SUPPLY CHAIN MANAGEMENT AND OPERATIONAL PERFORMANCE OF OIL AND GAS MARKETING FIRMS IN UGANDA
A CASE OF TOTAL M&S UGANDA LIMITED

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A DISSERTATION SUBMITTED TO THE FACULTY OF LAW IN PARTIAL FULFULMENT OF THE REQUIREMENT FOR THE AWARD OF MASTER OF LAWS IN OIL AND GAS LAW AT THE INSTITUTE OF PETROLEUM STUDIES KAMPALA IN AFFLIATION TO UCU.

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MAY 2023

DECLARATION

I **LUKE ALEERE** hereby declare that this dissertation is my work and it has not been submitted before to any other institution of higher learning for fulfillment of any academic award.

LUKE ALEERE

Signed…….

Date…….

APPROVAL

This is to certify that this dissertation entitled 'SUPPLY CHAIN MANAGEMENT AND OPERATIONAL PERFORMANCE OF OIL AND GAS MARKETING FIRMS IN UGANDA
A CASE OF TOTAL M&S UGANDA LIMITED' has been done under my supervision and now it is ready for submission.

Signed……..

Bruno L. Yawe (PhD)

Date……...

DEDICATION

I dedicate this work to Rev. Fr. Charles Osire, Theresa Potthoff and Michael Borgmann for advising and encouraging me to undertake further studies and supporting me morally, emotionally, and financially.

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I take the honour to acknowledge and thank God for the gift of life, wisdom, and protection during this time of study.

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May God bless you all.

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LIST OF ACRONYMS

ACCA - Association of Chartered Certified Accountants

C.E.O - Chief Executive Officer

CPA - Certified Public Accountants

CIPS - Chartered Institute of Procurement and Supply

CVI - Content validity index

HR - Human resources

Ltd - Limited

Max - Maximum

Min – Minimum

M&S –Marketing and Sales

SAQs - Self-Administered Questionnaires

Std. Dev - Standard Deviation

SCM – Supply Chain Management

CSCMP - Council of Supply Chain Management Professionals

SPSS - Statistical Package for the Social Sciences

SRS - Simple Random Sampling

SMEs- Small and Medium Enterprises

SOPs- Standard Operating Procedures

UNDP - United Nations Development Programme

WHO - World Health Organization

UN- United Nations

ABSTRACT

The study examined the effect of Supply Chain Management on Operational Performance of Oil & Gas Marketing Firms in Uganda: A Case of Total M&S Uganda under three objectives namely; i) to examine the effect of supply planning on operational performance of Total M&S Uganda Ltd; ii) to examine the effect of supplier sourcing on operational performance of Total M&S Uganda Ltd and iii) to examine the effect of logistics management on operational performance of Total M&S Uganda Ltd. Crafted on a cross – sectional design blending both quantitative and qualitative approaches, the study utilized a sample of 113 participants and collected data using questionnaires and interviews. Data were cleaned and entered in SPSS for processing and outputting while analysis was done using global means and standard deviations at a univariate as well as correlations and multiple linear models at bivariate and multivariate levels respectively. Results indicate that the dimensions of Supply planning alongside supplier sourcing as well as logistics management positively and significantly associate with operational performance of the firm with a correlation of $r = 0.653$; $p<0.01$, $r = 0.747$; $p<0.01$ and $r = 0.743$; $p<0.01$ discretely. Consequently, regression analysis portrays that Supply planning conveniently with supplier sourcing and logistics management with net contributions of 34.1%, 53.7% and 59.3% respectively while on the overall, supply chain management (SCM) accounts for 60.7% of positive variation in operational performance at Total M&S Uganda Ltd. Based on the findings, the study concludes that SCM is positive and significant in predicting operational performance of a firm. The study therefore recommends that Management of Total M&S Uganda should adopt and simultaneously rollout all the examined tents of Supply Chain Management because they all cognitively collaborate with and equally positively fraternize operational performance at the firm.

SECTION ONE

1.0 Introduction

The study examined the effect of supply Chain Management on Operational Performance of Oil & Gas Marketing firms in Uganda; a case of Total M&S Uganda Limited. Supply Chain Management formed the studies independent variable and was measured by supplier planning, supplier sourcing as well as logistics management. On the other hand, operational performance was the dependent variable of the study and was measured by optimal lead time, reduced costs as well as delivery dependability. The subsequent sections of the chapter were the background to the study, the statement of the problem, study objectives, the research questions, the scope, significance, and justification of the study. Others were the conceptual framework linking the study variables together with the operational definitions of terms and concepts.

1.1 Background to the study

Supply Chain Management (SCM) had received a great deal of attention by researchers and practitioners in recent years (Xu, & S. Chaudhry, 2007). Effective SCM led to reduction of aggregate volume of resources recommended to avail the desired level of client assistance to a specified sector and remediating client satisfaction through availing an array of products and lowered order cycle time Banomyong & Supatn (2011); engaged in sharing messages (forecasting techniques, inventory management, delivery) and strategic cooperation (just-in-time system, outsourcing, vendor-managed inventory and co-locating plants) (Henry & Barro, 2009; Raja et al., 2006); interrelations with downstream supply chain partners generated end-customer value (Iyer, 2011) and maximized advantages and minimized expenditure besides the supply chain (Tigu &Ghoumrassi, 2017). Therefore, the composition of SCM became noticeable to partaking companies with flourishing execution in the constantly varying general surroundings of the business world, threats abound and significantly affected the verdict formulation procedures of the business administration.

The supply chain was a changing procedure and involved the uninterrupted drift of messages, materials, and funding across several operational dispensations both inside

and among supply chain participants (Jain, Wadhwa and Deshmukh, 2009). Clientele in the chain needed to have cooperated with their clientele in order to attain client satisfaction and maximized their profit, Aggarwal et al., (2011). However, it was a challenging duty in overseeing the diverse partnerships in a supply chain since there were overwhelming numbers of firms that participated in the supply chain operations with their investments and objectives. The interdependence of multistage undertakings also required real-time operation and decision making across various tasks, functional areas, and organizational boundaries in order to handle challenges and uncertainties, Jain et al. & Turgay et al. (2007). The fundamental point of attention for bulk adjustments, timely response, and superior-quality service could not be attained outside further complicated collaboration and flexible framework of supply chains.
The Oil and Gas industry worked as a general supply chain involved discovery, material management, local and international movement, technological application among others. The industry offered an implementation model with great strength in supply chain management (SCM) techniques (Chima, 2007). Supply chain management involved availing high levels of satisfaction to end users (consumers), meaning, delivered the correct output to the correct client at the optimum period at maximized profits. To date, there were various occasions for the cooperation of events throughout the supply chain certainly in the constantly-sophisticated oil and gas sector. This was greatly because of evolution of messaging systems and communication techniques within the sector. Therefore, incorporating supply administration with other agents of operations allowed all duties entailed in the administration verdicts (Tigu &Ghoumrassi, 2017).

Over time, the petroleum industry intermittently faced growing problems, from rigorous state ordinances, political risks, competition, compelling newcomers, and political unrest, which had influenced expansion and production. Because of the struggle for resources, a number of petroleum companies had been driven to execute exploration and production in certain areas with advanced hostilities and surroundings, which subsequently tended to be extremely expensive. Equally, there had been worries in the petroleum industry concerning the cultivating shortage of natural resources, which underlined panic of failure to achieve output levels and objective (Chima, 2007).

Thus, in existence, the resources were not the reason for supply limitations with huge capability existing because of intermittent finding of oil reservoirs all over the globe. The main problem faced in the petroleum industry was not the existence of hydrocarbons but having those reserves subject to development and relinquishing the output to clients at the lowest possible cost. Thus, a strong Supply Chain Management program enhanced that goal (Tigu &Ghoumrassi, 2017).

Environmental skepticism in the petroleum industry led to the requirement for advanced reliance and adaptability among output systems, the designing and influential systems in the supply chain. Minimizing the doubts would be attained by appreciating the core determinants and how they interfaced respectively. Fluctuation in demand, products, techniques, and contenders were happening at an escalating quick rate (Defee & Fugate, 2010; Iyer, 2011). Consequently, administrators took verdicts on abrupt mention, with inadequate knowledge, and with advance expenditure on penalties. Thus, dependable and adaptable systems were essentially required to help the administration in taking verdicts that might have proved to build-or-break verdict for their corporations.

In the petroleum industry, the supply-chain network was formulated by transport via vessel, oil tankers, and pipelines that flowed through various countries. That system was utilized to move crude from wellheads to the refinery for processing, to move intermediates between multi-site refining infrastructure, and to transport finished products from output storage tanks to distribution channels and finally to the consumers. Any disturbances that arose in the general supply chain had enormous detrimental outcomes in attaining operational efficiency, maintenance of quality, profitability, and satisfaction of the clientele. The detrimental incidents occurred due to skepticism in supply of crude, demand, transportation, market volatility, and political climate. Hence, Shah, Li, and Ierapetritou (2011) identified that to effectively model a supply-chain design problem, the dynamics of the supply chain ought to have been considered and data aggregation techniques for the extensive data set should be employed.

In a bid to address their supply chain and minimize costs, oil marketing companies outsourced their logistics responsibilities to third-party logistics companies to handle their supply chains. Oil companies also indulged in strategic planning, E-procurement, strategic cooperation with suppliers, utilization of external consultants, outsourcing non-core activities, engaging with few suppliers, involving in vertical integration and Supply Chain Benchmarking.

Ramdas & Spekman (2000), After practicing re-engineering and systematic process-improvement techniques to foster improvement to in-house processes, firms started to put consideration to their correlation with their supply-chain partners, refocusing their target to the extended enterprise, the full set of relationships that link supply-chain activities from acquiring raw materials to end-use consumption. Their objective was to lower expenses throughout the system and to leverage supply-chain partners' skills to improve the firm's, and the whole supply chain's, competitive advantage. Recent developments in information technology have assisted fuel this trend. For example, Wal-Mart and Honda strove to substitute information for inventory. A firm's capacity to gather and use information has widened the gap between outstanding and mediocre supply chain performance. In addition, market trends towards higher product variety and greater customization have complicated the task of managing supply chains. Such techniques as delayed differentiation [Lee, Billington, and Carter 1993], mass customization [Pine 1992], and accurate response [Fisher and Raman 1996] have helped firms improve supply-chain performance.

The study recommended the need to accelerate the Uganda pipe line to expand oil conveyance capability and consequently reduced the expenditure on transportation of oil. The oil marketing companies needed to accord training to the personnel so as to understand the concept of SCM and the ideal activities and systems that were fundamental in alleviating the problems of SCM. They also needed to establish customer relationship administration, supplier relationship administration and engaged in collaboration with other companies, states, and regional partners. Further, petroleum

sales companies in Uganda needed to allocate resources in Information Technology systems (Barua 2010).

1.1.1 Brief overview of Total M&S Uganda

Total M&S Uganda was incorporated in Uganda in 1955 as a petroleum marketing, distribution, and service company. The company was a wholly owned subsidiary of Total S.A – the multinational oil, gas and petrochemical conglomerate headquartered in France (Paris). Total M&S Uganda headquartered on plot 4 along Eighth Street in industrial area Kampala. During 2016, the company acquired assets, liabilities as well as the operations of Gapco Limited a petroleum firm that operated in Kenya, Tanzania and Uganda a move that saw Total M&S expand their network to 162 fuel service stations while at the same time doubling as Uganda's largest petroleum company in terms of service stations network.

