ROLE OF PROJECT PLANNING IN SALES VOLUMES IN THE BRIQUETTES INDUSTRY IN KENYA: A CASE OF ACACIA INNOVATIONS LIMITED

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DECLARATION

I declare that this document and the research that it describes are my original work and that it has not been presented in any other university for academic work.

Name of student: Annastacia Njeri Ng'ang'a

Signature: -------  -------- Date: 17th March 2021

SUPERVISOR'S DECLARATION

This applied research project is submitted for examination with my approval as the university supervisor.

Signature:  Date: 17th March 2021

Name of supervisor: Dr. Mary Otieno

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DEDICATION

I wish to dedicate this research project to my parents and siblings who have been instrumental in my education journey and thank God for the strength to complete this project proposal.

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ABSTRACT

Project planning is the process of determining resources both tangible and intangible needed beforehand to achieve organizational goals. It is an essential aspect for success. Briquette manufacturing is fairly new in Kenya and most companies have an amazing concept but dismally fail at execution due to lack of planning. Production in Kenya dates back to the 70s but it has been limited to small scale, only recently are more studies being done on briquettes and their use, which has sparked a market frenzy. Globally, 41% of the world's population are using non-renewable energy for cooking and heating. This represents a huge market share for the briquette industry globally. The projection in growth of sales is directly attributable to unavailability of cooking fuels especially in developing countries and briquettes are mostly preferred due to low emissions. The uptake of briquettes in Africa has however been low due to lack of awareness by consumers of clear advantages of the product. This study aimed at determining the role of project planning in sales volumes in the briquettes industry in Kenya. A case of Acacia Innovations Limited. A descriptive study design was used using quantitative approach (questionnaires). The target population was 100 and from this, a sample population of 80 respondents was included in the study. Stratified random sampling was used to collect data from employees of Acacia Innovations Limited. Primary data was used and collected using semi-structured questionnaires. Presentation of data was through tables and bar graphs. Information generated from this study will contribute to the briquettes industry in influencing utilization of project planning tools and contributing to the growth of sales in briquette manufacturing companies. The study found that majority (88.70%) of the employees at Acacia Innovations Limited were aware of cost estimation and forecasting metrics in place, while 11.30% were not aware of any cost estimation and forecasting metrics in place. Regression analysis was conducted to establish the relationship between the independent variables and the dependent variable (sales volumes). The findings revealed a positive and significant relationship between financial resource planning and sales volumes (β =.402, p=0.000<.05). The results also indicated that human capital planning and sales volumes were positively and significantly related (β =.247, p=0.000<.05), material requirement planning and sales volumes were positively but insignificantly related (β =.052, p=0.349>.05). Finally, the results showed that time management planning was positively and significantly related with sales volumes (β =.224, p=0.039<.05). Based on the findings the study concluded that the aspects of project planning adopted in this study: financial resource planning, human capital planning and time management planning positively and significantly influences sales volume in the briquettes industry except for material requirements planning which was found to positively but insignificantly influence sales volumes. The study recommended that the management of Acacia Innovations Limited should strive to implement project planning strategies such as financial resource planning, human capital planning, time management planning and material requirements planning because they have been found to influence sales volumes.

ACKNOWLEDGEMENT

I wish to acknowledge Dr. Mary Otieno who has allowed me to use my capability and understand the content of the project hence completion. I also wish to acknowledge Acacia Innovations Limited for allowing me to study the organization and for providing information to assist in my study.

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DEFINITION OF TERMS

Briquettes: are a form of biofuel made from recycled waste (agricultural, human or animal) used in place of charcoal or coal

Financial resources: are all funds whether long or short term assets available to an organization as an input into their production

Human Capital: is an intangible asset that represents the stock of valuable skills, knowledge and experiences used by an organization to achieve economic value

Project Planning: is an integral step in project management that states the resources required for project success

CHAPTER ONE: INTRODUCTION

1.1 Introduction

In this chapter, the researcher discussed the background of the study, statement of the problem, objectives of the study, research questions, significance, scope, limitations, and delimitations of the study. This study sought to examine the role of project planning in sales volumes in the briquettes industry in Kenya, a case of Acacia Innovations Limited. This study sought to find out whether planning of financial resources, human capital, material requirements and time management could influence sales volumes in the briquettes industry.

1.2 Background of the Study

Currently, 3 billion people, which represents 41% of the world's population, are using non-renewable energy for cooking and heating (Energy 4 Impact, 2019). Energy 4 Impact discovered the briquette sector because of the high uptake of biomass briquettes as an alternative fuel. The global market for briquettes is also increasing rapidly due to the world's transition to green energy. The global briquette market research report, 2019, estimated that the briquettes industry will grow at a composite annual growth rate of 7.8% in the next five years, from 2019-2024 (Absolute Reports, 2019). The global briquette market research report also indicated that the global sales of briquettes would increase from $6,760 million to $106,600 in the next five years. The projection in the growth of sales has directly attributed to the unavailability of cooking fuels, especially in developing countries. Additionally, briquettes are preferred because of low emissions compared to fossil fuels. Globally, the European Union has accounted for the highest briquette fuel production, which is approximately 79.68% of the total global production (Absolute Reports, 2019).

In Africa, the briquette market is growing at a faster rate compared to the world because most developing nations are in Africa. A high percentage of the population in Sub-Saharan Africa rely on firewood and charcoal as a source of energy, estimated to be above 90% (Njenga et al., 2019). The uptake of briquettes in Africa, especially Sub-Saharan Africa, has been low due to the lack of awareness by consumers of clear advantages of briquettes (Mwampamba, Owen, & Pigaht, 2013). The low uptake has led to insufficient sales volumes in the briquettes industry. Additionally, the African populace has many misconceptions of briquettes, and this has hindered the growth of briquettes industry in Africa.

Briquettes production dates to the 1970s, production was nonetheless done in small scale (Njenga, Gitau, Liyama, Jamnadassa, Mahmoud & Karanja, 2019). Uptake of briquettes was not high during this time because many consumers preferred the use of charcoal in their households. In the late 1980s, the government banned the use and transportation of charcoal, which led to the adoption of alternative sources of fuel such as briquettes. Njenga et al. (2019) also discovered that in Kenya, 82% of urban households and 34% of rural households use charcoal. In 2018, Kenya lost 9.8% tree cover due to deforestation (World Resources Institute, 2018). Deforestation occurred because many people were cutting trees to use it in their households as firewood. Briquettes were introduced in Kenya as an alternative to charcoal and coal. A study by GVEP International (2010) revealed that the briquette industry in Kenya had achieved growth because the use of charcoal had reduced by 5-10%. World Agroforestry (2019) notes that Kenya needs to transition from using charcoal to briquettes because Kenya needs to achieve 10% forest cover by 2030.

Based on the background of the study, it is undeniable that the briquettes industry is experiencing exponential growth. Notably, though, the briquettes industry

is facing low sales volumes because of unawareness by the Kenyan populace and the lack of project planning for briquette producing companies in increasing the sales volumes. For that reason, this research will attempt to discover the role of financial resource planning, human capital planning, material requirements planning, and time management planning and their impact on sales volumes of the briquettes industry in Kenya, using a case of Acacia Innovations Limited.

Acacia Innovations Limited (ACL) was founded in October 2016, based in Milimani, Nairobi. It manufactures *Kuni Safi* briquettes providing affordable fuel solutions (Acacia Innovation Limited, 2020). The company manufactures briquettes from sugarcane waste and sells them to local factories. Additionally, Acacia Innovations Limited supplies fuel solutions to schools and small businesses.

1.3 Statement of the Problem

Project planning entails defining now, what is required to be done in the future (Min, Zacharia and Smith, 2019). Project planning has a positive impact on project performance. According to Ascacíbar (2016), by 2014, most companies exhibited poor estimates in the project planning phase. A study by Finance Online (2019) showed that 60% of the project managers do not follow any project planning guidelines. The study also revealed that 85% of high performing businesses have embedded proper project planning practices. In the last decade, most projects have failed because of incorrect estimates in the planning phase (Ascacíbar, 2016).

Most project managers fail to plan for the relevant projects, and this leads to organizational failure. The main problems experienced in projects are financial planning and human capital planning ((Chandra, 2019) Sales volumes represent the total units sold for a given period of time (Bragg, 2020). Sales volumes in any company

is a measure of performance of the product. It is used to determine client interest, a sales metric for sales representatives and production capacities (Bragg, 2020). Low sales volumes are thus worrying to company executives for it could be a sign for a demotivated sales team, unaware or untapped market and inefficiencies in production. Thus, application of project planning practices is essential since it allows an encompassing approach to each of these factors.

Kenya's briquette industry is growing rapidly and project planning will play a major role in increasing the sales in this industry. Project planning is becoming increasingly relevant for industries because of the changing business models and because it is fundamental to the success of the organization. This study will seek to bridge this gap by determining the role of project planning and its impact on sales volumes in the briquettes industry in Kenya.

1.4 Purpose of the Study

The purpose of this study was to research on the role of project planning in sales volumes in the briquettes industry in Kenya. It sought to look at how project planning tools can positively impact the briquettes industry and spur growth of sales volumes that for a long time have been limited.

1.5 Objectives of the Study

i) To analyse the effect of financial resources planning on sales volumes in the briquettes industry in Kenya.
ii) To assess the effect of human capital planning on sales volumes in the briquettes industry in Kenya.
iii) To determine the effect of material requirements planning on sales volumes in the briquettes industry in Kenya.

iv) To establish the effect of time management planning on sales volumes in the briquettes industry in Kenya.

1.6 Research Questions

i) How does financial resource planning influence sales volumes in the briquettes industry in Kenya?
ii) How does human capital planning influence sales volumes in the briquettes industry in Kenya?
iii) How does material requirements planning influence sales volumes in the briquettes industry in Kenya?
iv) How does time management planning influence sales volumes in the briquettes industry in Kenya?

1.7 Significance of the Study

This research was conducted to determine the role of project planning in sales volumes of the briquettes industry in Kenya. The findings of this study may help the business leaders in the briquettes industry to determine the critical strategies that influence sales volumes. This research may help policymakers, for instance, the government make sound policies based on the findings of the research. This study may also be helpful to academicians and researchers because they may use this research as a point of reference.

1.8 Scope of the Study

The study focused on project planning tools and their influence on sales volumes. The study targeted a sample of the sales team, administration, production personnel and management team to participate in the study.

1.9 Delimitation of the Study

Delimitations are factors that limit the scope and define the boundaries of a study (Thomas, Silverman, & Nelson, 2015). The study was limited to project planning and sales volumes, it did not intend to focus on any other facet in the organization. The study was on the briquettes industry therefore, information collected was biased in this nature and may not be relevant for other industries.

