



# JOURNAL OF EMERGING TECHNOLOGIES AND INNOVATIVE RESEARCH (JETIR)

An International Scholarly Open Access, Peer-reviewed, Refereed Journal

## “INTEGRATION OF SUPPLY CHAIN & OPERATION MANAGEMENT”

SHIVAM SIROHI

Under Guidance of

PROF. SHIV KUMAR SHARMA  
GALGOTIAS UNIVERSITY

### Abstract

Insights into supply chain management, the difficulties encountered, and the impact of these practices on business performance are provided, making this study useful for Kenyan financial research institutes. This research is particularly helpful for policymakers and decision-makers since it sheds light on the realities of implementing SCM at research organisations and the obstacles they face today. The results of this study will be useful to academics since they provide a baseline of knowledge about SCM practices and point to a topic that deserves further investigation. Finally, this research will benefit other businesses that are considering implementing SCM by providing insight into the challenges they may face and suggestions for how to deal with them. Procurement at government agencies is influenced by several factors, including compliance with laws and regulations, organisational accountability, sound management practices, and innovative thinking on the part of those in charge. It is often accepted that successful collaboration may lead to cost savings.

### INTRODUCTION

In this chapter, we set the stage for the investigation by reviewing the literature on the topic of supply chain management's impact on the productivity of Kenya's publicly funded research institutes. Supply chain rivalry is inescapable, and businesses can't shield themselves from it. Since the 1980s, when businesses first began to recognise the advantages of internal and external partnerships, supply chain management has attracted a growing amount of attention. Supply chain and organisational management were discussed at length. In order to better understand the supply chain, it is helpful to know what it is. The supply chain is a network of resources via which data is transferred, according to other sources. Suppliers, distributors, manufacturers, suppliers, retailers, and consumers are all possible endpoints (Lummus & Alber, 2013). Suppliers, distributors, and retailers are all part of the supply chain from start to

finish, as stated by the Supply Chain Council (1997). Supply chain, as defined by Quinn (2008), includes all that goes into taking a product from its origins to its final consumers. All aspects of logistics, from shipping and buying to inventory management and customer support, fall under one umbrella. More importantly, it has the data we need to keep tabs on everything going on. To manage the complete supply chain, from suppliers to consumers, supply chain management is an integrated strategy, as defined by Lambert and Cooper (2012). According to Christopher (2009), efficient SCM is a potent instrument for improving the competitive position of all supply chain participants.

### **Supply Chain Management**

The public education system is under increasing pressure from all quarters to raise academic standards (McAdam et al., 2005). Measurement and enhancement of supply chain performance and accountability are of importance to local organisations and other major government bodies (Barry, 2009). Planning, budgeting, implementing, and managing programmes and services to satisfy government and federal demands should be evaluated in order to boost performance and accountability. As a result of public sector reforms implemented in countries like Australia, the United Kingdom, South Africa, and New Zealand, many businesses have undergone a change management process (Behn, 2006). Managers in government agencies should use performance metrics to evaluate whether or not their departments are fulfilling expectations, which will help make it so that more individuals are able to say "yes" to opportunities and participate in decision-making. Materiality Use of public monies to influence legislators/stakeholders on the organization's success to evaluate the plan's efficacy and determine next steps for improving performance (Behn, 2006). Whether a business, government agency, or charity, measuring performance is becoming more seen as crucial to their success (Niven, 2005). Poister (2008) links the development and use of methodologies to evaluate performance quality, different problem-solving processes, and change-management procedures, making performance measurement a challenge for managers and researchers (Maltz et al., 2010). Even if public institutions are run well. Many of these systems fail before they even get off the ground, while others are purposefully made to be ineffective (Poister, 2008). SCOR benchmarks and models (Handfield et al., 2009). The Balanced Scorecard (BSC) is a performance measuring approach created by Kaplan and Norton (1992–1996) (Fawcett et al. 2007 Wisner et al. 2008) to assess how well an organisation is doing in relation to its plans and objectives. Long-chain management is used in supply and logistics in countries like the United Kingdom, the United States, and Canada. Like Gangster and similar groups. All of this leads to supply chain management, which is necessary to achieve the aforementioned goals of efficiency and adaptability. Federal, state, and municipal governments as well as government agencies, labour unions, and financial organisations make up the population studied by Kenneth and Brian (2006).