On peculiarity however, the company's market share dropped by 6.29% from 19.6% in June 2020 down to 13.31% in June 2022. The study was concerned that the drop in market share despite recent acquisitions by the firm could have been routed in inadequacies in SCM and hence the current study.

1.2 Statement of the Problem

Within the petroleum industry, the supply-chain system was formulated by shipping via vessel, oil tankers, and pipelines that might have flowed through several countries. That system was utilized to move crude from the wellheads to the refinery for processing, to move intermediates between multi-site refining establishments, and to move final output from storage tanks to distribution channels and finally to the consumers. Accordingly, any disturbances that arose in the global supply chain could have enormous detrimental outcomes in attaining operational efficiency, maintenance of quality, profitability, and consumer delight. The detrimental outcomes might have happened due to skepticism in supply of crude, demand, transportation, market fluctuation, and political situation.

Ramdas & Spekman (2000), despite growing awareness of the need to manage supply chains more effectively, there is little agreement on how to measure supply-chain

performance or on what factors are needed for high performance. Compounding the problem, firms often measure performance by cost savings alone and pay little attention to their capacity to leverage the expertise of supply chain partners. As competition was increasing among the entire supply chains, rather than between the individual companies that constituted them, effective sourcing and supplier management defined the line between success and failure [Lewis 1995; Moore 1996]. However, the recipe for success may vary for different types of supply chains [Fisher 1997].

Throughout the operations, Total M&S Uganda undertook SCM through supply planning, supplier sourcing as well as logistics management aimed at achieving satisfactory operational performance through improved lead time, reduced costs as well as delivery dependability Azim et al., (2015) that would in turn spur satisfactory organizational performance at the company.

However, despite the fore mentioned undertakings, the company's market share dropped by 6.29% from 19.6% in June 2020 down to 13.31% in June 2022. The study was concerned that the drop in market share despite recent acquisitions by the firm could have been routed in inadequacies in SCM and hence the current study.

1.3 Objectives of the study

1.3.1 General Objective

To examine the effect of SCM on operational performance of oil & gas marketing firms in Uganda.

1.3.2 Specific Objectives

1. To examine the effect of supply planning on operational performance of Total M&S Uganda Ltd.
2. To examine the effect of supplier sourcing on operational performance of Total M&S Uganda Ltd.
3. To examine the effect of logistics management on operational performance of Total M&S Uganda Ltd.

1.4 Research Questions

a. What was the effect of supply planning on operational performance of Total M&S Uganda Ltd?
b. What was the effect of supplier sourcing on operational performance of Total M&S Uganda Ltd?
c. What was the effect of logistics management on operational performance of Total M&S Uganda Ltd?

1.5 Scope of the Study

The study scope comprised of three sections as discussed below.

1.5.1 Geographical scope

Geographically, the study was carried out at the head offices of Total M&s Uganda. Total M&S Uganda headquartered on plot 4 along Eighth Street in industrial area Kampala. The coordinates of the company head offices were 0°18'49.0"N, 32°35'54.0"E (Latitude: 0.313597; Longitude: 32.598324). That geographical location was preferred because all key business decisions including those that focused on SCM were made from there and hence it allowed the study a chance to collect tailored data about the problem under investigation.

1.5.2 Content scope

In terms of content scope, the study examined the effect of SCM on operational performance of Oil & Gas marketing firms in Uganda. SCM formed the studies independent variable measured by supplier planning, supplier sourcing as well as logistics management. On the other hand, operational performance was the dependent variable of the study and was measured by optimal lead time, reduced costs as well as delivery dependability.

1.5.3 Time Scope

In terms of time, the study covered the period 2016 – 2022. That was the period during which the company's market share continued to shrink despite strides in expanding scale of operations having acquired Gapco Ltd. Thus that period enabled the study tap into more recent data to aid measuring the research objectives.

1.6 Significance of the Study

The study was anticipated to benefit a number of stakeholders namely;

To the management of oil firms, the study would be of importance while formulating their supply chain management policies that drove the industry to sustainable operational performance practices.

The Ugandan government and Regulators might have found the study useful to enable them to understand the effect of their controls in the supply chain of oil companies thus formulate policies which were not negatively affecting the sector.

Findings of the study might have been of significant point of reference to other studies or further research in the petroleum field. The study also increased the functional body of knowledge on supply chain administration particularly in the petroleum industry where limited or no studies had been done.

1.7 Justification of the study

A study coined on SCM and operational performance of the Oil & Gas marketing firms in the context of Uganda was timely given the relative importance that the sector played in catalyzing business flow across all sectors of the economy. Accordingly, the petroleum industry worked as a general supply chain entailing exploration, material handling, local and international transportation, use of technology, among others. The industry offered models of great strength for implementation of supply chain management (SCM) techniques. Supply chain management involved availing optimum levels of delight to consumers, meaning, delivered the correct output to the correct client at the accepted time while maximizing profits. Therefore, understanding the SCM system worked to address the desired level of supply which was vital for the progress of the sector and hence the current study.

1.8 Conceptual framework

This was a diagrammatical relationship between the study variables. The study examined the effect of SCM on operational performance of Oil & Gas marketing firms in Uganda.

Ramdas & Spekman (2000), the traditional measures of supply-chain performance included lead times, inventory turns, weeks of stock, defect rates, and service levels. These measures, with few exceptions, focused on reducing costs or improving efficiency, to the exclusion of forging close ties with trading partners to improve end-customer satisfaction. The supply-chain management literature reflected a concentration on cost-related measures.

SCM formed the studies independent variable measured by supplier planning, supplier sourcing as well as logistics management. On the other hand, operational performance was the dependent variable of the study and was measured by optimal lead time, reduced costs as well as delivery dependability. Figure 1.1 below presented the interrelationships between the study variables.

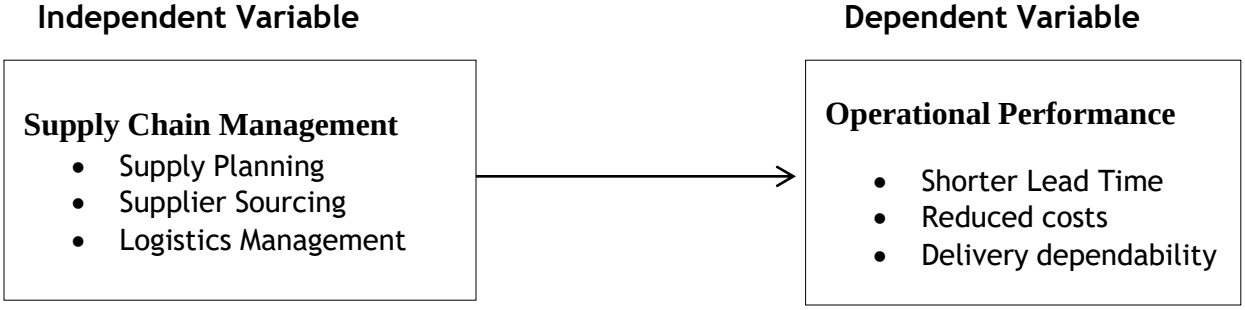

Figure 1.1: Conceptual Framework

Source: Conceptual framework linking Supply chain management to operational performance adopted from CSCMP (2013); Azim et al., (2015) and modified by the study

From the conceptual framework in figure 1.1 above, the study hypothesized that effective supply chain management through supply planning alongside supplier sourcing and logistics management would spur higher and sustainable levels of operational

performance through shortened lead time, reduced costs as well as improved levels of delivery dependability.

1.9 Operational definition of terms and concepts

Supply Chain Management

According to the Global Supply Chain Forum, Supply chain management referred to the integration of key business processes from the end user through the original suppliers that provided products, services, and Information, (Simon et al., 2014).

Supply Planning

Supply planning according to Johnson& Holmstrom (2016) referred to a component of SCM concerned with determining how to best fulfill the requirements created from the demand plan. It aimed at balancing supply and demand in a way that enabled achievement of both financial and service objectives of an entity.

Supplier Sourcing

Generally, supplier sourcing referred to an institutional procurement process that continuously improved and re-evaluated the purchasing activities of an organization, (CSMCP, 2013).

Logistics Management

Logistics management referred to the part of SCM that planned, implemented, and controlled the efficient, effective forward and reversed flow and storage of goods, services and related information between the point of origin and the point of consumption in order to meet the customers or users' demands and requirements, (Christopher, 2011).

Operational Performance

Operational performance related to the measurable aspects of the outcomes of an organization's processes, such as reliability, production cycle time, cost, project quality and inventory turns.

1.10 Conclusion

The chapter had unveiled the study background vividly distinguishing the historical development of the study variables, the conceptual along with the contextual perspectives of the study. It had elaborated the challenge handled and expressed the objectives that the study sought to derive and the related study hypotheses. The study range, importance and rationale for the study had been enunciated. The chapter thus climaxed by arranging the conceptual framework and the operational explanation of concepts and terms. Therefore, by voicing on the subject of the section, a clear ground for composing the subsequent section was laid.

SECTION TWO
LITERATURE REVIEW

2.0 Introduction

The chapter offered an account of relevant facts backing the study and discussed the various theories relevant to the research that formed the foundation for the best guiding theory regarding the research topic. The chapter thus offered an account for a critical look at the existing published and/or unpublished facts that were significant to the problem the study attempted to investigate, the theoretical framework, the conceptual review and empirical review of literature on the study objectives.

2.1 Theoretical Review

The study was guided by the Systems Theory given its ability in exhausting the key tenets of SCM and operational performance.

Ittner and Larcker [1997] described their exploratory analysis of the impact of a number of process-management techniques, including some supply-chain practices, on overall firm profitability. The supply-chain management practices these authors examined were the extent of supplier or customer involvement in product design, the importance of non-price factors in partner selection, and the establishment of long-term partnerships with suppliers and customers. They found that establishing long-term partnerships with suppliers and customers improves profitability.

2.1.1 Systems Theory

Systems theory looked at the interconnectedness of elements that brought a body together and as such a situation was considered in its wholesomeness than a mere amalgamation of individual components (Martinelli, 2001). The concentration was directed on the linkage between parts aimed at harnessing understandability of firms' functioning and outcomes. Further still, the theory looked at a firm to be constantly interacting with its environment which was comprised of a set of relationships between agents, shareholders, and other factors beyond the organizations' control (Mason, 2007)

In SCM context, systems theory brought together various components of complex supply chains such as human, capital, information, materials, and financial resources to form a subsystem which was then a larger system of supply chain networks (Fowler, 2000). The systems theory helped to identify interdependences of tenets of a system which enhanced understanding of the ever-changing role regarding the supply chains thereby improving functionality of humanitarian supply chains.

2.2 Conceptual Review

Under that section, the study attempted a review of the main variables in details as discussed below.

2.2.1 Supply Chain Management

According to the Global Supply Chain Forum, Supply chain management referred to the integration of key business processes from the end user through the original suppliers that provided products, services, and Information, (Simon et al., 2014).

