# SUPPLY CHAIN MANAGEMENT PRACTICES AND SUPPLY CHAIN PERFORMANCE OF FAST-FOOD RESTAURANTS IN MOMBASA COUNTY, KENYA

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## DECLARATION

This research project is my original work and has not been submitted for examination in this or any other University.

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This research project has been submitted with my approval as the university supervisor

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## DEDICATION

I affectionately dedicate this research work to my entire family and more specifically to my parents and my wife for their unwavering support, understanding, sacrifices and prayers all through during the entire strenuous study period.

## ACKNOWLEDGEMENT

God Almighty, through His sufficient Grace and blessings guided me to accomplish the research work. I am thankful to my dear family for their continued spiritual support, moral support and inspiration to complete this study. Profound appreciation to Dr. Stephen Odock: my research supervisor for his continued inimitable guidance during the time of this study. His timely response to queries and feedback was a pillar of inspiration. Lastly, I would like to acknowledge my lecturers who traversed with me through the entire course impacting knowledge, understanding and tactful comprehension in Masters Programme.

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## ABBREVIATIONS AND ACRONYMS

**SCM** Supply chain management

**SCMP** Supply chain management practices

**SC** Supply chain

**SCP** Supply chain practices

**SCI** Supply chain intelligence

**SCPE** Supply chain performance effectiveness

**SMEs** Small and Medium sized Enterprises

**SPSS** Statistical Package for the Social Sciences

**SRM** Supplier relationship management

## ABSTRACT

The Supply Chain Performance (SCP) of various business enterprises is significantly influenced by Supply Chain Management Practices (SCMP). The fast food industry is a key economic player in the country but it faces a diversity of challenges that affect its operations. The hospitality industry reports vulnerabilities associated with the operations and the entire market chain. Restaurants and hotels have to find realistic tactics to overcome challenges that impede the efficiency of their supply chains. The study was conducted to investigate the supply chain management practices (SCMP) that most fast food restaurants have implemented in the County of Mombasa to reveal the limitations associated with the local supply chain management. Additionally, the purpose of the study was to examine the correlation between SCMP and SCP of fast foods restaurants in Mombasa County. The key objectives of the research are to understand the level of utilization of SCMP by fast food restaurants in Mombasa County and assess the influence of SCMP on the SCP of these firms. The research was implemented via the descriptive research design. Mombasa County has 300 actively operating fast food restaurants; the study sampled 60 respondents who were drawn from 171 sample size. Questionnaires were used to collect data. With the assistance of Statistical Package for Social Sciences (SPSS version 22), analysis of data was analyzed through descriptive statistics. The study outcomes were displayed on tables and narratives. Frequency tables and narrative analysis were used to display the data. All measures were recorded on five point Likert scales ranging from 1-5 where 1= No extent, 2=small extent, 3= moderate extent, 4= large extent and 5= very large extent. Regression analysis was used to find a link between supply chain management techniques and supply chain performance.

# CHAPTER ONE: INTRODUCTION

## 1.1 Background of the Study

Over the past century, modern practices of supply chain have drastically evolved. The evolution changed from an initial focus on simple improvement yet extremely labor-intensive procedures to the design and management of today's extremely global complex networks (Handfield & Nichols Jr, 1999). Traditionally, Firms used to define their domestic and export sales activities. Globally, companies that are competitive have possibilities of engaging in the supply chain's latest operations. As such, they have developed value propositions and adopted the best supply chain practices, a feature that has separated them from competitors because of their knowledge of the customers' value propositions, which are more to do with customers irrespective of what is done by the firms (Stål & Jansson, 2017). In addition to value propositions and adoption of the best supply chain practices, administrators and proprietors of organizations are trying to understand organizational performance. The battle for survival has made the firms to step up their supply chain performance. This is to say that their major focus is on efficiency and effectiveness when it comes to sales, return on assets, and the total shareholder return (Richard & Johnson, 2009).

