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Indirect Procurement Strategies for Supply Chain Sustainability

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This is to certify that the doctoral study by

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Abstract

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MBA, KCA University, 2014

BBA, Kenya Methodist University, 2012

Doctoral Study Submitted in Partial Fulfillment

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Abstract

Indirect procurement is becoming one of the most challenging function in food processing organizations, which need strategies to enhance supply chain sustainability. Food processing organizations could expect more than 50% maverick indirect costs out of the 80% procurement cost from total annual costs. The focus of the research question was on strategies procurement managers responsible for food processing indirect procurement could use to enhance supply chain sustainability. The conceptual framework for this study was resource dependency theory, and the purpose of this multiple case study was to explore strategies some procurement managers responsible for food processing indirect procurement could use to enhance supply chain sustainability. Face-to-face semistructured interviews were used from 2 procurement managers from food processing organizations in Nairobi, Kenya, who were recorded and gave responses to 9 interview questions. Data were transcribed, coded, and analyzed into themes. Data were triangulated and then subjected to member checking to ensure reliability and strengthen credibility of collected data. The data revealed 2 major themes, which included, indirect procurement strategies, and resource availability. The identification of indirect procurement strategies was important because participants believed stakeholder partnering and collaboration in formulating procurement strategies could enhance value for money in indirect procurement. The resource availability was important to enhance supply chain sustainability. Implications for social change include cost reduction in the supply chain, increasing organization profits, lower products costs, which could improve economic, and social benefit.

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Dedication

I dedicate this study to my loving family. To my loving wife and best friend Phelister Akida, thank you for your sacrifice and unwavering support during the entire journey for my pursuit of this degree. You played the part of my guardian angel from day one. My daughters Edith, Martha and Latasha, I appreciate your understanding on the many hours I put working on this dissertation. I would also like to dedicate this dissertation to my parents Edison J. Luchi and Florentina M. Luchi for your endless encouragement. Your advice on the importance of education from childhood played a tremendous part in this journey. May God keep on blessing you.

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Section 1: Foundation of the Study

Background of the Problem

Competition among organizations, both in the local and international markets, has forced managers to focus on strategies that offer a competitive advantage to stay in business. The supply chain is among the fundamental sources of gaining competitive advantage in the market. The supply chain is associated with the flow and transformation of goods and services from the producer to the end user, representing the planning and management of all activities involved in the procurement of products (Foerstl, Azadegan, Leppelt, & Hartmann, 2015). Procurement has shifted from minimizing costs to maximizing value (Spring, Hughes, Mason, & McCaffrey, 2017). This paradigm shift from a tactical to a more strategic focus has generated procurement policies that leverage sourcing and implement procurement functions that drive the supply chain sustainable performance for long-term success. Procurement function is expanding to monitoring and influencing the sustainability of the suppliers resulting in cost savings taken care of by the buyer (Foerstl et al., 2015).

Professionals in procurement continue to standardize specifications, reduce the number of suppliers, cut unit costs without a further consideration of the full range benefits across the demand, source, and manage value chain (Foerstl et al., 2015). Procurement delivers unit cost reduction, value generation, and generates revenue. Through sustainable procurement, companies improve supplier disclosure and support exchange of information, and verification (Spring et al., 2017). When the performance of the supplier is measured by addressing supplier’s sustainability practices, it facilitates disclosure and transparency. The sustainable supply chain is enhanced by credibility and collaborative supplier relationship among company managers who increase company value (Hajmohammad & Vachon, 2015).

Strategic supplier partnership that includes the purchase of goods and services impacting supplier's systems and operational capabilities, added value and improved supply chain performance (Song, Song, & Di Benedetto, 2015). Companies face market uncertainties in the supply chain; Foerstl et al. (2015) asserted that uncertainties can be controlled effectively if companies change their outlook from procurement to supply chain management. Strategic supplier practice is not a new venture in a supply chain, however; a fundamental change was evident (Saldanha, Mello, Knemeyer, & Vijayaraghavan, 2015). Organizations opt to engage suppliers early and involve them in their operational activities as well as product development to achieve less costly designs and enjoy high-quality products and reduced lead time. Product success is valuable and strategic partnership facilitates companies to work closely with their suppliers to attain this goal (Zaremba, Bode, & Wagner, 2016).

Problem Statement

Increasing indirect procurement was a challenge for some managers (Kavoo & Gichure, 2016). Koskei and Kagiri (2015) indicated that from a supply chain perspective of organizations with 80% procurement cost from total annual costs, managers reported more than 50% maverick indirect procurement costs. The general business problem is that some procurement managers were unable to manage indirect procurement processes, which had a negative effect on supply chain sustainability. The specific business problem is that some procurement managers responsible for food processing indirect procurement lacked strategies to enhance supply chain sustainability.

Purpose Statement

The purpose of this qualitative multiple case study was to explore strategies some procurement managers responsible for food processing indirect procurement used to enhance supply chain sustainability. The targeted population was procurement managers from at least two food processing organizations in Nairobi, Kenya, who had successfully implemented strategies for supply chain sustainability. The implication to social change is that reduction of supply chain costs could result in the reduction of manufactured products prices for customers in Kenya.

Nature of the Study

The research method for this study was qualitative. Huy (2012) explained qualitative research data as the dominant source of information for providing insights into human behavior and experience for understanding phenomena (Castellan, 2010). Qualitative method is characterized by its relationship between data and theory, which is different from the hypothesis-testing quantitative approach (Lyall & King, 2016). I was not interested in testing a hypothesis and examining the relationships or differences among variables. The mixed method was not appropriate because there was no need to explore and examine quantitative and qualitative data to address the specific business problem (Tomos et al., 2015). A qualitative method was the appropriate method for the research.

The case study design was appropriate for this study. Using a qualitative case study design enables researchers to explore a real-life business case, process, or systems, over a limited time with activities of collecting a variety of data types (Kruth, 2015). Using a multiple case design was appropriate to explore a wider scope of successful indirect procurement strategies procurement managers used in procurement. The ethnographic design was not appropriate as it involves the collection of data through observation of certain group behavior, and interviewing over a period, where the researcher is immersed in the day-to-day activities of participants (Kruth, 2015). Phenomenology is a design in which a researcher seeks to identify single or several individuals' common human experiences with phenomena, which made it inappropriate for the study (Wilson, 2015). Grounded theory strategy was not appropriate because the interaction is grounded in the views of participants and similarly, not flexible compared to case studies (Cho & Lee, 2014). Narrative researchers rely on spoken or written words, and it focuses on individuals lives as told by their individual stories (Kruth, 2015).

Research Question

The overarching research question for this proposed study was: What strategies do procurement managers responsible for food processing indirect procurement use to enhance supply chain sustainability?

Interview Questions

1. What were your roles in procurement and supply chain?
2. What drives indirect procurement in your organization?
3. What were your major roles in indirect procurement?
4. What indirect procurement strategies worked the best to enhance

supply chain sustainability?

5. Why did you consider your indirect procurement strategies effective?
6. What barriers did your organization procurement face when you first attempted to use indirect procurement strategies?
7. How did you address the barriers to your initial indirect procurement strategies?
8. What resources were required to implement effective indirect procurement strategies?
9. What additional information would you like to add regarding the strategies used in indirect procurement for assuring supply chain sustainability?

Conceptual Framework

The conceptual framework for this qualitative multiple case study was resource dependency theory (RDT), which was introduced by Pfeffer and Salancik in 1979. Organization effectiveness and performance sustainability depend on various stakeholders and resources (Bryant & Davis, 2012). The performance and survival of an organization depend on its leaders' ability to cooperate with its stakeholders and acquire critical resources on a long-term basis (Wolf, 2014). Wolf (2014) expressed the need for leaders in the supply chain to collaborate with other stakeholders to increase performance for sustaining businesses.

RDT was expected to be relevant to my study as it could provide information regarding how organizations leaders could collaborate with customers and suppliers to reduce costs and enhance efficiency and sustainability in their operating environments (Pfeffer & Salancik, 2003). Collaboration with stakeholders, like customers and suppliers, could acquire needed resources to improve operations continuity (Pfeffer & Salancik, 2003). RDT was expected to serve as part of the framework for connecting sustainable indirect procurement, supply chain management, and external operations continuity (Pfeffer & Salancik, 2003).

Operational Definitions

Indirect procurement: Indirect procurement is termed as the act of buying services or other supplies needed to keep the daily activities of an organization running (Rajesh & Ravi, 2015).

Logistics management: Logistic management as the part of the supply chain management responsible for planning, implementing and controlling effective forward and reverse flow and storage of goods, services, and any other related information between production and consumption (Nordigården, Rehme, & Chicksand, 2014).

Stakeholder management: Stakeholder management is a conscious, planned, and focused activity that entails clear action plans and outcomes that relates with managing of business organizations with market shareholders and non-market shareholders (Ferro, Padin, Svensson, & Høgevold, 2017).

Strategic sourcing: Strategic sourcing as a process of evaluating, selecting, and getting into alignment with the suppliers or their consortiums to improve organizational operations and offer support to the strategic objectives of the organization (Matopoulos, Barros, & Van der Vorst, 2015).

Supply chain: A supply chain is the network of all the individuals, organizations, resources, activities, and technology involved directly or indirectly in fulfilling a customer request from the delivery of materials from the supplier to the manufacturer to delivery to the end user (Chopra & Meindl, 2013).

Transactional procurement: Transactional procurement involves reducing the base of the supplier, cooperative negotiation with suppliers, quality interactions, and development of long-term relationships with best suppliers available (Chen, Liang, & Yang, 2015).

Assumptions, Limitations, and Delimitations

In the following sections, I highlighted the assumptions that the study was to consider, the limitations that the study encountered and the delimitations.

Assumptions

Assumptions are underlying views assumed to be true by the researcher in a study (Merriam & Tisdell, 2015). My assumption was that managers in food processing organizations used various strategies of indirect procurement to enhance sustainability in supply chain management. Respondents gave detailed information, honestly and without bias (Marshall & Rossman, 2016). The exclusive criteria used to sample the respondents ensured collection of reliable data from the respondents. The case study design method was appropriate for this study, and the RDT used contributed to understanding the findings of the study. Finally, the study findings may be applied in other areas to enhance sustainability in supply chain management.

Limitations

Limitations are opinions which a researcher considers truthful and accurate (Elo et al., 2014). The findings of this study may not be applied to a larger population because the study used a sample of convenience as opposed to a random sample. The study was limited to the strategies used to gain sustainability in supply chain management. The study was conducted over a certain interval of time, and a snapshot dependent on conditions occurring during that time, which other prevailing conditions may have altered the findings of the study. Some participants did not want to give information for unknown fears; I explained the nature of the study and gave respondents anonymity to collect detailed information.

Delimitations

Delimitation in research are boundaries, which define the starting point and endpoint of a case (Yin, 2014). The study was delimited to the strategies of indirect procurement in food processing companies that enhanced the sustainability of supply chain management, to the managers who had implemented indirect procurement strategies in supply chain sustainability, and to RDT. Finally, the study was delimited to the case study design, qualitative research method, and to the managers in food processing organizations in Nairobi, Kenya.

Significance of the Study

Indirect procurement involves the use of strategic sourcing, which is an activity organization use for procurement with an intention to enhance partnership with the suppliers, reduce expenditures, simplify the procurement process, and reduce the total costs of ownership of strategic products or services (Mbatha & Grobbelaar, 2015). Organizations gain monetary value through savings and cost reduction, which result from cost avoidance (e.g., buying for less), and through product complexity reduction (Mbatha & Grobbelaar, 2015).

Contribution to Business Practice

Indirect procurement requires stakeholder involvement from the initial stage of product development, production to product delivery. Strategic sourcing also requires improving practice among stakeholders to enable smooth transmission of information to accelerate process communications, and for potentially combining research and development (Garza, 2013). The findings of this study can help business leaders improve business operations, enhancing strategic sourcing and supply chain sustainability for organizations.

Implications for Social Change

The findings of this study can contribute to business practice on financial goals, and could benefit the consumers through enabling companies to provide higher quality goods and services at lower prices (Garza, 2013). The goal of every business leader is to make the customer happy through the provision of goods and services at the right time, right place, right quantity, and at the best price. Profits to the company from increasing supply chain efficiencies could enable organizations to offer scholarships to needy students, building schools, engaging in environmental preservation like the planting of trees and waste management (Garza, 2013).

A Review of the Professional and Academic Literature

The objective of this qualitative multiple case study was to explore strategies some procurement managers responsible for food processing indirect procurement used to enhance supply chain sustainability. The intent of this literature review was to provide published research on resource dependency theory, the evolution of conceptual framework, global and regional supply chain, indirect procurement strategies, the impact of information technology, and human resources on organizations supply chain sustainability.

I conducted searches for peer-reviewed articles, books and other documents through Walden University's library database. The database included Business Source Complete, ProQuest Central, ABI/Inform Complete, SAGE Premier, and Emerald Management Journals. I used Google Scholar to access more peer-reviewed articles outside Walden University library database. The primary terms used to search the literature included *indirect procurement, supply chain sustainability, procurement strategies, strategic sourcing, logistics management, information technology on sustainability,* and *human resource on sustainability.* The literature review included 106 sources, 95 peer-reviewed, 89% of the total sources are peer-reviewed. Out of the 95 peer-reviewed sources, 92 have a publication date less than 5 years from the anticipated completion date, representing 96% of the total sources.

Resource Dependency Theory

The RDT majors on the external relationships that an organization has. The behavior of an organization depends on external constraints and controls that keep it functioning. The main aim of many organizations is to find a way of existing autonomously. Organizations depending on external resources responded to this dependency by complying, adapting, managing, or avoiding them (Pfeffer & Salancik, 2003). The performance of an organization is affected by its dependence on the supply chain. According to RDT, the supply of resources depends on the complexity and richness of the environment. Resources are the power that influences the dependency of the organization. Environments with limited internal resources have a higher external dependency (Kumar, Amorim, Bhattacharya, & Garza-Reyes, 2016).