World over, history traced supply chain Management to the early 1980s when consultants originally introduced the concept and viewed it as a mechanism and practice that enhanced the competitiveness of organizations, (Chen & Paula 2004 as cited in Heller 2013). In public sector enterprises, supply chain management had significantly been adopted to work hand in hand with the procurement function and in some instances, procurement had been fully swallowed -up by supply chain management function for pursuance of competitiveness and efficient yet effective service delivery without compromising the procurement of authorities and the associated guidelines, (Pule, 2014; Bizana, 2013; Odoom, 2012).

The concept of supply chain management had to date been adopted by a vast number of organizations for pursuance of service Excellency. Subsequently various leading universities had designed academic programs leading to awards of honors degree and advanced degrees in the field of logistics and supply chain management among others. There also existed a world class-chartered institute that trained professional of the

supply and purchasing function of organizations under the flagship of CIPS (World Competitiveness Report 2017).

However, important to mention was that various organizations across the world were challenged with unsatisfactory operational performance despite the heavy SCM budgets (Economic Commission for Africa, 2016). In the study, SCM meant supply planning, supplier sourcing and logistics management.

2.2.2 Operational performance

Operational performance related to the measurable aspects of the outcomes of an organization's processes, such as reliability, production cycle time, cost, project quality and inventory turns.

At the turn of the 21st century, focus of organizations across the world shifted from general aspects of performance to concentrate on attaining internal efficiency so as to tap into sustainable market share, high shareholder returns as well as sustainable financial performance (Azim et al., (2015). That shift in focus led to the emergence of an aspect of internal efficiency referred to as operational performance (Owiny, 2016). Voss et al., (1997) defined operational performance to mean the measurable aspects of the outcomes of an organization's processes, such as reliability, production cycle time and inventory turns. Accordingly, Azim et al., (2015) submitted that operational performance in turn affected business performance measures such as market share and customer satisfaction and eventually had a bearing on the overall performance of an entity. In the current study, operational performance was measured by reduced costs, delivery dependability and shortened lead time.

2.3 Actual Review

Under this section, the study reviewed literature from tailored published empirical studies focusing on the research objectives.

2.3.1 Supply planning and operational performance

According to James (2004), the ideals of planning suggested that supplier planning could be implemented in an environment of complete harmony adding that social economic

and political instability and disruptions were minimized to ensure full knowledge of how systems operate; How timely procurement would affect users of supplies, efficiency of the procurement process as well as the people involved in the process. It was therefore prudent for one to conclude that through procurement planning, the right quality and quantity of goods would be procured from the right suppliers at the best competitive prices and consequently enhanced uninterrupted supply of the respective supplies.
Mdemu (2013) observed that the respective users ought to come up with compressive yearly plans concerning the preferred supplies guided by budget and submitted it to procuring units with intent of realizing informed and organized management of yearly procurement tasks. That observation therefore intimated that for effective supply planning, the procurement needs ought to have been recognized early enough and selected starting with user departments' plans which were then integrated into the procurement plan of the organization and thus enhanced its supplies.

In a related study, Tigu &Ghoumrassi (2017) observed that once the procurement requirements were delivered into the procurement unit from the user departments, a master procurement plan should have been generated by consolidating the individual plans. Relatedly, Mdemu (2013) added that such aggregations should have considered the market structure for the required items and that the items of a similar nature preferably supplied by similar bidders or those employed similar methods to be procured or bided for needed grouping together to ensure coordinated delivery and hence well-matched supplies. That in turn saved time and facilitated management and administration of contracts by the procurement authorities.

Further, it was also advised that for grouped lots procured in a similar arrangement or mechanism, the bid documents should have always communicated the actual lots in a singular process and detailed all the associated specifications like size, number of lots to be bided for and other augmented characteristics as well as specifying the methods for bid evaluation. It was therefore prudent to conclude that the PPDA guidelines to a large extent applied to both public and private sector organizations since the primary

essence of either sectors were service delivery and thus an informed procurement process enhanced supply planning and hence improved operational performance in organizations.

Lena (2009) in the study "Towards implementing procurement planning in state parastatals" argued that preparation of procurement plans was vital for organizations and required cooperation between the procurement units, user departments and management to have an effective procurement and supply chain roadmap which in turn ensured availability of goods and services and hence facilitated effective supply planning which informed operational performance. Similarly, Muslims (2003) submitted that procurement planning played an undeniable role towards ensuring delivery of quality services to all domains of organizations whether private or public thus a strong positive relationship between the two variables.

Mamiro (2010) highlighted one of the main setbacks to effective supply planning as ineffective procurement which emanated from inadequate planning and management of the process coupled with poor identification of the estimated needs, unrealistic budgets, and inadequate skills by the staff responsible for procurement. That observation implied that supply planning was inseparable from procurement planning since both draw from needs recognition and specification so as to achieve supply planning objectives and hence improved operational performance.

2.3.2 Supplier Sourcing and Operational Performance

Nair & Das (2015) examined the effect of strategic purchasing participation on supply management. The study paid vast attention on selection of suppliers and continuous monitoring of supplier performance. Using a path model, the study collected data from U.S manufacturing firms to guide hypothesis testing. The study results indicated that the participation of purchasing teams in the strategic planning process positively impacts on performance of purchasing function and supplier selection. Therefore, to uninterrupted procurements, there ought to be extensive participation of all parties to

the purchasing and supply function so as to guide achievement of the intended objectives.

Su et al., (2008) investigated the core causal relationships within the supply chain management by particularly examining the impact of strategic sourcing as well as the selection of suppliers on the overall performance of a firm. The study utilized a case of the textile industry of US. Adopting a sample of 474 firms and employing structural equation modelling to test the hypotheses, the study results indicated that strategic supplier sourcing positively and significantly affected organizational performance while supplier selection positively and significantly affected the ability of a firm towards gaining competitive advantage in the industry.

In a related study, Kihanya et al., (2015) studied the roles played by the strategic sourcing function in harnessing performance of organization in Kenya. Employing a descriptive design and adopting a sample of 89 respondents who were employees of the university in various categories and also making use of a quantitative research approach, the results of the inquiry indicated that strategic sourcing is instrumental in enabling firms realize strategic advantages and avert specific business problems efficiently. Similarly, Falcone (2010) adds that there should be clear separation of roles in procurement and not simply attaching titles to position holders if the sourcing function is to achieve its objectives. Therefore, strategic supplier sourcing begins with having the right persons in place for the right jobs.

Adam & Ting (2015) observed that private procurement had always been and remained the most effective and efficient compared to public procurement regarding the sourcing process. They added that much as it had always been a call to public sector organizations to revisit their procurement processes and means employed to get procurements done, the same firms always trailed when it came to implementation of reforms that were believed to improve the acquisition function and reshape procurement performance in public sector entities. That intimated to the fact that because of their desire for profits and the urge to hedge against competition, private sector procurements should have always carried out the sourcing function of procurement and supply chain management.

2.3.3 Logistics Management and Operational Performance

Bolisani &Bratianu (2017) contended that the logistics management process commenced with raw materials accumulation to the final stage of delivering the goods to the destination. Thus, by adhering to customer needs and industrial standards, logistics management facilitated the process strategy, planning as well as implementation. It was also important to note that logistics management needed new patterns of thinking based on entropic thinking and nonlinear thinking which brought together the capacity developing strategies and approaching complex problems.

Further, Tarty (2012) examined the impact of logistics management on lead time in public healthcare in Nairobi - Kenya. The findings indicated that Logistics management greatly influenced lead time through equipment performance, extent of warehouse management, information flow, extent of shipping, order listing and sorting, ordering costs, and bureaucracy in government respective agencies, order packing challenges and inadequate warehouse planning. The findings added that demand variability, ordering costs, utilization rate and holding costs account for 65% of change in lead time.

Relatedly, Kiprop (2015) investigated the adaptation of SCM practices on the performance of banks in Kenya. Employing a descriptive design and a quantitative approach, they found out that outsourcing and effective logistics management were instrumental in a banks' performance as the practices enabled improving quality of service to customers and hence boosted customer satisfaction.

Tshamaano (2012) submitted that public officials working in the supply chain network must be paid competitive remunerations to guard them against being lured into corrupt tendencies such as nepotism, bribery, fraud, embezzlement, and conflict of interest. Further, whereas UNDP (2014) identified people centeredness, equity, inclusiveness, rationality, efficiency, transparency, sustainability and continuous improvement as the prime principles of effective operational performance, Wild et al.,(2012) observed that lack of cordial relationships between government and its workers, general lack of managerial skills and leadership qualities, insufficient enabling equipment, inadequate

manpower, corruption, mismanagement as well as misappropriations of public funds greatly hindered the smooth flow of the supply chains.

Thus, just like Tshamaano (2012), Wild et al., (2012) also opined that the above enlisted obstacles corruption inclusive greatly interfered with the key drivers of supply chains and hence affected operational performance especially in public sector organizations. Accordingly, WHO, (2016) submitted that improving and ensuring high quality service required rigorous training of workers, provision of adequate finance, ensuring good management, sound supply chain networks as well as the provision of new and sound equipment.

According to Shamsuzzoha et al. (2013), real-time tracking played a key role of facilitating, monitoring, and management of logistics and supply chain networks; it did that by tracking and tracing the logistics and delivery network. That motivated the stakeholders as well as building: customer satisfaction, trust among suppliers and manufacturers (Shamsuzzoha and Helo, 2011). Service providers of real-tracking device should have been flexible and efficient especially during extreme delivery conditions (Shamsuzzoha et al., 2013). Since real-time tracking brought about efficiency, transparency and customer satisfaction, the software was a source of competitive advantage to firms (Shamsuzzoha et al., 2013; Shamsuzzoha and Helo, 2011).

2.4 Literature gap

From literature reviewed, authors stated different purpose of designing supply chain but the main goal being to achieve organizational performance (Mbugua, 2103; Huo. et al., 2013). It was evident that supply chain management was a prime ingredient to a number of outcomes such as service delivery as well as overall organizational performance.

It was also worth stating that when all the tenets of SCM were observed in an effective manner, there were high chances that service delivery improved and resulted into high levels of customer/client satisfaction which optimized costs.

Fisher [1997] focused on supply-chain performance and argued that there was no single best recipe for effective supply chain management. Rather, what best improved the effectiveness of the supply chain varied with the type of product. Fisher classified that products as either functional or innovative, based on demand characteristics. For functional products, demand tended to be stable and predictable, and product life cycles were long.

Despite all the above revelations, the literature review did not critically reveal out how supply chain was used to eliminate delays in logistics management and material miss statements in organizational performance and also review on the other components of supply chain management. Little was presented on how SCM interacted as a system to inform operational performance within the Oil & Gas marketing firms hence a need to examine the effect of SCM on operational performance of the oil & Gas marketing firms with view of addressing the literature gap.

SECTION THREE
RESEARCH METHODOLGY

3.0 Introduction

The chapter described the research methodology executed throughout the undertaking of study to guide the realization of the study objectives, vividly explaining the numerous steps that were followed in conducting the study. Thus, all steps and tactics from stepping the first step into the field to writing the final report were contained in this chapter and clearly elaborated to ensure that the study was well executed.