This study will be anchored on systems and network theories. Systems theory by Ludwig Von and Ross Ashby focuses on the connections of subsystems to clarify the understanding of organizations, their functioning and their outcomes. The systems theory is relevant to this research because it will allow for a more detailed understanding of the issues that influence the behavior of firms in the supply chain. The network theory by Ronald Burt is also used to guide the study. This theory centers on explaining the engagement and links between customers, suppliers and business organizations (Wellenbrock, 2013). This theory is a significant contributor to decision making when it comes to purchasing and therefore relevant to the study.

Fast food restaurants provide food solutions for those who do not have time to cook and remain instrumental in contributing towards the economic gains in the local regions by providing jobs and opportunities. Mombasa as a county has several fast food restaurants that serve the high population. However, these county-based businesses report extreme competition that compels restraint to use a diversity of tactics to overcome rivalry (Ekaterina, 2008). Consequently, hotels operating in Mombasa have to develop benchmarks that can reveal the effects of their supply chain management (SCM) strategies. This demands

assessment and review of the current supply chain activities with the objective of understanding new modalities of increasing their competitive advantage. Proper implementation of evidence-based strategies in the management of the supply chain will develop new capacities and practices that can add value and improve a company's competitive advantage.

### 1.1.1 Supply Chain Management Practices

Supply Chain Management (SCM) is structured approach that involves managing the distribution of goods from raw material by producers, suppliers, and integrates consumers (Hugos, 2018). SCM practices are the sum of information, knowledge, financial capabilities and all activities related not to the movement but also the change of services and raw materials into finished goods delivered to customers through suppliers. According to Bhatti (2016) the practices of SCM include the chain of investments that organizations employ to improve their SCM. To distinguish different supply chain practices in different areas, researchers have conducted several studies. They have unanimously concluded that the overall perception of organizational accomplishment enhancement links directly to the improvement in the quality of SCM.

Koplin (2007) empirically tested practices of SCM concerning the performance of organizational SMEs. The researcher identified twelve practices of SCM: supplier partnership; customer relationships; benchmarking; e-procurement and just in time process; increased number of suppliers; planning strategies; the concept of outsourcing; activity sub-contracting; buffer stock holding and third party logistics. Applying these practices together enhances revenue, utilization of assets and satisfaction of customers. Among the practices, there are The Five Rights, which allow buyers to ensure that the items, materials, or services offered are of sufficient size and value, are offered at the appropriate time and location, and are priced appropriately (Tan, Kannan & Handfield, 1998). The practices of the management of costs assists in ensuring that organizations purchasing effectiveness and capability contribute to saving costs to maximize profits through fitting management of inventory and using systems that ensure effective and efficient delivery (LaMarco, 2018). Supply management is another principle which requires to build amicable working relationships between suppliers and purchasing companies.

The next practice concerns quality control where performance improvement approaches are integrated with supply chain parties to increase the value associated with the upstream and

downstream connections with the objective of satisfying the consumers (Reade, Emberson & Storey, 2005). The practice of specification concerns communicating the needs of the buyers and judging the final delivery further notes that in price negotiations, skillful researchers are the ones who should be conducting analysis of the markets demand, vendor, and supplies before they get into negotiations. They thus provide accurate information to enable firms to adapt to changes that might occur to the supply environment and achieve opportunities for competitive advantage. The final practice entails the use of technology. Here, stakeholders in the supply chain utilize electronic devices and techniques to carry out various processes such as outsourcing and procurement of goods and services. Technology aids in the integration of supply chain partners such as buyers, suppliers, and consumers, resulting in successful supply chain management (Ibrahim & Hamid, 2012).

This particular study will focus on four SCM practices namely; Customer-Supplier Relationship, Information Sharing, Logistics Management and Outsourcing practices. The four practices will be used in the conceptual framework of the study simply because the four practices provide a summary of all other practices which have been identified previously by other scholars like Koplin (2007). For example Customer-Supplier relationship management practices, caters for all practices relating to customers and suppliers as opposed to Koplin (2007) where they are treated as separate practices. On the other hand, logistics management practices brings together all activities that engage modalities of creating efficient suppliers' input, internal efficient in handling raw materials that support business activities, and proper outflow of finished products that target customers.