1.10 Limitations of the Study

According to McCarthy and Muthuri (2016), limitations in research are any deficiencies in research that are beyond the researcher's control. One of the anticipated limitations was respondents delay in sending in feedback due to their busy schedules, but to work around this, the researcher did weekly reminders through email and calls. The second anticipated limitation was the lack of adequate time to interrogate the respondents. However, the researcher intended to overcome this limitation by providing the respondents with a detailed questionnaire.

1.11 Assumptions of the Study

The research assumed that the study participants would be transparent in their feedback and answer truthfully to the research questions.

1.12 Theoretical Review

Theoretical reviews determine existing theories related to the study and expound on the relationship between the theory and the dependent variables of a study. This study examined the theory of change and the resource-based theory.

1.12.1 Theory of Change by Beisser 1970

The theory of change states that change is necessary, especially in determining a new direction (Beisser, 1970). It further states that change occurs because organizations need to transform and adopt new trends and concepts. Managers should make decisions that change and improve organizational goals.

A study by Bemme (2019) revealed that the theory of change helps organizations to strive to improve their services and profitability. According to Sarathchandra, Tharaka, and Peter (2018), the theory of change creates change models, which help to predict the product quality in all the stages of product development. Project planning is important in material requirements planning because it will help in predicting the quality of material used to develop briquettes. Mayne (2015) suggests that the theory of change can be used in project planning for designing monitoring systems, designing interventions, managing adaptive situations, and reporting performance of projects. Furthermore, the foundational aspects of the theory are to understand intervention activities and how they can be intertwined to achieve the desired results.

A study by Reinholz and Andrews (2020) noted that the theory of change is important in planning, assessing, and implementing a project. This study revealed that a key challenge faced by most projects is the failure to enact change to achieve the desired outcomes. According to Reinholz and Andrews, the theory of change allows gathering existing knowledge from ongoing projects and coming up with solutions to improve these projects. The theory of change is a theory-driven evaluation, and it is focused on an input-output evaluation of project planning processes (Coryn et al., 2017). This evaluation allows organizations to understand the necessary implementations, understand the underlying rationale, and take any corrective

measures. Many organizations have increasingly used the theory of change to improve programs and projects (Niwagaba & Mulyungi, 2018). According to Niwagaba and Mulyungi, the theory of change provides a model of how projects are supposed to work. The theory of change not only explains how projects should be effective but how they become effective.

The theory of change was considered relevant to the current study because it supports project planning, financial planning, marketing and sales planning, and production and standardization planning. This theory supports these activities because it acts as a monitoring and evaluation tool for organizational activities.

1.12.2 Resource-Based Theory by Selznick 1997

The resource-based theory suggests that resources are valuable for organizations to find, and organizations should develop a strategy for effective resource utilization to increase the organization's capabilities (Selznick, 1997). According to Almarri and Gardiner (2014), the resource-based theory is used by managers in project management to increase competitive advantage as well as the profitability of a firm.

Research conducted by Hitt, Xu, and Carnes (2015) revealed that the resource-based theory is used to understand the resources and capabilities of an organization. Capabilities of an organization provide an excellent opportunity to have a competitive edge against its rivals. A competitive edge in an organization can help ensure longevity of strong profits. The resource-based theory is used in marketing planning by predicting competitive advantages and a firm's performance (Badrinarayanan, Ramachandran, & Madhavaram, 2018). Resource-based theory helps managers to orchestrate resources to the right channels in the organization, and the right orchestration leads to an increase in sales (Badrinarayanan, Ramachandran, & Madhavaram, 2018).

Human capital needs meet the requirements of the resource-based theory (Hermawan, 2017). According to the resource-based theory, human capital resources are the most important resources in an organization. Organizations must have qualified employees to achieve organizational success. Human capital resource endowments and managers' strategic ability creates an ability to shape organizational orientations and determining sustainable competitive advantage (Hermawan, 2017). Barney and Mackey (2016) posited that human resource management scholars view human capital as an internal resource and this acts as a source of a competitive advantage that improves organizational performance. Project planning of an organization's strategic resources such as highly skilled employees, accessibility to a network of suppliers, financial stability can help provide valuable results to drive sales, which in turn boosts revenues.

Based on the studies from the resource-based theory, it is evident that the availability of finances, human capital, materials, and time contribute to organizational successes by increasing the sales volumes of the organization. Therefore, this theory supports the role of project planning in sales volumes of the briquettes industry in Kenya.

1.13 Conceptual Framework

A conceptual framework is a structure for explaining a phenomenon (Ravitch & Carl, 2016). The conceptual framework illustrates the relationship between the independent and dependent variables. Cost estimation is a financial planning technique that involves approximating expenditures of an operation or project. Forecasting, also a financial planning technique that looks at the future operations of the company and puts in place measures to support this. The study focused on these two elements in financial planning as they heavily influence sales volumes in the briquette industry.

Human capital planning has an impact on business outcomes thus managing talents as well as workforce planning to address growth and expansion efforts will ensure the right team is maintained supporting the business objectives. Planning on consumption of materials needed in production taking into consideration current and future demand for the product is essential in sustaining high sales volumes of briquettes. Setting targets ensures the sales team is focused and all company activities are driven towards meeting them, which supports high sales volumes in the briquette industry.

Independent Variables

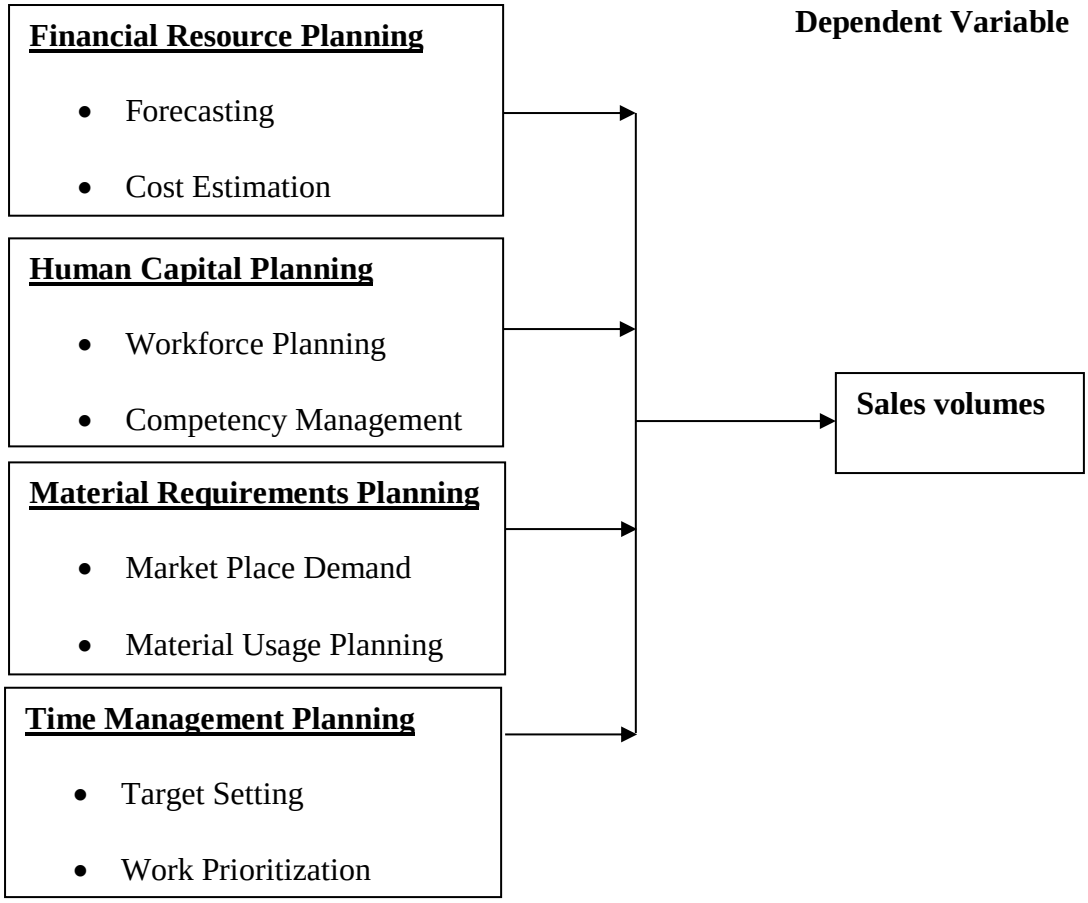

Figure 1.1 Conceptual Framework

Source: Author, 2020

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter reviewed important literature that was considered consistent with the objectives of this study. This chapter linked past studies with current studies to improve knowledge. It in addition looked at the empirical review, research gap, and summary of the literature review.

2.2 Review of Literature

Empirical review links past studies to the independent variables by looking at the relationships between the studies. This study looked at financial resource planning, human capital planning, material requirements planning and time management planning.

2.2.1 Financial Resource Planning and Sales Volumes

Financial planning is the backbone of a successful business because it indicates the financial success of an organization (Delkhosh & Mousavi, 2016). Finances are important in any business because they help to support the business and it guarantees going concern. Lack of finances triggers sales and market freeze, while finances ensure that the flow of money throughout the business is adequate (Dow & Han, 2017). The briquette industry in Kenya should employ financial resource planning to increase sales in the industries. Dempsey (2017) stated that financial planning is important because it determines the sequence of cash flows at a constant rate into an indefinite future. The variables of focus under financial planning include cost estimation and forecasting.

Cost estimation is the method of evaluating the possible cost factors of a product before manufacturing it (Mislick & Nussbaum, 2015). The main purpose for conducting a cost estimation is to cater for funding arrangements. Underestimation of costs is one

of the leading causes of failure of a project. Natural resources, labour, capital and equipment are limited productive resources whose combinations can lead to production of goods and services (Mislick & Nussbaum, 2015). Therefore, development of realistic estimates of the projected costs of production, sales and administrative operations will ensure there is adequate allocation of resources and thus more likelihood of achieved business objectives. Accuracy in cost estimating is vital as prices are affixed on products or services based on this and high estimation leads to highly priced services or goods resulting in lack of competitiveness in the market. Cost estimation plays an important financial planning role in support of sales volumes of the briquette industry. Estimating production, labour, storage and administrative costs to appropriately price the product and ensure cost competitiveness.

Forecasting is estimating financial outcomes by using historical accounting and sales data as well as market and economic indicators to determine a company's growth over a period of time (Davidson, 2018). The goal of any company or industry is to experience growth and with this additional equipment, staff and funds are required thus anticipating and planning on how to continuously adjust is vital to support growth. In a manufacturing environment, capacity planning helps to identify the current production and maximum levels expected to determine alterations needed depending on the company's growth trajectory. Sales targets should align with production capacity to avoid lost sales, long waiting time or low quality products resulting from rushed production.

