2021

4.3.2 Green Procurement

Green procurement was measured with six indicators. The items had average mean scores of at least 4.21. Overall, the construct mean score was 4.25 which means that on average, firms that were studied moderately engaged green procurement practices. The skewness and kurtosis values also showed that the data was normally distributed.

Table 4.3 Green Procurement

Items	Min	Max	Mean	SD	S	K
GP1	2	5	4.25	.688	-.729	.758
GP2	1	5	4.28	.775	-1.155	2.128
GP3	2	5	4.25	.741	-.727	.140
GP4	2	5	4.26	.757	-.612	-.545
GP5	2	5	4.24	.656	-.504	.238
GP6	3	5	4.21	.701	-.325	-.920
<i>Average</i>			4.25			

Notes:

SD = Standard Deviation; S = Skewness; K= Kurtosis **Source:**

Field Data (2021)

4.3.3 Environmental Performance

Environmental performance was measured with four indicators. The items had average mean scores of at least 4.07. Overall, the construct mean score was 4.14 which means that on average, firms that were studied had a moderate score on environmental performance. The skewness and kurtosis values also showed that the data was normally distributed.

Table 4.4 Environmental Performance

Items	Min	Max	Mean	SD	S	K
-------	-----	-----	------	----	---	---

EP1	1	5	4.14	.770	-.878	1.590
EP2	1	5	4.07	.761	-.912	1.925
EP3	1	5	4.19	.766	-.846	1.382
EP4	2	5	4.16	.675	-.389	-.032
Average			4.14			

Notes:

SD = Standard Deviation; S = Skewness; K= Kurtosis **Source:**
Field Survey, 2021

4.3.4 Social Performance

Social performance was measured with three indicators. The items had average mean scores of at least 4.16. Overall, the construct mean score was 4.17 which means that on average, firms that were studied had a moderate score on social performance. The skewness and kurtosis values also showed that the data was normally distributed.

Table 4.5 Social Performance

Items	Min	Max	Mean	SD	S	K
SOP1	3	5	4.16	.702	-.232	-.941
SOP2	3	5	4.17	.707	-.252	-.963
SOP3	2	5	4.19	.754	-.594	-.151
Average			4.17			

Notes:

SD = Standard Deviation; S = Skewness; K= Kurtosis **Source:**
Field Survey, 2021

4.3.4 Top Management support

Top management support was measured with nine indicators. The items had average mean scores of at least 3.97. Overall, the construct mean score was 4.15 which means that on average, firms that were studied had a moderate score on top management support. The skewness and kurtosis values also showed that the data was normally distributed.

Table 4.6 Top Management support

Items	Min	Max	Mean	SD	S	K
TMS1	1	5	4.19	.802	-1.246	2.971
TMS2	3	5	4.13	.728	-.207	-1.077
TMS3	2	5	4.11	.731	-.325	-.583
TMS4	2	5	4.16	.767	-.536	-.328
TMS5	2	5	4.20	.706	-.462	-.282
TMS6	1	5	4.24	.750	-1.116	2.461
TMS7	2	5	4.18	.684	-.421	-.105
TMS8	2	5	4.21	.727	-.505	-.423
TMS9	1	5	3.97	.966	-1.031	1.083
Average			4.15			

Notes:

SD = Standard Deviation; S = Skewness; K= Kurtosis **Source:**
Field Survey, 2021

4.4 Confirmatory Factor Analysis

Confirmatory factor analysis was done using LISREL 8.5 to check whether the measurement items are satisfactorily represented by their constructs. The results have been presented in Table 4.7 below. The CFA table below shows the list of the items that were retained in the analysis for each construct including their respective standardized factor loadings, the Cronbach Alpha (CA), Construct Reliability (CR) and Average Variance Extracted (AVE) of the various constructs.