3.1 Research Design

To achieve the intended objectives, a cross sectional research was employed comprising soft and hard data approaches (Neuman, 2011). That kind of study design was rich in picking data across various units at a single point in time and equally facilitated measurement of the study variables by looking at the key aspects of the study. That way, important credible findings were obtained to provide answers to the research questions and equally measured the objectives satisfactorily. A combination of qualitative and quantitative approaches were also employed. In the quantitative approach, measurable facts such as numbers and inferential statistics were generated to explain the outcomes of the study quantitatively and ensured the desired meaning was attached. To supplement the numerical facts obtained, qualitative data through interviews were gathered and analyzed using both content and thematic tactics.

3.2 Description of the study Area

Geographically, the study was carried out at the head offices of Total M&s Uganda. Total M&S Uganda headquartered on plot 4 along Eighth Street in industrial area Kampala. The coordinates of the company head offices were 0°18'49.0"N, 32°35'54.0"E (Latitude: 0.313597; Longitude: 32.598324). This geographical location was preferred because all key business decisions including those that focused on SCM were made from there and hence it allowed the study a chance to collect tailored data about the problem under investigation.

3.3 Study Population

The different people within management and employees at Total M&S Uganda that were in departments directly linked to or those that were affected by the SCM activities formed the study population. Thus, the study population was made up of staff from, Procurement Department, Fleet department, Engineers, Main Contractors, Department of quality control and finance department as well as marketing and communication units. This target population was believed to have significant interaction with the SCM activities of Total M&S Uganda since such activities defined the core support operations of the aforementioned staff. The HR report of 2021 indicated that overall, the company had a total staff of 154 in these categories and consequently these constituted the study population of interest.

3.4 Sampling Procedure

3.4.1 Sample size and selection

The study operated with a sample size of 113 respondents drawn from a population of 154 augmented stakeholders in the various units associated with SCM activities at the company. The sample size was predicated on Morgan & Krejecie (1970) tables for sample size determination. Thus, with a population of 154, a sample of 113 was significant to generate objective representation of the study population.

3.4.2 Sampling Techniques

The selection of 113 respondents was done through a two-stage sampling approach where stratified sampling was used in identifying the respective departments or units that made up Total M&S Uganda. This was because all these departments/units were directly associated with or indirectly get affected by SCM operations. Simple Random Sampling (SRS) was then applied to the staff in the respective other departments/units of Total M&S Uganda that were associated with SCM so as to arrive at the preferred sample size.

3.5 Data Collection sources

The study collected both primary and secondary data. Secondary data were obtained from the annual reports as well as related sources such the industrial reports about Oil

& Gas marketing for the years addressed in the study scope. The information was attained through literature review. whereas, primary data were collected from the defined sample size using appropriate tools.

3.6 Data collection Methods

The methods of Data accumulation formed a significant component of study design involving collection of both qualitative and quantitative data (Amin, 2005). The methods of data accumulation entailed both primary and secondary techniques utilized to acquire data relating to the problem under study.

3.6.1 Interviews

Interviews were face- to -face discussions with the respondents to obtain views relating to the study (Amin, 2005). Interviews provided as an avenue to get a realistic explanation of operational performance at the company. Thus, unstructured interview schedules were conducted with the selected participants to provide feedback that informed the study objectives.

3.6.2 Questionnaire Survey

A questionnaire was a data collection tool used for gathering facts, opinions, perception, attitudes, and beliefs among others Mugenda and Mugenda (2003). It was a written set of questions to which respondents recorded their answers, usually with closely defined attitudes/alternative (Sekaran, 2003). Thus, questionnaires were distributed to selected respondents who include staff of Total M&S Uganda to collect data for the study objectives.

3.7 Data Collection Tools

3.7.1 Self-Administered Questionnaires (SAQs)

Quantitative data were collected with help of SAQs that were distributed to the selected respondents. This instrument was chosen due to its ability to collect a large volume of data from reasonably a large sample in a short time period in an efficient

manner. Thus structured/closed ended questions were drafted in the questionnaires aimed at obtaining specific responses from the respondents.

3.7.2 Interview Guide

Qualitative data aimed at obtaining a more explained view on the situation SCM at Total M&S Uganda were sought from the respective heads of departments using an Interview guide. This tool was deemed relevant for the current purpose of the study given its ability to collect information that delved deep into the problem being investigated.

3.8 Measurement of the study variables

The study examined the effect of SCM on operational performance of Oil & Gas marketing firms in Uganda. SCM formed the studies independent variable was measured by supplier planning, supplier sourcing as well as logistics management. On the other hand, operational performance was the dependent variable of the study and was measured by optimal lead time, reduced costs as well as delivery dependability. The study employed a Likert scale to assess the different attributes in the data collection tools. A scale of 1 to 5 was used where 1 represents strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree while 5 = Strongly Agree.

3.9 Quality control

3.9.1 Validity of the instruments

With validity, the study worked with experts (the supervisors) to edit the tool to acceptable standards and after this, the formula below to compute content validity index was used.

$$\text{Content validity index (CVI)} = \frac{\text{No. of items declared valid}}{\text{Total No. of items in the instrument}}$$

The results obtained from the process were presented in table 1.3 below

Table 1.3: Validity Results

S/N	Variable	Number of items	Total Declared valid	CVI
1	Supply Planning	07	06	0.857
2	Supplier Sourcing	07	06	0.857
3	Logistics Management	07	06	0.857
4	Operational Performance	07	05	0.714

Source: Primary data (2022)

Amin (2005) observed that if the overall Content Validity Index of the instrument was greater or equal to 0.7, then the instrument was accepted as valid. Thus, given the results, the tool was accepted as valid and subsequently adopted to collect the desired study data.

3.9.2 Reliability of the research tools

Sekaran (2001) suggested that all reliability values measured by Cronbach for each statement contained in the data tools measures up to at least 0.7 for such statement to qualify as reliable. Thus, to achieve reliable findings, the study conducted a pilot study at Vivo Energy Uganda to obtain the extent to which consistent results are possible with the data tool proposed.

The study distributed a total 20 sample questionnaires to Vivo Energy Uganda and collected data to pretest the consistency of the tool in picking the desired data. After receiving back, the questionnaires, SPSS software was used to process them and generated reliability indices under each variable as presented in table 2.3. Therefore, only those statements whose reliability values measured up to at least 0.7 during a pretesting exercise were included.

Table 2.3: Reliability Results

S/N	Variable	Number of items	Chronbach Alpha values
1	Supply Planning	07	0.747
2	Supplier Sourcing	07	0.728
3	Logistics Management	07	0.713
4	Operational Performance	07	0.704

Source: Field data (2022)

Amin (3005) recommended that a tool was deemed reliable if all the variables it measured achieve at least 70% reliability index. Thus all of the variables scored above 70%, the study accepted the tool and adopted for data collection.

3.10 Data Management and Processing

The process commenced with permission from the Uganda Christian University to Total M&S Uganda through which the researcher requested to be granted chance to undertake the proposed academic inquiry. Upon clearance, the study delivered questionnaires to the respondents to collect relevant data for the study purpose. Upon retrieval, each questionnaire returned were checked for completeness and thereafter assigned an identification number to ease tracking the respondents' views during data entry.

3.11 Data analysis

3.11.1 Analysis of Quantitative data

Quantitative data were entered into SPSS software after which the study processed and manipulated the data set to generate the desired statistics based on study objectives. The output from software assumed various forms and was tabulated or graphed for easy analysis. Multiple linear regression was utilized in determining and predicting Operational Performance from SCM. The results obtained and the corresponding models were presented in the subsequent chapter. It was from these presentations in the next chapter that meaning was attached to the generated figures so as to ensure that the study objectives are achieved.

3.11.2 Analysis of qualitative data

To make sense of non –numerical data, the study made use of themes to guide such analysis. Thereafter consolidation of the outcomes of quantitative data with qualitative data analysis was performed to ensure more elaborate meaning was drawn from the findings.

3.12 Ethical Considerations

- Clearance for the study to progress was sought from the Uganda Christian University while approval was sourced from Total M&S Uganda to ensure that the process was fully sanctioned by both stakeholders. After attaining permission, the study submitted questionnaires to the respondents to gather data for the study. Upon retrieval, each questionnaire retrieved was checked for completeness and coded for identification and easy tracking of the respondents' views during data entry.
- Participation into the study was at free will and a participant was at liberty to withdraw from the process without any strings. Both secrecy and confidentiality were observed including ensuring that the participants privacy was not infringed upon. At all times the study communicated the objective of carrying the study to the participants so that keep their consciousness alert.

3.13 Limitations of the Study

This study anticipated the following limitations;

Study area

The study was limited to SCM practices and Operational Performance at Total M&S Uganda and as such other petroleum marketing firms were left out. Thus, investigations into other Oil & Gas marketing firms would result into different results because of the various differences in executing the SCM function.

Further still, there were some occasions of untruthful information from some of the respondents. However, these were minimized by the study interviewing the respondents themselves so that in-depth inquiry could be made or twisting the questions to obtain changes in responses.

3.14 Conclusion

The chapter displayed the core techniques embraced to carry out the study and managed the whole procedure followed up to generation of an accomplished research report. The chapter vividly enunciated the research design, presented the study population and sample size and affiliated sampling techniques. The data collection techniques and tools, quality control techniques, dimension of variables as well as the methods to data analysis have vividly been portrayed. The chapter offered an explanation of core ethical considerations and the challenges that were forecasted to be encountered in conducting the study process.

SECTION FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.0 Introduction

The chapter presented the findings of the study on aspects upon which data were collected. It also investigated and evaluated the outcomes in relation to the study objectives and cemented the various opinions with supporting literature which helped the study to arrive at a conclusion with regard to the study objectives. The study examined the effect of supply chain management on operational performance of Oil & Gas Marketing Firms in Uganda: A Case of Total M&S Uganda. Crafted on a cross – sectional design blending both quantitative and qualitative approaches, the study utilized a sample of 113 participants and collected data using questionnaires and interviews. The collected data were processed using SPSS and yielded the outcomes displayed hereunder.

4.1 Response Rate

During data collection, a sum of 107 questionnaires were administered to the defined sample to aid collection of primary quantitative data. At the end of the exercise, 93 questionnaires were collected back as complete in all material aspects giving a response rate of 86.9%. This was judged adequate basing on the recommendations of Babbie (2004) who reasoned that a return rate of at least 60% was satisfactory especially when the drop and pick technique was used to collect data using paper-based questionnaires. On the aspect of interviews, 4 out of the 6 that were planned succeeded giving a participation rate of 60% which according to Amin (2005) was acceptable participation rate.

4.2 Demographic Characteristics of Participants

The study examined a number of characteristics of the participants with an aim of linking such traits to the study variables and associated study objectives. In here, the gender, age, education, working experience as well as the departments that participants worked under were studied with findings yielding the summaries presented hereunder.