## Public Research institutions in Kenya

The intention to educate the public about Kenya's economy was signalled by the inclusion of the Research, Innovation, and Technology (RIT) Sector in the Medium Term Spend (MTEF) 2008/09-2011/12 (GoK, 2012). This division's primary responsibility is to help the company learn something new and enhance its manufacturing methods and products. To aid in the expansion of the national economy, the department actively pursues prospects in the areas of research, innovation, and technology integration.

Innovations that convert inputs into outputs (i.e., goods and services) are crucial to the success of a knowledge-based economy. In order to fulfil the expectations of the public, this must be explicitly stated and supported by the structure and procedure of the legal system. Incentives for businesses and industries to utilise knowledge and generate new knowledge and employment Training and educating a highly skilled workforce that can successfully develop, share, and use knowledge Create cutting-edge facilities that capitalise on expanding international knowledge, assimilate and adapt it to local needs, and encourage the development of new information and communication technologies by establishing a dynamic information and communication infrastructure (ICT).(GoK, 2012).

Destabilising financial shifts have resulted from the complexity of the economic environment, scarce resources, and rising consumer demand (OECD, 2007). Only nations that have RIT capabilities will be able to maintain economic growth. Therefore, the Research Sub-Sector is tasked with guiding the country through its socioeconomic transformation, boosting its productivity, growth, and competitiveness on a global scale.

Trade is the foundation of Kenya's economic blueprint, Vision 2030: Trade, Industry, and Commerce. Kenya's government supports a variety of research institutes that investigate the country's most pressing policy issues. Agriculture, policymaking, information technology, forestry, industry, the maritime sector, and crime prevention are all crucial.

## Problem Statement

To accommodate its expanding population, Kenya, the East African region's most robust economy, is undergoing rapid expansion that includes the establishment of research centres in many disciplines (USDS, 2010). But now that people know to expect transparency and high-quality work from these institutions, they have to deliver it. Even in the face of financial difficulties, research institutes must complete their primary objective. In light of this obstacle, research institutions must reevaluate their activities and develop innovative cost-cutting strategies.

The supply chain is one of the most promising places to look for savings and improvements. Despite the growing significance of SCM, very little academic attention has been paid to its practical applications in the supply chain, as noted by Burgess et al. (2006). Integrating and coordinating the actions of supply chain participants in a streamlined, cost-effective manner is the goal of supply chain management (Cox, Blackstore, & Spencer, 2010). If one piece of machinery breaks down, it will affect how the others function. This is so because inefficiencies lead costs to rise. It A lack of supplier cooperation was identified, and it was shown that all levels of supply chain management—from management to quality and auditing—require effective communication, continuous improvement, competitiveness, culture, and transparency. However, supply chain management and performance were not examined in this study.

Mwirigi (2007) investigates environmentally responsible supply chain management in Kenyan enterprises. Despite the study's emphasis on the private sector, it would be wise to include an analysis of the public sector supply chain in Kenya. There is a need to broaden and analyse SCM practises in the Kenyan public sector since Gwako's (2008) analysis of Kenya Airways' performance appraisal system is restricted because it focuses on only one firm.

Supply chain management and cement industry operations in Kenya were the focus of Onyango's (2011) research. Mogire (2011) investigated the importance of the supply chain to Kenya's five-star hotels. Coordination and supply chain management knowledge gaps were identified as the primary causes of programme issues. Although the study confirms the existence of relationships between the hotel industry and its suppliers and customers, it does not provide evidence of such relationships as a product with lasting value to either party. Although studies show that the five-star hotel industry is okay with workers using workplace equipment, it is not okay with these kinds of practises.

Green supply chain management in Kenyan industrial firms was studied by Mwirigi (2007). Green procurement, environmental design, reverse logistics, and green marketing were the focus of his study. This research reveals that manufacturing firms face increased competition as a result of GSCM applications.

Inadequate attention was paid to the impact of green supply chain practises on supply, hence the research has some caveats as well.

However, none of these investigations have tried to prove that effective management of the supply chain is essential to the long-term viability of academic research institutions. The aforementioned studies show that there has been no study done to yet to address this knowledge gap. Therefore, the goals of this research are to: To what extent do academic institutions regulate their supply chains? What effect do SCM applications have on the efficiency of the supply chain? When trying to put SCM into practise, what difficulties do Kenyans face?