Initially, socially responsible procurement was measured with five (5) indicators; however, after going through the modification and purification process, four (4) items were used to measure the construct. Similarly, green procurement was initially measured with six (6) indicators; however, after going through the modification and purification process, only three (3) items were used to measure the construct. Additionally, top management support was initially measured with nine (9) indicators; however, after going through the modification and purification process, only five (5) items were used to measure the construct. Environmental performance was measured with four (4)

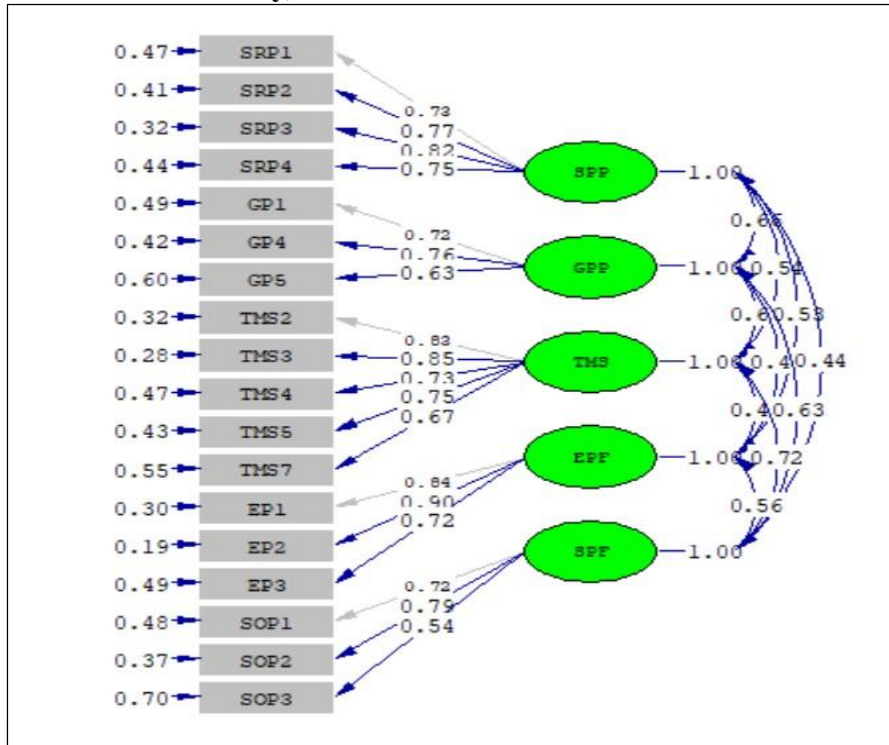
indicators; however, one item was dropped. The construct was therefore measured with three (3) indicators. Finally, all three items for social performance were retained.

All the factor loadings were positive and significant. Likewise, the CA, CR and AVE were all above the minimum thresholds. Finally, the CFA model fit indices were good and acceptable (ChiSquare = 200.75; Df = 125; $X^2/Df = 1.61$; $p = 0.00$; RMSEA = 0.07; CFI = .92; SRMR = .06; NNFI = .90). The indicators and the constructs demonstrated both convergent and discriminant validity; hence, the data is valid and appropriate for further analysis.

Table 4.7: Reliability and Validity

Constructs	Items	Loadings (t)	CA	CR	AVE
Socially Responsible Procurement	SRP1	.73 (Fixed)	.85	.85	.63
	SRP2	.77 (7.35)			
	SRP3	.82 (7.81)			
	SRP4	.75 (7.17)			
Green Procurement	GP1	.72 (Fixed)	.75	.75	.56
	GP4	.76 (6.52)			
	GP5	.63 (5.64)			
Top Management Support	TMS2	.83 (Fixed)	.87	.88	.59
	TMS3	.85 (10.03)			
	TMS4	.73 (8.24)			
	TMS5	.75 (8.57)			
	TMS7	.67 (7.38)			
Environmental Performance	EP1	.84 (Fixed)	.85	.86	.68
	EP2	.90 (10.04)			
	EP3	.72 (8.04)			
Social Performance	SOP1	.72 (Fixed)	.72	.73	.48
	SOP2	.79 (6.66)			
	SOP3	.54 (4.94)			