4.2.1 Gender of the respondents

The data collected about the gender of participants revealed the contents presented in figure 2.4

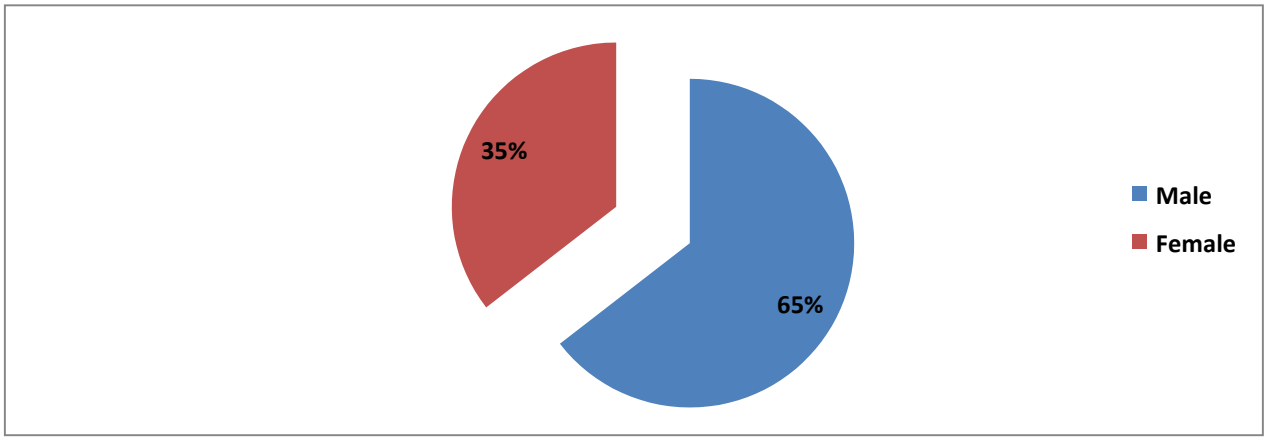

Figure 2.4: Gender of the respondents

Source: Field data (2023)

The results contained in figure 2.4 revealed that majority of the respondents (65%) were males while 35% were females. However, despite a sharp difference in representation, both males and females participated in the study and probably the duo was party to SCM activities for enhanced operational performance.

4.2 .2 Age of the Participants

The study went ahead to collect data about the age of the participants which upon processing yielded the contents of figure 3.4 below.

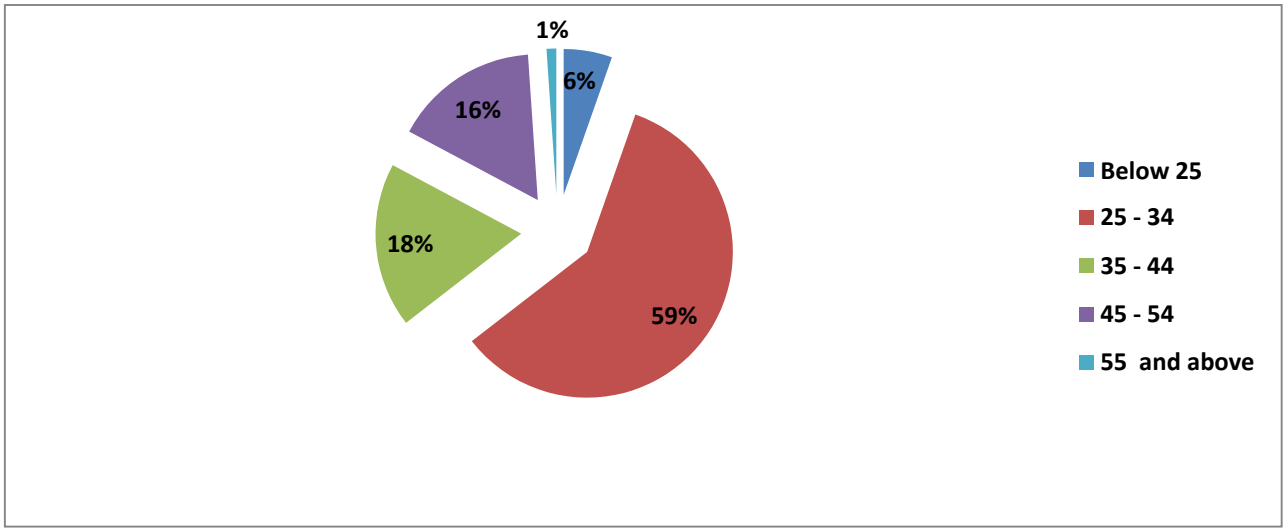

Figure 3.4: Age of Participants

Source: Field data (2023)

The results of figure 3.4 above indicated majority of the respondents (59%) were aged between 25 and 34 years followed by 18% were 35 – 44 years and then 16% who were 45 - 54 years of age. Only 6% were below 25 years while only 1% was age 55 and above. This simply intimated to the fact that Total M&S Uganda employs a relatively young labor force which has strong desire for achievement and hence such a labor force is capable of guiding the company in pursuit of her operational Objectives.

4.2.3 Highest Level of Education by Participants

The study sought to understand the highest level of education that participants had attained and on collecting, the contents presented in figure 4.4 below were obtained.

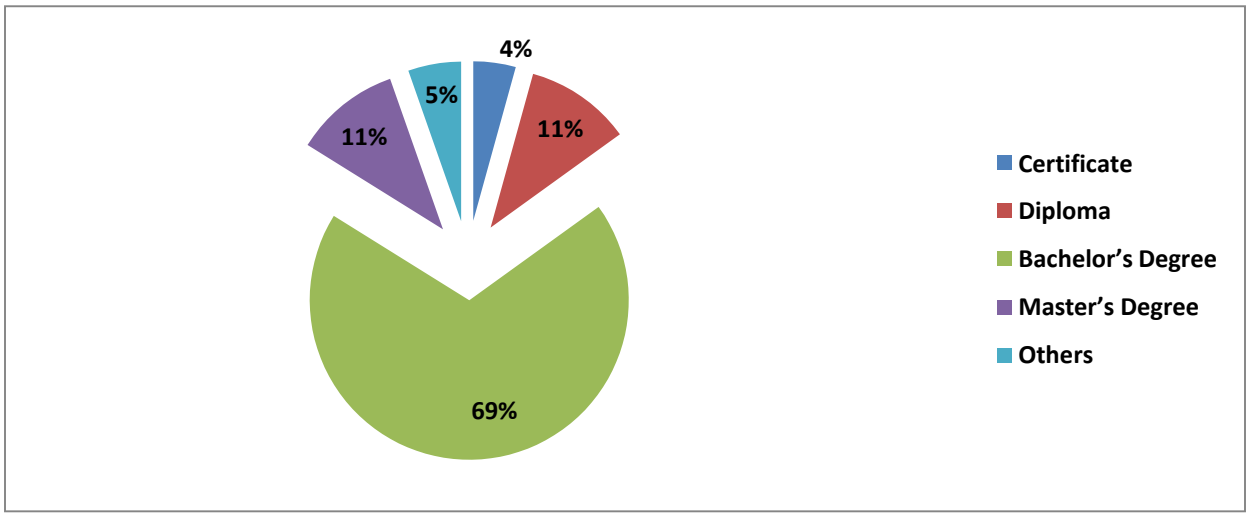

Figure 4.4: Highest Level of Education by Respondents

Source: Field data (2023)

The results of figure 4.4 indicated that majority of the respondents (69%) were graduates with a Bachelors' degree while and 11% held either Masters, Degrees or Diplomas. Further still, 5% held other qualification such as graduate diplomas, professional courses (ACCA, CPA and CIPS) while 4% had attained certificates as their highest level of education. Given the results, it was evident that the participants to the

study could interpret the data tools and probably gave credible responses sufficient to answer the research questions.

4.2.4 Working Experience at the Company

On collecting data about the years of working experience that participants had recorded at the company, the study achieved the results summarized in figure 5.4 below.

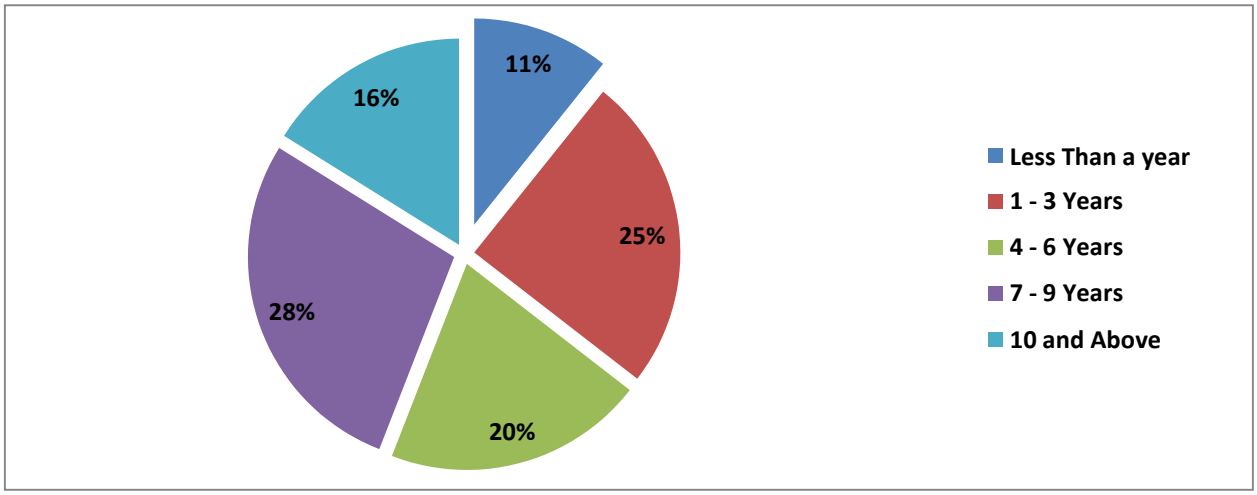

Figure 5.4: Working Experience by Staff at NMS

Source: Field data (2019)

The results contained in figure 5.4 above indicated that majority of the respondents (28%) had worked with Total M& S Uganda for 7 - 9 years followed by 25% who had worked for 1 to 3 years, 20% who had been at Total Uganda for between to 4 and 6 years while 16% had worked with the company for 10 years and above. Further still, 11% had worked less than a year at the company. These results probably implied that the study participants had been at the company for a relatively long period to familiarize themselves with the dynamics surrounding both SCM and operational performance.

4.2.5 Department of the Participant at the Company

The study also collected data regarding the various departments that the participants were attached at the company and recorded the responses provided in figure 6.4.