Whoever controls the resource gains has power over the actors who need the resources (Pfeffer & Salancik, 2003). The goal of an organization is to minimize or if possible avoid relying on other organizations for the supply of the limited resources by gaining influence of the resources and responding to the market demands (Ntim, Lindop, Osei, & Thomas, 2015). This was by acquiring control of the resources that maximize its dependence or taking total control. Performance of an organization is affected by the dependency in the supply chain. Organizations that controlled basic resources like access to customers and raw materials, among other elements in the supply chain, created a dependency tendency for other organizations to rely on them (Rajesh & Ravi, 2015).

Resources come in different forms and are valued in a different manner, based on their importance and their availability. An organization depends on various resources, which include physical materials used to make products (Kumar & Kumar, 2016). They can also be technical resources such as information or knowledge and they can also be social resources such as prestige and organizational reputation that give a competitive advantage in the market. In the manufacturing sector, both manufacturers and suppliers have a symbiotic relationship that influences their success (Pfeffer & Salancik, 2003). The supplier relies on the manufacturer to gain access to customers and manufacturers rely on suppliers to have an insight into the brand and products.

The Evolution of Conceptual Model

RDT was developed in 1978 by Pfeffer, an American business theorist, and Salancik, who is an organizational theorist. The goal of the theory is to guide as a manual on how to design and manage organizations, which are controlled by external factors. In 2003, Pfeffer and Salancik examined the legacy of RDT and its relationship to other emerging theories.

The theory is anchored on the work of earlier scholars like Emerson (1962), Blau (1964), and Jacobs (1974). These scholars analyzed the concept of organizational behavior from an organizational context dimension. The goal of Pfeffer and Salancik was to provoke extra thoughts, offer research attention and opinions for notions such as the concept of resource interdependence, and influence of external social constraint and adaption of the organization to external conditions. These motives gave birth to RDT, which provided an alternative dimension to the economic theories of mergers, as well as board interlocks to comprehend specifically the nature of the interorganizational relations (Kim & Lyon, 2015).

The fundamental tenet in RDT for the emerging differences of power among modern organizations is enhanced by the literary work of Emerson (1962) on Power-Dependence Relations and Blau (1964). Jacobs (1974) contributed to the tenets of the theory, which states that organizational behavior is influenced by its environment, and understanding the behavior of the organization requires understanding the environment in which the organization operates within. Researchers of RDT indicated how the basic concept of the theory in organizations can be influenced to be open systems, which depend on contingencies that exist in the external environment (Pfeffer & Salancik, 1979). An insightful understanding of the ecology offers knowledge on organizational behavior. RDT has been used as a premier perspective to understanding the relationship between the organization and its external environment.

From this research, three concepts of contextual perspectives that make the conceptual models in RDT such as organizational effectiveness, organizational environment, and organizational constraints, were highlighted. Organizational effectiveness is the ability of an organization to meet stakeholders' demands, acceptable outcomes, and actions aligned with its mission (Pfeffer & Salancik, 1979). The effectiveness of an organization depends on the external judgment of its activities. The organizational environment includes every event that affects the activities and the outcome of the actions of the organization. Pfeffer and Salancik (1979) questioned why some firms are less influenced by external events in the organization because such organizations are buffered from external events in their environments reducing the impact they could have. The organization environment is not its reality because organizational environments are created by attention and interpretation of each person in the firm. Organizations that have a strong connection with their environment adapt quickly to the external changes by taking relevant actions (Pfeffer & Salancik, 1979).

The concept of organizational constraints highlights the possibility of an action to solve an external environmental problem that is affecting the organization. An action is constrained more probable than another, which means a constraint exists where a response to a situation is well argued (Pfeffer & Salancik, 1979). Factors such as physical realities, social influence, information, personal preferences, and cognitive capacity are examples of behavioral constraints. The constraint dimension asserts that situational contingencies constrain individuals' effect on organizational behavior. The core model of RDT is dependent on the three concepts of contextual perspective, as well as dependency and uncertainty.

According to RDT, concentrating resources causes a concentration of power in the environment of the organization. The concept of interdependence asserts how organizational interactions cause interdependence. When one organization has more resources than another it increases its control of power (Huo, Zhang, & Zhao, 2015). The level of power depends on the resource value, the more a resource has more value the more power the organization with the resource has over in the environment. Two dimensions of the importance of the exchange of resources namely: the relative magnitude of the exchange and the level of criticality of the exchange (Grimm, Hofstetter, & Sarkis, 2016). A resource is termed as critical if an organization cannot function without it (Esain, Aitken, Williams, & Kumar, 2016). RDT highlights that an organization, which controls critical resources tend to have more power over the others.

Dependency causes uncertainty in the supply of critical organizational resources, and the behavior of an organization is influenced by uncertainty (Kim & Lyon, 2015).

Sources of uncertainties are many; one is organizations dependence constrained by interdependency networks with others (Beh, Ghobadian, He, Gallear, & O'Regan, 2016). when more critical resources are concentrated in the external environment and they are scarce, the level of uncertainty increases (Pfeffer & Salancik, 1979). Actors in the environment may reduce uncertainty by reducing the level of dependency or by giving other organization more powers. Other sources of uncertainty include competition from rival organizations and bounded rationality.

Studies Aligned to Different Conceptual Models

According to the Resource-Based View (RBV), collectively, a firm's human resources are believed to have implications for firm's performance and provide a unique source of competitive advantage (Barney, 1991). A firm’s human capital is believed to be an important source of sustained competitive advantage (Overby & Mitra, 2014). Such advantage is thought to be more pronounced when socially complex resources difficult to imitate, such as trust, friendship, and team-working, are essential components of the production process (Barney, 1991). The supply chain encompasses activities associated with the flow and transformation of goods from the raw materials stage, through to the end user, as well as the associated information flows. Manufacturers wish to position themselves so they have more flexibility and reduced lead time in their supply chain processes, and less obsolete inventory (Kumar & Kumar, 2016). A supply chain set up involves a higher degree of interdependencies and information sharing, the role of trust, commitment, citizenship behavior, and social networks becomes more important, beginning with the firm and extending to various supply chain partners.

The RBV of the firm lends solid support to the importance of high-involvement of human resource management (HRM) system. The RBV states that companies can enhance their competitive advantage by acquiring valuable, rare, and inimitable resources and capabilities (Barney, 1991). These resources include both explicit (e.g. equipment or funds) and implicit (e.g. information or organization culture) resources. Implicit resources generate competitive advantage than tangible resources because they are more difficult to imitate (Pagell, Wu, & Wasserman, 2015). A classical intangible resource, the human capital, can be developed with high-involvement of HRM practices, as they help build a workforce comprising committed employees with a deep tacit knowledge hard to imitate or transfer. The resources created by high-involvement of HRM practices are expected to generate competitive advantage (Olsson & Aronsson, 2015).

Global and Regional Supply Chain

Regional domestic supply chains are confined within a region while the global supply chains are across the globe. Global supply chain involves the organization's worldwide suppliers, large geographical coordinates, higher transportation cost, and sophisticated logistics because of the increased lead time in the supply chain (Kirchoff, Tate, & Mollenkopf, 2016). The global supply chain is characterized by dissimilarities in the culture, language, laws, and currency. Compared to the regional supply chain, global supply chain is more complex and difficult to manage (Fabbe-Costes, Roussat, Taylor, & Taylor, 2014). Global supply chains have higher risks compared to a regional supply chain, because of different taxes, duties and exchange rates, customs clearance, transfer prices, trade barriers, and complex international commercial terms (INCOTERMS).

Qualitative factors like government stability and infrastructure of specific countries are critical for global supply chains. A global supply chain is more complex for a single firm to manage the material flow and add value along the entire system (Steven, Dong, & Corsi, 2014).

In a global supply chain, firms tend to compete regarding cost, quality, and customer response while in the regional supply chain; firms may monopolize the service or the product and not consider such factors (Liu, Wang, & Chen, 2017). Higher returns are attained in the global supply chain when well managed compared to a regional one. This emerges from increased financial performance, international networks, higher market shares, and operational efficiency, which extend their brand names regarding products and services (Huo et al., 2015). Global supply chain entails four factors that shape the global environment namely; global market forces, technological forces, global cost forces, global political supremacy, and macroeconomic forces. A regional supply chain is limited to regional political supremacy and has regional cost forces (Walker, Seuring, Sarkis, & Klassesn, 2014).

The global economy causes homogenization of international scenarios and trade memorandums such as The North American Free Trade Agreement (NAFTA), European Union (EU), and Association of Southeast Asian Nations (ASEAN) that facilitate the process (Dubey, Gunasekaran, & Ali, 2015). With international trade agreements, implementation of the global supply chain becomes effective and less tedious. Information in a global setting is more difficult to manage than in regional set up (Kumar & Nath Banerjee, 2014). While regional supply chain may design qualitative and quantitative tools to align the global setting, the global supply chain designs tools to meet the global market (Lavikka, Smeds, & Jaatinen, 2015).

Strategies to Improve Indirect Procurement on Supply Chain Sustainability

Indirect procurement process. Indirect procurement is termed as the act of buying services or other supplies needed to keep the daily activities of an organization running (Rajesh & Ravi, 2015). A unique way of classifying indirect procurement is the products and services purchased do not form the final product, but support the manufacturing process. Indirect procurement is divided into two main categories namely Maintenance, Repairing, and Operations (MRO) and Operating Resource Management (ORM) items (Rajesh & Ravi, 2015). Buyers who buy indirectly are responsible for purchasing MRO resources like cooling oil, packaging materials, and safety gloves; ORM supplies for office and business service. MRO and ORM items should be managed differently even though they belong to the same indirect sourcing group because they belong to the blue collar or rather industrial goods. The sourcing process is different because of the level of complexity as well as enormous variances in cost and volume (Ntim et al., 2015). MRO materials are expensive and should be sourced under fixed contracts and market price agreement (Matopoulos et al., 2015). ORM materials, on the other hand, are much simpler with a smaller volume of order and can be bought easily as they do not need a fixed contract or inventory management (Matopoulos et al., 2015).

Sourcing MRO materials in many organizations are complex, takes time, and consumes more resources (Schmidt, Adamson, & Bird, 2015). MRO items face a shortage of standardization in multilevel organizations and their important variance in specifications from multiple functions to several branches. MRO items need unnecessary labor that is intensive and results in low productivity which is generated from the repetitive and low value per transaction in MRO procurement (Rajesh & Ravi, 2015). Collaboration between procurement professionals and responsible parties who actively engage in the sourcing and management of MRO items can reduce major costs (Pérez Mesa & Galdeano-Gómez, 2015). MRO items are traditionally regarded to be of low value and low potential for cost savings (Kim & Lyon, 2015). Kim and Lyon (2015) indicated a typical manufacturer MRO's added expenses constitute 16% of the cost of goods sold (COG), but 62% of total requisitions. Strategic objectives in the procurement of MRO items are to reduce substantial costs and to lessen complex processes to manage and precisely forecast the quantity of stock keeping units (SKUs) against fluctuated demand. As a result, centralized indirect procurement should be placed in close collaboration with supply chain management, striving for efficiency and higher cost-saving viability for MRO items (Beh et al., 2016).

Strategic sourcing. Strategic sourcing entails developing channels of supply at the least total cost, embracing activities in the procurement cycle, and is founded on long-term win-win scenarios with major suppliers to offer a competitive advantage to the buyers (Jordan & Bak, 2016). Strategic sourcing is a process of evaluating, selecting, and getting into alignment with the suppliers or their consortiums to improve organizational operations and offer support to the strategic objectives of the organization (Matopoulos et al., 2015). Procurement operations in most companies are loosely coordinated. Different units in the same organization buy a similar product with a different method of purchasing resulting in a different price and service as well. Transforming traditional methods of purchasing to a strategic sourcing is based on three philosophies that drive strategic elements and the required infrastructure to offer support to the procurement process (Steven et al., 2014). The three philosophies are: focus on the value that is delivered in the end, collaborative approach to deal with suppliers, and focus that enhances profitability (Chen et al., 2015). These philosophies result in developing fewer suppliers creating economies of scale and long-standing relationships with the selected suppliers. The supplier and the purchaser gain an advantage by leveraging the market competencies (Rajesh & Ravi, 2015).

Strategic sourcing goes beyond cutting cost, but influences the organization's procurement process, and aligns the business strategy with the sourcing objectives (De Souza & Koskela, 2014). For example, an organization which is evaluating global outsourcing operations to support business growth and meet cost competitive objectives should consider a global supplier (Paulraj, Chen, & Blome, 2015). Effective sourcing strategy helps organizations in mapping out the existing supply market and developing a short-term and long-term plan (Rajesh & Ravi, 2015). A well-coordinated strategic sourcing gives opportunities to clarify and communicate corporate goals and eliminate non-value adding functions, which waste time and resources (Randall, Nowicki, Deshpande, & Lusch, 2014). Redundancies occur when organizations grow some of the redundancies included similar distributed activities, similar products purchased differently among others. Strategic sourcing identifies them and aggregates similar products to eliminate nonvalue added work.

A majority of suppliers are competent in the performance of value-added functions; however, they prefer a relationship that is strategic to allow them to use their full complement of competencies (Rajesh & Ravi, 2015). Some organizations may by-pass the value-added functions and hire an in-house team of experts (Roehrich, Grosvold, & Hoejmose, 2014). By passing the suppliers value-added function may propel them to partner with competitors who are willing to offer collaboration in joint strategies. Partnering with suppliers result to shorter lead times of up to 50% and gives access to higher quality resources. Revisiting supplier relationships and renegotiate contracts based on market conditions is important, especially if the suppliers have higher capacity (Nordigården et al., 2014).