Source: Field Survey, 2021



4.5 Correlation Analysis

The correlation analysis showed that socially responsible procurement practices positively relate with green procurement ($r = .521$; $p < .01$), top management support ($r = .469$; $p < .01$), environmental performance ($r = .487$; $p < .01$) and social performance ($r = .341$; $p < .01$). Similarly, green procurement practices positively related with top management support ($r = .568$; $p < .01$), environmental performance ($r = .354$; $p < .01$), and social performance ($r = .477$; $p < .01$). The study again showed a significant positive association between top management support and environmental performance ($r = .444$; $p < .01$) as well as social performance ($r = .574$; $p < .01$). Finally, environmental performance positively related with social performance ($r = .527$; $p < .01$).

Table 4.8: Descriptive Statistics and Correlation Results

Variables	1	2	3	4	5
1. Socially Responsible Procurement	1				
2. Green Procurement	.521**	1			
3. Top Management Support	.469**	.568**	1		
4. Environmental Performance	.487**	.354**	.444**	1	
5. Social Performance	.341**	.477**	.574**	.527**	1
Mean	4.206	4.252	4.155	4.134	4.171
Standard Deviation	.611	.573	.587	.673	.576

Notes:

** p < 0.01 (2-tailed). **Source:**

Field Survey, 2021

4.6 Hypotheses Testing

The study's hypotheses were tested using PROCESS MACRO model 1. The results have been presented in Tables 4.9 and 4.10. For socially responsible procurement practices, the study found that socially responsible procurement has a significant positive effect on environmental performance ($\beta = .369$, $t = 3.449$) but not social performance ($\beta = .056$, $t = .632$). This means that positive changes in socially responsible procurement practices will result in positive changes in firms' environmental performance and not their social performance. Hypothesis 1a is not supported whereas hypothesis 2a is supported. Also, the results showed that top management support has a significant positive effect on both social ($\beta = .511$, $t = 5.735$) and environmental performance ($\beta = .309$, $t = 2.877$). This means that positive changes in top management support will result in positive changes in the firm's social and environmental performance. Lastly, hypothesis 3a and 3b proposes that the relationship between socially responsible procurement practices and social performance as well as environmental performance is moderated by top management support. The interaction effect results showed that top management support has not significant moderation effect

in the relationship between socially responsible procurement practices and social performance as well as environmental performance. Therefore, hypothesis 3a and 3b were not supported.

For green procurement practices, the study found that green procurement practices have no significant effect on both social performance ($\beta = .165, t = 1.641$) and environmental performance ($\beta = .126, t = .959$). Hypothesis 1b and 2b are thus not supported. Finally, hypothesis 4a and 4b proposes that the relationship between green procurement practices and social performance as well as environmental performance is moderated by top management support. The interaction effect results showed that top management support has no significant moderation effect in the relationship between green procurement practices and environmental performance ($\beta = -.185, t = -1.131$). Therefore, hypothesis 4b is not supported. However, the study found that top management support significantly and positively moderates the relationship between green procurement practices and social performance at low levels of top management support ($\beta = .292, t = 2.844$). Hypothesis 4a is therefore supported.

Table 4.9: Socially Responsible Procurement, TMS and Outcomes

Predictors	Social Performance	Environmental Performance
	β (t)	β (t)
Constant	4.196 (84.004) **	4.153 (68.918) **
Direct Effects		
Socially Responsible Procurement (SPP)	.056 (.632)	.369 (3.449) **
Top Management Support (TMS)	.511 (5.735) **	.309 (2.877) **
Interaction Effect		
SPP*TMS	-.149 (-1.233)	-.115 (-.792)
Model Fit		
R ²	.345	.301
R ² Change	.010	.004
F	18.101**	14.773**
F Change	1.521	.627

Notes:

** p < 0.01.

Source: Field Survey, 2021

Table 4.10: Green Procurement, TMS and Outcomes

Predictors	mes	
	Social Performance	Environmental Performance
	β (t)	β (t)
Constant	4.212 (83.550) **	4.169 (63.217) **
Direct Effects		
Green Procurement (GPP)	.165 (1.641)	.126 (.959)
Top Management Support (TMS)	.425 (4.575) **	.399 (3.282) **
Interaction Effect		
GPP*TMS	-.215 (-1.719)	-.185 (-1.131)
GPP*low TMS	.292 (2.844) **	-
GPP*high TMS	.039 (.272)	-
Model Fit		
R ²	.380	.222
R ² Change	.018	.010
F	21.077**	9.804**
F Change	2.955	1.279

Notes:

** p < 0.01.

Source: Field Survey, 2021 Table

4.11: Summary of Results

	<u>Hypotheses</u>	<u>Prediction</u> +	<u>Results</u>	<u>Remark</u>
H1a	Socially responsible procurement practices and social performance are positively related.		+ (ns)	Not supported
H1b	Green procurement practices and social performance+ are positively related.		+ (ns)	Not supported
H2a	Socially responsible procurement practices and+ environmental performance are positively related.		+ (s)	Supported
H2b	Green procurement practices and environmental+ performance are positively related.		+ (ns)	Not supported
H3a	The association between socially responsible + procurement practices and social performance is moderated by top management support.		-	Not supported

H3b	The association between socially responsible procurement practices and environmental performance is moderated by top management support.	+	-	Not supported
H4a	The association between green procurement practices and social performance is moderated by top management support.	+	+(s)	Supported
H4b	The association between green procurement practices and environmental performance is moderated by top management support.	+	-	Not supported

Notes:

ns = not significant; s = significant **Source:**

Field Survey, 2021

4.7 Discussion of Findings

The primary aim of the study is to examine the effect of Sustainable procurement practice on social and environmental performance of firm, the moderating role of top management support in achieving performance in selected institutions in New Juabeng Municipality. Specific objectives are to examine the effect of socially responsible procurement practice on social and environmental performance of firm, examine the effect of green procurement practice on social and environmental performance of firm and assess the moderating effect of top management support in the relationship between socially responsible and green procurement practice on social and environmental performance of firm.

4.7.1 Effect of Sustainable Procurement Practice on Performance

The first objective of the study investigated the effect of socially responsible procurement practice on social and environmental performance. The results shows that socially responsible procurement practice positively and significantly affect environmental performance. Also, socially responsible procurement practice positively affects social performance but it is not significant. It is therefore

evident from the study that socially responsible procurement practice significantly enhances environmental performance.

The second objective of the study investigated the effect of green procurement practice on Social and environmental Performance. The results shows that green procurement practice positively affect social and environmental performance but the effect is significant. It is therefore evident from the study that green procurement practice enhances social and environmental performance of firm, even though it is not significant. The result provide evidence that sustainable procurement practice positively impacts on both social and environmental performance of firm. The content in the passage suggests that various studies have supported the idea that organizations need to examine their entire supply chains to effectively address social and environmental impacts. Walker et al. (2012) proposed this approach. Over the past decade, numerous publications have shown that Sustainable Procurement Practices (SPP) can deliver positive environmental benefits. Both practitioners and academics have viewed SPP as powerful agents of change in reducing the environmental impact caused by business actions (Ho et al., 2010). Several studies have concluded that there is a positive relationship between adopting green SPP and improvements in social and environmental performances (Guenther et al., 2010; McMurray et al., 2014). For instance, Guenther et al. (2010) observed that the implementation of green procurement in Germany reduced waste sources and promoted recycling and other environmental benefits. Adams et al. (2014) also found that SPP implementation played a crucial role in mitigating environmental issues and providing social benefits. The OECD (2008) conducted a study on sustainable procurement practices in Switzerland, reporting that they led to high environmental and social standards throughout the product life cycle. Based on the findings of the current study, it is clear that

sustainable procurement practices have a direct impact on social and environmental performance.