### 1.1.2 Supply Chain Performance

According to Lebas (1995), performance is all about meeting certain criteria the duration of time it takes and way out used to reach there. According to Kluwer (2004) the proper management of the flow of essential raw materials and capacity, as well as timely distribution and delivery to an organization and, eventually, to customers, is supply chain performance. SCP integrates operations outside of an organization that incorporates raw materials, components of finished product, and distribution of the finished products to the customer (Alvarado, 2001). A wide range of firms regardless of whether little or enormous, open or private, non-profit or profit are making a battle for survival. To survive, they should be efficient and effective. Success of the organization is engraved in good supply chain performance (Nyangweso, 2013).

Salem (2003) noted that to improve the performance of organizations and to realize strategic intentions and better the mission and values, execution administration systems are to be utilized through approaches such as balanced scorecard, benchmarking or business process re-engineering, quality circles and best practice. Harris and Mongiello (2001) in previous studies state that performance was defined and measured by the financial outcome of the firm. This approach of entirely relying on financial outcome as a measure of performance overruled many factors as other lagged indicators are as a result of management action (Brignell& Ballantine, 1996).

According to Mogire (2019), two vital issues that highlight the necessity for best practices of supply chain management are time and inventory that eventually improve the performance of these organizations. As such, a good performing hotel industry needs to have increased inventory velocity to allow efficient flow of products to the customers. They also need to put into practice supply chain management (SCM), which emphasizes on pulling products through the supply chain as opposed to pushing them (Paasi, Luoma, Valkokari & Lee, 2010). They recognize the waste created by excess inventory and time that would otherwise lead to reduced supplier performance (Nanyunja, Jacxsens, Kirezieva, Kaaya, Uyttendaele & Luning, 2016). They also noted that performance of the supplier is the beginning of organizational success. They must deliver, complete, accurate and timely quality items. Teamwork is also important, regardless of whether the products are finished products or factory materials; there will always be a need for strong supplier performance.

The measurement of supply chain performance (SCP) will be based measurement of how effectively the consumers' requirements are addressed and how effective the use of resources to reach a customer satisfaction level has been realized. The measurement of supply chain performance can be based on customer benefits, which include improved service quality, improved value and improved flexibility (LaMarco, 2018). The measure can also be based on business process perspective, which includes waste reduction, cost reduction and time compression (Alvarado, 2001). Lastly, the measure can be based on financial benefits, which entail higher profit margins, improved cash flows and high return on assets. In this study, the measure of SCP will be on Cost reduction, leads time and quality of service.

### 1.1.3 Supply Chain Management Practices and Performance

Kim (2006) identified that to realize proficiency in chains of supply there should be various interaction of SCMP. The author emphasizes the need to use SCM practices that guarantee

high returns and create a competitive advantage by integrating efficient mechanisms to reduce cost, address customers' needs, and ensure product differentiation. Research recommend that effective SCM practices directly affect the financial plus marketing performance of any organization (Shin, Prasad & Goodbye, 2000). Indeed, firms rely upon practices of SCM to increase their market share, profit rates and enhance aggressive positions. As an example, Harris (1998) declared that the effectiveness of SCM techniques depends upon the effectiveness of customer relationships and purchasing habits and results in financial achievement.

According to Frohlich and Westbrook (2001), organizations that have integrated their supply chain with providers and consumers improve performance by addressing the specific needs of the customers while reducing inventory. Practices of SCM in general impact not only the performance of organizations but also their competitive advantage by value, cost, position, conveyance dependability, time to market and item innovation (Mwale, 2014). For example, the chief provider organization can enhance the performance of providers, decrease the period between advertisements (Hanfield, 1997) and raise the responsiveness and well-being dimension of customers (Control, 2001).

### 1.1.4 Fast Food Restaurants in Mombasa County

Fast Food restaurants prepare and serve meals quickly compared to other similar outlets. Such restaurants have characteristics by food that is served immediately after being ordered and by least service as defined by the Oxford English Dictionary. According to world tourism council (2005) Kenya's tourism industry relies heavily on the food sector, which accounts for 4.8 percent of the country's GDP. According to Consumer Insight (2015), 4.3% Kenyans eat out hence making the fast food industry popular and the fastest growing industry in Kenya catering to a high-income segment. The National Restaurant Association's Foodservice Industry Forecast report clarifies that 64% of consumers eat the food they purchase within a restaurant's premises and the rate of consumption of fast food has increased from 25% in 1955 to 50 % today.