#### Objectives

- ✓ Any supply chain management (SCM) plan needs to start with defined goals. Learning the goals of SCM will improve your strategic planning and execution. Supply chain management should prioritise five key goals: efficiency, effectiveness, customer service, profitability, and sustainability.
- ✓ SCM strategies aim to improve efficiency. Your supply chain's efficiency in getting goods from A to B promptly is a top priority. Supply chain efficiency helps cut down on the time and money it takes to transport items from one location to another.
- ✓ The pursuit of efficiency is also central to the work of SCM professionals. To avoid wasting money or commodities, it's important to maximise the efficiency of your supply chain process. The cost and time spent delivering items can be reduced by implementing strategies like just-in-time inventory ordering and efficient transport routes.
- ✓ SCM strategies also aim to improve customer service. It is crucial to have consistent delivery services in place all along the supply chain to ensure that orders are delivered on time to satisfied clients. Customer satisfaction can be increased and on-time deliveries can be guaranteed with a well-thought-out plan for fulfilling orders.

What are the impacts of supply chain management practices on the performance of research institutions in Kenya? What are the challenges faced by public research institutions in Kenya while adopting SCM?



## LITERATURE REVIEW

The implications of supply chain management for organisations, including the Open Segment. It examines the obstacles to SCM implementation and lists the most common solutions. things, and it helps to differentiate the knowledge gap. In addition, the Conceptual Framework for A model depicting the connection between SCM best practises and operational efficiency. The Supply Chain Management as an Idea

There has been a recent uptick in interest in how local and global businesses might benefit from using supply chain management strategies. Many businesses now understand the value of fostering connections with their supply chain and clientele. Supply chain management is the process of coordinating the flow of goods and services from upstream suppliers to downstream consumers. Tan et al. (2010). As funding from the federal government decreases, organisations will need to find more efficient and cost-effective ways to run their day-to-day operations. Consequently, adopting sound SCM practises is a viable option for accomplishing these ends. Consultants first used the term "supply chain management" (SCM) in the early 1980s (Lambert-Cooper, 2012). The notion was shaped by the logistics field and has its roots there (Bowersox et al., 2009). As time has progressed, SCM's scope has broadened to include other organisational concerns (Dubois et al., 2014). There seems to be little agreement on its use or precise meaning, as stated by Tan (2012). Although there are some consensus definitions of SCM, Tan argues that there is not one. Studies on SCM may not be directly comparable without a commonly agreed-upon definition. However, unlike most studies, this one used a very inclusive definition of SCM. According to the definition provided by Mentzer et al. (2015), a supply chain consists of "three or more organisations directly connected from the source to the customer by one or more product, service, monetary, and information flows." In the context of this study, supply chain management is the process of coordinating the flow of goods and services across different departments and locations within an organisation.

The goal here is to complete tasks associated with the overall functioning of the framework. In the present economic climate, businesses cannot compete on the same level as individuals. They can't compete successfully in the global market without the help of the other companies in their supply chains. Firm theories, such as those concerning far-flung financial concerns, Porter's esteem chain, and the organise technique, provide the foundation on which SCM rests. In contrast, the Best hones hypothesis is a method that has consistently shown outcomes comparable to those attained with other means and is therefore used as a benchmark. when time goes on, the "best" method might become even better when new improvements are made. Some people see the term "best practise," which describes the process of developing and adopting a consistent set of procedures that can be used by a variety of businesses, as nothing more than a marketing jargon. It has been argued that the SCM field requires more theoretical groundings resulting in more disentangled conceptualizations of supply chains and their environments, and that theory may be helpful in revealing some of the complexity characterising supply systems. A 2008 writing analysis (Croom et al., 2008) found that hypothetical work was needed more than experimentally based musings.

### Methods of Managing the Supply Chain

Different definitions of SCM have been proposed due to its mysterious origins (Li et al., 2006). Li et al. (2006) and Tan et al. (2006) defined SCM as "synonymous with the integration of the supply base that advanced from the conventional obtaining and materials capacities," suggesting that the concept was derived from the areas of obtaining and Supply Administration and transportation and Coordinations Administration. Wisner and Tan (2012) and Reck and Long (2010) are two others who have defined SCM from the Obtaining perspective; they argue that SCM is more of a crucial commerce handle than a specialised supporting role. However, from the perspective of transportation and coordinations administration, SCM is synonymous with coordinates coordinations systemsâ and centres on stock reduction within and across supply chain organisations (Sheep, 2010).