Funding is an important aspect for successful growth to take place that ensures expenditures associated with additional assets are met (Dow & Han, 2017. High sales volumes of briquettes is achieved by having the right number of employees needed in the sales team, production as well as administrative team, adding on equipment to

ensure increased production capacity as well as higher marketing budgets. Thus forecasting on the additional funding needed to increase sales is required. Additional funding can be sourced through bank loans, grants or investors in support of future developments and be a cushion against economic fluctuations. A study by GVEP International (2010) revealed that financial planning skills in the briquettes industry in Kenya are rudimentary. For instance, briquettes industry in Kenya does not know how to determine competitive prices for briquettes, and this has a detrimental effect on the sales volumes of the briquettes. This study filled this gap by explaining how financial planning decisions can affect sales volumes of the briquette industry in Kenya.

2.2.2 Human Capital Planning and Sales Volumes

Human capital planning helps organizations develop resource plans and strategize on human capital needs. A study done by John and Gold (2017) revealed that organizations that do not embrace human capital planning would face product and sales erosion, and employee malaise. Human capital planning skills ensure that an organization has the right number of employees, with the right skills, and at the right time (Tomal & Schilling, 2018). According to Tomal and Schilling (2018), human resource planning acts as a competitive advantage in organizations because it identifies current and future human skills required in a firm. The findings in this study recorded that employee past activities had a positive impact on future sales of an enterprise.

Competency management is the practise of identifying, managing and advancing employee abilities, knowledge and capabilities (John & Gold, 2017) Competency management helps to align employee capabilities and behaviours with organizational goals. Organizations that use competency management as a structure to recruit, advance, engage and maintain its employees' gains competitive advantage. Workforce optimization, leadership development, succession planning and business

continuity planning are elements that ensure competency management in an organization is practised (Sparkman, 2021) In recruitment, it is essential to ensure your potential employees have the competencies to carry out their jobs well, projecting your needs into the foreseeable future to guide in assessing growth track and needed training.

Leadership development helps to equip its employees to advance in their careers and gain the needed skill to perform competently (John & Gold, 2017). This can be achieved by periodically performing a skills assessment gap to identify the appropriate training. Succession and business continuity planning is vital so there is a need to prepare your employees to take on leadership roles as well as prepare for unexpected events. The logging ban introduced in Kenya in February 2018 provided a great opportunity for alternative sources of energy to increase their sales levels, this was however not the case since most briquette dealing companies are either individually owned with a handful of employees or large but not able to meet market demand due to rudimentary methods of operation. This clearly highlights the lack of planning for the unexpected and having measures in place for preparedness.

Workforce planning is alignment of an organization's human capital with the strategic objectives and direction by analysing the available workforce, identifying future needs and establishing the gap between the current and future then providing solutions to ensure the organization meets its goals (Sparkman, 2021). Briquette manufacturing and distribution business is fairly new in Kenya thus there is limited expertise on the products, machinery needed or marketing strategies. Trial and error is mostly employed in all these components. There is also a lack of planning for the future since the market is considered fluid thus a much shorter perspective is taken into consideration. This limits how fast a company can adjust and meet a sudden demand for briquettes, which could be key in making the market aware of the product and its

benefits influencing future sales. Contingent staffing is the norm in most briquette making company's due to the limited expertise as well as high cost of full time employment however they only serve as a short term solution and do not help in laying structures for future demands especially if they exit prematurely.

Companies in briquette manufacturing are started out by entrepreneurs or charitable organizations seeking to create a source of income for people in low income areas thus operations are rudimentary and structures often lacking. This highly contributes to the failure rate of such companies and lack of growth in the briquettes industry. Organizations should adopt human capital planning practices to give employees the opportunities to develop their capabilities and improve sales of an organization (Sparkman, 2021). When employees increase their commitment, organizational sales increase, and the organization achieves its goals and objectives.

Human resource practices improve firms' performance by improving sales growth and stock growth (Lawrence, 2019). Companies must use a selective and effective hiring process to ensure that the right employees are hired for the job. Organizational strategic objectives must be achieved by having a clear human capital planning roadmap, which must be integrated into the organizational culture (Lawrence, 2019). Additionally, business leaders should develop appropriate human capital planning practices that are aligned to the organizational objective and environmental changes. Human capital planning fuels employee job performance, and organizations cannot perform optimally without an adequate workforce. A company needs enough work force to increase production and this will increase the production capacity. A high production capacity supports increase in sales of a company. This research looked at the role of human resource planning and its impact on sales volumes in the briquettes industry.

2.2.3 Material Requirements Planning and Sales Volume

Manufacturing organizations use a considerable amount of capital on the purchase of production materials. If the cost of materials exceeds the cost of production, it is undeniable that these organizations will suffer a great loss. Materials play a key role in the manufacturing sector because they determine the manufacturing cost and profitability of the organization. For that reason, material requirements planning must be regarded as an important aspect of project planning. A study done by Asaolu, Agorzie, and Unam (2012) stated that business managers should concentrate on the following significant variables to attain material usage planning; inventories, management of materials, and purchasing of raw materials.

A study by Asamoah, Nikiema, Gebrezgabher, Odonkor, and Njenga (2016) revealed that materials used in briquettes production were wasted a lot by unnecessary production processes. Effective material usage planning also needs a mix of market place demand. Having consumer intelligence on their order demands, quantities required and when the need should be fulfilled avoids lost orders which supports high sales volumes and return customers for future sales. An accurate estimation of demand can only be achieved by determining market size as well as conducting a market segmentation. Market segmentation classifies the consumer-base, which directs on appropriate marketing methods for each segment to yield high sales volumes. In the briquette industry, consumers are classified as commercial or domestic users, marketing to each group requires a different approach and product demand is met differently due to usage levels.

Project planning plays an integral part in material usage planning because it helps to identify the required materials for purchasing (Osawaru et al., 2018). Efficient material usage planning increases the output of an organization thereby increasing the

sales volumes of the industry. The efficiency of material control avoids potential material shortage (Osawaru et al., 2018). Furthermore, project planning covers the availability of the materials, and transfer from supplier to the project site (Caldas, Menches, Reyes, Navarro, & Vargas, 2015). Therefore, briquette companies in Kenya should ensure effective material usage planning such as inventory management, scheduling production, and cost of purchasing raw materials. The studies above looked at material usage planning and productivity in an organization. These studies failed to look at material usage and marketplace demand and its impact on the sales volumes. However, this study filled this gap by looking at how material requirements planning affects sales volumes in Kenya's briquettes industry.

2.2.4 Time Management Planning and Sales Volume

Time management is important, especially for organizations to meet their organizational goals and objectives. Organizations must set targets and timeframes to meet these targets. Additionally, organizations should control these targets by constantly monitoring the desired targets and timeframes. Delays in projects may lead to missed targets, and this affects the sales volumes negatively. Harahsheh (2019) stated that time is a precious asset for organizations to achieve their desired performance. According to Harahsheh, time management planning helps an organization to distinguish between what needs to be done urgently and what can be done later which brings on the aspect of work prioritization. It is paramount for any sales team to have set targets, which provides direction as well as increase the likelihood of meeting them.

This can help organizations achieve critical goals ahead of the deadline. Rapp, Petersen, Hughes, and Ogilvie (2020), who noted that the sales manager's time allocation to selling activities affected the sales team performance of an organization, have also supported this study. According to Rapp et al. (2020), sales managers should

manage people effectively and manage information through planning and analysis. This way, sales managers can increase the organization's sales volume exponentially. Results of past studies have been steady in showing evidence of positive effects of time management planning and improving sales volumes. The analysis of time management planning gives a clear impression that time management planning is useful in increasing the sales volumes of the briquette industry in Kenya. Previous studies concentrated mainly on the effect of time management on project performance. These studies did not show how time management planning affects sales volumes in the briquettes industry in Kenya.

2.3 Summary of the Reviewed Literature and Research Gap

This research sought to establish the role of project planning in influencing sales volumes of the briquettes industry in Kenya. This research looked at the relationship among the identified independent variables and their impact on sales volumes that is the dependent variable of the study.

Financial resource planning determines the financial resources needed to run an organization (Delkhosh & Mousavi, 2016). Without financial planning, businesses cannot allocate resources adequately, and this leads to decreased sales. Human resource planning ensures the organization has employees with the required skills at the right time which in return increases productivity and the sales of an organization. Material requirements planning helps to plan for the cost of producing materials, and production planning and market place demand (Osawaru et al., 2018). This helps to effectively manage materials, thereby increasing productivity and increasing sales. Time management planning helps organizations achieve their targets in a timely plan and according to the set deadlines. An organization that manages its time well avoids projects rolling over because all projects are completed within the set deadlines.

The researcher observed during the literature review that there is a knowledge gap that needs to be filled on the role of project planning and its impact on sales volumes in the briquettes industry in Kenya. Nzioka (2017) conducted a study to investigate the role of project management planning on project success in Kenya: a case of Kenya power infrastructure development projects. This study, however, focused on the impact of project management planning on project success and overlooked the variables that can influence project planning and sales volumes. Another study was conducted by Musau and Kirui (2018) on project management practices and implementation of government projects in Kenya, a case of Machakos county government. This study focused on project management practices and implementation of government projects, but it failed to look at the role of project planning services on the sales volumes of an organization. For that reason, there is a knowledge gap, which this study sought to fill. This study sought to determine the role of project planning and its impact on sales volumes in the briquettes industry in Kenya.

CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter set out a description of the research methodology. It set out ways to evaluate the relationship between financial resource planning, human capital planning, material requirements planning, time management planning, and sales volumes. According to Mugenda and Mugenda (2013), research methodology specifies the exact procedures for conducting a study. Research methodology outlines the research design, sampling techniques, research site and rationale, target population, data collection procedures, sample size, research instruments, data analysis and presentation, and ethical considerations.

3.2 Research Design

This study employed descriptive research design. Descriptive research design defines a sample by collecting data and tabulating frequencies of the research variables (Rahi, 2017). A descriptive study design was appropriate for this study as it showed the relationship among identified variables for the study.

3.3 Research Site

The research site was Acacia Innovations Limited headquarters in Milimani Nairobi, Kenya. The rationale for this research was to help project managers discover the role of project planning in sales volumes in the briquette industry. Additionally, the findings of this research may help policymakers, for example, the government, to come up with appropriate project planning practises within this industry.

3.4 Target Population

According to Mugenda and Mugenda (2013), a target population is a group of people sharing similar and noticeable characteristics. This study chose a target population of one hundred employees within Acacia Innovations Limited. This study chose these respondents because they were the key resource persons in answering issues related to the role of project planning and its impact on sales volumes. The population consisted of relevant departments of Acacia Innovations Limited headquarters in Nairobi, Kenya.