Mombasa County has more than 50 fast food restaurants local and multi-national fast food chains (Mugo, 2014). The coastal region is a tourist hub due to its warm temperatures making tourism the main source of income creating employment to many residents (Mark, 2010).The National Restaurant Association of Kenya (2016) forecasts a swift growth of fast food restaurant within the restaurant and service industry because of population growth of the

target age group, growing number of higher-income households, increase in employment of women, combining mealtime while engaging in other activities such as shopping, travelling and working. Hectic lifestyles demand for convenience where people want quick and convenient meals at the lowest price possible despite the restaurants incurring huge costs from mass advertising, royalties and licensing fees in order to maintain the image of their brand (Mugo, 2014).

Kamau (2018) stated that there many challenges facing the hospitality sector in Mombasa such as socio-cultural changes, lack of qualified personnel, market share, changes in customers' expectations and preferences, competition for resources, technological changes, terrorism and globalization. For fast food restaurants to have a competitive edge and attain world class status through timely delivery, quality services, operations efficiency and improved customer satisfaction levels. Firms are able to attain that through increasing adoption of SCM practices in their internal and external activities (Harps, 2000).

## 1.2 Research Problem

Supply Chain Management presents opportunities that can improve supply chain efficiency and decrease costs. Ellinger et al. (2011) asserts that SCM competencies have positive implications on the managementand determine a firm's level of profitability. Any incapability acquired by parties of a chain of supply can influence the performance of the entire chain. Most fast-food operators in Mombasa efficiencies that could decrease firm-level costs. Proper extrapolation of information in the SCM platform can increase productivity within the supply chain while reducing costs of accessing materials and managing inventory to meet consumers' needs (Chopra &Meindi, 2010).

Just like in most organizations witnessed in developing countries, fast food companies in Kenya define their domestic and export marketing activities. According to Cooper (2017), this can be a shortsighted and restricting view as it does not allow organizations to understand the impact of SCM on their businesses and customer. However, their global counterparts in developed countries view themselves as dynamic and see the prospects of engaging in the latest supply chain practices. They have since developed value propositions and adopted best practices in the supply chain that distinguish them from rivals (Stål&Jansson, 2017). These firms know that orders must be delivered completely, accurately and on time regardless of whether they are replenishment, customer or new products. The situation is not comparable to developing nations, and Kenya in particular. This exerts too much pressure on the companies

in Mombasa, the country's second largest city, calling for the need to come up with new and better SCM practices, preferably those adopted by foreign countries.

Fast food restaurants have been on the rise in Kenya. There is competition among the various fast food restaurants in Mombasa since it is a destination for many tourists who would want to have 'time out'. These restaurants provide food during this period. The tourists and locals equally would want to spend their quality time on other things and thus these restaurants are a solution to their desires (Lin et al., 2005). Therefore, the restaurants need to be at the top of their league by improving their operational performance to remain competitive, profitable and be able to expand. According to Liu, Ou and Hung (2010), SCM is amongst the most significant ways for business organizations to increase efficiencies and improve performance. Numerous investigations on SCM practices implementations among diverse business organizations and extensive organizations for retailers which have established the significance of SCM practices (Sandberg, 2007; Sandberg & Abrahamsson, 2010). Moreover, studies by Andebe (2011) and Mwingi (2012) reveal that sharing information relating to promotion among retailers and producers is a valuable practice, especially in the international market. Kyengo (2012) also inquired about and discovered that the capacity of firms to convey items to the broadly dispersed customers on time considering every hour is critical is influential in the performance of business organizations. These depend on the effectiveness of the management of supply chains.

The access to information determines the efficiency of coordinating SCM activities. Managers have to find the means of controlling and coordinating resources within the supply chain to meet organizational objectives. Studies such as that by Andebe (2011) have clarified that the types of SCM methods used by a company in conjunction with its overall performance have a positive association. Suhong, Ragu-Nathan, Ragu-Nathan and Rao (2014) emphasize that practices of SCM improve competitiveness and organizational performance.