Company executives realized suppliers are untapped resources as expert providers in many areas as they often have more to offer to them than a product or service (Beh et al., 2016). Suppliers have insights, competencies, and expertise in various areas that the company may not have. In designing products, suppliers can have an improved product that can be manufactured easily and is serviceable. Company executives can also offer concepts of marketing, technology pursuits and creative ways of financing (Selviaridis, 2016). Collaboration between a company and strategic suppliers to discuss new product innovations and other mutually benefitting strategies may offer valuable input to corporate objectives and issues (Selviaridis, 2016).

Although strategic sourcing is usually more relevant to direct materials because of the nature of the price which is inflexible, it still can be applied on indirect procurement and to almost every procurement activity (Kim & Lyon, 2015). Companies should consider all purchases as strategic sourcing candidates. Items of negotiation include quality, payment terms, shortened and reliable cycle times, technological capabilities, and services. Because strategic sourcing is so critical and can have such a strong effect on the bottom line, some buyers prefer managing and developing incumbent suppliers by aligning strategies and working toward common goals for the procurement of direct materials only (Cheng, Chaudhuri, & Farooq, 2016). Other companies apply their highly skilled procurement staff to manage and source other purchases including indirect resources, services, utilities, and capital equipment purchases (Denham, Howieson, Solah, & Biswas, 2015).

The strategic role of procurement and the skills employed by procurement professionals should be broadened (Selviaridis, 2016). Negotiation and management skills are increasingly important as the procurement role evolves from transaction-based into more of a strategic partnership with suppliers (Cheng et al., 2016). This means less time is spent ministering and more is invested to understand the supplier/vendor, commodity groups and supply chains that must be evaluated and balanced to attain a company's strategic goals.

Strategic sourcing advancement is not a fluid evolution, rather cycles of thought leadership and technology advancements typically lead to three distinct waves in sequence (Selviaridis, 2016). First is the leverage wave-organizations leveraging information, knowledge, volume/spend, and relationships to optimize price by consolidating suppliers to achieve cost reductions. Followed by the Total Cost Management wave-processes, technology, and suppliers which are evaluated, selected, or redefined to push costs out of an organization's supply chain (Du Toit, 2016). Finally, the Extended Enterprise wave-two focal points are pursued: bringing about tighter process integration through collaborative technology and innovation in supplier and partner relationships, and building or entrenching core capabilities by outsourcing noncore functions (Kumar et al., 2016).

When looking at the macro or top-level view of the approach to strategic sourcing, assessing the difference from the traditional sourcing approach becomes difficult (Selviaridis, 2016). The critical success factors vary slightly depending on an organization’s current situation. Strategic sourcing is not meant to be all-inclusive nor implies that if addressed, success is guaranteed, and do represent a solid checklist for determining how likely an organization will be in achieving and adapting to the objectives of strategic sourcing (Lavikka et al., 2015).

Stakeholder management. Stakeholders are individuals who represent the interest groups served by the outcome of a project or a program (Sims & Kramer, 2015). Stakeholder management relates to the managing of business organizations with market shareholders and nonmarket shareholders. Stakeholder management is conscious, planned, and focused activity that entails clear action plans and outcomes (Ferro et al., 2017). Firms and business managers identify and develop effective strategies to balance the interests of the many diverse constituents. Ferro et al. (2017) affirmed this requirement as being impractical by those who uphold narrow traditional views about the operations of a firm and is not supported by those who uphold narrow traditional perceptions about how a firm function. Despite the criticisms that are leveled against the notion of stakeholder manager, firms are acknowledging constitutions which directly or indirectly affect the goals of the organization (Eriksson & Svensson, 2015).

Gold, Trautrims, and Trodd (2015) indicated managers should develop a formalized and repeatable process which is documented for mapping stakeholders and embedding a clear way for stakeholder participation to achieve more benefits and create added value to the stakeholders. Eriksson and Svensson (2015) discovered 80% of time is wasted by the organization on managing stakeholders. Poor stakeholder management and poor channels of communication, especially in supply chain, contribute to failing in adopting change. Effective stakeholder management entails scaling and pushing to promote change in every corner of the firm (Kim & Lyon, 2015).

According to King and McDonnell (2015), four types of stakeholder's influence strategies, based on the nature of the relationships between the focal company and the stakeholders. The strategies include direct withholding, direct use, indirect withholding, and indirect use (King & McDonnell, 2015). Direct withholding reis strategies that give a resource to an organization with the aim of making the firm change to a behavior (Eriksson & Svensson, 2015). An employee's strike is one of direct withholding strategies. Direct use strategies entail supplying the resource to the firm but with constraints of attachments. Ferro et al. (2017) further asserted that some stakeholders may use direct strategies like manipulation of the flow if the resources of the firm or even indirect strategies like partnering with a competitor who manipulates how resources flow to the firm.

The influence of the stakeholder is determined by the attributes possessed and the way in which various stakeholder groups interact and network (Nagashima, Wehrle, Kerbache, & Lassagne, 2015). Companies with multiple stakeholders coordinated in their efforts are more likely to have stronger social performance. Stakeholder power and influence can be based on a formal or institutionalized basis or legitimacy (Rajesh & Ravi, 2015). Companies with stakeholders who are considered as having economic or institutional power are more influential (Paulraj et al., 2015).

Kaufmann and Astou Saw (2014) and Schmidt et al. (2015) indicated organizations do not use different strategies to deal with different stakeholders at any time but rather they use different strategies to deal with the same stakeholder over time. The strategy that a firm use when dealing with stakeholders varied with the life cycle stage of the firm (Schmidt et al., 2015). Ferro et al. (2017) concluded by highlighting the importance to identify the relative stakeholder's importance and describe the organizational strategy used in dealing with the stakeholders.

Logistics management. Logistics entails the processes used to move materials and products physically in a supply chain (Jordan & Bak, 2016). Supply chain professionals define logistic management as part of the supply chain management responsible for planning, implementing, and controlling effective forward and reverse flow and storage of goods, services, and any other related information between production and consumption (Nordigården et al., 2014). The fundamental idea of logistics management is to meet the requirements of the customer. Every business has different logistics needs and has different ways of evaluating operational success.

A dynamic logistics strategy, according to De Souza and Koskela (2014), enhances operations and increases customer satisfaction. Lack of information causes damage to internal logistics and erodes trust between the departments (Du Toit, 2016). For instance, when the personnel in the stores are not aware of the special campaign, it becomes inevitable that stock-outs will follow and instead of increasing sales, the campaign results will be dissatisfied customers. Such relationships are too usual and can lead to the deteriorations of internal and external relations (Ferro et al., 2017).

Logistics change frequently causing the amount of data available for analysis to grow. The organization should actively strategize to gain competitive advantage and avoid disorder (Kumar et al., 2016). An effective way to implement strategy is to ask questions about logistics processes, evaluate successes and inefficiencies, and alter the logistics management strategy to fit the changing needs of the organization (Zhu, Zhao, Tang, & Zhang, 2015). In logistic management, inbound logistics is mostly overlooked. Companies can save between 20-58% on average on inbound freight spent. Most organizations focus on outbound logistics which is the low hanging (Zhu et al., 2015). Usually, businesses have more pressing matters to attend to and many tend to lack any control over the inbound freight. To drive significant savings and enhance customer service, businesses should gain control of inbound logistics (Schniederjans, Ozpolat, & Chen, 2016).

Supplier management. Supplier management is a differentiation process that recognizes all suppliers are different from each other and there is need to diversify customer-supplier relationships with different strategies. Although the emphasis is based on the role and situation of the customer and supplier, the products and services procured are critical in the interactions between them (Chen et al., 2015). When this triangulation is understood, there is a high possibility of yielding better value from both the services and the products purchased. To achieve this, an organization should involve the executive team in partnerships and should function in a coordinated way to avoid disorganizations to the outside (Esain et al., 2016).

Supplier management is part of a much wider portfolio when procuring products and services delivering value and contributions that many organizations need (Matopoulos et al., 2015). Supplier management happens in the real world when real benefits are derived. Organizations are not able to follow the mass manufacturing model of partner suppliers managing areas of the supply network (Chang, Chen, & Huang, 2015). Organizations have different requirements and various supply networks against which they often develop unique customer solutions that are important to create relationships that benefit both parties (Eriksson & Svensson, 2015).

The requirements to mitigate supplier risk and create value through increased modern innovations and competitiveness has brought on board areas like Supplier Information Management (SIM), Supplier Risk Management and Supplier Relationship Management (SRM), and Social Supply Enterprise Collaboration (SSEC; Rajesh & Ravi, 2015). The financial costs, reputation and competitive damage that have resulted from increasingly global and complex marketplace are well documented. They include 2.5-million-pound fraud that resulted from false invoicing conducted during the financial crisis by the former head of online security, storefront supplier fraud in Alibaba that resulted in the resignation of the CEO and Apple’s continued brand challenges because of

Foxconn's labor violations (Schmidt et al., 2015).

Under the theme of Corporate Social Responsibility and Sustainability, different financial and anticorruption initiatives have been introduced in the global arena (Jordan & Bak, 2016). They include Base1 III, Solvency II, the UK Bribery Act 2010 legislation (Yeoh, 2011), the US's Foreign Corrupt Practices Act (FCPA) and the Dodd-Frank Act that is related to the disclosure of the presence of conflict minerals in products. Corporate Social Responsibility and Sustainability theme has enabled the issue of Supplier Management firmly to the attention of organizational senior executives and board members (Rajesh & Ravi, 2015).

Supplier management cannot be implemented without fundamental change in procurement (Jordan & Bak, 2016). New methods of working require the active and honest engagement of all those who are involved (Paulraj et al., 2015). Businesses should build structured and managed relationships that balance the long-term goals and short-term goals (Busse, Kach, & Bode, 2016). This means that the supplier and the customer must work as part of a network that value each player and is willing to meet the needs of each other (Paulraj et al., 2015). When the customer organization develops its own maturity and in-depth understanding, it must develop more value-adding capabilities to the relationships, which is getting nurtured. This happens at the product or service level, which expands to include an evaluation and sourcing strategy that is based on the provision of major competencies and non-major competencies (Rajesh & Ravi, 2015).

Organizations have invested in the financial management system to streamline the financial, procurement, administrative and management processes related to managing suppliers (Eriksson & Svensson, 2015). Many firms have focused their investments on Send Analysis, Strategic Sourcing and Contract management technologies among others so to realize exponential savings. Supplier management extends beyond the historic focus on transaction-related activities that incorporate supplier intelligence, commercial, and financial risk analysis, effective relationships management, innovative system, and social enterprise collaboration (Gold et al., 2015). Data and dashboard give an insight that can be leveraged directly for effective decision making. Supplier related events have an impact on businesses, for instance, Samsung's unsafe work practices and inadequate management at a supplier's factory in China resulted in Samsung's launch of on-site inspections of 105 of its suppliers in China (Gold et al., 2015).

The drivers influencing fast evolving supplier management market are regulatory requirements, need to create value, increased adoption of supplier management as a cross-functional discipline, increasingly complex business environment which is driven by increased global complexity, regional austerity measures, and changing economic policies (Campos & Vazquez-Brust, 2016). Other drivers include market consolidation, outsourcing, which considers the specialist skills and expertise required, and the potential convergence with the governance, risk compliance market (Denham et al., 2015).

A successful supplier management strategy will carefully discern between an internal and external provision in a way that does not compromise or leverage with the other (Wilhelm, Blome, Bhakoo, & Paulraj, 2016). Organizations should be aligned to ensure products and services flow through the supply chain and the networks involved satisfy the shelf customer. Firms that perform well have high performing networks, which come from an alignment of goals and approaches to improving the efficiency of the processes involved (Eriksson & Svensson, 2015). Effective supplier management practices also entail engaging with the supplier based on access to technology among other capabilities. Supplier management should have access to innovation to enable the organization to offer a premium above the competition (Schniederjans et al., 2016). To maintain the differentiation and its effects on the organization, businesses should manage the suppliers carefully (Jordan & Bak, 2016).

The Supplier management industry is experiencing the effect of social networks and the leverage of social media platforms. Supplier management still lags in the use of the social media just as customer relationship management and supplier relationship management (Denham et al., 2015). For supplier management to grow in the social media, effective aggregation of intelligence from various sources combined with the formal structured process must be used (Dubey et al., 2015). Aberdeen Group's comprehensive research on the merger of the social mobile and cloud offers further context relevant to the social media market (Supply Chain 2020, 2014). Using social intelligence (SO), sources like LinkedIn, Facebook, and Twitter had a dynamic delivery to supplier facing staff over mobile devices (MD), over the cloud, via software and platform as a service offering. Using social mobile and cloud computing services, supplier management collects scope of intelligence and offers a real opportunity for supplier management innovation (Pérez Mesa & Galdeano-Gómez, 2015).

Transactional procurement. Transactional procurement involves reducing the base of the supplier, cooperative negotiation with suppliers, quality interactions, and development of long-term relationships with best suppliers available (Chen et al., 2015). Transaction procurement is linked to better company performance. Activities of transactional procurement entail system interfacing like invoice payments, purchase order maintenance, document review rerouting, and other actions that provide marginal value (Chang et al., 2015). Managers in transactional procurement describe partnerships with suppliers as patterns for purposeful behavior, which delivers value to both parties (Kim & Lyon, 2015).

Three primary elements in transactional procurement are price, quality and conformance, and delivery reliability. Price and quality are critical to organizations committed to just-in-time manufacturing because, with poor quality and delivery reliability, production goes down (Pérez Mesa & Galdeano-Gómez, 2015). Quality is a fundamental element of the three transactional measures but suggests improvement to delivery (King & McDonnell, 2015). Some customers give penalties for late delivery or rejection. The three core transactional elements may vary about their importance (Kim & Lyon, 2015). For instance, decision makers in logistics tend to demand an in-depth analysis of quality, because the capabilities of a customer service contractor are more important than the cost. Contradictions and trade-offs in this triad of primary elements of transactional procurement may arise (King & McDonnell, 2015). Some customers may command a higher price for the supplier sourced. An example of a transactional procurement strategy is the use of sophisticated customers of multi-objective programming decision support systems to find out the balance they want to achieve (Kim & Lyon, 2015).