Various studies have been performed to identify these unique SCM tones. According to a study (Koplin et al., 2007), determined the standard units for measuring SCM hone quality, and made attempts at experimental and systemic differentiation of the link between SCM skills, operational performance, and SCM-related organisational results for small and medium-sized enterprises (SMEs) in Turkey. Twelve SCM hones were identified, including close proximity to service providers and related organisations clients. The significance of supply chain benchmarking cannot be overstated.

(Chen and Pawlraj, 2014) Consider the following terms: organising; outsourcing; sub-contracting; keeping security stock; and third-party logistics. The evolution of SCM tools has uncovered a quartet of robust and significant tools necessary for the practise. Ulusoy (2008) outlined four SCM practices—logistics, customer relations, customer relations, and production—in supply chain evaluation and innovation management in Turkish industry. In a similar vein, Lee and Kuncade's (2013) research proposed the following six facets of supply chain management: teamwork, technology, user friendliness, performance measurement, leadership dedication, and special requirements.

Kuei et al. (2011), on the other hand, employed 11 quality control measures to investigate and verify anagers' accurate comprehension of the connection between supply chain management quality and business results. Cultural management, education, production, supplier quality management, process management, effective information distribution, employee relations, customer relations, competition, supplier selection, and customer engagement are just a few of the eleven factors that must be considered. They determined that enhanced product quality management contributed to enhanced organisational performance.

Customer participation, feedback, time competition, continuous process, and IT, with a focus on critical resources are all examples of what Li et al. (2005) call SCM practises, which they describe as actions undertaken by organisations to support excellent supply chain management. Reduce inefficiencies in the supply chain via the use of integrated systems like logistics or EDI, and the eradication of waste.

### **Sustainable Methods for Managing the Supply Chain**

Environmental management on the inside, environmental management on the outside, ROI, and green design are the four pillars of green leadership (Zhu & Sarkis, 2014). Quality control that assures compliance with stringent control via learning through quality control knowledge is essential if an organisation is to enhance its environmental performance (Zhu et al., 2014). To wit: (Zhu and Surkis, 2014). ISO 14001 Environmental Management System (EMS) certification allows businesses to establish procedures that boost their environmental performance (Kitazawa & Srakis, 2009). In her paper "Reducing the Carbon Footprint of Product" from 2009, Betty Feng details the many strategic choices green supply chain managers face. Its five parts, which include supply, manufacturing, distribution, and transportation, all contribute to environmental protection across the supply chain and activities. Through our approach, Green Supply Chain incorporates environmentally friendly practises to boost efficiency and productivity. In other words, it encourages cooperative activities and ideals while simultaneously increasing power, fostering change by helping to minimise risk, and speeding up the process as it leads to new procedures and ongoing development. Results of an experiment by Abrahams (2011) on the effect of green product capabilities on the success of Kenyan oil firms are presented.

#### **Partnerships and Alliances that Last for Years**

Connected device integration will improve pipeline safety and productivity overall. Because of this, the success of electronic goods requires the establishment of long-term connections (collaboration) characterised by the exchange of information, the solution of problems, and the development of trust. Supplier relationship management focuses on fostering growth in the supplier relationship and evaluating the performance of the supplier. If the salesperson's performance is deemed inadequate, a continuous improvement team and training might help him thrive.

### **Tech in the I.T.**

Thanks to scientific and technological progress, energy management has advanced rapidly in the 21st century. Technology is becoming more reasonably priced, which is great news for businesses looking to implement linked strategies. To thrive in today's global marketplace, organisations must use delivery tactics that foster a long-lasting connection with their clientele (Chairman et al., 2012: 34). SCM best practises are strategies that may be used to any company, regardless of the nature of that firm; for instance, if all transactions are incorrect, money will be wasted. Fixing a flawed process by automating it won't work.