The impact of SCM methods on supply chain performance has not been fully examined, particularly in the fast food industry. This study will therefore, examine four key practices involved in supply chain and their relationship with SCP of business organizations in fast foods restaurants in Mombasa County. These include customer-supplier relationship management, information sharing, logistic management and outsourcing. This research will explicitly inquire to elucidate the following questions which perform a key function in the

practices of SCM of fast foods in Mombasa. They included: What are the SCM practices adopted by fast-food restaurants in Mombasa? What effect does SCM practices have in the performance of fast-food restaurants in Mombasa?

## 1.3 Research Objectives

The main objective of the research was to examine the relationship between supply chain management practices (SCMP) and supply chain performance (SCP) of fast foods restaurants in Mombasa County.

The specific objectives were:

i. To evaluate the level of adoption of SCMP by fast food restaurants in Mombasa County.
ii. To assesses the influence and effects of SCMP on the SCP of the fast food firms in Mombasa County.

## 1.4 Value of the Study

Both public and private organizations in Kenya will find the study useful. It will provide them with further insights into the understanding of the practices of SCM, especially its influence on the SCP of organizations. Insights from the findings should help restaurateurs, both established and upcoming, to find the right mix of value propositions to help spur the businesses to greater levels of performance.

To academicians, the study will aid the academic community in getting empirical data regarding the practices of SCM and areas for future research. Scholars will also benefit from the research by having access to literature on the effects of fast-food businesses' SCP, which depends on the effectiveness of the practices of SCM. In this respect, the study will add value to both academic and business researchers as a source for future research topics and studies through research gaps that will be identified by other researchers and the suggestions that will be evident.

Finally, it will be useful to the government through guidance in policymaking on the concurrent practices of SCM especially in research institutions and the possible challenges the government agencies face in the implementation of the practices. The research findings will enlighten the county government of Mombasa, policymakers and other relevant stakeholders into the effects of adopting the supply chain practices of SCM in fast-food restaurants and apply to other sectors. The findings shall aid in founding the right policies

that support and encourage the adoption of the practices of SCM by restaurants offering fast-food solutions to customers.

# CHAPTER TWO: LITERATURE REVIEW

## 2.1 Introduction

The theories for the study have been covered in this section, where foundational theories were discussed. Other sections of the chapter include elements of SCM and challenges of in SCM. Here, a summary of the literature review and empirical studies was completed, as well as the identification of research gaps and, finally, the study's conceptual framework.

## 2.2 Theoretical Foundation of the Study

SCM practices determine an organization's efficiency in accessing raw materials, coordinating organizational activities geared towards production, and providing leadership to improve access to market. These organization activities influence a firm's profitability. Management can use SCM practices to determine the access to the market, create strategy that realizes profits, and acquire strategies to position a fast-food firm (Hung, Samsatli, & Shah, 2006). As such, credible SCM practice have to find measures of handling market variables that include price of raw materials, cost of accessing them, quality of the materials, delivery channels, and product innovation strategies that increases value (Wisner, 2001). This study is anchored on systems and network theories.

### 2.2.1 Systems Theory

In a system, many sub-systems interrelate with dependency moving into an established the symmetry of a more comprehensive system (Steele, 2003). Systems theory focuses on the connections of sub-systems to clarify the understanding of organizations, their functioning and their outcomes. Moreover, Mason (2007) argues that the theory views organizations as dependent upon their operating environments including numerous parties such as agents and other factors in the external business environment, that firms may not have control.

According to systems theory incorporating multiple variables in the supply chain to form a more extensive system of the networks of the supply chain is fundamental (Fowler, 2000). A proper awareness of the changes in the supply chain, as well as the amount of the interdependence among the elements of systems, improves the planning, coordination, and execution of manufacturing firm activities. The system theory manages the participation of firms with different substances, providers, clients or purchasers all through their supply chains. This theory will be helpful in alienating the unique significance of each organization

within a supply chain (Hung, Samsatli, & Shah, 2006). Also, it will enable the detailed understanding of issues which affect the behavior of organizations within supply chain as an extensive system.