3.5 Study Sample

3.5.1 Sampling Procedure

This study used stratified random sampling to collect data from the employees. In stratified random sampling, researchers divided the population into smaller units referred to as strata. (Taherdoost, 2016). Stratified random sampling was used so there was an equal chance of selecting individuals from each stratum.

3.5.2 Study Sample Size

Mugenda and Mugenda (2013) stated that a sample size is a unit of the total population that represents the entire population. The sample size in this study comprised some employees of Acacia Innovations Limited. The sample size for this study was obtained using Yamane (1967) formula, as shown below:

$$n = \frac{N}{(1 + Ne^2)}$$

Where n is the required sample size and N is the target population 100, e is the significant level (5%). Using the above formula the sample size was:

$100/ (1+100*0.05^2) = 80$

Table 3.1: Target Population

No.	Department	Target Population	Sample Size
1	Senior Management	3	3
2	Administration	7	5
3	Production	78	65
4	Sales	12	7
5	**Total**	**100**	**80**

Source: Acacia Innovations Limited, website (2020).

3.6 Data Collection

3.6.1 Data Collection Instruments

The research collected the relevant data using semi-structured questionnaires. The researcher developed a detailed questionnaire, which was used to elicit objective information used in data analysis. Questionnaires was distributed through the drop and pick later method.

3.6.2 Pilot Testing of Research Instruments

A pilot study was done before the actual study. The pilot study included 10 respondents. Questionnaires were circulated to the respondents in the pilot study. Participants involved in the pilot study were not included in the actual study. Pilot testing is essential since it can reveal unclear or vague questions in the research instrument as well as capture suggestions from respondents on how to improve it.

3.6.3 Instrument Reliability

Mugenda and Mugenda (2013) noted that reliability occurs when there is consistency of a certain measure. Questionnaires from different respondents were

assessed to determine whether they produce the same results on repeated trials. Cronbach's Alpha was used to test reliability of the research instrument.

3.6.4 Instrument Validity

According to Mugenda and Mugenda (2013), validity is the degree of results from data analysis, which can represent a phenomenon in the study. Content validity assessed whether the questionnaire provided a full representation of the variables under study, relevance to the main subject under study was key. Face validity was tested by checking whether the questionnaire instrument had suitable content. Criterion validity assessed the correlation between the results of the questionnaire and results of similar tests done in the briquette industry. Validity of the research instrument was tested through conducting the pilot study to determine the extent to which items on the research instrument can be generalized to the target population.

3.6.5 Data Collection Procedures

The researcher sought written approval from the university's management before conducting research. A letter from the National Commission for Science and Technology and Innovation (NACOSTI) was also sought before commencing research. Primary data was collected through use of questionnaires to the respondents while secondary data was obtained from reports, journals and relevant websites.

3.7 Data Processing and Analysis

After collecting the questionnaires, they were analysed and scrutinized to ensure that they are complete. This study examined collected data by ensuring that the questions were answered according to the given instructions. This helped to maintain data validity and reduce any possible errors. The collected data was analysed using both descriptive and inferential statistics with the help of SPSS version 25.0. The particular

descriptive statistics included mean, standard deviation, percentage and frequency, while the inferential statistics included correlation analysis and regression analysis. The analysis of variance (ANOVA) was checked to reveal the overall model significance. A critical p value of 0.05 was used to determine the overall significance of the model. Change in R-squared was used to evaluate the influence each variable had on sales volumes. The results were presented in tables and bar graphs.

A multiple linear regression model was used to link project planning and sales volumes of the briquettes industry in Kenya as follows;

$$\mathbf{SV=\beta_0+\beta_1 FRP+\beta_2 HCP+\beta_3 MRP+\beta_4 TMP+\epsilon}\ldots.\mathbf{3.1}$$

Where;

SV = Sales Volumes

FRP = Financial Resource Planning

HCP= Human Capital Planning

MRP = Material Requirements Planning

TMP = Time Management Planning

In the model, β_0 = the constant term while the coefficient $\beta_i i = 1\ldots.4$ were used to measure the sensitivity of the dependent variable (SV) to unit change in the predictor variables β_1FRP, HCP, MRP, TMP. μ is the error term, which captures the unexplained variations in the model.

3.8 Legal and Ethical Considerations

Research ethics are the code of conduct that researchers should focus on when conducting their study (Resnik, 2020). This research adhered to research ethics by seeking research authorization from Africa Nazarene University and National Commission for Science, Technology and Innovation (NACOSTI). Regarding

respondents, the researcher adhered to research ethics by not disclosing the personal details of the respondents.

CHAPTER FOUR: DATA ANALYSIS AND FINDINGS

4.1 Introduction

The aim of this study was to determine the role of project planning and its impact on sales volumes in the briquettes industry in Kenya. The study sought to look at how project planning tools can positively impact the briquettes industry and spur growth of sales volumes that for a long time have been limited. The study was guided by the following specific objectives: to analyse the effect of financial resources planning and its impact on sales volumes of the briquettes industry in Kenya, to assess the effect of human capital planning and its impact on sales volumes of the briquettes industry in Kenya, to determine the effect of material requirements planning and its impact on sales volumes of the briquettes industry in Kenya and to establish the effect of time management planning and its impact on sales volumes of the briquettes industry in Kenya. The study collected both quantitative and qualitative data, which was analysed using descriptive and inferential statistics, and presented using tables and bar graphs. The results were then interpreted in view of the conceptual framework. The sections arranged according to the objectives of the study.

4.2 Response Rate

The response rate for the study was established in order to ascertain the representation and the quality of responses for conclusion of the study. A total of eighty (80) questionnaires were distributed to the sampled 80 respondents. Table 4.1 shows a summary of response rate and frequency of responses.

Table 4.1: Response Rate

Response	F	%
Returned	71	88.8
Unreturned	9	11.2
Total	**80**	**100**

Source: Field Data (2020)

As presented in Table 4.1, out of the 80 questionnaires administered, seventy one (71) questionnaires were duly filled and returned, translating into a response rate of 88.8%. This response rate was way above the conventionally acceptable rate for surveys. For instance, Awino (2007) when citing earlier scholars stated that the average response rate for empirical studies is 65% of the sample. Similarly, this was in line with Orodho (2009) who observed that a response rate above 50% contributes towards gathering of sufficient data that could be generalized to represent the opinions of respondents about the study problem in the target population. Based on the above recommendations, the response rate for this study (88.8%) was considered excellent.

4.3 Presentation of Research Analysis, Findings, and Interpretation

4.3.1 Demographic Characteristics

The respondents' demographic information was captured in the first section of data collection instrument. The main aspects of the background information analysed include gender of the respondent, the academic level of the respondent, age, number of years worked and department of operation. The demographics were essential for the discussion regarding the sample size composition.

4.3.1.1 Gender of the Respondent

The researcher was interested in capturing the information regarding the respondents' gender and so they were asked to indicate their gender and the responses on gender distribution were split 32.40% female and 67.6% male. These results imply that at Acacia Innovations Ltd most of the employees are males pointing to the fact that due to the nature of work involved in briquettes industry males are more preferred. The results also imply that there is gender disparity at Acacia Innovations Ltd.

4.3.1.2 Respondents Age

The demographic attribute of age had been found to be very important through linkage with personal experiences. Therefore as part of the demographic information, the respondents were asked to indicate their ages. (39.40%) were aged between 34-41 years. This implies that they were mature, experienced enough and information rich on the thematic issues of the study. 29.60% of the respondents were aged between 26-33 years, 28.20% were aged between 42-49 years, while only 2.80% indicated that they were aged more than 50 years. These responses imply that the respondents involved in this study were mature enough to respond to the questions touching on the relationship between project planning and sales volumes of the briquettes industry in Kenya.

4.3.1.3 Respondents' Highest Level of Academic Qualification

The study further investigated the highest level of academic qualifications of the respondents with the aim of determining their level of management skills, competency and job delivery in as far as improving sales volumes is concerned. Based on the responses, (53.50%) were certificate holders, 29.60% of respondents indicated that their highest level of education was diploma, while 16.90% of the respondents were bachelor's degree holders. These results imply that most of the workers at Acacia

Innovations Ltd are made up of people with basic skills in operations in the company. The few with at least bachelor's degree were in the management and departments that requires higher qualifications.

4.3.1.4 Employment Period

The researcher sought to establish the duration of service for each respondent. Employment period was found necessary in capturing the respondent's level of experience and familiarity with the issues under investigation at Acacia Innovations Ltd. The study found that majority (54.90%) of the respondents had worked with the company for at least 5 years, 38% of the respondents were found to have worked with the company for between 3-5 years. The study in addition found that 4.20% of the respondents had worked with the company for between 1-3 years, while only 2.80% had worked with the company for between 0-1 years. The results imply that most of the employees who took part in the study had enough experience in the company and so were able to understand and comprehend the variables under investigation.

4.3.1.5 Department of Operation

The respondents were further asked to indicate the departments they were working in. This was necessary in assessing the distribution of employees in the company by department. Based on the findings 71.80% of the employees at Acacia Innovations Ltd were working in production department, 14.10% were from sales department, 9.90% from administration department, while only 4.20% were senior management employees. The results imply that at Acacia Innovations Ltd most employees are in production department indicating that production work accounts for the highest proportion of the work done in the company.

4.4 Financial Resource Planning

The first objective of the study was to analyse the effect of financial resources planning and its influence on sales volumes of the briquettes industry in Kenya. The respondents were asked to indicate if they were aware of any cost estimation and forecasting metrics in place at Acacia Innovations Ltd or not and their responses were as recorded. Majority (88.70%) of the respondents indicated that they were aware of cost estimation and forecasting metrics in place at Acacia Innovations Ltd, while the other 11.30% were not aware of any cost estimation and forecasting metrics in place at Acacia Innovations Ltd. The results imply that Acacia Innovations Ltd had in place cost estimation and forecasting metrics; however some employees were not aware of their existence in the company. The descriptive statistics results of variable study are as presented in Table 4.2.