### **Minimizing the Number of Suppliers Used.**

Organizations may greatly benefit from using supply base management as a best practise since it increases liquidity in the global supply chain and improves record keeping. It also allows for the verifiable evidence of cutting-edge service providers, the evaluation of current service providers, the continued execution of service providers, and the expansion of service providers' portfolios. By combining and coordinating tools, it is possible to proactively measure

and improve service provider performance. As a result, risks are mitigated, and top-tier service providers are maintained. A lean supply base allows businesses to evaluate their suppliers and conduct preliminary surveys before engaging with them. As a result, trust and comprehension will increase. Organisational leanness in the supply chain improves the flow of commerce, which in turn improves the quality of finished goods while reducing expenses and stockpile sizes. Supply chain management best practises provide businesses the tools they need to use acquisition to get an advantage in the market. Building stronger ties with the rest of your suppliers may help you save money and time, as well as improve your products and services. Reduced competition helps the remaining vendors, who can increase sales with the same or lower unit cost.

## Outsourcing

The term "outsourcing" refers to the practise of using an outside party to carry out an activity.

## Services

Services that were previously handled internally (Domberger, 2010) to the organization's members. For

A third-party logistics provider (3PL) is a company that provides supply chain services on behalf of another.

Connection with patrons. Whether you work for a public or private company, there are times when it's in your best interest to leave.

Now, the company can concentrate on its core competencies. Here, we conduct a dispassionate analysis of our own operations and

After determining your needs, it's time to start looking for a dependable partner that can provide field service.

Outsourcing may be defined in a number of ways, from the internal transfer of products and services to external vendors (Domberger, 2010) to the external purchase of goods and services (Lankford and Passa, 2015). Outsourcing is defined as "the practise of contracting out certain aspects of an organization's operations or management to an outside party," and "the practise of having an outside vendor provide those services to that organisation."

years and years The viability of outsourcing is seen favourably by many. Research by Lankford and Parsa (2015), for instance, shows that companies who have already begun outsourcing report being pleased with the outcomes. Today, outsourcing has become an integral part of many companies' strategies.

Some examples of outsourcing models and systems have highlighted the need for businesses to differentiate between their "centre of commerce" and their "centre of competence" (McIvor, 2012; Franceschini et al., 2008). Understanding what core competencies and assets a company needs to claim and manage through internal contracts in order to sustain commercial success is central to the centre competency viewpoint. In addition to core competencies, companies should have a firm grasp of all aspects of their industry, including the operational, strategic, and fundamental facets (Gavin and Matherly, 2014). Outsourcing has been linked to many different types of organisational advantages and preferences. Numerous analysts have carefully examined, and clearly clarified, the benefits, drivers, and preferences of outsourcing (Jennings, 2008; Lankford and Parsa 2015 McIvor 2012 Linder et al. 2002). This is because outsourcing has attracted numerous parties who are interested in investigating the possible benefits and benefits it may bring.

By freeing up internal resources to be used in the company's core business, allowing the company to acquire innovations from suppliers that would be too expensive to replicate internally, re-evaluating the organization's plans to make them more effective and saving time and money while improving efficiencies, and improving the company's public image, outsourcing is said to reduce costs, extend services and ability, advance representative efficiency and



confidence, and make a more positive corporate image. In any case, the cost-effectiveness benefit from outsourcing may be recouped if the right tasks are delegated (Behara et al., 2010).

Production and distribution are the lifeblood of every business, and these processes are the focus of logistics. For these purposes, we employ and modify a wide range of materials. Material, labour, technology, capital, and other resources are all considered to be resources. Everything that has to do with making the product, providing the service, transporting it, selling it, teaching people how to use it, etc. Includes. Logisticians coordinate the arrival of items from manufacturers, their distribution across various departments, and their delivery to end users (Wisner, 2009). The goal of good supply chain management is to maximise value for the final consumer by facilitating seamless collaboration throughout all stages of the manufacturing, distribution, and retail processes. (Weisner, 2009; Cohen and Russell, 2005). In order to streamline the delivery process from the vendor to the final client, it is important to develop such a plan to foster connections and trust among supply chain participants.

According to (Cohen & Roussel, 2005; Wisner, 2009). For the sake of future supply chain research, Morash and Clinton (1997) suggest a model that incorporates shipping and logistics as a connection between the supply chain and operations. Even though Wisner (2009) discussed the link between logistics strategy and organisational performance, he failed to discuss the literature on quantifying logistics strategy or the outcomes of his own assessment. The connection between logistics quality and company success in retail is investigated by Schramm-Klein and Morschett (2006).