The core transactional measure in the requirement of the buyers is responsiveness, and the first subjective measure to appear in the balanced scorecard is the perception of responsiveness (Zaremba et al., 2016). Those who are more sophisticated have developed measures of responsiveness like time to answer phone calls (Kaufmann & Astou Saw, 2014). Customers with proactive and long-term supplier development like high levels of communication, continuous improvement of processes between the firms and investments enjoy better performance in general from their suppliers (Montabon, Pagell, & Wu, 2016). Majority of the decision makers continue to search for process innovation from suppliers by either offering turnkey services like flexible logistics or vendor managed inventory and troubleshooting across the business boundary processes to minimize errors (Rajesh & Ravi, 2015).

During the supplier selection stage, culture compatibility, long-term plans, financial stability of the supplier as well as technological capability are factors considered in the transactional procurement (Olsson & Aronsson, 2015). For example, the Global Healthcare Exchange (GHE) which is an electronic marketplace set by companies in the medical supply to serve the needs of the United States of America, and United Kingdom purposes to provide a cheaper, but effective approach (Sims & Kramer, 2015). GHE has attracted the UK market because of the perceived financial technological strength (Pagell et al., 2015). Concepts such as neutrality, confidentiality, service efficiency, and customer equality appeal to the hospitals in the UK that operate under National Health Services principles. Communication is critical in transactional procurement and can be measured at various levels. Inter-organizational systems exchange and integrate information to support important decision making and reduce costs enhancing market responsiveness (Pagell et al., 2015).

When measuring interpersonal skills in transactional procurement, Du Toit (2016) recommend for the following factors to be considered; the proactivity level of the supplier, the ability of the supplier's representative to negotiate and renegotiate in times of uncertainty, information sharing, ability to offer support, and have an open discussion with experts. Satisfactory performance on hygiene factors is not an automatic loyalty to a supplier (Schmidt et al., 2015). The supplier should gain an in-depth understanding of the strategy of the customer and contribute to the attainment of the organizational goals of the customer (Du Toit, 2016). The best practice suppliers have is the tendency to invest time and money relationships to create a spiral of positive result that benefits everybody (Sims & Kramer, 2015).

Customers need the assurance that suppliers are committed to improving their services/ products for their organizational growth (Du Toit, 2016). Suppliers may demonstrate a commitment to customers by giving additional services that contribute to a mutually beneficial partnership. Suppliers who share information and generate strategies that match the needs of the customers have high customer retention (Ntim et al., 2015). Such suppliers also earn trust from customers and once this happens, the relationship between the customer and the supplier move towards joint investments such as asset management. The major form of cooperation between customers and suppliers is the early involvement of suppliers in designing a new product (Rajesh & Ravi, 2015). This gives a significant quality improvement that feeds throughout the supply chain up to the end consumer and enhances transactional procurement processes.

Impact of Information Technology on Supply Chain Sustainability

Process automation. The key tenet in all industrial developments in the 21st century has been automation. Henry Ford in the early 1900s brought about the first significant attempt in the assembly of line automation for manufactures (Du Toit, 2016). In the modern era, decision making support systems and communications tools are available for automating marketing and sales processes (Lavikka et al., 2015). The major aim of the attempts is to automate processes in the supply chain starting with procuring raw materials and ending with consumption. The automation efforts generated from the floors of the factory have spread to the supply chain system with technology as the root of all these developments. Some of the technological automation processes caused drastic disruptions in the industry and create revolutions (De Souza & Koskela, 2014).

The main aim of manufacturing and supply chain related networks is to procure raw materials and transform them into finished products and deliver them to the customer. This entails the automation of the production material processes, information as well as financial flows between businesses and target customers (Kumar et al., 2016). Developments have been on automating and integration of intercompany processes and flow of information and further classified into the following categories: material flow automation, information-inflow, decision automation, automated supervision, and control and relationship automation (De Souza & Koskela, 2014).

The aim of automation is to attain maximum value by establishing automated supply chains (Esain et al., 2016). In the era of computers, programmable controllers replaced systems that were analog. Factory automation has emerged with the advent of local area networks, with cell controllers controlling many machines and factory controllers that control many cells (De Souza & Koskela, 2014). Raw materials can be fed into a cell and become product stored in an automated storage and retrieval system (ASRS), done automatically with the help of manufacturing controllers and the warehouse management system.

The theory of automation has assisted in the development of real-time control systems and systems, which are supervisory controlled (Olsson & Aronsson, 2015). The processes in the supply chain management can be automated using IT to increase efficiency. The enterprise application integration software electronically connects trading partners with the user's enterprise systems. Transport Management System (TMS) is automation software that streamlines and integrates transportation operations while the Warehouse Management Systems (WMS) is automated to make distribution centers and warehouse centers run efficiently and at a profit (Huo et al., 2015). Advanced Planning and Scheduling (APS) technology assists in matching procurement and production activities effectively to the actual customer demand.

System to system integration. System integration as the melding of divergent and often incompatible technologies applications, data and communications into functioning working structure that is uniform (Kumar & Kumar, 2016). System integration involves many aspects of technology and processes for different organizations. Yuan, Liu, Chong, and Tan (2016) stated four eras of integration. Initially, there was the stovepipe integration, which had systems that had limited communications with the neighboring systems and were poorly equipped. However, they had valuable organization data and were referred to as the legacy system. The second era was the point to point approach which integrated the systems that needed to communicate (Busse et al., 2016). The Enterprise Resource Planning (ERP) was introduced as a solution to the high-cost point-to-point systems. Later on, company vendors like SAP and Baan introduced giant systems that covered many functions, which were previously done separately (Campos & Vazquez-Brust, 2016). The major benefit of ERP was its ability to integrate with other vendors. The Enterprise Application Integration (EAI) solution was introduced and had products that were specifically designed for facilitating the integration of the legacy and ERP system (Kumar et al., 2016).

The process of system integration has been enhanced by the invention of the internet. It enhances communication between systems that make decisions of OEMs, their suppliers, as well as customers (Busse et al., 2016). Suppliers could interact and initiate actions within the information system of each other by predefining agreements that trigger specific events across systems. This enhances the automation of a supply chain system from the angle of information (Meixell & Luoma, 2015). For instance, a supplier fulfills an order; automatically, requests are generated to the producer who in return supplies the requested order. There is less human intervention needed at each level as the systems are integrated to each other (Chen et al., 2015).

The computer systems of customers and suppliers can make intelligent business decisions (Nordigården, Rehme, & Chicksand, 2015). If the price of the supplier goes down below that of the competitors the application of the customer automatically moves the supplier upon the choice list of the vendor (Campos & Vazquez-Brust, 2016). When a customer consults the vendor of choice list, the cheapest supplier comes at the top of the list and is able to make a trade as opposed to others. System integration allows rapid two-way information flow and enables just-in-time (JIT) delivery reducing the cost per transaction streamlining the way resources flow within the supply chain (Schniederjans et al., 2016).

System integration involves monitoring the process in the supply chain and taking corrective actions to enhance communication within the system (Esain et al., 2016). For instance, when a truck carrying replenishment of a critical component breaks down it affects the production schedules of the OEM (Du Toit, 2016). It needs real-time decision making to monitor the event and take appropriate corrective action like sending another shipment by a quicker medium or rerouting another shipment. With integrated systems, decision making becomes easier regardless of the day and time (Zhu et al., 2015). Aligning the enterprise to meet customer needs 24 hours a day and 7 days a week via telephone, e-mail or Internet and to be accurate is very tedious and challenging. A system to system integration steps in to ensure an efficient and effective smooth running of business (Rajesh & Ravi, 2015).

A system to system integration increases accuracy and reduces costs in an organization (Kim & Lyon, 2015). In situations where people are paid overtime to handle emergencies, a system to system integration cuts the extra labor and cost needed (Steven et al., 2014). Integration unlocks the existing information assets and shares them across many applications and business processes. It facilitates firms to create an infrastructure to enable application exchange and update business-critical data no matter the physical location (Kim & Lyon, 2015).

System reliability. Multiple customer segments and products make it difficult for an organization to deliver the expertise needed to keep many promises they made (Meixell, & Luoma, 2015). The solution is to have reliable systems that can manage various interactions and make follow-ups on items that align with the mission and vision of the organization (Eltantawy, Giunipero, & Handfield, 2014). The system should have customer interactions, intelligent work, data mining, decision making, customer contact, and link into the legacy systems. A reliable system creates operational efficiencies via alignment of the front office and back office procedures in support of the promises rendered to the customers and the goals of the business for growth, efficiency, and reliability (Gold et al., 2015).

To provide integrated solutions to the challenges facing the vendor/partner communication, Partner Relationship Management (PRM) uses the internet system (Kim & Lyon, 2015). The effects of PRM are organizing leads, profiles, and documents in the repository, centrally located and can be updated and viewed in real time over the Internet (Busse et al., 2016). Other systems of PRM such as extranet system assist the user to view data in relation to their characteristics (Esain et al., 2016). Each user can see information in relation to their permission level and specific interests. Good system reliability allows the organization to track the user activity and offers tighter control over communication (Overby & Mitra, 2014)

Impact of Human Resource on Supply Chain Sustainability

Parties involved in the supply chain system include manufacturers, suppliers, transporters, warehouses, retailers, and eventually customers themselves. In every organization, supply chain includes all functions involved in receiving and fulfilling a customer request (King & McDonnell, 2015). Supply chain managers face uncertainty because of turbulence and market volatility. There is the need to develop a strategy that enables them to match the supply and demand at an affordable cost. Global supply chains are eventually turning into dynamic process networks where companies connect in novel combinations based on specification and requirements of individual work (Kumar et al., 2016).

A dynamic environment needs effective communication, proper team management, and an effective lifecycle innovation. This can only be achieved with a motivated and committed human workforce (King & McDonnell, 2015). Successful companies consider human capital as the most significant asset. Facts and figures are the quantitative elements of successful management, yet the qualitative, i.e. the cognitive aspects, are those that make or break an organization (Pérez Mesa & Galdeano-Gómez, 2015). Employees in an organization are individuals with own mental maps and perceptions. Organizations should device individual and group psychology to encourage the commitment of employees to achieving organizational goals (Montabon et al., 2016).

Every individual selects an occupation bearing in mind their wishes and possibilities. Organizations should set up their structures, define jobs, develop a recognizable, and retention culture. The formation of specific cultures apart from the activities, which it deals with, is dependent on the willingness of the old employees to adapt to the environment changes (Kauremaa & Tanskanen, 2016). The staff should be ready to embrace the culture of the organization (Kaufmann & Astou Saw, 2014). Establishing an appropriate culture encourages individual members and team activities to create a stimulating and pleasant environment, which will assist them in attaining their goals. Tasks not defined, inability decision making and unpleasant working conditions cause dissatisfaction among employees, high staff turnover, and poor organizational results (Rajesh & Ravi, 2015).

The aim of human resource management is to assist an organization to attain its strategic goals. In managing people, there is the need for an interdisciplinary approach for people who are observant in their work (Kumar et al., 2016). The organizational manager is required to be trustworthy and with no discrimination. He or she must be well educated and should set clear roles and responsibilities for employees. Managers who motivate employees both internally and externally attain good workforce (Kaufmann & Astou Saw, 2014). To achieve the integrity of the management system, managers are the bond between fulfilling the needs of the employee and attaining the goals of the company.

Organization human resource system (HR) is the repository of information about the organization-specific knowledge, employee skills, and abilities, relationships, and values that relate to work among its employees (Kim & Lyon, 2015). HR is generated socially through the interactions among employees and managers and is embedded in the unique history of the organization (Touboulic & Walker, 2015). Such knowledge if well analyzed enables managers to attract, develop and retain competent employees. This surpasses the competitors and contributes to sustained competitive advantage (Touboulic & Walker, 2015).

Personal competencies such as employee skills and abilities are considered as a valuable source of competitive advantage of an organization. Effective management entails organizing the competence of an employee to the objectives of the organization. King and McDonnell (2015) noted individual competences alone do not generate competitive advantage in the organization unless, they are strategically aligned by the manager to meet the organizational goals and the market demands (Rajesh & Ravi, 2015). Employees in an organization possess similar competencies in executing their duties but attain very different results for their organizations. Competitive advantage is not dependent on the presence or absence of competency but in the way, they are managed (Montabon et al., 2016). In that regard, organizations find it prudent to do an analysis between HRM practices of a company and the various personal competencies of its employees.

For HRM practices to generate better performance, they must meet the following conditions: possession of well-developed skills by the employees, the motivation of the employees to apply their skills, and creation of a feedback platform (Esain et al., 2016). These conditions are termed as high involvement HRM practices and they contribute to increased employee motivation, effective operations, and better organizational performance. HRM practices are purposed to advance the skills of employees and facilitate employee incentive as well as participation (Beh et al., 2016).

The skills of the employee are unique and they enable him or her perform duties effectively. These skills can be attained before employment or during the in-service employee training (Zhu et al., 2015). Managers should do a selective hiring system to enhance the skills of the employee. Selective hiring can be done based on the employee ability to be trained and their flexibility during the session of training (Du Toit, 2016). King and McDonnell (2015) defined trainability as the ability of the employee to gain necessary skills needed to perform his or her duties and attain the goals of the organization. Flexibility is termed as the ability of the employees to acclimatize themselves to fit into various work conditions such as teams and groups (Olsson & Aronsson, 2015).

One advantage of selective hiring is to ensure talents and potential talents are placed in the right place within the organization. When selective hiring is done, talents and potential talents are placed in an organization to serve as fundamental resources for competition. Organizations which initiate training programs above selective hiring develop firm-specific human capital and increase the depth as well as the breadth of employee skill (Montabon et al., & Wu, 2016). Depth is defined as the ability of employees to attain skills above the average industrial level and that assist them to be better in their duties (Pagell et al., 2015). The breadth of the skill is the employee's ability to gain new skills through the period of training to enable them to perform different duties if need be (Purvis, Gosling, & Naim, 2014). This increases diversity in the organization and enhances unity.