### 2.2.2 Network Theory

Network theory is centered on explaining the engagement and links between customers, suppliers, and business organizations, (Wellenbrock, 2013). According to Harland (1996), a network refers to a distinct connection that links a definite set of individuals, events or objects. Moreover, as pointed out by Chang, Chiang and Pai (2012), a network of the supply chain is so complex that its distinct context can only be manifested from the connection of the members within the network. Moreover, when two or more organizations come together for a long-term mutual relationship, they are said to be in a network (Thorelli, 1986).

Notwithstanding, the actions of each member of a network would result in corresponding benefits to the other members of the network (Hakansson & Ford, 2002. A single network can have plenty of business partners and companies can have the chance to pick the most suitable and convenient suppliers and business partners to reap the most benefits, (Sanderson, 2012).

There are a few assumptions concerning the network theory that organizations in a chain share knowledge and learn amidst their associates or central position inside a network could point to a competitive advantage. Besides the commitment to purchasing, the theory is relevant to the making of choices. The theory assists with the demand planning as it can show resources acquired as a result of vital long-term partnerships (Lori & Daniel, 2011). Organizations in a chain can decide a more outstanding combination of providers and by this can even assure the supply of essential wares. Furthermore, the connections amidst companies are deemed to be reliable and hence append to the confidence and further unravel the choice about the supply technique (Kyengo, 2012). In conclusion, the network theory continues to the procedure, considering businesses in networks plan to participate in long-term commitments through which rooted relationships connecting the counterparts are structured. Network theory is critical to understanding SCM because it assesses issues that competing firms within a supply chain network (Lori & Daniel, 2011). Therefore, firms tend to share a network of suppliers that influence their operations without exception.

## 2.3 Practices of Supply Chain Management

SCM practices directly influence the capacity of firms to determine organizational activities. The approach demands managers to understand dominant competitors and means of overcoming vulnerabilities within the network that threaten profitability. Chima (2007) articulates several approaches to SCM that include supplier partnership, consumer focus, proper information channels, and postponement.

### 2.3.1 Customer-Supplier Relationship Management Practices

Within a network, this describes the interactions between a company and its vendors. Planning is essential for long-term success, as with any project (Luoma, 2010). Part of good planning is integration, which means communicating and collaborating with everyone involved in the manufacturing process. Therefore, a firm must develop capacities of integrating suppliers in a way that enhances access to critical resources. An organization can achieve this by actively engaging with suppliers, which requires the development of an engagement framework (Lin et al., 2005). Joint planning with suppliers ensures proper coordination of operating activities, which in turn result in the elimination of superfluous inventory, reduction of production costs, ensure a firm addresses demand even during uncertainty, and boost a firm's revenue (Arshinder, 2008).

The approach allows a firm to use the most efficient approaches such as on-time delivery of supplied that guarantee time delivery by suppliers. A firm should find means of establishing credible relationship with suppliers. This demand direct connection and communication to set minimum needs, quality goals, and payment terms. Frequent communications are critical in reducing disparity of information and materials flow. As such, a firm must find means of vetting its suppliers based on the best practice policy and maintain consistent evaluation to understand the capacity of existing suppliers (Qureshi, Kumar & Kumar, 2007). Before entering into partnerships, organizations require lean supply to audit and review their supply. As a result, the organizations will have trust and shared understanding within the networks. Besides, the appropriation of lean supply results in cost reduction, inventory management, and improved product and services. Supplier relationship management empowers organizations in with strategies that include the utilization of procurement in the supply chain as an important tool (Moeller, Fassnacht & Klose, 2006).

According to Lyman, Tan and Wisner (2002), customer relationship evaluates the best approaches of maintaining customer's loyalty. The customer function prepares a firm in