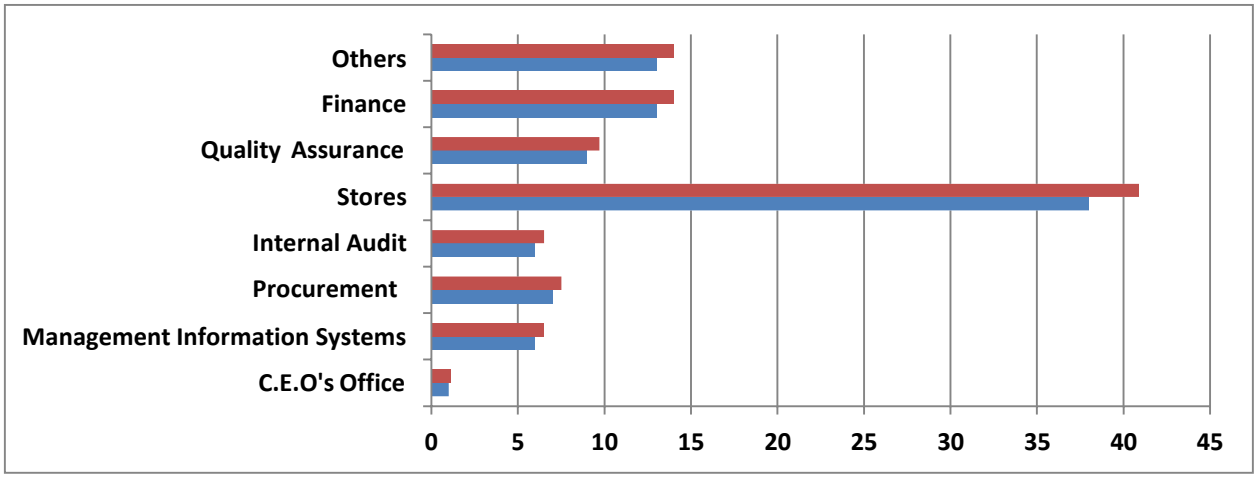

Figure 6.4: Department Occupied by respondents

Source: Field data (2023)

The results contained in figure 6.4 indicated that majority of the study participants (40%) were from the stores and operations department followed by 14% that were from either finance or others. These included HR, Client service as well as transport unit. The quality assurance had 9.7% of the participants while procurement department produced 7.5 of the participants. On the other hand, internal audit, and Management information systems departments each had 6.5% of the participants while only 1 % came from the C.E. O's office. These results indicated that the SCM at Total M&S Uganda was probably participatory as it encompassed staff from all units making up the corporation and hence the team was well constituted to harness operational performance.

4.3 Descriptive Statistics

Under this section, the study desired to capture the varying opinions of participants on the different variables of the study. To achieve this, the researcher defined a number of statements under each variable on a scale of 1 - 5 to which the participants could rate their opinions. In processing the results, the study computed means and standard deviation that eventually formed the basis for analysis. Here, mean values of at most 2.49 were interpreted to mean disagree, 2.5 – 3.49 meant neutral while at least 3.5 were interpreted to mean agree. Regarding the standard deviation, any values of at least 0.499 meant low variations and high reliability, 0.50 – 0.99 imply moderate

variation and moderate reliability while at least 1.00 meant high variation and low reliability. Detailed results per variable are presented hereunder.

4.3.1 Descriptive Statistics on Supply Planning at Total M&S Uganda

Following a 5 point Likert Scale designed questionnaire, the study collected the contents of table 3.4 as presented hereunder.

Table 3.4: Descriptive Statistics on Supply Planning

Statements on Supply Planning	N	Min	Max	Mean	Std. Dev.
Total M&S has a well-established framework on Supply planning	93	1	5	4.21	.901
The framework on supply planning guides in describing the demand requirements of the stakeholders	93	1	5	3.96	.983
The environment at the company exhibits complete harmony for effective implementation of supply planning	93	1	5	3.75	.928
The agents usually come up with comprehensive annual demand plans which are submitted to Head office	93	1	5	3.70	.882
Demand schedules from agents are delivered to the Head office for consolidation of the total demand	93	1	5	3.75	.980
Aggregation of demand is consistent with the market conditions	93	1	5	3.81	.925
Demand schedules from agents are broken down into separate lots for easy handling	93	1	5	3.40	1.023
Global Mean & Global Standard Deviation				**3.80**	**0.946**

Source: Field data (2023)

The results presented in table 3.4 revealed a global mean of 3.80 and associated standard deviation of 0.946. This implied that on the overall, participants agreed to the various supply planning initiatives at the company such as Total M&S having a well-established framework on Supply planning that guided in describing the demand requirements of the stakeholders. The agreement could also be attributed to the fact that the environment at the company exhibited complete harmony for effective implementation of supply planning as well as the fact that the agents usually came up with comprehensive annual demand plans which were submitted to Head office that altogether were geared towards improving supply chains for improved operational performance. On the other hand, a global standard deviation of 0.946 was a reflection of moderate variation with regard to views of the participants about supply planning at Total M&S Uganda and hence a pointer to moderate levels of reliability of the collected data.

4.3.2 Descriptive Statistics on Supplier Sourcing

In a similar way, the study adopted a 5-point Likert scale questionnaire and collected data on supplier sourcing which yielded the feedback summarized in table 4.4 below.

Table 4.4: Descriptive Statistics on Supplier Sourcing

Statements on Supplier Sourcing at Total M&S	N	Min	Max	Mean	Std. Dev.
Total M&S has policy guidelines on supplier sourcing	93	1	5	3.84	.992
The guidelines allow for the participation of all parties in the procurement process	93	1	5	4.04	.912
The policy allows for adaptation of electronic sourcing practices	93	1	5	3.83	.996
The company adopts competitive sourcing strategies for achieving quality supplies	93	1	5	3.74	.994
The company embraces coordinated sourcing for all the procurements sought	93	1	5	3.83	.963

Strategic sourcing is instrumental in solving operational dilemmas	93	1	5	3.63	.906
The procurement roles are clearly separated	93	1	5	3.68	1.013
Global Mean & Global Standard Deviation	**93**			**3.79**	**0.968**

Source: Field data (2023)

Drawing from the contents of table 4.4, results indicated a global mean of 3.79 and a global standard deviation of 0.968. These summary statistics implied that participants agreed to the activities executed by Total in search for the best supplier and this climaxed into selection of the best supplier for the goods and aiding logistics that fostered the firm's efforts in achieving improved levels operational performance. This submission could be attributed to the fact that Total M&S had policy guidelines on supplier sourcing which allowed for the participation of all parties in the procurement process as well as allowing for adaptation of electronic sourcing practices. Accordingly, this position could be premised on the fact that the company adopted competitive sourcing strategies for achieving quality supplies. There was however a moderate degree of variation regarding the opinions sought from the participants given a standard deviation of 0.968 and hence reflection of moderate levels of data reliability.

4.3.3 Descriptive Statistics on Logistics Management

Accordingly, the study adopted a 5 point Likert scale questionnaire and collected data on logistics management which yielded the feedback summarized in table 5.4 below.

Table 5.4: Descriptive Statistics on Logistics Management

Statements on Logistics Management	N	Min	Max	Mean	Std. Dev.
The company has policy guidelines on logistics management for effective service delivery	93	1	6	3.92	.945
The policy offers guidelines on an efficient logistics management process	93	1	5	4.14	.928

The logistical activities at the company entail all the necessary components to yield effective delivery of procured items	93	1	5	4.04	.952
The process always incorporates the desired raw materials and accompanying ingredients	93	1	5	3.85	1.010
The logistics management activity at the company traces the supply process to final stage of delivery of goods to the final destination	93	1	5	3.75	.990
Lead time on deliverables is usually provided for	93	1	5	3.94	.931
The firm outsources logistical support to achieve the defined performance objectives	93	1	5	3.97	.988
Global Mean and Global Standard Deviation				**3.94**	**0.964**

Source: Field Data (2023)

The contents of table 5.4 indicated a global mean of 3.94 and a global standard deviation of 0.964 which implied that the participants were generally in agreement to the extent and dynamics of logistics management at Total M&S Uganda. This could be attributed to the fact that the company had policy guidelines on logistics management for effective and smooth running of operation which guided on an efficient logistics management process. Accordingly, this revelation could be attributed to the fact that the logistical activities at the company entailed all the necessary components to yield effective delivery of procured items as well as the process always incorporated the desired raw materials and accompanying ingredients. With a standard deviation of 0.964, variation amongst the views of the participants about the statements measuring logistics management at Total M&S Uganda was moderate and hence a reflection of moderate variation levels regarding the collected data.

4.3.4 Descriptive Statistics on Operational Performance

In a related approach, the study adopted a 5 point Likert scale questionnaire and collected data on operational Performance which yielded the feedback summarized in table 6.4 below.

Table 6.4: Descriptive Statistics on Operational Performance

Statements on Operational Performance	N	Min	Max	Mean	Std. Dev.
Total M&S has an overall framework for guiding satisfactory operational performance of its activities	93	1	5	3.82	1.170
Our procurements are usually delivered in time	93	1	5	3.76	.947
We register minimal complaints from both internal and external stakeholders	93	1	5	4.06	.976
Our planned activities are achieved at the least and competitive costs in the market	93	1	5	3.72	.993
The services and products offered by the Total M&S are reliable	93	1	5	3.66	1.016
The offered products and services are usually complete	93	1	5	3.23	1.124
Total M&S products always conform to the agreed standards	93	1	5	2.95	1.164
Global Mean & Global Standard deviation				**3.57**	**1.06**

Source: Field Data (2023)

The results presented in table 6.4 indicated a global mean of 3.57 and a global standard deviation of 1.06. The results implied that participants were generally indifferent about the level of operational performance at Total M&S Uganda. This could be attributed to the fact that there were indifferences on whether the services and products offered by the Total M&S were reliable, whether the offered products and services were usually complete as well as being indifferent on whether Total M&S products always conform to the agreed standards. A standard deviation of 1.06 on the other hand points to a high variation regarding the views of the participants about the statements on operational performance and hence a reflection of low reliability levels.

4.4 Correlations between Variables

Here, the study aimed at establishing the interrelationships between the study variables. To achieve this objective, Karl Pearson's test statistic was performed

between supply planning, supplier sourcing as well as logistics management to establish how these variables relate with Operational performance at Total M&S Uganda. To make sense of the results, a scale of - 1≤ r ≤ +1 was adopted; -1≤ r ≤ 0 represented negative relationships while 0 ≤ r ≤ +1 represented positive relationships. Similarly, r = 0 represented no relationship while r > 0.5 implied strong positive relationship and 0 < r < 0.5 represented weak positive relationships. On the other hand, r < - 0.5 represented strong negative relationship while 0 > r >- 0.5 represented weak negative relationships. A summary of results in presented in table 7.4 below.

Table 7.4: Correlations between Variables

		Supply Planning	Supplier Sourcing	Logistics Management	Operational Performance
Supply Planning	Pearson Correlation	1	.859**	.897**	.653**
	Sig. (2-tailed)		.000	.000	.000
	N	93	93	93	93
Supplier Sourcing	Pearson Correlation	.859**	1	.847**	.747**
	Sig. (2-tailed)	.000		.000	.000
	N	93	93	93	93
Logistics Management	Pearson Correlation	.897**	.847**	1	.743**
	Sig. (2-tailed)	.000	.000		.000
	N	93	93	93	93
Operational Performance	Pearson Correlation	.653**	.747**	.743**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	93	93	93	93

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

4.4.1 Correlations between Supply Planning and Operational Performance

Results presented in table 7.4 indicated that supply planning exhibited a strong positive and significant operational performance given a correlation index of $r = 0.653$; $p<0.01$. This implied a unit positive change in supply planning activities yielded 0.653 positive change in operational performance of the entity in question. The revelation could be attributed to the fact that when a firm established a framework on Supply planning that guided in describing the demand requirements of the stakeholders as well as availing an environment that exhibited complete harmony for effective implementation of supply planning, it would achieve positive strides in its operations and hence improved its performance.

4.4.2 Correlations Supplier Sourcing and Operational Performance

Similarly, results summarized in table 7.4 indicated a positive strong and significant association between supplier sourcing and operational performance given a correlation index of $r = 0.747$; $p<0.01$. This implied that a unit positive change in the supplier sourcing function by the firm yielded a 0.747 positive change in operational performance. The relationship could be probably attributed to the fact that when a firm established policy guidelines on supplier sourcing which allowed for the participation of all parties in the procurement process and allowed for adaptation of electronic sourcing practices and at the same time adopting competitive sourcing strategies for achieving quality supplies, such a firm achieved improved levels of performance in its operations.