The purpose of incentives is to motivate employees to use their knowledge and skills to specific tasks and attain the goals of the organization. Some incentives can be based on performance while others can be based on goals (Schmidt et al., 2015). The rapid changes in the work environment and integrated strategies of manufacturing require employees to remain flexible and innovative to confront unexpected and complex scenarios (Kim & Lyon, 2015). Employee's processes are difficult to evaluate the organization and their performance. Sims and Kramer (2015) described the process and performance-based employee incentives are implemented at the individual level, making it difficult to create cooperation and teamwork (Hogan & Coote, 2014). This contrasts goal-based incentives, which are designed at the organizational level and tend to motivate the employees from every section to attain the strategic goals of the organization (Du Toit, 2016).

Goal-based incentives motivate employees in two ways: (a) they consciously affect the motivations and employee behavior that leads them to attain them, (b) identification and rewarding of the best performing employees contribute to internal motivation to everyone (Rajesh & Ravi, 2015). Goal-based incentives have the characteristics, which effective incentives should contain including the ability to be sensitive to efforts of the employees, effective fundamental performance indicators, and consistency with the organizational goals (Purvis et al., 2014). Propose goal-based incentives as an effective reward system that may improve the motivation of the employees to attain the goals of the organization.

According to Dubey et al. (2015), high involvement of HRM system allows employees to understand ways they can improve their jobs, through the formation of problem-solving groups and creating a feedback system that delivers feedback information to the employees (Eriksson & Svensson, 2015). Problem-solving groups symbolize the organizational structure that values the opinions of the employees by creating a platform for effective communication. Delivering feedback symbolizes a mechanism that allows an employee to improve their work performance and can be used to reinvent processes (Du Toit, 2016). HRM processes engage employees in organizational processes and make them own up to the achievements as well as failures, especially in a dynamic environment like supply chain, which requires interaction as opposed to the individual effort (Du Toit, 2016).

Organization leadership needs to invest adequately in recruiting, training and retaining employees who possess important knowledge and abilities required by the organizational strategy (Schniederjans et al., 2016). This way, a firm creates a human capital that is adapted to the needs of the competitive market situation and that is highly firm-specific (Denham et al., 2015). Human resource management practices are a valuable organizational factor because they are the principal means of behavior reinforcement among employees to meet the needs of the organization. Effective HRM practices are positively correlated with improved organizational performance and are a source of competitive advantage (Du Toit, 2016).

Transition

In Section 1 of the study, I included the background of the problem, the problem statement, purpose statement, nature of the study, the research question, interview questions, conceptual framework, operational definitions, assumptions, limitations, delimitations, significance of the study, and provided critical synthesis and analysis of a review of the professional and academic literature. In Section 2 of the study, I highlighted the purpose statement, discussed the role of the researcher, the participants, research method and design, population, sampling, ethical research, data collection instruments, data collection technique, data organization technique, data analysis, reliability, and validity. In Section 3, I presented my study findings, provided a detailed discussion on the application to professional practice, the implication to social change, study recommendations for actions, recommendations for further research, my reflections, and conclusion.

Section 2: The Project

The objective of this qualitative multiple case study was to explore strategies some procurement managers responsible for food processing indirect procurement used to enhance supply chain sustainability. In Section 1, the focus of the literature review was to establish a framework from scholarly resources. Section 2 starts with the purpose statement, the role of the researcher, and a description of the participants in the study. These sections are followed by the research methods, research questions, population, data collection, data analysis, the description of the reliability, and validity of the study.

Purpose Statement

The purpose of this qualitative multiple case study was to explore strategies some procurement managers responsible for food processing indirect procurement used to enhance supply chain sustainability. The targeted population was procurement managers from at least two food processing companies in Nairobi, Kenya, who had successfully implemented strategies for supply chain sustainability. The implication for social change was the reduction of supply chain costs, which could result in reducing manufactured products prices for customers in Kenya.

Role of the Researcher

According to Bryman and Bell (2015), the researcher is a key instrument, especially in qualitative research approaches and thus he or she must remain unbiased. My role as the researcher was to design the case study and to collect, analyze, and report case study evidence. I sought permission and approval before implementing the research plan. To collect data from the respondents, I used semistructured interviews from two food processing companies in Nairobi, Kenya. The study design was according to Walden University's Institution Review Board (IRB) regulation.

I directly interviewed managers of companies to get firsthand information from the respondents (Dasgupta, 2015). According to McCusker and Gunaydin (2015), qualitative researchers use interview protocols to achieve unity and enhance the reliability of the research instrument. A semistructured interview guide was essential to ensure my role as the researcher followed the same protocol with each participant. My knowledge and experience of working in supply chain operations were suppressed not to influence the research respondents (Tunarosa & Glynn, 2017). My knowledge of the concepts and strategies used in indirect procurement strategies in food processing companies was not shared to influence the opinions of the participants (Dasgupta, 2015).

I followed the 1979 Belmont Report, an ethical framework for researchers to avoid harm and maximize beneficence, autonomy, and justice for all participants. The Belmont Report entails instructions for researchers to have respect for persons involved in the study, beneficence, and justice (Dasgupta, 2015). The Belmont Report also offered protection of the participants against using individuals or groups in research studies without prior consent. I used research ethics to protect the rights of the research participants, which included getting the consent of the participant before conducting the interview, maintaining anonymity and confidentiality of the participants during the research period (Burdon & Harvey, 2016).

As a researcher, I directed and facilitated research participants to share their experiences in supply chain management (Bryman & Bell, 2015). The interview questions to the participants were the same and in the same order, open-ended for clarity, consistency, and minimized bias. I rigidly followed the interview protocol to avoid influencing the response of participants. (Edwards, 2017). The justification for using an interview protocol was for consistency and for the restriction to stay within the designed research interview process (Tunarosa & Glynn, 2017).

Participants

Participants for this study were chosen through purposive sampling approach to ensure participants with most information on the strategies used in indirect procurement in supply chain management were represented adequately (Saunders, Lewis, & Thornhill, 2015). The eligibility criteria were procurement managers who were using successful strategies to manage indirect procurement processes on supply chain sustainability (Mertens & Hesse-Biber, 2015). The process of accessing the participants and meeting ethical requirements began with obtaining permission from Walden University IRB. I contacted four food processing company managers through e-mail to arrange access to the participants who met the eligibility criteria and thereafter contacted the potential participants (Dasgupta, 2015). I determined participants met the criteria by checking if they had been a procurement or supply chain manager for at least 12 months, and been a full time employer as highlighted in the letter of cooperation (Appendix D).

Each potential participant received information about the benefits, risks, and confidentiality of the study via a consent form. I provided informed consent form to each participant and obtain the participant signature on agreeing to participate in the study, and plan with each participant to select a place of their choice to hold the interview

(Sotiriadou, Brouwers, & Le, 2014). Participants for this case study were procurement managers in food processing companies in Nairobi, Kenya who had experience in strategy implementation in indirect procurement and supply chain management.

For a successful qualitative research, a working relationship with the participants needed to be established (Marshall & Rossman, 2016). According to Saunders et al. (2015), to help build rapport and encourage participants to complete the study, a working relationship was developed by consistently communicating with them through e-mails, telephones, and inviting them to professional networking platforms like Supply Chain Management Group and Global Procurement and Supply Chain Management Professionals. I informed the participants of their ability to withdraw from the study at any time without being discriminated (McCusker & Gunaydin, 2015). All the four initial participants declined to participate in the study by not responding to e-mails. This lead to recruiting other participants.

People can feel wronged without being hurt by research; people may feel as if they are objects of measurements without respect for their individual values and sense of privacy (Dasgupta, 2015). The psychological injury could result from the consequence of data collection and publication. Data were collected in a manner that permitted participant flexibility with responses and an enabling environment that participants shared their thoughts and experiences freely (Burdon & Harvey, 2016). Written data collected from the interviews remained secured in a personal safe for a maximum of 5 years and thereafter be shredded (McCusker & Gunaydin, 2015).

Research Method and Design

Research Method

The research method for this study was qualitative. Qualitative research data remained the dominant source of information that provides insights into human behavior and experience for understanding of realities (Midgley & Wilby, 2015). A qualitative method as characterized by its relationship between data and theory, which is different to the hypothesis-testing quantitative approach (Lyall & King, 2016). I was not interested in testing a hypothesis and examining the relationships or differences among variables; hence, the qualitative method was the appropriate method for the research. The mixed method was not appropriate because there was no need to both explore and examine quantitative and qualitative data to address the specific business problem (Tomos et al., 2015).

A qualitative research combines observation, documentation, and interviews to collect data because the method allows participants to express their insight of the phenomenon in their own words (Midgley & Wilby, 2015). Mertens and Hesse-Biber (2015) found qualitative research method more useful for research that focuses on human and organizational process and considers the uniqueness of the human experience. A qualitative method is the most effective methodology to explore a business problem based on the experiences of the sampled respondents and hence is best suited for the study (Tomos et al., 2015).

Research Design

The case study was appropriate for this study. A qualitative case study design enables researchers to explore a real-life business case, process, or systems and is bounded over time with activities of collecting a variety of data types (Kruth, 2015). Using a multiple case design was appropriate to explore a wider scope of successful indirect procurement strategies procurement managers use in procurement. Ethnographic design was not appropriate as it involves the collection of data through observation of certain group behaviors, and interviewing over a period, where the researcher is immersed in the day to day activities of participants (Kruth, 2015). Phenomenological research is a design in which a researcher seeks to identify single or several individuals' common human experiences with phenomena, which makes it inappropriate for the study (Wilson, 2015). Grounded theory was not appropriate since it is not flexible compared to case studies (Cho & Lee, 2014). Narrative researchers rely on spoken or written words, and it focuses on individuals lives as told by their individual stories (Kruth, 2015).

Case study was the most appropriate because I sought to explore strategies some procurement managers responsible for food processing indirect procurement used to enhance supply chain sustainability. The case study design provided the best opportunity to encourage the community of procurement managers and explore their strategies in supply chain management (Tunarosa & Glynn, 2017). I also used the case study design to give researchers the ability to explore, examine, and contextualize knowledge and experience of the participant into a single problem (Bryman & Bell, 2015). Case study research enables the in-depth, holistic study of a problem in a setting that is realistic (Abro, Khurshid, & Aamir, 2015). Because of this, case studies are a common research design in business research (Mertens & Hesse-Biber, 2015).

Population and Sampling

Defining the Population

The target population was procurement managers in food processing companies in Nairobi Kenya. Within the targeted population, I selected purposively two procurement managers based on the criteria of sustainability implementation in indirect procurement as per their understanding of the concept (Marshall & Rossman, 2016). The purposively nonprobability sample was in alignment with the research question: What strategies do procurement managers responsible for food processing indirect procurement use to enhance supply chain sustainability? The purpose of selecting this group was to set apart an information-rich group to provide best insight into the research question (Saunders et al., 2015). I accessed participants contact information through visiting six companies to collect telephone and email addresses, four companies declined and two accepted.

The selected procurement managers were representatives of all other procurement managers in the food processing companies in Nairobi. Participants were of different ages, ethnicity, education level, levels of experience, and gender. Their business activities encompassed strategies used in indirect procurement in supply chain management in food processing companies (Marshall & Rossman, 2016). Their enterprise diverged in terms of structure, years in operation and level of success. The purposeful two participants were justified and anticipated in qualitative phenomenological studies as a single manifestation of the data collected was valuable to understand the dynamics of a topic (Ellis, 2016).

Sampling

I waited for IRB approval and selected a purposive sample of the two procurement managers in food processing companies in Nairobi. According to Edwards (2017), a purposive sample has four components of research namely: location of activities, participants, actions to be observed, and course of events shaped by the engagement of the participants. The location where the events took place were in Nairobi, Kenya, the participants were procurement managers in food processing companies, and actions were strategies used by procurement managers to enhance supply chain sustainability.

A sample size of the research study is dependent on the concept of saturation when no new information or themes occur in the data (Gibbs, Shafer, & Dufur, 2015). Researchers occasionally use smaller size for purposive sampling. Purposive sampling assists researchers to understand the lived experiences of members of a target population group, which would fall in the same strata (Saunders et al., 2015). The aim of purposive sampling was to select a group that is rich in information to gain insight into the research questions that would satisfy the audience of research. During the interview, data saturation was attained through member checking. According to Yin (2014), case studies give researchers flexibility and opportunity to achieve saturation through in-depth interviews.

Edwards (2017) defined snowball sampling as a technique in which existing participants are asked to refer another participant to the study. A researcher should be flexible and practical when determining the sample size, and an adequate sample is central to a credible analysis and reporting (Gibbs et al., 2015). I used snowball sampling as a contingency plan for the respondents who may have opted out of the study. However, the participants who had authorized I conduct research in their organizations did not opt out of the research process.

Data Saturation

Data saturation is an important factor to consider when making qualitative sample size decisions. Pushnoi (2015) defined saturation as the point when the data collection process does not affect any new relevant data. Saturation is related to the unlikeness of no additional insights and is a common theme in qualitative research influenced by many factors (Sotiriadou et al., 2014). Saturation is important in qualitative research giving full expression to the values desiring to communicate via the research (Gergen, Josselson, & Freeman, 2015). The first interview captured in-depth data; the second interview served as a follow up while the third interview provided an opportunity for member checking (Abro et al., 2015).

Researchers have several types of sampling strategies and techniques to consider to achieve goals of qualitative research. According to Tomos et al. (2015), purposive sampling for case study design is less expensive than random sampling and more conducive to the study. I used purposive sampling technique to gather participants for the study. Purposive sampling is a nonprobability sampling technique where the participants focus on individuals who could offer valuable insights regarding the phenomenon considered in the study (Gligor, Holcomb, & Stank, 2013).