4.7.2 Effect of Top Management support on Performance

The third objective of the study investigated the effect of top management support on socially responsible procurement and green procurement practice on social and environmental performance of firm. The results shows that top management support positively affect socially responsible procurement and green procurement on social and environmental performance of firm but the effect is not significant. It is therefore evident from the study that top management support enhances socially responsible procurement and green procurement on social and environmental performance. The extant literature has stressed on the importance of top management support as critical for sustainability practices (Foerstl, Azadegan, Leppelt, and Hartmann, 2015; Gattiker and Carter, 2010; Liang Et Al., 2007). According to Yoo et al. (2019) buyer-supplier relationship should be sustainable in order to realize the best outcome. Thus, there should be information sharing between parties, commitment amongst parties, sustainable collaboration and sustainable supplier development. Again, TMS such as training and reward play a key role in achieving sustainability (Humphreys, Li, and Chan, 2004; Sillanpää, Shahzad, and Sillanpää, 2015). There is no uncertainty that, TMS is an important tool in the sustainability of the supply chain (Lee, 2008; Salam, 2009; Walker et al., 2008; Zhu and Sarkis, 2006). For sustainability programs to materialize, the support of top management remains a solid requirement (Sarkis, Gonzalez-torre, and Adenso-diaz, 2010) and Zhu, Sarkis, and Lai (2013) found that, TMS is one of the key drivers in organizations for practicing supply chain sustainability. Many scholars have claimed that, top managers are the invisible hands that move the implementation of sustainability practices (Ageron et al., 2012; Walker, Jones, and Jones, 2012). According to Abbas and Sagsan (2019) and Law and Gunasekaran (2012), sustainable development in an organization must be supported by a strategic

policy by strategic level personnel. However, the absence of management support will defeat the firm's effort to achieve sustainability in the supply chain (Dubey, Gunasekaran, Helo, and Papadopoulos, 2017). With that said, Sajjad, Eweje, and Tappin (2020) and Zhu et al. (2005) found that, top managers support is critical for supply chain sustainability management practices.

4.7.3 Moderating Role of Top Management support

Top management have always been in charge, in terms of managing the organization, and the complete backing of top management has been the success of activities undertaken by the organization. Top managements are the key implementation strength of organization's sustainability programs (M. Epstein and Roy, 1998) Therefore, supply chain sustainability is realized or made possible by the resources committed by top management (Y. Huang, Wu, and Rahman, 2012). This is to say that, to ensure sustainability, top management must wholly support it (Bakker, Fisscher, and Brack, 2002; Rice, 2003) making top management support, a requirement for Supply chain sustainability (Zhu et al., 2005; Munny et al., 2019). This proves that top management support (training) is one of the critical drivers in practicing supply chain sustainability (Zhu, Sarkis, and Lai, 2013). Thus, training as a top management support helps to develop individual skills of sustainability (Silva, Costa, and Kniess, 2019) in the supply chain, however, training must be continued to all players in the supply chain. Concurrently, reward as an activity support of top management also plays a major role in sustainability (H. Fu, Teo, Li, and Wang, 2018; Kadarusman and Herabadi, 2018) in the supply chain. Reward as a management support is of great importance in the attainment of sustainability (Cantor, Morrow, and Montabon, 2012; Nejati, Rabiei, and Jabbour, 2017) in the supply chain. Therefore, supply chain sustainability is realized or made possible by when top management commit resources (Bhardwaj, 2016; Y. Huang et al., 2012), and top management support for sustainability is not overstatement (Epstein and Buhovac, 2010). The extant research has also shown that commitment and top management support are important tools for the sustainable supply chain management (Abdulrahman, Gunasekaran, and Subramanian, 2014; Jabbour and Jabbour, 2016). Based on the preceding discussion, it can be concluded that Top Management Support (TMS) plays a crucial role in the implementation of sustainability within the supply chain, leading to a positive impact on supply chain sustainability (Grimm et al., 2014). The third objective of the study also explored how top management support moderates the relationship between socially responsible procurement and

green procurement practices concerning the social and environmental performance of the firm. The analysis revealed that top management support indeed moderates the relationship between green procurement practice and the firm's social performance. Hence, the study provides evidence that management support influences the relationship between sustainable procurement practice and the social performance of the firm. However, it was found that top management support does not moderate the relationship between sustainable procurement practice and environmental performance. Also, the relationship between socially responsible procurement practices and social performance is not moderated by top management support. Finally, top management support does not moderate the relationship between green procurement practices and environmental performance.



CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION, AND RECOMMENDATIONS

5.0 Introduction

The chapter centers on the fourth and fifth chapters of the study, primarily focusing on the conclusion and the summarized findings in relation to the study's objectives. It also addresses the study's limitations and proposes recommendations for future research areas. The chapter is organized into four sections for clarity. The first section provides a concise summary of the study's findings, highlighting the key outcomes and observations obtained during the research process.

The second section delves into the study's contribution, elaborating on how the findings add to the existing body of knowledge in the field. The third section addresses the limitations encountered during the study, acknowledging potential constraints and factors that may have impacted the results. Lastly, the fourth section outlines potential avenues for future research, suggesting areas that can be explored further based on the insights gained from the current study.

5.1 Summary of findings 5.1.1 The effect of socially responsible procurement practice on social and environmental performance

The first objective of the study investigated the effect of socially responsible procurement practice on social and environmental performance. The results shows that socially responsible procurement practice is positively and significantly related to environmental performance. Also, the link between that socially responsible procurement practice and social performance is positive but it is not significant. It is therefore evident from the study that socially responsible procurement practice enhances social and environmental performance.

5.1.2 The effects of green procurement practice on social and environmental performance

The second objective of the study investigated the effect of green procurement practice on Social and environmental Performance. The results shows that green procurement practice positively affect social and environmental performance. It is therefore evident from the study that green procurement practice enhances both social and environmental performance but the effect is not significant.

5.1.3 The moderating effect of top management support on the association between socially responsible procurement and green procurement practice on social and environmental performance.

The third objective of the study investigated the moderating effect of top management support on the association between socially responsible procurement and green procurement practice on social and environmental performance. The result shows that the association between socially responsible procurement practice on social and environmental performance is not moderated by top management support. Moreover, the association between green procurement practice and social performance is supported, thus top management support moderates the association between green procurement practice and social performance. Also, top management support does not moderate the link between green procurement practice and environmental performance.

5.2 Conclusion

Incorporating green thinking in procurement has been flaunted as a vital area of concern among many business sectors across the globe. This study was conducted to examine the effect of sustainable procurement practice on social and environmental performance of firm, the moderating role of top management support. A cross sectional survey design was employed to select 108 procurement officers. SPSS version 25 and process macros were used for the analyses and the result discussed. The study concludes that socially responsible procurement practice positively affects social and environmental performance. Green procurement practice significantly enhances social performance of firm.

Additionally, the study showed that both sustainable procurement practices and management support influences performance. The relationship between sustainable procurement practice and social performance is a direct relationship and moderated through top management support. The study concludes that sustainable procurement practice have a positive effect on social and environmental performance of firm and top management support moderate the relationship between sustainable procurement practice on social performance of firm.

5.3 Recommendation for theoretical Implications, Practical Implications and Limitations and future research

This study makes three key theoretical contributions. The first theoretical contribution of this study lies in the relationship between sustainable procurement practice, management support and performance, the study is among the few attempts to examine the moderating role of management support in the sustainable procurement practice - performance link. This study therefore offers a contemporary view RBV theory by examining the nexus. The study extends existing knowledge by exploring how top management support strengthen the direct sustainable procurement practices performance link. Again, this study found that top management support plays essential role to procurement which is also missing in extant literature. Thus, this therefore offers empirical support to the validation of the RBV theory as it has not been sufficiently validated in procurement management literature. Though prior studies have sufficiently discussed the importance of green manufacturing and the ability of firms to leverage it to enhance sustainability in large industrial firms (Dangelico et al., 2017; Gong et al., 2019; Fernando et al., 2019), how management support shapes procurement has earned limited research attention in the context of developing economies.