implementing policies and organizational level approaches that satisfy consumers' needs. The most common tactics of the approach includes listening to customers, analyzing their feedbacks and collaborating with them to improve the customer service. Holmberg (2015) argued that management has to create training approaches that can help workers to handle customers properly. Management has to provide a support system that guides staff in handling customers based on a firm's culture. As such, open internal communications provide a way of increasing staff's competency, which external communication determines the perception of the organization before other stakeholders (Qureshi, Kumar & Kumar, 2007). Customers and suppliers demand good external communication strategies that can make them feel appreciated as stakeholders. Bearnon (2014) emphasize the need to create a successful communication plan that fosters positive relationship with customers. When consumers feel appreciated by a firm, they are likely to purchase, which results in positive demand. Assessment of demand analytics based on needs and seasons can help a firm forecast production and determine the best products. The approach guides resource and material planning and achieves high operation efficiency. A firm can achieve higher SCM efficiencies by maintaining connecting with customers and supplier networks over competitors in the market (Lyman, Tan, & Wisner, 2002). Management must determine critical principles for enhancing customer satisfactions that includes fast deliveries, meeting deadlines, and honoring orders (Flynn & Flynn, 2005).

### 2.3.2 Information Sharing Practices

According to Moberg (2002), information sharing entails dissemination of nonpublic information to ensure maximum benefits for every stakeholder. Moreover, information sharing helps to bridge the gaps that exist in the supply chains (SC) by controlling the flow of information and disseminating important messages on the management of demand, safety, management of stock, levels of stock re-order and the planning of material resources (Agustina, 2014). Information sharing among firms and partners within the SC ensures access to required raw materials, reduces inventory, and minimizes shortages.

On the other hand, sharing of information ensures fast raw material deliveries that support firm-level operations (Chen & Paulraj, 2010). Disseminating quality data depends on the usability of the information, its accuracy, and accessibility, which determine the ability of a firm in achieving its organizational objectives. The efficiency of fast food firms in Mombasa depends on the flow of information about their SC and customers. Therefore, these firms

have to ensure that the information they disseminate remains aligned with their organizational goals, which influences the process of collecting, sharing, and using the information.

### 2.3.3 Logistics Management Practices

Logistics involves all supply chain operations that determine the flow of raw materials from suppliers to the product that affect different levels of the organization. Effective logistics demands implementation of policies that guide the production and marketing and selling of finished products (Li & Lin, 2006). Organizations ought to adopt reliable logistical structure that blends with the SC. This emphasize the fact that SC management is highly interconnected with performance of organizational goals geared towards satisfying the customer value provision (Alphonse, 2013).

Adoption of logistics depends on a firm's strategy, which seeks to establish a direct relationship with stakeholders (Bearnon, 2014). Chen and Paulraj (2010) recommended a prospective SC study that considers the performance and structure the supply chain. Similarly, Wisner (2003) demonstrated a decisive connection linking the choice of logistics strategy to organizational success. Cooper (2014) established the link between high performance, quality of service, and organizational profitability to the logistical strategy. Notably, logistics management is a fundamental component for any firm that wants to connect with its SC and other stakeholders such as consumers.

### 2.3.4 Outsourcing Practices

Outsourcing is a process through which a firm decides to seek third-party providers to supply required raw materials and services to replace in-house activities (Schniederjans, Schniederjans & Schniederjans, 2015). A firm makes a decision to start outsourcing after noticing a discrepancy internal control of the SC compared surrendering such activities to a more qualified firm. The objective of outsourcing is to increase efficiency, reduce costs, and free more resources to engage in critical organizational activities (Wisner, 2003).

Firms that have implemented outsourcing have reduced costs of accessing materials and services, improved their expertise, and decreases time and resource wastage (Agustina, 2014). As such, a firm using the business approach has time to focus on key activities that increase profitability. However, management has to define the anticipated benefits of outsourcing to avoid giving away critical components of production that can expose a firm to competitors (Supalak, 2010). The move requires assessment of organizational activities

before making a decision on the most important activities to outsource because the action adds value. As such, outsourcing should not undermine quality or compromise customers' expectations because the approach requires a firm to surrender its functions to a third party, which requires constant audits to balance firm-level needs (Kumar, 2007).

## 2.4 Challenges of Supply Chain Management Practices (SCMP)

Lambert and Cooper (2000) posit that among the most huge perspective changes of current business management is that organizations do not operate as individual entities but instead as supply chains. Currently, supply chain is becoming increasingly more unpredictable because of worldwide sourcing and subsequently supply chain difficulties increase (Patil 2015). The test to businesses today is to take risks that make stronger supply chains. The following are the challenges of implementing (SCP).