Purposive sampling needs a researcher to select specific participants with an explicit purpose in mind, with the aim to address the purpose of the research (Bryman & Bell, 2015). The technique is designed to select a small number of cases or participants that yields more information about the specific phenomenon (Tunarosa & Glynn, 2017). Dasgupta (2015) further posited there is no sample size which is necessary for qualitative studies. There is need to ensure the sample size is not too small to attain data saturation or too large resulting to difficulty to conduct data analysis. Large sample sizes result to less justice to the richness of data collected (Ellis, 2016). Small sample size works better with a good purposive sampling procedure (McCusker & Gunaydin, 2015).

Ethical Research

While conducting a study, safety of the participants and confidentiality is important (Ellis, 2016). The study was not controversial or sensitive in nature and did not present any ethical concerns. I followed Walden University’s IRB guidelines; I did not start my study until IRB approval was granted. Edwards (2017) described the role and responsibilities of a researcher is to protect the anonymity of the informants by assigning numbers or even aliases to the participants in order to gain support from the participants, I explained the purpose and benefits of the study to them (Gibbs et al., 2015).

Participation was voluntary and no incentive was given to any participants (Ellis, 2016). Participants were given the choice to withdraw from the study even after it has begun. Refusal to participate or withdrawal from the study did not involve penalty or loss of benefits to the participants of myself. The primary ethical issue, which demanded attention, is that of confidentiality and privacy of the participants (Midgley & Wilby, 2015).

Participants were required to sign and return an informed consent form (Appendix B) to ensure they agreed to participate in the study and their identities remained confidential (Marshall & Rossman, 2016). I used fictitious names of people and institutions. The need for informed consent was to ensure participants entered the study voluntarily and understood the study focus as recommended by the experts (Dasgupta, 2015). Data collected was kept in a password protected computer and stored in locked office cabinet. Data to be disposed of through shredding of hard copies after 5 years of study completion. All electronic computer files to be deleted from computer hard drives and other digital devices after 5 years. I am the only person with access to the raw data, to be destroyed in 5 years, after completion of the study, in compliance with Walden University’s requirements for DBA doctoral study (Gibbs et al., 2015).

Data Collection Instruments

The objectives of the study during the data collection period were to stay aligned (Abro et al., 2015). The researcher must have a clear interpretation of the purpose of a study and have an analytical judgment throughout the data collection period (Ellis, 2016). After the approval from Walden University's IRB to conduct the study, potential participants were contacted via e-mail and a letter in person, in form of a letter of cooperation (Appendix D). The letter indicated the purpose of the study and the minimum requirement of the interviewee needed to be part of the study. According to Edwards (2017), qualitative research is the main instrument to collect data. I was the primary data collection instrument for my study, using semistructured interviews following interview questions (Appendix A).

The interview protocol (Appendix C) was the secondary instrument throughout the interview process with the sampled participants (Ellis, 2016). The interview protocol was to ensure that interview questions (Appendix A) give specific information needed to address the objectives of the study. I conducted semistructured, face-to-face interview sessions and observed participants' behavior while responding to the interview questions and gathered qualitative data for the study. The participants used the same interview protocol throughout the study to ensure consistency of the semistructured interviews (Edwards, 2017). I used the same interview protocol for all the participants.

Semistructured interviews involved open-ended questions that allowed participants to express and share their perspectives, knowledge, and insights using their own words. Participants were made to feel relevant and important during the study period (Saunders et al., 2015). Participants were encouraged to share their experiences and to believe their opinions are important. Semistructured interviews are the most effective ways for a researcher to gain a deeper insight of the experiences of an individual and address fully the research question (Midgley & Wilby, 2015). The use of semistructured interview questions addresses the suggested inquiry of research. The responses of the participants to the interview questions were analyzed using content analysis (Midgley & Wilby, 2015).

Member checking is a tool to assure credibility and validity (Pushnoi, 2015). Dasgupta (2015) defined member checking as a process where the researcher provides participants with the opportunity to review the interpretation of their feedback in support of data completeness and effective interpretation accuracy. The interview transcribed data and transcript were sent back to the participants to ensure provision of accurate data and member check for accuracy (Burdon & Harvey, 2016). A few additional questions were asked to expand upon original answers to offer additional information. Triangulation is the process of validating findings of the study through multiple sources of data, individuals, theories or different methods of data collection (Dasgupta, 2015). To ensure reliability, confidence, and accuracy of data, I used different sources of data triangulation including semi-structured interviews and observations.

Data Collection Technique

The researcher is the major instrument in data collection in qualitative studies. The participant needs to demonstrate what strategies do procurement managers responsible for food processing indirect procurement use to enhance supply chain sustainability. Data collection entails gaining permission, developing a strategy for sampling, identifying methods of recording information, data storage, and anticipation of ethical issues (McCusker & Gunaydin, 2015). I identified four food processing companies within my location through the Internet, requested for permission to interview one participant from each company via e-mail in form of a consent form (Appendix B). All four companies did not respond to my request. I identified and requested permission from two more who accepted my request, which I collected the signed forms in person from their organization.

After gaining access, I requested their consent to record the interview with participants at their workplace during normal working time and collected data through recording. During the interview process, I built a rapport and resolved issues that arose from the data collection process (Burdon & Harvey, 2016). Interviews allow interviewers the flexibility to refocus the question or prompt for extra information when something novel emerges during the interview process (Bryman & Bell, 2015).

The credibility of the study was enhanced using triangulation. Using multiple data collection sources provides more comprehensiveness to case studies (Tunarosa & Glynn, 2017). Of the four triangulation methods: (a) data source triangulation, (b) investigator triangulation, (c) theory triangulation, and (d) methodological triangulation, I used methodological triangulation as it allowed the study to use different sources of information to increase the validity of the study and because it suits the different stakeholder groups that may have vested interest in the study (Dasgupta, 2015).

Member checking allows the participants of the study the opportunity to rectify errors and critique interpretations (Edwards, 2017). After the interviews, I transcribed each interview and gave respective participants a summary to check and confirm for accuracy. I gave each member 1 week to check and review. However, no changes were made. I used member checking in the study because member checking allowed the participants the opportunity to confirm for accuracy.

I used semistructured interviews and open-ended questions to ask probing questions or rephrase questions, which could not be well understood (Tunarosa & Glynn, 2017). There are limitations in semistructured interviews. One is participants may get interrupted during the interview process especially when interview is conducted within the work set-up. The interviews took between 30 to 50 minutes and were conducted within the participant organization conference room.

There was a conducive environment, which enabled the research process to progress without any interruption. I gathered primary data from participants through recorded interview via a Sony digital voice recorder model ICD-PX440 using semistructured, open-ended interview questions (Appendix A). I used an iPhone 6 cell phone recorder as back up for the primary recorder. The Sony digital recorder is most favorable because it is easier to transfer data for analysis compared to the other devices, and I would recommend this tool to other researchers.

The interview technique was appropriate for this qualitative study because interview questions enhance the study of human affairs and behaviors (Marshall & Rossman, 2016). The interview questions a researcher uses should contain procedural guidelines for novice qualitative researcher to take after (Edwards, 2017). Interview questions were used to conduct interviews and to serve as reference during the interview session (Saunders et al., 2015).

Data Organization Technique

Data collected were segmented by case and information source. Interview transcripts were coded utilizing NVivo 11. I compared NVivo with Atlas.ti and found both achieve the same purpose of qualitative data analysis (Ferreira, Moreno, Brandao, & Cerqueira, 2016). Kaefer, Roper, and Sinha (2015) argued that NVivo and Atlas.ti are recommended as good choices for qualitative analysis. I labeled participants files as M1 and M2 to ensure privacy, protect confidentiality, and data tracking. I found NVivo user-friendly compared to Atlas.ti. Conceptual labels were created by the themes that emerged from the data within the software (Mertens, & Hesse-Biber, 2015). I chose NVivo because it offers the researcher a tool to organize, manage the data and can keep different types of documents in one place (Dasgupta, 2015). NVivo is a qualitative data analysis and an information management tool.

I stored in both printed and written data in a locked file cabinet for 5 years. I used my personal computer to store all electronic data that was protected with a password (Ellis, 2016). I used an electronic location because it is a safer place than physical copies because it can be retrieved easily and can also be backed up to a different location. NVivo was used to store data and organize data for easy referencing (Mertens, & Hesse-Biber, 2015).

Data Analysis

Triangulation techniques were used as part of data analysis. Triangulation is defined as using two known points to find an unknown third point (McCusker & Gunaydin, 2015). Out of the four triangulation methods: (a) data source triangulation, (b) investigator triangulation, (c) theory triangulation, and (d) methodological triangulation, I used methodological triangulation as it allowed the study to use different sources of information to increase the validity of the study and because it suits the different stakeholder groups that may have vested interest in the study (Dasgupta, 2015). RBV explains that collectively, a firm’s human resources were believed to have implications for firm’s performance. The firm’s participants provided useful information during the study as a source of sustainable supply chain competitive advantage (Overby & Mitra, 2014). I used methodological triangulation to collect data from multiple data sources of the company. Methodological triangulation will allow a researcher to corroborate the evidence from source with that of another one (Edwards, 2017). Methodological triangulation provided me with a more comprehensive picture than just using a single type of data (Gibbs et al., 2015).

Methodological Triangulation

Different sources of methodological triangulation increase the validity of case study research findings. There are two types of methodological triangulation namely: across method and within a method (Ellis, 2016). The across method combines quantitative and qualitative data collection techniques which are not pertinent to this study (Dasgupta, 2015). I used within-method which uses two or more data collection procedures of the same study. According to Edwards (2017), there are three types of data sources: time, data, and person. The research results can be enhanced by the triangulation derived from various sources (Mertens & Hesse-Biber, 2015). Triangulation enhances the findings of the study through the confirmation of a finding using two or more measures that are independent (Abro et al., 2015).

Recursive Five-Phase Cycle

I used recursive five-phase cycle to analyze qualitative data (Yin, 2014). The steps were: (a) compiling, (b) disassembling, (c), reassembling, (d) interpreting, and (e) concluding. Compiling was the process of organizing raw data, which was the initial step in data analysis (Essary, 2014). On this phase, I transcribed notes from the interview on the same day I conducted the interview to avoid losing crucial information that could have affected the quality of my research findings. Disassembling involved grouping data to form themes. I used Nvivo software to code and create emerging themes from the coding process (Essary, 2014). Reassembling was the third phase, which involved arranging data with similar coding categories together in tabular form. I categorized data in order of significance to answer my research question (Yin, 2014). Interpreting was the fourth phase. The interpretation of data was by factoring in the interviews and themes formulated from Nvivo programme. I conducted study member checking to ensure interpretation accuracy. Conclusion was the fifth phase where the researcher had an opportunity to communicate the findings and concluding (Yin, 2014)

Data were segmented by case and source of information. NVivo was used to code the interview transcripts. NVivo software supports qualitative and mixed methods of research (Abro et al., 2015). I used NVivo to organize, analyze, and find themes of the data collected. I also used NVivo to discover the connections in the data and finding new insights, identify common patterns by looking at regularities, convergences, and divergences in data (Mertens & Hesse-Biber, 2015). I used an interview process to code each interview in separate and chose a common coding framework for all the data (Bryman & Bell, 2015). Data integration involved triangulation of data from various informants. Data integration provided a better picture than could be provided by each source on its own (Abro et al., 2015).

Reliability and Validity

Reliability

Reliability is the consistency across individual researchers and other research studies (Ellis, 2016). The reliability of this study included an in-depth description of the data collection processes, analysis, and interpretation (Sotiriadou et al., 2014). The native comprehension of reliability is that other researchers ought to arrive at the same conclusion if they investigated a similar event with the same data. To enhance reliability findings, data transcriptions were recorded accurately (Dasgupta, 2015). I preserved all the documents to confirm what I described was credible, transferable, dependable, and confirmable with no mistakes. Being the sole data collector, I used the same procedures in interviewing each participant without altering any process (Tunarosa & Glynn, 2017).

In qualitative research, validity is defined as the ability of the research findings to accurately reflect the situation be certain in that the findings have evidential support (Dasgupta, 2015). One of the methods used by qualitative researchers to check and establish validity in their studies is triangulation, done by analyzing a research question from several perspectives. There are various types of triangulations: data triangulation, investigator triangulation, theory triangulation, methodological triangulation, and environmental triangulation (Abro et al., 2015).

Data triangulation entails using various sources of information so as to increase the validity of the study (McCusker & Gunaydin, 2015). Some of these sources are stakeholders in a particular program, participants, program staff, other researchers, and other community members. In this study, the research process was started by identifying the stakeholder groups in supply chain management such as procurement and supply chain managers (Edwards, 2017). These groups had an in-depth interview to gain insight into their perspectives on program outcomes. In the analysis stage, the feedback from the stakeholders was compared to identify areas of agreement as well as divergence (Gibbs et al., 2015). Triangulation method is the easiest to implement and is well suited for extension in various stakeholder groups, which had vested interest in supply chain management.

Investigator triangulation entails usage of several different investigators in the process of analysis. It manifests as an evaluation team that consists of colleagues within a faculty of study wherein each investigator examines the program with a similar qualitative method either, interview, observation, case study, or focus group (Marshall & Rossman, 2016). Investigators findings are compared to develop a broader and deeper understanding of how each evaluator views the issue. When the findings from various evaluators are similar, confidence in the findings is heightened. One setback to this method is time constraints and individual schedules, which may not always be practical to assemble different investigators (Saunders et al., 2015).

McCusker and Gunaydin (2015) defined theoretical triangulation as the usage of several perspectives to interpret a single set of data. The method entails using professionals outside a particular field of study. Individuals from various disciplines are brought together because they hold different perspectives (Gibbs et al., 2015). Each evaluator from the different faculty interprets information in the same way to establish its validity. Methodological triangulation entails the use of multiple qualitative or quantitative methods to study the program. Findings from surveys focus groups and interviews are compared to identify similarity (Sotiriadou et al., 2014). Validity is established when the conclusions of the methods are the same. For instance, a researcher conducting a case study of a welfare to work participant to document changes in his or her life would use the interview, observe, use document analysis, or any feasible method to assess the changes (Edwards, 2017). When the findings from all the methods draw similar conclusions, validity will be established. The setback to this method is the need for more time and resources to analyze the information yielded by the different methods used (Midgley & Wilby, 2015).