This study provides relevant managerial implications. Performance is new in Ghana, particularly in the manufacturing sector. To the best of the researcher's knowledge, the study is new research done on the role of management Support in the relationship between sustainable procurement practice and performance. Hence, this research will provide very useful information to managers and regulators of both private and public procurement and policy makers to take into consideration the factors that would support sustainable procurement and sustainability in public and private procurement.

By implication, the result clearly shows that procurement is a vital part of operations of public and private organizations making it an important area of business which cannot be overlooked. Strengthening environmental knowledge and green procurement remain essentially important in the quest to enhancing procurement sustainability. Importantly, this study showed that merely having environmental knowledge is not enough, it must however be supported through green procurement to yield improved sustainability in procurement. This also provides a learning area for these firms in the sense that it would aid institutions in paying great level of attention to green procurement in order to adhere to such practices and standards so that sustainability can be improved. This would also aid these firms to give the required attention to green education in order to achieve the very purpose of environmental knowledge to improve green procurement and procurement sustainability as large.

The outcome of the study shows that the model of the research truly predicts the role of management support between sustainable procurement practices and performance. This research was done among procurement officers of public and private sector organizations in Ghana. Since the result cannot be generalized as it may be different for different other industries in different countries, the researcher recommends that a comparative study can be conducted across different countries/ industries to determine whether the outcome in Ghana can be similar for other countries.

Also, the research was conducted using quantitative methods, qualitative approach can be used to conduct this same research and to examine the same relationship. In using qualitative method, detailed information could be obtained.

Future research can also consider suppliers in addition to the procurement officers. This is an important dimension that will add a fresh view point to the entire research. This research made use

of quantitative techniques in data collection and analysis. The use of questionnaire offered very valuable information on the subject matter. However, using qualitative data such as interview could also offer more detailed information on the topic.

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QUESTIONNAIRE

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY DEPARTMENT OF SUPPLY CHAIN MANAGEMENT AND INFORMATION SYSTEMS

Dear Respondent,

This questionnaire is designed to undertake research on the Effect of Sustainable Procurement Practice on Social and Environmental Performance of Firm, The Moderating Role of Management support in the New Juabeng municipalities of Ghana. You have been selected to participate in the study and your contribution towards the completion of this questionnaire will be highly appreciated and the information provided will be used for academic purposes only and shall be treated with the utmost confidentiality it deserves.

Thank you very much.

SECTION A: FIRM BACKGROUND

1. This firm is mainly a Manufacturing organization Service organization
Agricultural /Agribusiness Pharmaceutical industry Others
2. Type of firm Private Public Others
3. How long has this firm existed/operated in the industry?Years
4. Number of employees in the firm 2 – 30 31 – 99 100+
5. On the average, how many employees has this firm kept over the past three years.....employees
6. Does this firm have a research and development unit? Yes No

SECTION B: RESPONDENT’S INFORMATION

1. Please indicate your **gender** Male Female
2. Please indicate your **age** (years) Less than 20 20 to 29 30 to 39
 40 to 49 50+
3. Educational level Secondary school or related certificate Diploma /HND 1st degree
 2nd degree or more
4. Please indicate your **current position** in this firm Owner-manager
 Supervisor Manager (e.g. head of department) Top (e.g. CEO, managing director)
5. Please indicate the number of years that you have held your current position in this firm.....