The success of an organisation may be measured by how well it meets its customers' needs in terms of both the quantity and timeliness with which it delivers the product or service in question. Client happiness, delivery speed, reliability, and flexibility in delivery are only few of the execution metrics that Bowersox et al. (2009) combine (Green and Inman, 2005; Green et al., 2006). Financial performance measures an organization's success relative to its rivals in terms of both its benefit and return on investment (Green and Inman, 2005).

### **Efficiency and Effectiveness in Supply Chain Management**

Supply chain management, performance, and innovation are all interconnected, and Chong et al. (2011) experimentally test a framework that defines this link. Production and service sector employment in Malaysia. This research included information from 163 different types of businesses in Malaysia. Structural equation modelling was used to verify the research model. The findings demonstrate that SCM implementations in the upstream and downstream energy supply significantly influence the success of Malaysian businesses. In addition, the results showed that supply chain management in Malaysia's industrial and service sectors are essentially same. Tracey, and coworkers (2005). Perform duties within the company. The approach is used to the creation of trustworthy and accurate gauges. Results from a survey sent to 474 production managers showed a statistically significant relationship between the three measures of SCM efficiency. Supply chain management for big Kenyan industrial firms was the subject of Awino and Gituro's (2009) research. The Kaiser Mayer-Olkin (KMO) and Bartlett tests were used first. The 52 largest private enterprises in Kenya that are also KAM members were selected as a sample. The demand for these businesses was quantified across 39 criteria utilised in the creation of SCM software. Factor Analysis may be used to examine the data and produce a straightforward model where each person's explanatory variable is locked at a value other than zero. Thus, the following 11 elements were identified as essential for success: operating policy, connectivity in supply companies, operational efficiency, IT system integration, performance measurement, goal orientation, customer and relationship, supplier selection and evaluation processes and procedures. When compared to the best practises throughout the globe, it becomes clear that these procedures are universal.

### **METHODOLOGY**

The methodology used to perform the study is detailed in this chapter. This included the research design, population of interest, testing schedule and measure, data collection strategy and instrument, quality and validity assurance, and data analysis techniques.

#### **Methodology**

This consideration made use of an introspective inquiry. According to Donald and Pamela's (2008) definition of



expressive inquiry, the focus of this think about is on the "what, how, and who" of a mystery. The study's primary goal is to identify research educators' SCM skills in Kenya and to reveal any correlations between those skills and improved business performance. The study also aimed to learn what difficulties are encountered while deciding on SCM tools. Therefore, a structured approach to inquiry is appropriate. Mogire (2011) studied Supply Chain Honesty in Kenya's five-star hotels, while Komen (2010) surveyed the extent to which Kenya's public sector outsources its Human Asset management capabilities. Both analysts used precise inquiry to analyse the data they gathered, and their efforts paid off.

### 3.3 Population

According to Sulk and Hungler (1999), a "think about population" is the sum or totality of all the things, topics, or people who conform to a set of criteria. All publicly funded Kenyan research faculty whose primary responsibility is to carry out methodological research made up the sample for the display study. Thirty-six people from Kenya's open research educate were the subject of the study. A census was performed because of the little population in the concept.

### 3.4 Information Gathering

Data was overused by the Search. Collecting information from a broad representative sample or the whole population that can be readily translated into numbers is what quantitative research is all about (Leedy Ormrod, 2011). A semi-structured questionnaire will be used for this study. There are two types of questionnaires included here: those that participants fill out on their own, and those that are filled out by researchers. The questionnaire looked like

Separated into subgroups based on the aims of the research. The first section of the instrument included background info, section two sought to answer question one, section three tackled question two, and section four tackled question three. Most of the questions were closed-ended so that they could be easily coded, responded to quickly, and coordinated research on key and appealing characteristics that were hypothesised to be potential obstacles. Each institution we contacted received a total of three questionnaires. They were delivered to the head of procurement, the head of finance, and the CEO and deputy CEO.

### 3.6 Analysing the Data

The raw data was acquired using a survey questionnaire and neatly organised for analysis. Before putting the data into the computer database, it was reviewed for accuracy and cleaned up as necessary. Apply statistical techniques to data and display the findings visually (through things like tables, charts, and graphs). Frequencies, percentages, and averages were used to accurately describe the responses. This was utilised to determine (I) what it is that public research institutes in Kenya should be aiming for in terms of supply chain management, and (III) what obstacles they experience when trying to apply SCM practises.