Validity

Validity refers to credibility, which is the process of conducting research in a manner that is believable (Burdon & Harvey, 2016). Validity represents both the value and believability of the research findings. To ensure credibility of the research, I used member checking a process that allows participants the opportunity to correct errors or challenges interpretations (Dasgupta, 2015). Member checks allow participant to provide additional or clarifying information (Bryman & Bell, 2015). The researcher performs member checking before data analysis because if member checking is completed after the analysis, participants will have no reason to recognize themselves or their experiences (Bryman & Bell, 2015). Internal validity threats include selection, history, and instrumentation. Confirmability enhances validity. Confirmation is the practice of comparing and contrasting data gathered from different sources (Dasgupta, 2015). When data collected from different sources is consistent, credibility of the findings is enhanced. I used methodological data triangulation to enhance confirmability (McCusker & Gunaydin, 2015).

Rich research description enables other researchers to determine if the study is transferable to other studies and arrive at the same results (McCusker & Gunaydin, 2015). To attain transferability, I offered a detailed description of the research and the ability to transfer it into a different context to enable evaluation (Gibbs et al., 2015). Transferability of the research may help future researchers to follow a similar framework to attain the same results (Dasgupta, 2015).

Transition and Summary

In Section 2 of the study, I highlighted the purpose statement, discussed the role of the researcher, the participants, research method and design, population, sampling, ethical research, data collection instruments, data collection technique, data organization technique, data analysis, reliability, and validity. In Section 3, I presented my study findings, provided a detailed discussion on the application to professional practice, the implication to social change, study recommendations for actions, recommendations for further research, my reflections, and conclusion.

Section 3: Application to Professional Practice and Implications for Change

Introduction

The objective of this qualitative multiple case study was to explore strategies some procurement managers responsible for food processing indirect procurement used to enhance supply chain sustainability. I used the interview guide to conduct a semistructured interview with two procurement managers in Nairobi, Kenya who had been managers and in full-time employment for at least 12 months. Based on the research question, and analysis of research interview questions, my findings identified four main themes which procurement managers used to identify indirect procurement strategies to enhance supply chain sustainability: (a) indirect procurement drivers, (b) indirect procurement strategies, (c) organization barriers, and (d) resource availability. This section includes a presentation of findings, application to professional practice, recommendations for action, recommendation for further research, implication for social change, personal reflection, and drawing the study conclusion.

Presentation of the Findings

The overarching research question for this proposed study was: What strategies do procurement managers responsible for food processing indirect procurement use to enhance supply chain sustainability? This section identifies, analyses, and discusses themes to address the study research question.

The conceptual framework for this case study included RDT, which was introduced by Pfeffer and Salancik in 1979. Organization effectiveness and performance sustainability depend on various stakeholders and resources (Bryant & Davis, 2012). The performance and survival of an organization depend on its leaders' ability to cooperate with its stakeholders and acquire critical resources on a long-term basis (Wolf, 2014). Wolf (2014) expressed the need for leaders in the supply chain to collaborate with other stakeholders to increase performance for sustaining businesses.

I used a purposive sampling approach to select participants to ensure participants with most information on the strategies used in indirect procurement in supply chain management were represented adequately (Saunders, Lewis, & Thornhill, 2015). I e-mailed the letter of cooperation to six organizations company managers to get access to study participants to conduct my study. Within a period of 1 month, I received two approvals from two organizations which represented a response rate of 33.3% (Table 1). I provided consent letters to each participant and obtained the participant signature on agreeing to participate in the study. I conducted interviews in the participant's company's boardroom, which were conducive to the interview process. I reviewed company documents, which included procurement standard operating procedures (SOP), and procurement key performance indicators (KPI's) for 2018. Gibson (2017) asserted that analysis of company documents and interviews with multiple participants comprise methodical triangulation. I have included company managers and procurement manager's summary in the table below.

Table 1

Company Managers and Procurement Managers Summary

No. of Org. Contacted	No. of Org. Responded	Managers Contacted	Managers Responded	Response Rate
6	2	6	2	33.3%

I used a Sony audio recorder model ICD-PX440 as the primary recorder backed up by an iPhone 6 phone in case of failure of the primary recorder to record the interviews. After completing the interviews, I transcribed the audio recording and used NVivo 11 software for Windows to come up with codes and themes. I used NVivo to create electronic folders for the two participants, who were procurement managers of the food processing firms represented in the study by M1 and M2. I conducted member checking to ensure credibility and validity of the findings (Pushnoi, 2015). All participants agreed that organizations could use indirect procurement strategies to enhance supply chain sustainability, and after reviewing the summaries, my interpretation identified four themes from the data analysis as shown in Table 2.

Table 2

Emerging Themes

Emerging Themes	Frequency	Percentage
Indirect procurement drivers	3	10.10%
Indirect procurement strategies	11	62.77%
Organization barriers	4	20.79%
Resource availability	2	7.08%
	20	100%

Theme 1: Indirect Procurement Drivers

Indirect procurement is termed as the act of buying goods and services needed to keep the daily activities of an organization running (Rajesh & Ravi, 2015). A unique way of classifying indirect procurement is the products and services purchased, which do not form the final product but support the manufacturing process. Having emerged from Interview Question 2, price is the main driver of indirect procurement. M1 stated, “What drives us to indirect procurement is one we want to reduce costs.” Procurement of MRO items is to reduce substantial costs from the price and to lessen complex processes to manage and precisely forecast the quantity of SKUs against fluctuated demand. Centralized indirect procurement should be placed in close collaboration with supply chain management, striving for efficiency, and higher cost-saving viability for MRO items (Beh et al., 2016). M2 noted,

> Efficiency, quality and price or value for money are what drives indirect procurement. All the time we are doing something we ask ourselves is it at the best price and ensuring partnership. I listen to you, I listen to the business and get exactly what they want and try and get the right solution in terms acquisition of whatever you are getting.

Sourcing MRO materials in many organizations are complex, takes time and consumes more resources (Schmidt, Adamson, & Bird, 2015). The processes need to be made as simpler as possible through collaboration between procurement professionals and responsible parties who actively engage in the sourcing and management of MRO items can reduce major costs (Pérez Mesa & Galdeano-Gómez, 2015). In applying RDT

Theme 1, RDT focuses on the external relationships had by an organization. RDT has been used as a premier perspective to understanding the relationship between the organization and its external environment through partnership to ensure value for money is achieved in the acquisition. Hence according to M1 and M2, price, quality, efficiency, and value for money drive indirect procurement. These drivers have a direct relationship with the indirect procurement strategies on organizational supply chain sustainability. Table 3 is a summary of frequency analysis of indirect procurement drivers.

Table 3

Indirect Procurement Drivers

Participants	Interview Questions	References
M1	2	1
M2	2	2
		3

Theme 2: Indirect Procurement Strategies

The second theme emergent from Interview Questions 4 and 5, which was about indirect procurement strategies that work the best to enhance supply chain sustainability. Procurement operations in most companies are loosely coordinated. Different units in the same organization buy a similar product with a different method of purchasing resulting in a different price and service as well. Transforming traditional methods of purchasing to a strategic sourcing is based on three philosophies that drive strategic elements and the required infrastructure to offer support to the procurement process (Steven et al., 2014). The three philosophies are: focus on the value that is delivered in the end, collaborative approach to deal with suppliers, and focus that enhances profitability (Chen et al., 2015). Strategic sourcing is a strategy that entails developing channels of supply at the least total cost, embracing activities in the procurement cycle and is founded on long-term win-win scenarios with major suppliers to offer a competitive advantage to the buyers (Jordan & Bak, 2016).

Effective sourcing strategy helps organizations in mapping out the existing supply market and developing a short-term and long-term plan (Rajesh & Ravi, 2015). M2 noted that “As procurement gets mature, the strategies work even better. But in most cases, you find you have the maturity of procurement really playing a big role in the business.” M1 mentioned the need for engaging stakeholders in the contracting process through negotiation and competitiveness. Eriksson and Svensson (2015) discovered that 80% of the time is wasted by the organization on managing stakeholders. M2 mentioned the need to engage internal stakeholders through having regular meetings. M2 stated,

> Seat in management meetings in the factory just to get what are their issues so that you get to know where and what to address, and as well for the suppliers, we try to do performance appraisal with the suppliers, engaging them even if there is nothing, we say quarterly we will meet we see what we were set to do, where we are and what else we can we do and nowadays we challenge the suppliers more, why must I have you instead off the other, so we challenge them to drive innovation through our suppliers.

This finding confirms that supplier management is crucial. It recognizes all suppliers are different from each other hence the need to diversify customer-supplier relationships with different indirect procurement strategies (Chen et al., 2015).

Participant M2 noted, leveraging on volumes from the group negotiating for better prices becomes easy. The merging of purchases worked very well especially for standard items like consumables in the factory. Secondly, participant M2 noted best practice as a strategy. Learning through looking at similar organizations sourcing similar products and in the same industry. M2 emphasized on partnership, “moving from a point where we are looked at the relationship of a supplier-customer relationship now we a looking at them as business partners.” This finding confirms the knowledge of transactional procurement reducing the base of the supplier, cooperative negotiation with suppliers, quality interactions, and development of long-term relationships with best suppliers available, which is linked to better company performance (Chen et al., 2015).

Poor stakeholder management and poor channels of communication especially in supply chain contribute to failing in adopting change. M2 complemented RDT as it could provide information regarding how organizations leaders could collaborate with stakeholders like customers and suppliers to reduce costs and enhance efficiency and sustainability in their operating environments through robust indirect procurement strategies (Pfeffer & Salancik, 2003). Table 4 displays frequency analysis of indirect procurement strategies.

Table 4

Indirect Procurement Strategies

Participants	Interview Questions	References
M1	4,5,9	4
M2	4,5,9	7
		11

Theme 3: Organization Barriers

The third theme emergent from Interview Question 6. Indirect procurement supply chains consist of global and regional supply chains. They involve worldwide suppliers, large geographical coordinates, higher transportation cost and sophisticated logistics because of the increased lead time in the supply chain (Kirchoff et al., 2016). They are characterized by dissimilarities in the culture, language, laws as well as currency, trade barriers, and higher risks in their processes. All these form part of the organizational barriers, which have an effect on indirect procurement strategy formulation on supply chain sustainability. Participant M1 suggested that bad policies slow down supply chain sustainability in their organization. Once an organization has good policies, formulation of efficient and robust indirect procurement strategies is enhanced to have a sustainable global and regional supply chain.

Participant M1 went on to highlight the cost barrier in establishing indirect procurement strategies through the procurement and introduction of MRP software. Though the cost of automation is high, the theory of automation has assisted in the development of real-time control systems and systems, which are controlled by supervisors (Olsson & Aronsson, 2015). This is also coupled with regulatory requirements on the need to create value, increased adoption of Supplier Management as a cross-functional discipline, an increasingly complex business environment, which is driven by increased global complexity, regional austerity measures, and changing economic policies (Campos & Vazquez-Brust, 2016).

Participant M2 noted an experience where volumes of products purchased under indirect procurement are low hence negotiating powers in most cases are not as high and strong. Secondly indirect procurement, M2 noted,

> has been very new to the business has been running with a lot of things, and getting it from the business you really need to sale, what are you bringing here for you to put indirect procurement on its own and run with it.

Participant M1 blames the barriers on unstandardized indirect and direct procurement policies.

RDT has been used as a premier perspective to understanding the relationship between the organization and its external environment. The concept of contextual perspective that make the conceptual model in RDT is organizational effectiveness, which is the ability of meeting stakeholders demands, acceptable outcomes and actions aligned with its mission, while the organizational environment is every event that affects the activities and the outcome of the actions of the organization (Pfeffer & Salancik, 1979). The highlighted barriers from the findings require a strong connection with the organizations' environment to adapt quickly to external changes by taking relevant actions towards the formulation of indirect procurement strategies that will enhance sustainability in organizations supply chain (Pfeffer & Salancik, 1979). I added Table 5 to display organization barrier frequency analysis.

Table 5

Organization Barriers

Participants	Interview Questions	References
M1	6,7	3
M2	6	1
		4

Theme 4: Resource Availability

The fourth theme emergent from Interview Question 8. Parties involved in the supply chain system include manufacturers, suppliers, transporters, warehouses, retailers, and eventually customers themselves. In every organization, supply chain includes all functions involved in receiving and fulfilling a customer request (King & McDonnell, 2015). Participant M2 noted, “the main resource is management by in and buy out and also you need information and a network of professionals from other manufacturing organizations to get professional support.” Organization leadership needs to invest adequately in recruiting, training and retaining employees who possess important knowledge and abilities required by the organizational strategy (Schniederjans et al., 2016). Participant M1 supported the idea of support from top management and added the need for a professional manpower, training, and adequate finance to support. Training creates a human capital that is adapted to the needs of the competitive market situation and that is highly firm-specific (Denham et al., 2015).

Organizations which initiate training programs above selective hiring develop firm-specific human capital and increase the depth as well as the breadth of employee skill (Montabon et al., 2016). Depth is defined as the ability of employees to attain skills above the average industrial level and that assist them to be better in their duties (Pagell et al., 2015). The breadth of the skill is the employee's ability to gain new skills through the period of training to enable them to perform different duties if need be (Purvis, Gosling, & Naim, 2014). This increases diversity in the organization and enhances unity.

Koskei and Kagiri (2015) indicated indirect procurement used to be understood as a sub-functional office task. Organizations opened started to gain an understanding and the potential of indirect procurement in the organization's profitability. Because this function is unknown to many organizations, there is the need to engage external consultancy services so as to gain the benefit (Koskei & Kagiri, 2015). The fourth theme of resource availability is grounded on resource base theory (RBV). RBV is a model that sees resources in an organization as important to greater firm performance. RBV highlights the importance of resources like training, professional manpower and financial support in coming up with indirect procurement strategies to enhance supply chain sustainability. Table 6 displays resource availability frequency analysis.