4.4.3 Correlations between Logistics Management and Operational Performance

Results presented in table 7.4 indicated that logistics management exhibited a positive strong and significant association with operational performance given a correlation value of $r = 0.743$; $p<0.01$. This implied that a unit positive change in logistics management by a firm translated into a 0.743 positive change in its operational performance. This association could be premised on the fact that when a firm established policy guidelines on logistics management to guide on an efficient logistics management process and ensured that the logistical activities entailed all the necessary

components yielded effective delivery of procured items, such a firm recorded positive strides in its operations.

4.5 Regression Analysis for the effect of SCM on Operational Performance

Following establishment of the interrelationships between the study variables, the study went on to run regression models aimed at examining the prediction of Operational Performance from SCM as well as examining the contribution of the various tenets of SCM on Operational Performance. In particular, the model summary alongside multiple linear regression coefficients were generated to guide this analysis as presented hereunder.

Table 8.4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.787[a]	.619	.607	.44161

a. Predictors: (Constant), Logistics Management, Supplier Sourcing, Supply Planning

Results summarized in table 8.4 indicated that SCM Predicted for 60.7% (Beta = 0.607) of positive variation in Operational Performance of Total M& Uganda while the remaining variation of 39.3% was due to other factors that the current study did not explore. The results thus implied that SCM was a positive and significant predictor of operational performance. This could have been attributed to the fact that when a firm established a well-coordinated supply planning function with a framework on Supply planning that guided in describing the demand requirements of the stakeholders as well as availing an environment that exhibited complete harmony for effective implementation of supply planning, it would achieve positive strides in its operations and hence improved its performance. Accordingly, it could be attributed to the fact that when a firm established policy guidelines on supplier sourcing which allowed for the participation of all parties in the procurement process as well as allowing for adaptation of electronic sourcing practices and at the same time adopting competitive sourcing strategies for achieving quality supplies, such a firm achieved improved levels of performance in its operations. It could also be premised on the fact that when a firm establishes policy guidelines on logistics management to guide on an efficient logistics

management process as well as ensuring that the logistical activities entailed all the necessary components to yield effective delivery of procured items, such a firm recorded positive strides in its operations.

The study also extracted regression coefficients for examining the individual contribution of the tenets of SCM on operational performance with results presented in table 9.4 below.

Table 9.4: Regression Coefficients

	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	T	Sig.
1 (Constant)	1.127	.225		5.006	.000
Supply Planning	.272	.130	.341	2.088	.004
Supplier Sourcing	.482	.122	.537	3.962	.000
Logistics Management	.459	.122	.593	3.769	.000

a. Dependent Variable: Operational Performance

Results presented in table 9.4 indicated that all the examined dimensions of SCM positively predicted operational performance. In particular, supply planning explained 34.1% (Beta = 0.341) of positive variation in operational performance while supplier planning accounted for 53.7% (Beta = 0.537) of positive variation operational performance. Further still, logistics management accounted for 59.3% (Beta = 0.593) of positive variation in operational performance. The results implied that a unit positive improvement in supply planning by the firm resulted into a 0.341 positive improvement in operational performance while a unit positive improvement in supply sourcing activity yielded a 0.537 positive improvement in operational performance. Accordingly, a unit positive improvement in logistics management activities by the firm resulted into a 0.593 positive improvement in operational performance.

A positive contribution of 34.1% that supply planning had on operational performance could have been attributed to the fact that when a firm established a well-coordinated supply planning function with a framework on Supply planning that guided in describing the demand requirements of the stakeholders as well as availing an environment that exhibited complete harmony for effective implementation of supply planning, it would achieve positive strides in its operations and hence improved its performance.
Accordingly, a positive contribution of 53.7% that supplier sourcing had on operational performance could have been attributed to the fact that when a firm established policy guidelines on supplier sourcing which allowed for the participation of all parties in the procurement process as well as allowing for adaptation of electronic sourcing practices and at the same time adopting competitive sourcing strategies for achieving quality supplies, such a firm achieved improved levels of performance in its operations.

Further still, a positive contribution of 59.3% that logistics management had on operational performance could have been premised on the fact that when a firm established policy guidelines on logistics management to guide on an efficient logistics management process as well as ensuring that the logistical activities entailed all the necessary components to yield effective delivery of procured items, such a firm recorded positive strides in its operations.

4.6 Discussion of Findings

4.6.1 Supply Chain Management and Operational performance

The main study objective, the key findings were that their supply chain management predicted for 60.7% of positive variation in operational performance. This implied that a unit positive improvement in SCM activities at the firm translated into 0.607 positive improvements in the level of operational performance. This position could have been premised on the fact that when a firm established a well-coordinated supply planning function with a framework on Supply planning that guided in describing the demand requirements of the stakeholders as well as availing an environment that exhibited complete harmony for effective implementation of supply planning, it would achieve positive strides in its operations and hence improved its performance. Accordingly, it

could be attributed to the fact that when a firm established policy guidelines on supplier sourcing which allowed for the participation of all parties in the procurement process as well as allowing for adaptation of electronic sourcing practices and at the same time adopting competitive sourcing strategies for achieving quality supplies, such a firm achieves improved levels of performance in its operations. The findings were consistent with Tigu &Ghoumrassi (2017) who reasoned that integrating supply management with other factors of operations allowed all functions involved in the management decisions and that this greatly improved performance of an entity.

4.6.2 Supply Planning and Operational Performance

The main findings under this objective were that supply planning accounted for 34.1% of positive variation in operational performance as well as existence of a positive association between supply planning and operational performance. This could be premised on that fact that when a firm established a well-coordinated supply planning function with a framework on Supply planning that guided in describing the demand requirements of the stakeholders as well as availing an environment that exhibited complete harmony for effective implementation of supply planning, it would achieve positive strides in its operations and hence improved its performance.

The results were consistent with Tigu &Ghoumrassi (2017) who found a positive contribution of supply planning on operational performance of a firm. The findings were also consistent with Mdemu (2013) who observed that the respective users ought to come up with compressive yearly plans concerning the preferred supplies guided by budget and submitted to procuring units with intent of realizing informed and organized management of yearly procurement tasks.

Further still, Mamiro (2010) further opined highlighting one of the main setbacks to effective supply planning as ineffective procurement which emanated from inadequate planning and management of the process coupled with poor identification of the estimated needs, unrealistic budgets and inadequate skills by the staff responsible for procurement. This observation implied that supply planning was inseparable from procurement planning since both drew from needs recognition and specification so as to achieve supply planning objectives and hence improved operational performance.

Thus based on the findings and augmented discussion, the study maintained that when a firm established a well-coordinated supply planning function with a framework on Supply planning that guided in describing the demand requirements of the stakeholders as well as availing an environment that exhibited complete harmony for effective implementation of supply planning, it would achieve positive strides in its operations and hence improved its performance.

4.6.3 Supplier Sourcing and Operational Performance

The key results under this objective were that supplier sourcing explained 53.7% of positive variation in operational performance and that supplier sourcing exhibited a positive strong and association with operational performance. This revelation could be hinged on the fact that when a firm established policy guidelines on supplier sourcing which allowed for the participation of all parties in the procurement process as well as allowing for adaptation of electronic sourcing practiced and at the same time adopting competitive sourcing strategies for achieving quality supplies, such a firm achieved improved levels of performance in its operations.

The findings were consistent with Nair & Das (2015) as well as Kihanya et al., (2015) whose works concluded that supplier sourcing positively predicted operational performance of firm. Accordingly, Nair & Das (2015) further opines submitting that the participation of purchasing teams in the strategic planning process positively impacted on performance of purchasing function and supplier selection. Therefore, to uninterrupted procurements, there ought to have been extensive participation of all parties to the purchasing and supply function so as to guide achievement of the intended objectives.

Further still, the results were consistent with Falcone (2010) who reasoned that there should have been clear separation of roles in procurement and not simply attaching titles to position holders if the sourcing function was to achieve its objectives. Therefore, strategic supplier sourcing began with having the right persons in place for the right jobs. Accordingly, Kihanya et al., (2015) concurred submitting that strategic sourcing is instrumental in enabling firms realized strategic advantages and avert specific business problems efficiently.

Findings also agreed with Adam & Ting (2015) who observed that private procurement has always been and remained the most effective and efficient compared to public procurement regarding the sourcing process. However, whereas it was a call to public sector organizations to revisit their procurement processes and means employed to get procurements done, the same firms always trailed when it came to implementation of reforms that were believed to improve the acquisition function and reshaped procurement performance in public sector entities. Based on the findings and the discussion presented, the study maintained that when a firm established policy guidelines on supplier sourcing which allowed for the participation of all parties in the procurement process as well as allowing for adaptation of electronic sourcing practices and at the same time adopting competitive sourcing strategies for achieving quality supplies, such a firm achieves improved levels of performance in its operations.

4.6.4 Logistics Management and Operational Performance

The main findings under this objective were that logistics management explained 59.3% of positive variation in operational performance and the fact that logistics management had a strong positive association with operational performance. This revelation could have been attributed to the fact that when a firm established policy guidelines on logistics management to guide on an efficient logistics management process as well as ensuring that the logistical activities entailed all the necessary components to yield effective delivery of procured items, such a firm recorded positive strides in its operations.

The results concurred with Bolisani &Bratianu (2017) who concluded that logistics management positively predicted operational performance of an entity. Accordingly, Tarty (2012) further opined submitting that logistics management greatly influenced lead time through equipment performance, extent of warehouse management, information flow, extent of shipping, order listing and sorting, ordering costs, and bureaucracy in government respective agencies, order packing challenges and inadequate warehouse planning.

Further still, findings further agreed with Bolisani &Bratianu (2017) contending that the logistics management process commenced with raw materials accumulation to the final

stage of delivering the goods to the destination. Thus, by adhering to customer needs and industrial standards, logistics management facilitated the process strategy, planning as well as implementation. Similarly, results concurred with Kiprop (2015) who submitted that outsourcing and effective logistics management were instrumental in a banks' performance as the practices enabled improving quality of service to customers and hence boosted customer satisfaction.

The results were consistent with Shamsuzzoha et al., (2013) who reasoned that, real-time tracking plays a key role of facilitating, monitoring, and management of logistics and supply chain networks; it did this by tracking and tracing the logistics and delivery network and that these motivated stakeholders as well as building customer satisfaction, trust among suppliers and manufacturers. Therefore, based on the findings, the study maintained that when a firm establishes policy guidelines on logistics management to guide on an efficient logistics management process as well as ensuring that the logistical activities entailed all the necessary components to yield effective delivery of procured items, such a firm records positive strides in its operations.

4.7 Conclusion

The chapter has offered a presentation, analysis, and discussion of the study findings in line with the study objectives and tailored literature. In all, results indicated positive associations between SCM dimensions and operational performance. Equally, results revealed that all dimensions of SCM adopted in the study positively predicted operational performance of a firm. On the overall, SCM was a significant predictor of operational performance. The chapter thus lay a strong foundation for summarizing the findings, drawing conclusions as well as suggesting recommendations for redress.