The Social Science Software (SPSS) Version 19. This is the form that the regression equation must take:

## DATA ANALYSIS, INTERPRETATION AND DISCUSSIONS

This chapter presents the results, provides clarifications, and discusses the findings. This part of the article is organised as follows: The percentage of original respondents is displayed first. The following step is to investigate the investigation institution's newly acquired supply chain hones. This chapter concludes with an in-depth look at the correlation between supply chain management best practises and financial outcomes for businesses. The poll included 36 heads of departments and/or directors at publicly funded research institutions in Kenya. The table below shows that the expected response rate was achieved.

The data table shows that while private funding accounted for the vast majority of educational costs (66.7%), public funding accounted for only 33.3%. These lengths suggest that the information collected had a private subsidising component, making the discoveries indeed more valuable, since the benefit thinking process for the primarily freely supported educate may drive them to receive more vigorous methodologies to guarantee their supportability, as seen

among instructive teach. According to the data table provided above, 76.7% of respondents were male and 23.3% were female. This indicates that men predominately hold the position of acquisition director in publicly funded research organisations. The focus was on the train, not on people's assumptions, therefore this shouldn't be taken as a reason to discount the results of the investigation.

### **Length of service in current position**

The study sought to find how long the respondents had served their organizations in their current positions. The responses were as shown in the table below.

This chapter provides a summary of the findings, discussions, and recommendations made so far. It begins with a summary of findings organised by research area, moves on to inferences taken from those discoveries, and then offers both organisational recommendations and ideas for further study.

**Concluding Remarks.** To analyse the influence of SCM practises on business performance and to examine the obstacles encountered by Kenyan public research institutions in adopting SCM, this study seeks to identify the supply chain management capabilities of Kenyan public research institutions. Following is a summary of the data analysis's key findings. In terms of SCM implementation, we have seen the adoption and useful use of several SCM best practises, although with very low frequency. It is recommended to utilise very limited quantities, and to include essential suppliers in the planning process. This has led to the adoption of some but not all of the best practises.

Three of the seven variables examined between SCM practises and company performance showed a positive correlation, including transportation, logistics, and IT. Green supply chain practises, long-term supplier partnerships, and customer feedback all had weak correlations with one another. Last but not least, establishing SCM best practises is difficult for public research organisations. Insufficient knowledge by suppliers and end users of the PPDA 2005 and Law 2006, and a poor degree of regulatory compliance are only some of the issues that have arisen due to a lack of support from upper management and political intervention in supply chain management. Actions and regulations.

### **Conclusions**

The following conclusions are derived from the aforementioned results. To begin, let's look at some SCM standard practices. have been taken up by public research institutes in both great and little ways. As a result, there are deviations in the introduction of SCM. Provision of dependable service, provision of superior service, reduction of fuel efficiency, data exchange through ICT, pollution mitigation, and personnel screening who are well-versed in environmental concerns, supplier collaboration, SC database development, and Lean Supply Base Procedures, Supplier Growth, Spec Preparation, Specification Writing, and Green Supply Chain Management Supply Chain Management Key Suppliers Sourcing of Recyclable Materials Reverse Logistics Preparing for a Marriage. Also, it was determined that IT, lean production, and logistics were the most research institutes' financial research is extremely successful and strongly connected with corporate performance.

Third, the research found that these institutions had a hard time adopting SCM best practises. These a lack of buy-in from upper management, political interference in SCM, and an inadequate grasp of Purchasing and Involvement

Factors, Supplier and Consumer Ignorance of PPDA 2005, and rules put in place in 2006 and a lack of environmental responsibility on the part of suppliers. The rule of law.

## Recommendation

These conclusions lead to the following suggestions: Supply chain management has to be improved and more work needs to be put in to maximise certain effective practises at research institutes. As an example, there is a need for enhancements in areas such as pre-qualifying others who understand environmental issues, establishing collaboration with other people, reducing pollution emissions, sharing information from paper technology, lowering fuel consumption, and more. Structures and software. SC data stores, streamlined supply-based operations, environmentally conscious supply-chain management, vendor-developed collaborative specifications, outsourcing policies, recovered data, reverse logistics, and primary vendor-provided services. Make sure your users are aware of PPDA and any applicable rules and regulations. In order to facilitate more cooperation and information exchange between and between schools and suppliers, research organisations should expand their operational capability.

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