Table 4.2: Descriptive Statistics on Financial Resources Planning

Statement	**SD**	**D**	**N**	**A**	**SA**	**Mean**	**Std. Dev.**
	f (%)	**f (%)**	**f (%)**	**f (%)**	**f (%)**		
Forecasting and cost estimation drive sales volumes	0(0.00)	3(4.20)	9(12.70)	37(52.10)	22(31.0)	4.099	0.777
Proper expense outlay has enhanced sales volume in the organization.	0(0.00)	5(7.00)	14(19.70)	43(60.60)	9(12.70)	3.789	0.754
Sales and operations planning strategies	0(0.00)	5(7.00)	6(8.50)	45(63.40)	15(21.10)	3.986	0.765
Enterprise resource planning allows business to plan properly boosting sales volume.	1(1.40)	1(1.40)	10(14.10)	40(56.30)	19(26.80)	4.056	0.773
Cash flow management has been vital in improving the sales volume of the organization.	0(0.00)	4(5.60)	1(1.40)	51(71.80)	15(21.10)	4.085	0.671
Average						**4.003**	**0.748**

Source: Field Data (2020)

As presented in Table 4.2, most of the respondents 37(52.10%) agreed that forecasting and cost estimation had been useful in driving sales volumes in the organization, 22(31.00%) strongly agreed with the statement, while 9(12.70%) were not sure with the statement. The results were affirmed by (M=4.099; Std. Dev=0.777). The results imply that most of the employees of Acacia Innovation limited are convinced forecasting and cost estimation are useful in driving sales volumes in an

organization. The study also found that most of the respondents 52(73.30%) were in agreement with the fact that having proper expense outlay had enhanced sales volume in the organization, 14(19.70%) were not sure, while 5(7%) disagreed with the statement. The results further had (M=3.789; Std. Dev=0.754).

Additionally, most 60(84.50%) agreed that sales and operations planning strategies in the organization ensures that customers' demands are met in timely manner enhancing sales volume; however 5(7%) others had contrary opinion regarding the same statement. The responses on the statement had a mean and standard deviation of 3.986 and 0.765 respectively pointing to the fact that most of the respondents agreed with the statement. Regarding enterprise resource planning, most of the respondents 59(83.10%) agreed that adoption of enterprise resource planning enabled the business to properly plan boosting sales volume. The same was affirmed by (M=4.056; Std. Dev=0.773).

Finally, the study found that most 66(92.90%) of the respondents were in agreement with the statement that cash flow management had been vital in improving the sales volume of the organization, 1(1.4%) was not sure, while 4(5.6%) disagreed with the statement. The results had (M=4.085; Std. Dev=0.671). The overall mean and standard deviation of the responses on financial resource planning was 4.003 and 0.748 respectively. This implies that most of the respondents agreed with the statements on financial resource planning, and their responses were slightly varied from the mean response. The descriptive statistics results on financial resource planning are consistent with the findings of GVEP International (2010) which revealed that financial planning skills in the briquettes industry in Kenya are rudimentary and that financial resource planning has a direct and positive impact on the sales volumes of the briquette industry in Kenya.

Field data was collected on first objective of this study, which sought opened ended responses in relation to financial planning. Table 4.3 below is a representation of qualitative data as analysed from respondents.

Table 4.3: Relationship between Sales Volumes & Financial Planning

	Percentage (%)	Frequency
Demand planning	90.14	64
Budgets	83.1	59
Labor needs	88.7	63
Production planning	90.14	64

Source: Field Data (2020)

Qualitative analysis of respondents' feedback on the relationship between sales volumes and financial planning revealed various themes and similarity of responses. The themes were narrowed down to demand planning which gave a 90.14%, budgets 83.10%, labour needs 88.70% and production planning 90.14% result indicating awareness of employees to financial planning practices and how the applied practices influence sales volumes at Acacia Innovations Limited. Demand planning and production planning revealed a similar result proving that production planning work hand in hand with demand for the product. The results are in tandem with the quantitative results collected on the Likert scale.

4.5 Human Capital Planning

The second objective of the study was to assess the effect of human capital planning and its impact on sales volumes of the briquettes industry in Kenya. The respondents were asked to indicate how workforce planning and competency

management were embedded in the organization's human capital planning practice and most of the respondents indicated that:

> *''...Human capital planning is done by our recruiting team, they determine the needed skills, when to hire and in which department. We make requests depending on our team needs for increased personnel and the HR team acts on it.*

The descriptive statistics results of this variable are as presented in Table 4.4.

Table 4.4: Descriptive Statistics on Human Capital Planning

Statement	**SD**	**DA**	**N**	**A**	**S A**	**Mean**	**Std. Dev.**
	f (%)	**f (%)**	**f (%)**	**f (%)**	**f (%)**		
Employees, with the right skills, and at the right time	1(1.40)	3(4.20)	7(9.90)	35(49.30)	25(35.20)	4.127	0.861
Competitive advantage in organizations	1(1.40)	5(7.00)	11(15.50)	34(47.90)	20(28.20)	3.944	0.924
Transforms the sales of an organization	0(0.00)	1(1.40)	18(25.40)	35(49.30)	17(23.90)	3.958	0.745
Emphasize employee training and skills more than any other element	1(1.40)	5(7.00)	18(25.40)	32(45.10)	15(21.10)	3.775	0.913
Retain dedicated and hardworking employees boosting sales	1(1.40)	5(7.00)	6(8.50)	35(49.30)	24(33.80)	4.070	0.915
Skills development, induction programs for new hires, & hiring the very best talent in the pool.	1(1.40)	7(9.90)	9(12.70)	37(52.10)	17(23.90)	3.873	0.940
Average						**3.958**	**0.883**

Source: Field Data (2020)

Based on the results in Table 4.4, most of the respondents 35 (49.30%) agreed that human capital planning ensures that an organization has the right number of employees, with the right skills and at the right time, 25 (35.20%) strongly agreed with the same statement, 7(9.9%) indicated that they were not sure, while 4(5.60%) disagreed with the statement. The responses had (M=4.127; Std. Dev=0.861). This implies that most of the respondents were in agreement with the statement and that their responses were slightly varied. The study found that most 54(76.10%) of the respondents were convinced human capital planning acts as a competitive advantage in organizations because it identifies future human skills required in a firm. This was affirmed by (M=3.944; Std. Dev=0.924).

Additionally, the results show that most 52(73.20%) of the respondents agreed with the fact that human capital planning transforms the sales of an organization. 47(66.20%) of the respondents agreed that human capital planning emphasizes employee training and skills more than any other element while 59(83.10%) of the respondents were positive that Acacia retained dedicated and hardworking employees and this boosted their sales. Finally, the results show that majority 54(76%) of the respondents indicated that at Acacia, they strived to continuously develop skills of the workforce, developing realistic induction programs for new hires and only hiring the very best talent in the pool, the same was affirmed by (M=3.873; Std. Dev=0.940). The responses on human capital planning had an overall mean and standard deviation of 3.958 and 0.883 respectively implying that most of the respondents were in agreement with the statements regarding the effect of human capital planning on sales volumes at Acacia Innovations Limited even though, their responses were varied. The results concurs with the assertions of Tomal and Schilling (2018) that, human resource

planning acts as a competitive advantage in organizations because it identifies current and future human skills required in a firm.

Field data was collected on respondents' feedback to an open-ended question that sought to analyse their understanding of human capital planning practices as applied at Acacia Innovations Limited. The results reveal a high understanding as to how competency management and workforce planning are embedded in the organization as shown in table 4.5 below.

Table 4.5: Workforce Planning and Competency Management Indicators

	Percentage (%)	**Frequency**
Training & development	73.23	52
Competitive advantage	84.51	60
Production targets	81.70	58
Performance reviews	87.32	62

Source: Field Data (2020)

The field data was grouped into themes for ease of data analysis according to similarity of responses. Training and development had a 73.23% result indicating a strong practice at Acacia Innovations Limited. Competitive advantage yielded 84.51% result, which shows that respondents were aware how important human capital planning practices were to keep them ahead of their competition. Production targets gave 81.70% as their result revealing a high association with production efficiencies and how this was used as a metric in human capital planning. Lastly, performance reviews (87.32%) were a constant mention by respondents as a competency and workforce planning practice embedded at Acacia Innovations Limited

4.6 Material Requirements Planning

The third objective was to determine the effect of material requirements planning and its impact on sales volumes of the briquettes industry in Kenya. The respondents were asked to indicate some of the aspects of material planning used in their organization.

Most (46.50%) of the respondents indicated availability of raw material as the aspect of material planning used in their organization, 28.20% indicated substitutes to raw material as an aspect of material planning used, while 25.40% pointed that cost of labour was the aspect of material planning used. The respondents were also asked to indicate how the practice of material requirements planning was being applied at Acacia innovations Ltd. Most of the respondents indicated that:

> *‘‘…material requirements planning is computer-based inventory management system designed to assist production managers and in our company, it is used in scheduling and placing orders for items of dependent demand. By using MRP, we work backward from a production plan for finished goods to develop requirements for components and raw materials’’.*

The descriptive statistics results of this variable are as presented in Table 4.6.

Table 4.6: Descriptive Statistics on Material Requirements Planning

Statement	SD	D	N	A	SA	Mean	Std. Dev.
	f (%)	f (%)	f (%)	f (%)	f (%)		
Helps to identify the required inputs for production.	0(0.00)	6(8.50)	13(18.30)	29(40.80)	23(32.40)	3.972	0.925
Project planning covers the availability of the materials, and transfer from supplier to the project site	0(0.00)	7(9.90)	17(23.90)	35(49.30)	12(16.90)	3.732	0.861
Avoids potential material shortage	0(0.00)	8(11.30)	13(18.30)	31(43.70)	19(26.80)	3.859	0.946
Increases the productivity	0(0.00)	5(7.00)	7(9.90)	37(52.10)	22(31.00)	4.070	0.834
Average						**3.908**	**0.891**

Source: Field Data (2020)

The results show that most 29(40.80%) of the respondents agreed that material usage planning helps to identify the required inputs for production, 23(32.40%) strongly agreed with the statement, 13(18.30%) were not sure, while 6(8.50%) disagreed with the statement. The responses had (M=3.972; Std. Dev=0.925) implying that most of the respondents agreed with the statement and that their response was spread uniformly about the mean response. The study also found that most 47(66.20%)

of the respondents were in agreement with the statement that project planning covers the availability of the materials, and transfer from supplier to the project site which was also affirmed by (M=3.732; Std. Dev=0.861). Additionally, the results show that most 50(70.50%) of the respondents agreed that material control avoids potential material shortage, 13(18.30%) were not sure, while 8(11.30%) disagreed. The figures imply that most of the respondents were in agreement and their responses were spread about the mean (M=3.859; Std. Dev=0.946).

Finally, most of the respondents 59(83.10%) agreed with the fact that efficient material usage planning increases productivity as was also affirmed by (M=4.070; Std. Dev=0.834). The responses on material requirements planning had an overall mean and standard deviation of 3.908 and 0.891implying that most of the respondents agreed with the statements on material requirements planning and their effects on sales volumes. These results are in agreement with the conclusion made by Asaolu, Agorzie and Unam (2012) that, lack of material usage planning may lead to a decrease in materials, which leads to a loss in marketing opportunities and competitive advantage. The results are also in agreement with the findings of Asamoah, Nikiema, Gebrezgabher, Odonkor, and Njenga (2016) which revealed that materials used in briquettes production were wasted a lot by unnecessary production processes and that effective material usage planning also needs a mix of market place demand.