**SECTION C
SUSTAINABLE PROCUREMENT PRACTICES**

<i>SCALE: 1= “very infrequent” to 7= “very frequent”</i>	
<i>How frequent has your organization been experiencing each of the following events over past 3 years?</i>	<i>Very infrequent</i> <i>Very frequent</i>
Supplier Sustainability	

We send environmental questionnaires to major suppliers in order to monitor their compliance	1	2	3	4	5	6	7
We send occupational health and safety questionnaires to major suppliers in order to monitor their compliance	1	2	3	4	5	6	7
We monitor major suppliers commitment to occupational health and safety improvement goals	1	2	3	4	4	6	7
We monitor major suppliers commitment to environmental improvement goals	1	2	3	4	5	6	7
Socially responsible procurement	1	2	3	4	5	6	7
.Purchases from small suppliers	1			4	5	6	7
.Ensures that suppliers comply with child labour laws	1						7
Ensures that suppliers comply with child labour laws	1	2	3	4	5	6	7
Social sustainability is a central corporate value in your firm	1	2	3	4	5	6	7
Your firm provides information to all employees to understand the importance of social sustainability	1	2	3	4	5	6	7
Green Procurement							
Uses a life-cycle analysis to evaluate the environmental friendliness of products and packaging	1	2	3	4	5	6	7
Procure environmentally friendly products	1	2	3	4	5	6	7
Asks suppliers to commit to waste reduction goals	1		3	4	5		7
						6	
Participates in the design of products for recycling or reuse	1	2	3	4	5	6	7

SOCIAL AND ENVIRONMENTAL PERFORMANCE

<i>SCALE: 1= "Strongly Disagree" to 7= "Strongly Agree"</i>							
<i>In your opinion to what extent has your organization been experiencing each of the following events over past 3 years?</i>							
Environmental Performance							
Environmental performance of an organization refers to its impacts on living and non-living natural systems, including ecosystems, land, air and water.							
The efficiency of the consumption of raw materials has improved during the last 3 years.	1	2	3	4	5	6	7

The resource consumption (thermal energy, electricity, water) has decreased (e.g. per unit of income, per unit of production, ...) during the last 3 years	1	2	3	4	5	6	7
The percentage of recycled materials has increased during the last 3 years	1	2	3	4	5	6	7
The waste ratio (e.g. kg per unit of product, kg per employee per year) has decreased during the last 3 years	1	2	3	4	5	6	7
Social Performance Corporate social performance refers to the principles, practices, and outcomes of firm's relationship with people, organizations, communities, societies, and the earth, in terms of the deliberate actions of businesses toward these stakeholders.							
The turnover ratio has decreased during the last 3 years	1	2	3	4	5	6	7
The employees' satisfaction has increased during the last 3 years	1	2	3	4	5	6	7
The employees' motivation has increased during the last 3 years	1	2	3	4	5	6	7

TOP MANAGEMENT SUPPORT

<i>SCALE: 1= "Strongly Disagree" to 7= "Strongly Agree"</i>	Strongly Disagree Strongly Agree						
<i>In your opinion to what extent has your organization been experiencing each of the following events over past 3 years?</i>	1	2	3	4	5	6	7
Top management extends full support for sustainability practices	1	2	3	4	5	6	7
Top management commits to reducing sustainability issues resulting from operations	1	2	3	4	5	6	7
Top management consistently assesses the sustainability impacts of business	1	2	3	4	5	6	7
Top management shows behavior that indicates sustainability as a competitive advantage	1	2	3	4	5	6	7
Top management knows a great deal about customers' sustainability requirements	1	2	3	4	5	6	7
Top management has a great understanding of competitors' sustainability practices	1	2	3	4	5	6	7
Top management knows a great deal about customers' sustainability requirements	1	2	3	4	5	6	7
Top management has a great knowledge of the industry's sustainability requirements	1	2	3	4	5	6	7

Top management effectively communicates sustainability practices among stakeholders	1	2	3	4	5	6	7
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KNUST

SCALE:1=Strongly Disagree to 7=strongly Agree Indicate the extent to which you disagree or disagree to the following	Strongly Agree							Strongly Disagree						
1. I have adequate knowledge on the issues I provided responses on	1	2	3	4	5	6	7	1	2	3	4	5	6	7
2. I clearly understood all the items I provided responses on	1	2	3	4	5	6	7	1	2	3	4	5	6	7
3. I am very confident in the responses I provided	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4. I am sure the responses I provided represent the situation in my company	1	2	3	4	5	6	7	1	2	3	4	5	6	7