Table 6

Resource Availability

Participants	Interview Questions	References
M1	8	1
M2	8	1
		2

Applications to Professional Practice

The findings of this study indicated procurement managers of food processing organizations have a great desire for indirect procurement strategies to enhance supply chain sustainability. My research findings are applicable to the manufacturing food processing industry through offering best strategic solutions, strategies, policies, and procedures to enhance supply chain sustainability. Indirect procurement is not about three quotations, it is not just getting any broker to supply goods and services. There is far beyond the supplier has not delivered kick out, it is more of managing the supplier. The goal of this study was to explore strategies some procurement managers responsible for food processing indirect procurement used to enhance supply chain sustainability. The findings from this study provide the drivers of indirect procurement. All the participants demonstrated the need for robust policies, procedures, and management support to support formulation and implementation of indirect procurement strategies. The themes and participant’s knowledge of the subject matter will help procurement managers to come up with strategies, which will bring value to the supply chain.

Indirect procurement requires stakeholder involvement through a partnership with suppliers, simplify the procurement process and reduce the Total Cost of Ownership (TCO) of strategic products from the initial stage of product development, production to product delivery (Mbatha & Grobbelaar, 2015). The findings of this study can improve business practice by improving operations and enhancing strategic sourcing for organizations. The drivers of indirect procurement dictate the strategies relevant for indirect procurement. Findings indicated price as the main indirect procurement driver. As the procurement managers work, they need to ask themselves if they are getting goods and services to support the manufacturing process at the best price hence value for money. In relation to this, procurement managers considered the use of contracts to enhance discipline on-time delivery of products and services and at the same time control price fluctuation hence increase profitability. Best performance in form of net sales enables the company to expand through investment.

The study was focused on indirect procurement strategies on supply chain sustainability. Based on the responses from participants, procurement managers can use the findings from this study to implement indirect procurement strategies through partnering with suppliers to shorten the supply chain process of indirect purchases, drive innovation through suppliers, and carrying market research to benchmark with other similar companies on best practices, and similarly extending the same internally through a questionnaire to get feedback on the effectiveness of indirect procurement. Most importantly engaging the organization in the provision of financial resources and goodwill in implementing the strategies to improve business practice.

Implications for Social Change

The goal of every business leader is to make the customer happy through the provision of goods and services at the right time, right place, right quantity, and at the best price. For the customer to remain loyal to the organization, managers need effective indirect procurement strategies, which will lead to lower prices, improving the economic and social benefit. Effective indirect procurement strategies will enable the purchase of goods and services to support an interrupted production process that enhances the quality of products with lesser or no production waste.

The additional profits to the company from increasing supply chain efficiencies could enable organizations to offer scholarships to needy students. By educating needy students from a poor background, organizations improve the living standards of an entire household. In building schools, the organization improves the standard of an entire community through access to quality education. Engaging in environmental preservation like the planting of trees and waste management provides solutions to global problems like drought due to lack of rainfall, an outbreak of communicable diseases as a result of poor waste management.

Recommendations for Action

The results of this study indicated that procurement managers can use different indirect procurement strategies to enhance supply chain sustainability. These strategies include entering into a contract with suppliers and negotiate for controlled prices for a certain period, supply pattern to enhance a sustainable supply chain, leveraging on volumes within a group, or cluster enables negotiation for better terms especially for standard products, for example, consumables in a factory. Procurement managers in the food processing organizations can use strategies in this study to enhance their supply chain sustainability. Lack of indirect procurement strategies can lead to pilferages in the supply chain, which could have a negative effect in the profitability of the organization. The business problem in this study was some procurement managers were unable to manage indirect procurement processes, which had a negative effect on supply chain sustainability. There have been minimal previous studies in Kenya on indirect procurement strategies in relation to manufacturing firms.

Based on a review of the findings, I recommend procurement managers should develop an interest in discovering the drivers of indirect procurement before starting the procurement process. This will give ample time to identify the appropriate indirect procurement strategy to use to drive value for money. Procurement managers should formulate clearly defined policies and procedures to guide implementation of indirect procurement strategies to enhance supply chain sustainability.

Secondly, I recommend procurement managers should focus on collaborating and partnering with stakeholders within the supply chain to drive innovation in the supply chain. Managers should train employees to help build employee capacity and develop strategies to enhance supply chain sustainability. Lastly, procurement managers should identify and assess the effect of indirect procurement and then determine what strategies to incorporate and to who should actualize for an appropriate response.

I plan to share the study analysis with the study participants once I complete my study. I will further share the results to future researchers through publication in the ProQuest/UMI dissertation database. Last, I will use the results to develop current and future professionals in procurement and supply chain management.

Recommendations for Further Research

In this qualitative study, the purpose of this qualitative multiple case study was to explored strategies some procurement managers responsible for food processing indirect procurement used to enhance supply chain sustainability. For future research, I recommend more research on indirect procurement strategies in other industries and not specifically on food processing organizations. This could help in identifying standard effective strategies. The study was conducted in Nairobi, Kenya and because some participants did not want to give information for unknown fears, I recommend studies should be conducted to cover other parts of Kenya. Secondly, I recommend future researchers to conduct more research on centralized and decentralizes indirect procurement function. This information could help procurement managers to minimize pilferages in the procurement process, hence a sustainable supply chain. Thirdly, I would request future researchers to identify more participants to get more data to reach data saturation. Finally, I would recommend a quantitative study to determine the relationship between strategy and sustainability.

Reflections

The focus of this study was exploring strategies some procurement managers responsible for food processing indirect procurement used to enhance supply chain sustainability. Before I started research on indirect procurement strategies, I thought getting access to the organization to conduct a study was easy. To my surprise, it was the opposite. Companies were not cooperating as a result of a prolonged research process. Similarly, I thought to access procurement managers was the easiest thing since they mostly deal with external stakeholders. Procurement managers are the busiest employees making it hard to access them. These are the employees who drive the organization's supply chain. Most documented studies were from developed countries who have robust systems running their procurement and supply chain functions, making the gap wider compared to the local companies.

I started the doctoral program knowing I will have challenges to complete it. With the tight schedule at work, an online degree which requires 100% discipline to progress, and being a family man meant challenges with time management. Similarly, the long travels to the residencies which required huge allocation of finances plus time, different time zones of attending to webinars, the list are endless. What kept me going was the progress I used to make step after the other, and the unconditional support from my loving wife Philister Akida who effortlessly used to lift me up on bad days. When I publish this study, I will have achieved what I purposed to be many years' back.

Conclusion

My goal in this qualitative multiple case study was to explore strategies some procurement managers responsible for food processing indirect procurement used to enhance supply chain sustainability. An organization uses strategic sourcing in procurement with an intention to enhance partnership with the suppliers, reduce expenditures, simplify the procurement process, and reduce the total costs of ownership of strategic products or services. Organization leaders should seek to reduce the total cost of ownership of strategic products through partnership as a strategy with its stakeholders from as early as the point of product development stage and sourcing stage. Getting to realize the genesis of more than 50% maverick indirect procurement costs could assist organizations to formulate strategies, policies, and procedures to enable procurement managers to get value for money.

Food processing organizations do not operate their indirect procurement function in a similar manner. Initially, procurement function used to be a function of finance department responsible for the clerical work of getting quotations and processing orders, with less recognition of its effect on the organization bottom line. As of late 2017, procurement has changed from a clerical function to a strategic function with the objective of getting value for money, reduce costs substantially, and lessen complex procurement process, which translates to organization profitability and provide products at lower costs.

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Appendix A: Interview Questions

1. What are your roles in procurement and supply chain?
2. What drives indirect procurement in your organization?
3. What are your major roles in indirect procurement?
4. What indirect procurement strategies work the best to enhance supply chain sustainability?
5. Why do you consider your indirect procurement strategies effective?
6. What barriers did your organization procurement face when you first attempted to use indirect procurement strategies?
7. How did you address the barriers to your initial indirect procurement strategies?
8. What resources are required to implement effective indirect procurement strategies?
9. What additional information would you like to add regarding the strategies used in indirect procurement for assuring supply chain sustainability?

Appendix B: Consent Form

You are invited to take part in a research study to determine indirect procurement strategies for supply chain sustainability. I found contact details from professional groups. The researcher is inviting supply chain/procurement professionals who are managers from food processing organizations in Nairobi, Kenya to be in the study. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part.

This study is conducted by a researcher named Paul Akida Jilani, who is a doctoral student at Walden University.

Background Information:

The purpose of this study is to identify and understand the factors that lead to indirect procurement and what strategies managers can identify to enhance sustainability in the supply chain of companies in Kenya. The participants should have demonstrated success in supply chain management by having in place procurement strategies in the past years.

Procedures:

If you agree to be in this study, you will be asked to: Voluntarily participate in an Interview. It is not mandatory to conduct the interview at your place of employment. The interview will be audio taped to ensure the accuracy and validity of the data collected. The researcher will meet with you briefly on the day of the interview to ensure you understand the purpose of the study and address any questions; you have and collect the signed Informed Consent Form. The interview should take about 40 minutes to complete. The interview will consist of 9 questions. I will email the interview transcripts to you and ask you to review them for accuracy. Research findings summary will be shared after the study is finished, accepted and approved.

Here are some sample questions:

What drives indirect procurement in your organization?

What indirect procurement strategies work the best to enhance supply chain sustainability?

Why do you consider your indirect procurement strategies effective?

Voluntary Nature of the Study:

This study is voluntary. Everyone will respect your decision of whether you choose to be in the study. No one will treat you differently if you decide not to be in the study and if

you decided to opt out of the study any time during or after the study is conducted. If you decide to join the study, you can still change your mind later. You can stop at any time with or without permission. If you chose to withdraw after the interview, your answers will not be part of the data
.

Risks and Benefits of Participating in the Study:

Participating in this study would not pose any risk to your company or career. The study could potentially benefit local and international organizations about how indirect procurement occur and how to implement strategic initiatives that will help manage costly indirect procurement in the supply chain.

Payment:

No incentives or payment of any kind will be offered to you for your willingness and participation in this voluntary research study

Privacy:

Any information you provide will be password protected to ensure confidentiality. The researcher will not use your personal information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in the study reports. Data will be kept secure in a password encrypted computer. Paper-based data will be stored in locked cabinets. Data will be kept for at least five years, as required by the university.

Contacts and Questions:

You may ask any questions you have now, or if you have questions later, you may contact the researcher via 0722-205-633 or paul.jilani@waldenu.edu. If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her USA phone number is:
001-612-312-1210 or email address IRB@mail.waldenu.edu Walden University's approval number for this study is **10-02-17-0645744** and it expires on **October 1, 2018.**

The researcher will give you a copy of this form to keep for your records.

Statement of Consent:

I have read the above information, and I feel I understand the study well enough to make a decision about my involvement. By signing below, I understand that I agree to the terms described above.

Printed Name of Participant ____________________________________

Date of consent ____________________________________

Participant's Signature ____________________________________

Researcher's Signature ____________________________________

Appendix C: Interview Protocol

Interview # ___________

Date______/____/______

Interview Protocol

Script

Good morning/afternoon. My name is Paul Jilani and I am a doctoral candidate at Walden University. I am conducting my doctoral study on indirect procurement strategies for supply chain sustainability, which I will present in partial fulfilment of the requirements to complete my Doctor of Business Administration degree. I appreciate your participation in this study. Before we begin, I would like your permission to digitally record this interview, so that I will later be able to create a transcript of our conversation. If, at any time during this interview, you would like me to stop recording, please feel free to let me know. ***(Now, I will begin recording and briefly repeat the request so that permission to record is recorded)***. I will keep your responses confidential. I will use your responses to develop a better understanding of your views of indirect procurement strategies and how they may affect your supply chain sustainability. Again, the purpose of this study is to explore strategies procurement managers responsible for food processing indirect procurement use to enhance supply chain sustainability. I am the responsible investigator specifying your participation in the doctoral study research project: Indirect Procurement Strategies for Supply Chain Sustainability.

You agreed to participate in this study by replying to my Informed consent email with the words, *"I consent."* You understand that your participation in this interview is completely voluntary and that you may revoke your consent to participate at any time. If, at any time, you would like to take a break or stop the interview for any reason, please let me know. Do you have any questions or concerns before we get started? We will begin the interview now, with your permission.

Appendix D: Letter of Cooperation

Community Research Partner Name
Contact Information

Date:

Dear Researcher Name,

Based on my review of your research proposal, I give permission for you to conduct the study entitled *Indirect Procurement Strategies for Supply Chain Sustainability* within the Insert Name of Community Partner. As part of this study, I authorize you to:

- Recruit one participant that meet study criteria:
  - *Must have been a Procurement or a Supply Chain manager for at least 12 months.*
  - *Must be a full time employee.*

- Interview participant using nine open-ended questions:
  - *Conduct semistructured interviews*
  - *Interview questions can be found in the prospectus on pages 3-4.*

- Collect data:
  - *Will collect qualitative data for coding and theme analyses.*

- Perform member checking:
  - *Ensures interviewees agree with the collected data.*
  - *Offers opportunities to correct any issues or misstatements prior to study completion.*

- Disseminate results:
  - *Will give study findings to Insert Name of Community Partner and to Walden University.*

Individuals' participants will be voluntary, at their own discretion, and may withdraw at any point throughout the study.

We understand that our organization's responsibilities include providing access to study participants, interview rooms, qualitative research data, and permission to publish findings at the completion of the study. We reserve the right to withdraw from the study at any time if our circumstances change.

I confirm that I am authorized to approve research in this setting and that this plan complies with the organizations' policies.

I understand that the data collected will remain entirely confidential and may not be provided to anyone outside of the student's supervising faculty/staff without permission from the Walden University IRB.

Sincerely,

Name………………………………………………

Position……………………………………………

Email address..