4.7 Time Management Planning

The fourth objective was to establish the effect of time management planning and its impact on sales volumes of the briquettes industry in Kenya. The respondents were asked to explain how target setting and work prioritization methods were contributing to sales volumes at Acacia Innovations Ltd and most of them indicated that;

> *‘‘…in our organization, sales targets have been growing with our business. Our sales managers set targets and share them with the team. The sales team works very hard to achieve set targets each month through use of time management techniques applied at the company.*

The descriptive statistics results of this variable are as presented in Table 4.7.

Table 4.7: Descriptive Statistics on Time Management Planning

Statement	SD	D	N	A	SA	Mean	Std. Dev.
	f (%)	f (%)	f (%)	f (%)	f (%)		
Helps employees' exhibit good time management behaviors	0(0.00)	0(0.00)	8(11.30)	45(63.40)	18(25.40	4.141	0.593
Results in high job performance	0(0.00)	0(0.00)	3(4.20)	42(59.20)	26(36.60	4.324	0.555
Increases organizational commitment of employees	0(0.00)	0(0.00)	2(2.80)	50(70.40)	19(26.80)	4.239	0.492
Influences job performance, which enhances sales volume	0(0.00)	1(1.40)	12(16.90)	42(59.20)	16(22.50)	4.028	0.676
Average						**4.183**	**0.579**

Source: Field Data (2020)

As indicated in Table 4.7, most of the respondents 45(63.40%) agreed that time management planning helps employees' exhibit good time management behaviours, 18(25.40%) agreed with the statement, while 8(11.30%) were not sure of what to say. The results had (M=4.141; Std. Dev=0.593). The study also found that most 68(95.80%) of the respondents were convinced time management planning results in high job performance, 69(97.20%) agreed that time management planning increases

organizational commitment of employees. The same results were affirmed by (M=4.239; Std. Dev=0.492).

Finally, the results show that most 58(81.70%) of the respondents agreed with the fact that time management planning influences job performance, which enhances sales volume. The results are consistent with the findings of Harahsheh (2019) which pointed to the fact that time management planning helps an organization to distinguish between what needs to be done urgently and what needs to be done later which brings on the aspect of work prioritization. It is paramount for any sales team to have set targets, which provides direction as well as increase the likelihood of meeting them since this can help organizations achieve critical goals ahead of the deadline.

The section on time management planning was two part, the second part sought to analyse an open-ended question on how target setting and work prioritization contribute to sales volumes at Acacia Innovations Limited. The results were as presented in table 4.8.

Table 4.8: Influence of Target Setting and Work Prioritization on Sales Volumes

	Percentage (%)	**Frequency**
Job performance	91.42	64
Employee commitment	94.40	67

Source: Field Data (2020)

Job performance gave a 91.42% result indicating that target setting and work prioritization were a key indicator for sales volumes and employees at Acacia Innovations Limited had the indicators in place. 94.4% respondents also believed that target setting and work prioritization built on employee commitment to the job and organization.

4.8 Correlation Analysis

Correlation is a term used to denote the association or relationship between two (or more) quantitative variables. This analysis is fundamentally based on the assumption of a straight–line linear relationship between the quantitative variables and it measures the "strength "or the "extent" of an association between the variables and also its direction. The end result of a correlation analysis is a correlation coefficient whose values range from -1 to +1. A correlation coefficient of +1 indicates that the two variables are perfectly related in a positive (linear) manner, a correlation coefficient of -1 indicates that two variables are perfectly related in a negative (linear) manner, while a correlation coefficient of zero indicates that there is no linear relationship between the two variables being studied (Gogtay & Thatte, 2017).

Correlation analysis was conducted to ascertain the association between the study variables of financial resource planning, human capital planning, material requirements planning, time management planning and sales volumes. Combined Pearson correlation for the variables was generated using SPSS. Correlation coefficient was computed and used to test whether there existed interdependency between independent variables and also whether the independent variables were associated with the dependent variable, sales volumes. The correlation results are presented in Table 4.9.

Table 4.9: Correlation Matrix

		Sales Volumes	Financial Resource Planning	Human Capital Planning	Material Requirement Planning	Time Management Planning
Sales Volumes	Pearson Correlation	1.000				
	Sig. (2-tailed)					
	N	71				
Financial Resource Planning	Pearson Correlation	.585**	1.000			
	Sig. (2tailed)	0.000				
	N	71	71			
Human Capital Planning	Pearson Correlation	.460**	0.119	1.000		
	Sig. (2tailed)	0.000	0.325			
	N	71	71	71		
Material Requirement Planning	Pearson Correlation	.430**	.315**	.288*	1.000	
	Sig. (2tailed)	0.000	0.008	0.015		
	N	71	71	71	71	
Time Management Planning	Pearson Correlation	.498**	.393**	0.212	.497**	1.000
	Sig. (2tailed)	0.000	0.001	0.075	0.000	
	N	71	71	71	71	71

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

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

Source: Field Data (2020)

The correlation results in table 4.9 shows that financial resource planning and sales volumes were positively and significantly associated (r=0.585, p=0.000<.05), human capital planning was found to be positively and significantly associated with sales volume (r=0.460, p=0.000<.05). The results also indicate that there was positive and significant association between material requirement planning and sales volumes (r=0.430, p=0.000<.05). Finally, the results showed that there was a positive and significant association between time management planning and sales volumes (r=0.498, p=0.000<.05). The correlation result implies that an improvement in financial resource planning, human capital planning, material requirements planning and time

management planning leads to an improvement in sales volumes in Acacia Innovations Ltd.

The correlation analysis results are consistent with the findings of (Dow & Han, 2017) which indicated that finances are important in any business because they help to support the business and it guarantees going concern, lack of finances triggers sales and market freeze, while finances ensure that the flow of money throughout the business is adequate. The results in addition in agreement with the findings of a study by John and Gold (2017) which revealed that organizations that do not embrace human capital planning would face product and sales erosion, and employee malaise. Human capital planning skills ensure that an organization has the right number of employees, with the right skills, and at the right time.

4.9 Regression Analysis

Regression analysis was conducted to establish the statistical significance relationship between the independent variables (financial resource planning, human capital planning, material requirements planning and time management planning) and sales volumes in Acacia Innovations Ltd. Wan (2013) observed that regression analysis helps in generating an equation that describes the statistical relationship between one or more predictor variables and the response variable. Linear regressions were done for the independent variables to ascertain their relationship with sales volumes. Multiple regression analysis was also conducted to ascertain the overall effect of the study variables on the sales volumes.

In interpretation and understanding the result of regression analysis, R squared was used to check how well the model fitted the data. The coefficient of determination, R^2 was used in this study as a useful tool because it gives the proportion of the variance

of one variable that is predictable from the other variable. It is a measure that allows the determination of how certain variables can be in making predictions from a certain model. Table 4.10 shows the model summary.

Table 4.10: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.743a	0.552	0.525	0.27812

a. Predictors: (Constant), Time Management Planning, Human Capital Planning, Financial Resource Planning, Material Requirement Planning

Source: Field Data (2020)

From the results on Table 4.10, all the aspects of project planning (financial resource planning, human capital planning, material requirements planning and time management planning) were satisfactory variables in explaining sales volumes in Acacia Innovations Ltd. This fact is supported by coefficient of determination also known as the R square of 0.552. This implies that financial resource planning, human capital planning, material requirements planning and time management planning jointly explain 55.2% of the variations in sales volumes. In statistics, significance testing the p-value indicates the level of relation of the independent variable to the dependent variable. If the significance number found is less than the critical value also known as the probability value (p) which is statistically set at 0.05, then the conclusion is that the model is significant in explaining the relationship; else, the model is regarded as non-significant. Table 4.11 shows the ANOVA Analysis results for the Overall Model.

Table 4.11: Analysis of Variance (ANOVA)

Model		Sum Squares	ofdf	Mean Square	F	Sig.
1	Regression	6.296	4	1.574	20.347	.000[b]
	Residual	5.105	66	0.077		
	Total	11.401	70			

a. Dependent Variable: Sales Volumes

b. Predictors: (Constant),), Time Management Planning, Human Capital Planning, Financial Resource Planning, Material Requirement Planning

Source: Field Data (2020)

The outcomes of the analysis of variance (ANOVA) in Table 4.11 show that the general model was statistically significant in explaining the relationship between financial resource planning, human capital planning, material requirements planning, time management planning and sales volumes. Further, the outcomes suggest that financial resource planning, human capital planning, material requirements planning and time management planning were good indicators of sales volumes in Acacia Innovations Ltd. This was supported by an F statistic of 20.347and the reported p value (0.000) which was less than the conventional probability of 0.05 significance level. The regression of coefficients results is presented in Table 4.12.

Table 4.12: Regression of Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.327	0.454		0.719	0.475
	Financial Resource Planning	0.402	0.084	0.433	4.78	0.000
	Human Capital Planning	0.247	0.063	0.337	3.905	0.000
	Material Requirement Planning	0.052	0.055	0.093	0.944	0.349
	Time Management Planning	0.224	0.106	0.21	2.108	0.039

a. Dependent Variable: Sales Volumes

Source: Field Data (2020)

Regression of coefficients results in Table 4.12 shows that financial resource planning and sales volumes are positively and significantly related (β =.402, p=0.000<.05). The results also indicated that human capital planning and sales volumes are positively and significantly related (β =.247, p=0.000<.05), Material Requirement Planning and sales volumes were positively and insignificantly related (β =.052, p=0.349>.05). Finally, the results showed that time management planning was positively and significantly related with sales volumes (β =.224, p=0.039<.05). These results imply that an improvement in financial resource planning, human capital planning, material requirements planning and time management planning leads to an

improvement in sales volumes in Acacia Innovations Ltd by 0. 402, 0.247, 0. 052 and 0. 224 units respectively.

The regression analysis results are consistent with the conclusion made by Mislick and Nussbaum (2015) that, development of realistic estimates of the projected costs of production, sales and administrative operations will ensure there is adequate allocation of resources and thus more likelihood of achieved business objectives. Mislick and Nussbaum (2015) also affirmed that accuracy in cost estimating is vital as prices are affixed on products or services based on this and high estimation leads to highly priced services or goods resulting in lack of competitiveness in the market. Cost estimation plays an important financial planning role in support of sales volumes of the briquette industry. The regression analysis results also concurs with the assertions of Asaolu, Agorzie and Unam (2012) that business managers should concentrate on the following significant variables to attain material usage planning; inventories, management of materials and purchasing of raw materials.