SECTION FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter summarized the study findings in relation to the objectives. It equally presented the drawn conclusions as well as the suggested recommendations for redress guided by the study purpose which examined the effect of supply chain management on operational performance of Oil & Gas Marketing Firms in Uganda: A Case of Total M&S Uganda.

5.1 Summary of findings

This segment used statistics descriptive to analyze key study findings according to the objectives. Spearman's and Pearson's Coefficients correlation, analysis of qualitative and testing hypotheses for variables were used in the respective findings.

Regarding the main study objective, the key findings were that their supply chain management predicted for 60.7% of positive variation in operational performance while the other factors not explored in the study predicted for the remaining 39.3%. Other summaries regarding the study objectives were presented hereunder.

5.1.1 Supply Planning and Operational Performance

The major findings under this objective were that supply planning predicted for 34.1% of positive variation in operational performance. Accordingly, there was a positive association between supply planning and operational performance ($r = 0.653$; $p<0.01$).

5.1.2 Supplier Sourcing and Operational Performance

Under this objective, the main findings were that supplier sourcing explained 53.7% of positive variation in operational performance. Further still, supplier sourcing exhibited a positive strong and association with operational performance ($r = 0.747$; $p<0.01$).

5.1.3 Logistics Management and Operational Performance

Here, the main findings were that logistics management explained 59.3% of positive variation in operational performance. Similarly, logistics management had a strong positive association with operational performance ($r = 0.747$; $p<0.01$).

5.2 Conclusion

Based on the findings, with the purpose of examining effect of supply chain management on operational performance of Oil & Gas Marketing Firms in Uganda: A Case of Total M&S Uganda, under general and specific objectives, the study deduced that SCM positively and significantly predicted operational performance. Further still, all the examined tenets of SCM positively associated with operational performance and equally positive predicted operational performance of a firm. However, given the prediction power of SCM on operational performance, the study concluded that SCM cannot single handedly lead a firm to sustainable operational performance and thus for an organization to achieve sustainable levels of operational performance, SCM ought to be supplemented with other systems that enhanced internal efficiency on one hand while at the same time streamline the smooth flow of activities to propel high levels of operational performance.

5.3 Recommendations

Drawing from the conclusions, the study recommendation that Management of Total M&S Uganda should have adopted and simultaneously rolled out all the examined tents of Supply Chain Management since they all positively associated with and equally positively predicted operational performance at the firm.

Accordingly, Management should have ensured that at all times the supply planning phase described the demand requirements of the stakeholders as well as ensuring that demand schedules from agents were broken down into separate lots for easy handling.

Further still, management should have ensured that the procurement roles were clearly separated as well as ensuring that the policy on sourcing suppliers allowed for adaptation of electronic sourcing practices.

Similarly, management should have ensured that the process always incorporates the desired materials and accompanying ingredients as well as ensuring that the logistics management activity at the company traced the supply process to final stage of delivery of goods to the final destination so as to shorten the lead time.

The study sought to, to improve the competitive positions should shared strategic information among businesses be used among the supply chain partners in planning and forecasting so as to be proactive in their operations. Businesses should share information concerning any changes that might affect their trading partners, for example, concerning new product/service development and other business processes. The information shared should be timely, complete and accurate but they should first assess the willingness of their trading partners to reciprocate to avoid the cost of divulging valuable information without corresponding return, which may be counterproductive to their competitiveness.

Small and Medium size Enterprises build strategic supplier partnerships in aspects such as sharing continuous improvement programs with key suppliers and including key suppliers in their planning and goal-setting activities. The study encourages the businesses to undertake integration of their logistics operations at firm level with their suppliers and customers. Thus they should embrace information technology in fostering logistics integration for example by establishing data management architectures such as data bases for sharing data, installing software services like ERP and ensuring compliance with new technological trends.

The study can form a basis for seeking government support important for improving Small and Medium size Enterprises' competitiveness through financial assistance, construction of logistics infrastructure such transport and communication networks that can help in logistics integration and improve SCM practices such as information sharing.

It is well acknowledged that public procurement constitutes a significant proportion of government spend. Hence the government should support SMEs' participation in public procurement, for example by offering preferential treatment so as to boost their market share and cash inflows.

5.4 Suggestions for further research

Basing on the findings of the researcher, further studies can be carried out in the following areas:

- supply chain perspective and how other factors can affect operational efficiency of petroleum corporations in Uganda.
- Entrepreneurial skills and financial performance of SMEs in oil and gas sector.

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APPENDICES

APPENDIX I: QUESTIONNAIRE SCHEDULE FOR MANAGEMENT & STAFF AT TOTAL M&S

Dear Respondent,

RE: ACADEMIC RESEARCH PROJECT

I am Luke Aleere pursuing a degree of Master of Business Administration (Oil & Gas Management) at Uganda Christian University.

This questionnaire is intended to collect data on "**Supply Chain Management and Operational Performance of Oil & Gas Marketing Firms in Uganda; A Case of Total M&S Uganda"**.

You have been selected to participate in this study as one of the respondents. Please spare a few minutes off your busy schedule and complete this questionnaire as honestly as possible. Your contribution to this study will be highly appreciated. Your responses to the questions contained herein will assist the researcher in making the study a success and conversely will be treated with utmost confidentiality.

Your acceptance and participation will be highly appreciated.

SECTION A: DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

Instructions

Please ***CIRCLE*** or ***TICK*** the most appropriate

1. Gender: a). Male ☐ b) Female ☐
2. Age a) Below 25 b) 25 – 34 c) 35 – 44 d) 45 – 54 e) 55 and above
3. Highest Level of education attained.

   a) Certificate b) Diploma c) Bachelor's Degree d) Master's Degree

   e) Others; Specify----------
4. Working experience at Total M&S

   a) Less than 1 Year b) 1 – 3 years c) 4 – 6 years d) 7 – 9 Years e)

10 Years and above

5. Department of the respondent
   a) C.E.O's Office b) Management Information Systems c)Procurement

   d) Internal Audit e) Stores f) Quality Assurance g) Finance h)

   Others: Specify----------

SECTION B: SUPPLY CHAIN MANAGEMENT at Total M&S Uganda

Instructions

In the following sections, please indicate your response by ticking the most appropriate choice (5 = strongly agree; 4 = Agree; 3 = Neutral; 2 = Disagree; 1 = Strongly Disagree)

#	PART ONE: SUPPLY PLANNING	1	2	3	4	5
P1	Total M&S has a well-established framework on Supply planning					
P2	The framework on supply planning guides in describing the demand requirements of the stakeholders					
P3	The environment at the company exhibits complete harmony for effective implementation of supply planning					
P4	The agents usually come up with comprehensive annual demand plans which are submitted to Head office					
P5	Demand schedules from agents are delivered to the Head office for consolidation of the total demand					
P6	Aggregation of demand is consistent with the market conditions					
P7	Demand schedules from agents are broken down into separate lots for easy handling					
#	**PART TWO: SUPPLIER SOURCING**	**1**	**2**	**3**	**4**	**5**
S1	Total M&S has policy guidelines on supplier sourcing					
S2	The guidelines allow for the participation of all parties in the procurement process					
S3	The policy allows for adaptation of electronic sourcing practices					
S4	The company adopts competitive sourcing strategies for achieving quality supplies					
S5	The company embraces coordinated sourcing for all the procurements sought					
S6	Strategic sourcing is instrumental in solving operational dilemmas					
S7	The procurement roles are clearly separated					
#	**PART THREE: LOGISTICS MANAGEMENT**	**1**	**2**	**3**	**4**	**5**

L1	The company has policy guidelines on logistics management for effective service delivery					
L2	The policy offers guidelines on an efficient logistics management process					
L3	The logistical activities at the company entail all the necessary components to yield effective delivery of procured items					
L4	The process always incorporates the desired raw materials and accompanying ingredients					
L5	The logistics management activity at the company traces the supply process to final stage of delivery of goods to the destination					
L6	Lead time on deliverables is usually provided for					
L7	The firm outsources logistical support to achieve the defined performance objectives					

SECTION C: OPERATIONAL PERFORMANCE

Instructions

In the following sections, please indicate your response by ticking the most appropriate choice (5 = strongly agree; 4 = Agree; 3 = Neutral; 2 = Disagree; 1 = Strongly Disagree)

#	Statements on Service Delivery	1	2	3	4	5
01	Total M&S has an overall framework for guiding satisfactory operational performance of its activities					
02	Our procurements are usually delivered in time					
03	We register minimal complaints from both internal and external stakeholders					
04	Our planned activities are achieved at the least and competitive costs in the market					
05	The services and products offered by the Total M&S are reliable					
06	The offered products and services are usually complete					
07	Total M&S products always conform to the agreed standards					

END

THANK YOU

APPENDIX II: INTERVIEW TO SENIOR MANAGEMENT TEAM AT TOTAL M&S UGANDA

Dear Participant,

RE: ACADEMIC RESEARCH PROJECT

I am ***Luke Aleere*** pursuing a Degree of Master of Business Administration (Oil & Gas Management) at Uganda Christian University.

This interview guide is intended to collect in-depth data on **"Supply Chain Management and Operational Performance of Oil & Gas Marketing Firms in Uganda; A Case of Total M&S Uganda"**.

You have been selected to participate in this study as one of the key informants. Please spare a few minutes off your busy schedule and go over the questions contained in here as honestly as possible. Your contribution to this study will be highly appreciated. Your responses to the questions contained herein will assist the researcher in making the study a success and conversely will be treated with utmost confidentiality.

Your acceptance and participation will be highly appreciated.

Questions

1. What are the key areas of focus by Total M&S Uganda while managing its supply chain?
2. What activities does Total M&S undertake during the Supply Planning?
3. What are the key executions performed during supplier sourcing?
4. What are main activities done by Total M& S while managing its logistics function?
5. What are the main indictors of operational performance adopted by Total M&S Uganda?
6. How would describe the level of operational performance of Total M&S Uganda?
7. How does supply planning influence operational performance of Total M&S Uganda?
8. What is the contribution of supplier sourcing on operational performance of Total M&S Uganda?

9. How does the logistics management function of Total M&S affect operational performance of the firm?
10. In your view what can be done to further improve operational performance of Total M&S Uganda?
11. Any other Remarks?

Thank you for the time

APPENDIX III: INTRODUCTION LETTER TO CONDUCT RESEARCH IN THE ORGANISATION

Institute of Petroleum Studies - Kampala

September 14, 2022

TO WHOM IT MAY CONCERN

Dear Sir/Madam

INTRODUCTION FOR MR. LUKE ALEERE TO CONDUCT RESEARCH IN YOUR ORGANISATION

Greetings in the precious name of our Lord.

I wish to introduce to you the above-named person, who is a masters student pursuing Masters of Business Administration in Oil and Gas, of Uganda Christian University in affiliation with The Institute of Petroleum Studies Kampala (IPSK).

His proposal has been approved by our vetting committee and is in the process of collecting data. Mr. Luke would wish to conduct research in your organization.

The title of his research is "Supply chain management and Operational performance of Oil and Gas marketing firms in Uganda. A case of Total M&s Uganda Limited"

By copy of this letter, all respondents are notified that this study is for academic purposes and as an institution, we request you to corporate in facilitating this very interesting research project.

Sincerely,

James Mugerwa
Dean of Studies- IPSK

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