CHAPTER FIVE: DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents discussions, summary, conclusions, and recommendations. The aim of the study was to determine the role of project planning in sales volumes in the briquettes industry in Kenya. The study particularly sought to assess how project planning tools could impact the briquettes industry and spur growth of sales volumes that for a long time had been limited. The summary of the study findings was done per objective.

5.2 Discussions

The purpose of this study was to research on the role of project planning and its impact on sales volumes in the briquettes industry in Kenya. The study was motivated by the fact that, the briquettes industry had been in existence since the 1970's however, notable growth had been lacking and benefits remained underutilized. The findings of the study were discussed per research questions.

5.2.1 Financial resource planning and its influence on sales volumes of the briquettes industry in Kenya

Descriptive results revealed that most (88.70%) of the respondents were aware of cost estimation and forecasting metrics in place at Acacia Innovations Ltd, with only 11.30% indicating that they were not aware of any cost estimation and forecasting metrics in place at Acacia Innovations Ltd pointing to the fact that the level of awareness was high in the company. Based on the results, most of the respondents 37(52.10%) believed forecasting and cost estimation had been useful in driving sales volumes in the organization, most of the respondents 52(73.30%) were in agreement

with the fact that having proper expense outlay had enhanced sales volume in the organization.

Additionally, most 60(84.50%) agreed that sales and operations planning strategies in the organization ensures that customers' demands are met in timely manner enhancing sales volume. The responses on the statement had a mean and standard deviation of 3.986 and 0.765 respectively pointing to the fact that most of the respondents agreed with the statement. Regarding enterprise resource planning, the study found that most of the respondents 59(83.10%) agreed adoption of enterprise resource planning enables the business to properly plan ahead boosting sales volume. The study also found that most 66(92.90%) of the respondents were convinced cash flow management had been vital in improving the sales volume of the organization.

The study in addition conducted a correlation analysis to assess the strength and direction of the association between financial resource planning in which the results were interpreted using Pearson correlation (r) and p-value. The correlation analysis revealed that financial resource planning and sales volumes were positively and significantly associated ($r=0.585$, $p=0.000<.05$). The study went further and conducted a regression analysis to establish the relationship between financial resource planning and sales volumes and the results revealed a positive and significant relationship between financial resource planning and sales volumes ($\beta =.402$, $p=0.000<.05$) implying that financial resource planning positively and significantly influences sales volumes in briquettes company.

5.2.2 Human capital planning and its influence on sales volumes of the briquettes industry in Kenya

The descriptive statistics results revealed that most of the respondents 35 (49.30%) agreed with the statement that human capital planning ensures an organization has the right number of employees, with the right skills and at the right time. At least 54(76.10%) of the respondents were convinced human capital planning acts as a competitive advantage in organizations because it identifies future human skills required in a firm.

Additionally, 52(73.20%) of the respondents agreed with the fact that human capital planning transforms the sales of an organization, while 47(66.20%) of the respondents agreed that human capital planning emphasizes employee training and skills more than any other element. 59(83.10%) of the respondents were positive that Acacia retained dedicated and hardworking employees and this boosted their sales. The study also found that majority 54(76%) of the respondents were convinced their company strived to continuously develop skills of the workforce, developing realistic induction programs for new hires and only hiring the very best talent in the pool. The results were found to be a corroboration of a study by Tomal and Schilling (2018) which indicated that, human resource planning acts as a competitive advantage in organizations because it identifies current and future human skills required in a firm.

Correlation analysis results revealed a positive and significant association between human capital planning and sales volume ($r=0.460$, $p=0.000<.05$). Regression analysis results revealed that human capital planning as an independent variable had positive and significant influence on sales volume($\beta =.247$, $p=0.000<.05$) implying that an improvement in human capital planning as an aspect of project planning leads to an improvement in sales volume by 0.247 units.

5.2.3 Material requirements planning and its influence on sales volumes in the briquettes industry in Kenya

Descriptive statistics results indicated that most (46.50%) of the respondents believed availability of raw material was the aspect of material planning used in their organization, 28.20% indicated substitutes to raw material as an aspects of material planning used, while 25.40% felt cost of labour was the aspect of material planning used.

The results further indicated that most 29(40.80%) of the respondents agreed material usage planning helps to identify the required inputs for production. About 47(66.20%) of the respondents were in agreement with the statement that project planning covers the availability of the materials, and transfer from supplier to the project site which was also affirmed by (M=3.732; Std. Dev=0.861). Additionally, the results show that most 50(70.50%) of the respondents agreed material control avoids potential material shortage. The study further found out that most of the respondents 59(83.10%) were convinced efficient material usage planning increases productivity.

Based on the correlation analysis results, there was positive and significant association between material requirements planning as an aspect of project planning and sales volume($r=0.430$, $p=0.000<.05$). The regression analysis results found a positive but insignificant relationship between material requirements planning and sales volumes ($\beta =.052$, $p=0.349>.05$). The results were found to be consistent with the recommendations of Asaolu, Agorzie and Unam (2012) that business managers should concentrate on the following significant variables to attain material usage planning; inventories, management of materials and purchasing of raw materials.

5.2.4 Time management planning and its influence on sales volumes in the briquettes industry in Kenya

Based on the descriptive statistics results, most of the respondents 45(63.40%) agreed that time management planning helps employees' exhibit good time management behaviours, 18(25.40%) agreed with the statement, while 8(11.30%) were not sure of what to say. The study also found that most 68(95.80%) of the respondents were convinced time management planning results in high job performance, 69(97.20%) agreed that time management planning increases organizational commitment of employees.

Finally, the results showed that most 58(81.70%) of the respondents agreed with the fact that time management planning influences job performance, which enhances sales volume. The results were found to be consistent with the findings of Harahsheh (2019) which pointed to the fact that time management planning helps an organization to distinguish between what needs to be done urgently and what needs to be done later which brings on the aspect of work prioritization.

The study conducted correlation analysis to determine the strength and the general nature of the association between time management planning and sales volumes and the results revealed that there was a positive and significant association between time management planning and sales volumes ($r=0.498$, $p=0.000<.05$). Finally the regression analysis results revealed that time management planning had positive and significant effect on sales volumes ($\beta =.224$, $p=0.039<.05$).

5.3 Summary of Main Findings

Most of the respondents were aware of cost estimation and forecasting metrics in place at Acacia Innovations Ltd, with only few indicating that they were not aware

of any cost estimation and forecasting metrics in place at Acacia Innovations Ltd pointing to the fact that the level of awareness was high in the company. Based on the results, most of the respondents believed forecasting and cost estimation had been useful in driving sales volumes in the organization, most of the respondents were in agreement with the fact that having proper expense outlay had enhanced sales volume in the organization.

Additionally, most agreed that sales and operations planning strategies in the organization ensures that customers' demands are met in timely manner enhancing sales volume. Regarding enterprise resource planning, the study found that most of the respondents agreed adoption of enterprise resource planning enables the business to properly plan ahead boosting sales volume. The study also found that most of the respondents were convinced cash flow management had been vital in improving the sales volume of the organization.

The study in addition conducted a correlation analysis to assess the strength and direction of the association between financial resource planning in which the results were interpreted using Pearson correlation (r) and p-value. The correlation analysis revealed that financial resource planning and sales volumes were positively and significantly associated. The study went further and conducted a regression analysis to establish the relationship between financial resource planning and sales volumes and the results revealed a positive and significant relationship between financial resource planning and sales volumes implying that financial resource planning positively and significantly influences sales volumes in briquettes company.

The descriptive statistics results revealed that most of the respondents agreed with the statement that human capital planning ensures an organization has the right number of employees, with the right skills and at the right time. Most of the respondents

were convinced human capital planning acts as a competitive advantage in organizations because it identifies future human skills required in a firm. Additionally, most of the respondents agreed with the fact that human capital planning transforms the sales of an organization, and they also agreed that human capital planning emphasizes employee training and skills more than any other element, while 59(83.10%) of the respondents were positive that at Acacia they retained dedicated and hardworking employees and this boosted their sales. The study also found that majority 54(76%) of the respondents were convinced their company strived to continuously develop skills of the workforce, developing realistic induction programs for new hires and only hiring the very best talent in the pool. The results were found to be a corroboration of a study by Tomal and Schilling (2018) which indicated that, human resource planning acts as a competitive advantage in organizations because it identifies current and future human skills required in a firm.

Correlation analysis results revealed a positive and significant association between human capital planning and sales volume. Regression analysis results revealed that human capital planning as an independent variable had positive and significant influence on sales volume implying that an improvement in human capital planning as an aspect of project planning leads to an improvement in sales volume.

Most of the respondents believed availability of raw material was the aspect of material planning used in their organization. The results further indicated that most of the respondents agreed material usage planning helps to identify the required inputs for production, most of the respondents were in agreement with the statement that project planning covers the availability of the materials, and transfer from supplier to the project site. Additionally, the results show that most of the respondents agreed material

control avoids potential material shortage. The study further found out that most of the respondents were convinced efficient material usage planning increases productivity.

Based on the correlation analysis results, there was positive and significant association between material requirements planning as an aspect of project planning and sales volume. The regression analysis results found a positive but insignificant relationship between material requirements planning and sales volumes. The results were found to be consistent with the recommendations of Asaolu, Agorzie and Unam (2012) that business managers should concentrate on the following significant variables to attain material usage planning; inventories, management of materials and purchasing of raw materials. Most of the respondents agreed that time management planning helps employees' exhibit good time management behaviours, agreed with the statement, while were not sure of what to say. The study also found that most of the respondents were convinced time management planning results in high job performance, most of the respondents agreed that time management planning increases organizational commitment of employees.

Finally, the results showed that most of the respondents agreed with the fact that time management planning influences job performance, which enhances sales volume. The results were found to be consistent with the findings of Harahsheh (2019) which pointed to the fact that time management planning helps an organization to distinguish between what needs to be done urgently and what needs to be done later which brings on the aspect of work prioritization. The study conducted correlation analysis to determine the strength and the general nature of the association between time management planning and sales volumes and the results revealed that there was a positive and significant association between time management planning and sales

volumes. The regression analysis results revealed that time management planning had positive and significant effect on sales volumes.

5.4 Conclusions

Based on the findings of this study, a number of conclusions can be made. The study concludes that most of Acacia Innovations Limited employees are aware of the existence of cost estimation and forecasting metrics in their company, however, some employees are still not aware of the existence of such. The study also concludes that forecasting and cost estimation are useful in driving sales volumes in an organization. Accurate expense outlay means that a company is able to enhance sales volumes in the organization. Sales and operations planning strategies are important because they ensure that customers' demands are met in timely manner enhancing sales volume. It is important for briquette companies to adopt resource planning since it has been found to enable the business to properly plan ahead boosting sales volume, cash flow management is also vital in improving the sales volume of an organization.

Additionally, the study concludes that human capital planning is very important in briquette companies as an aspect of project planning since it enables such companies develop resource plans and strategize on human capital needs for the future. It is therefore important for briquette companies to embrace human capital planning as project planning strategy as a way of improving their products and sales. The study also concludes that, by adopting human capital planning, the company will acquire the skills that will ensure that the company has the right number of employees, with the right skills, and at the right time.

Regarding material requirement planning, the study concludes that material requirement planning strategy as an aspect of project planning is important in briquette

companies in enhancing sales volumes. Based on the descriptive statistics results, the study concludes that material requirement planning is very vital in briquettes since it determines the cost of production and profitability of the organization. In this regard, it is important for such companies to adopt material requirements planning strategy as a way of enhancing their sales volumes. The study concludes further that availability of raw material and cost of labour are the main aspects of material planning being adopted at Acacia Innovations Limited. Proper usage of material planning results into an increase in the output of an organization hence increasing the sales volumes of the industry. It is therefore important that briquette companies in Kenya adopt effective material usage planning such as inventory management, scheduling production, and cost of purchasing raw materials as one way of boosting their sales.

Concerning time management planning, the study concludes that, time management planning is important in helping employees' exhibit good time management behaviours, time management planning results in high job performance, time management planning increases organizational commitment of employees and that time management planning influences job performance, which enhances sales volume. The study also concludes that it is important for briquettes companies in Kenya to adopt time management planning strategies because time management planning helps a company to differentiate between what needs to be done urgently and what needs to be done later which brings on the aspect of work prioritization. In addition to that, it is of great importance for the sales team in such briquettes companies to have set targets that provides direction as well as increase the likelihood of meeting them.

In general, it suffices to conclude that the aspects of project planning adopted in this study: financial resource planning, human capital planning and time management planning positively and significantly influences sales volume in the briquette industry,

except for material requirements planning which was found to positively but insignificantly influencing sales volume.

5.5 Recommendations

Based on the findings and conclusions made, the study recommends that the management of Acacia innovations Limited company should strive to implement project planning strategies such as financial resource planning, human capital planning, time management planning and material requirements planning because they have been found to influence sales volumes. The study recommends to the management of Acacia Innovations Limited to strive to ensure they have a proper and effective financial resource planning strategy such as cost estimation in place because accuracy in cost estimating is very important. Prices are affixed on products or services based on this and high estimation leads to highly priced services or goods resulting in lack of competitiveness in the market. Therefore, it is important for the management of Acacia Innovations Limited to know that cost estimation plays an important financial planning role in support of sales volumes of the briquette industry.

The findings from this study will help the management to identify those project planning related issues that can slow productivity in the workplace and that affect sales volumes. The policy makers would be able to use the findings of the study in coming up with policies that would guide the implementation of project planning strategies in companies in Kenya so that there is uniformity in adoption process. The study also recommends that for the management of Acacia Innovations Limited to have successful implementation of project planning strategies, there is need for a clear roadmap with clearly defined goals. These should not change after the first phase of the project has been completed and that all stakeholders benefiting from the outcome are involved in

executing the project planning should be named and their needs stated during the initial project planning process.

This study contributes to Theory of Change by Beisser 1970 which help to predict the product quality in all the stages of product development. Project planning is important in material requirements planning because it will help in predicting the quality of material used to develop briquettes. The study hence recommends to the management of Acacia Innovations Limited to strive to embrace the principles of Theory of Change in improving product quality in their establishment to enhance their sales volumes. Finally, the study recommends to the future researchers and academicians to conduct similar study by adopting different variables such as scope management planning, quality management planning, project change management planning and risk management planning and findings compared with those of the current study.

5.6 Areas of Further Research

The study focused on Acacia innovation limited company in Nairobi and therefore there is the need a similar research to be carried out in other sectors, such as manufacturing and service sectors and a comparison of the findings to be made. This study only used four variables namely: financial resource planning, human capital planning, time management planning and material requirements planning. Other factors, such as scope management planning, quality management planning, project change management planning and risk management planning and findings compared with those of the current study. Therefore, the area of other variables to sales volumes should be included in future studies.

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APPENDICES

APPENDIX I: INTRODUCTION LETTER TO RESPONDENTS

Dear respondent,

My name is Annastacia Ng'ang'a, a post graduate student at Africa Nazarene University, School of Business conducting a research on ***The Role Of Project Planning in Sales Volumes in the Briquettes Industry In Kenya: A Case of Acacia Innovations Limited.***

This questionnaire will help me gather data on the stated topic that is an applied research project proposal submitted in partial fulfilment of the requirements for the award of Master of Business Administration Degree in the Business School of Africa Nazarene University.

Your completion and return of this questionnaire will constitute your implied consent. Your response is very important towards the success of this study. The information you have provided will be confidential and your identity will not be revealed at any point. I recognise the demands placed on your time and I am grateful for your participation and thank you very much for your assistance.

Yours sincerely,

Annastacia Njeri Ng'ang'a,

(Researcher)

APPENDIX II: QUESTIONNAIRE

You are kindly requested to complete the attached questionnaire so as to enable me accomplish the study. Please, note that all the information given will be used for academic purposes and shall be treated as confidential. Thank you for taking your time to complete the questionnaire and for your cooperation.

SECTION A: BACKGROUND INORMATION

1. Sex of the respondent

   Male [ ]

   Female [ ]

2. How old are you?

   18-25 years [ ]

   26-35 years [ ]

   34-41 years [ ]

   42-49 years [ ]

   50 years and Above [ ]

3. What is your highest level of Education?

   Primary [ ]

   Secondary [ ]

   Diploma [ ]

   Bachelors [ ]

   Others [ ]

4. Employment period

   0-1 year [ ]

1-3years [ ]

3-5 years [ ]

5 years and above [ ]

5. Which department do you work?

Senior Management [ ]

Administration [ ]

Production [ ]

Sales [ ]

SECTION B: FINANCIAL RESOURCE PLANNING

6. Are you aware of any cost estimation and forecasting metrics in place at Acacia Innovations Ltd?

Yes [ ] No [ ]

7. Briefly describe the relationship between sales volumes and financial planning practices as seen in Acacia Innovations Ltd.

……

……

……..

8. Kindly indicate the extent to which you agree or disagree with the following statements concerning the influence of financial resource planning on sales volume. Use the scale of 1-5 where; 1= **Strongly Disagree**, 2 = **Disagree**, 3 = **Not sure**, 4 =**Agree** 5 = **Strongly Agree**.

	Statement	**1**	**2**	**3**	**4**	**5**
1	Forecasting and cost estimation have been useful in driving sales volumes in the organization.					
2	Having proper expense outlay has enhanced sales volume in the organization.					
3	Sales and operations planning strategies in the organization ensures that customers' demands are met in timely manner enhancing sales volume.					
4	Adoption of enterprise resource planning has enabled the business to properly plan ahead boosting sales volume.					
5	Cash flow management has been vital in improving the sales volume of the organization.					

SECTION C: HUMAN CAPITAL PLANNING

9. How is workforce planning and competency management embedded in your organization's human capital planning practice?

   ……

   ……

   ……..

10. Kindly indicate the extent to which you agree or disagree with the following statements regarding the influence of human capital planning on sales volume. Use the scale of 1-5 where; 1= **Strongly Disagree**, 2 = **Disagree**, 3 = **Not sure**, 4 =**Agree** 5 = **Strongly Agree.**

	Statement	1	2	3	4	5
1	Human capital planning ensures that an organization has the right number of employees, with the right skills, and at the right time					
2	Human capital planning acts as a competitive advantage in organizations because it identifies future human skills required in a firm.					
3	Human capital planning transforms the sales of an organization					
4	Human capital planning emphasizes employee training and skills more than any other element					
5	Acacia Innovations Limited strives to continuously develop skills of the workforce, developing realistic induction programs for new hires, and only hiring the very best talent in the pool.					

SECTION D: MATERIAL REQUIREMENT PLANNING

11. What are some of the aspects of material planning used?

Availability of raw material [ ]

Substitutes to raw material [ ]

Cost of labour [ ]

12. Kindly show the extent to which material requirement planning is influencing sales volume using the given scale by which 1= **Strongly Disagree**, 2=**Disagree**, 3=**Not sure**, 4=**Agree** 5= **strongly agree.** Please tick your level of agreement.

	Statement	**1**	**2**	**3**	**4**	**5**
1	Material usage planning helps to identify the required inputs for production.					
2	Project planning covers the availability of the materials, and transfer from supplier to the project site					
3	Material planning avoids potential material shortage					
4	Efficient material usage planning increases productivity					

SECTION E: TIME MANAGEMENT PLANNING

13. Please explain how target setting and work prioritization methods contribute to sales volumes at Acacia Innovations Ltd

……

……

……

14. Kindly show the extent to which you agree with role of time management planning on sales volumes. Rate each statement between 1 to 5 where: 1 - **Strongly disagree** (**SD**), 2 – **Disagree(D)**, 3 – **Neutral (N),** 4 – **Agree (A),** 5- **Strongly Agree (SA**). **What is the effect of time management planning on sales volume?**

	Statement	**1**	**2**	**3**	**4**	**5**
1	Time management planning helps employees' exhibit good time management behaviours.					
2	Time management planning results in high job performance					
3	Time management planning increases organizational commitment of employees.					
4	Time management planning influences job performance, which enhances sales volume.					

Thank you

APPENDIX III: AFRICA NAZARENE INTRODUCTION LETTER

18th, November 2020

E-mail: researchwriting.mba.anu@gmail.com

Tel. 0202711213

Our Ref: 18S03EMBA003

The Director.
National Commission for Science,
Technology and Innovation (NACOSTI),
P. O. Box 30623, 00100
Nairobi. Kenya

Dear Sir/Madam:

RE: RESEARCH AUTHORIZATION FOR: ANNASTACIA NJERI NG'ANG'A

Miss. Annastacia is a postgraduate student of Africa Nazarene University in the Master of Business Administration (MBA) program.
In order to complete her program, Miss. Annastacia is conducting a research entitled: "**Role of Project Planning and its Impact on Sales Volumes of the Briquettes Industry in Kenya: A Case of Acacia Innovations Limited"**
Any assistance offered to her will be highly appreciated.

Yours Faithfully,

DR. Kimani Gichuhi,

MBA, Coordinator,

APPENDIX III: RESEARCH PERMIT

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: 227169

Date of Issue: 15/December/2020

RESEARCH LICENSE

This is to Certify that Miss.. Annastacia Ng'ang'a of Africa Nazarene University, has been licensed to conduct research in Nairobi on the topic: Role of Project Planning and its Impact on Sales Volumes of the Briquettes Industry in Kenya: A Case of Acacia Innovations Limited for the period ending : 15/December/2021.

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APPENDIX IV: MAP OF STUDY AREA