Globalization, decreasing the costs of the supply chain is an enormous issue that business organizations strive to alleviate. Notably, organizations require to meet customer satisfaction and desires in the most effective ways, and these demands fitting utilization and investment in the process production to the time when the goods get to the consumers. As a result, they have put in place measures to minimize indirect expenses and charges in the entire process of production. Worldwide providers contribute to the unpredictability due to increased transportation. Clients require to get their items on time and to get them at lower costs (Borrios, 2014).

Global supply chains are expressly complex due to customer preferences. Additionally, the consistent change in items in line with varied preferences is considered noteworthy. Once an item is produced, clients pressure organizations to produce the next big item (Min & Mentzer, 2004). Innovation is critical as it permits business organizations to remain focused on the market demands, though, it is often comparable to a test. Organizations are required to overhaul their supply networks taking care of market demands to ensure they improve an item, and remain straightforward for client's demands (Meindl, 2016). Lastly, market growth, the quest to acquire new clients is another critical factor that tests business organizations. Developing an item from scratch to a finished product is an expensive adventure (Min & Mentzer, 2004). But for organizations to expand, they need to get new products all the time, thus, the need to generate enough income within their coverage (Meindl, 2006). As a result, organizations globally rely upon expanding their home and remote markets. Getting to new

markets is troublesome because of dealing with arrangements, charges, and government strategies (Berrios, 2014; Leung, 2018).

## 2.5 Empirical Review

From a theoretical standpoint, supply chain can be used as a powerful strategy for planning and constructing hierarchical structures that ensure efficient and poised execution. The SCM concept has received growing attention from business managers, consultants and academicians equally. Ongoing proof indicates that leading firms are shifting emphasis on quality from inspection to designing quality into items, accompanying this with efforts of improvement and process control (Green and Inman 1993). This study has looked for a number of studies whose objectives, methodology and findings were summarized in this section;

Chesaro and Chirchir (2016) did a study to define the assassination between SCM practices and the productivity of firms engaged in manufacturing operations. The researchers determined the SCMP that multinational manufacturers exploit and evaluated the correlation between SCMP and SCPE for the multinational firms operating in Kenya. Descriptive research design was used, questionnaires were used, with response rate of 86.67% from 45 Multinational Manufacturing companies in Nairobi. The research found that most firms use SCMPs to fast-track deliveries and make informed decisions that reduce costs. This study anticipates finding out whether the same applies to the fast food restaurant sector in Mombasa using the same descriptive research methodology adopted by Chesaro and Chirchir (2016).

Kwennah, 2017 conducted a study on SCI and SCP of Nairobi fast food restaurants to find the degree of SCI and its effect on performance of supply chains of restaurants in the Kenya's capital city. The study adopted a descriptive methodology too which allowed for the use of descriptive statistical technique such as correlation, means, frequencies to analyze the data. Results obtained from the study asserted that fast food firms in the city had adopted various practices in their supplier and internal operations. The study also noted that the industry is under immense pressure from market forces that force business to integrate operations prematurely. The conclusion was that the association was statistically significant between SCM and SCP. The researcher therefore intends to find out how different the two cities compare when it comes to SCM to help stakeholder in the fast food industry assess their investment options.

A research by Ibrahim and Hamid (2014) on the influence of SCMP on the SC's effectiveness identified the effects of different dimensions of SCMP on performance effectiveness of firms operating in Sudan. The research was quantitative and based on a resource-based perspective. The study established that adopting specific supplies management practices had positive effect which was significant on SCPE. Results indicate that managerial staff has to make decisions based on their understanding of the significance of SCMP on the performance of the SC. From this conclusion, this current study intends to establish how the same principle applies to the fast food industry in Kenya, particularly Mombasa.

Finally, another study on SCM in hospitality industry conducted by Raghavendra and Nijaguna (2015) aimed to determine effects of service quality in McDonald restaurants located in Bangalore. The authors highlighted that the challenges being faced by managerial staff in supply chain in the hospitality industry are important. A key issue is the growing desire to integrate staff that understands the importance of SC on organizational performance as a key strategic capacity. To address this issue, the researcher assessed 20 SC managers working with McDonald's restaurants in Bangalore and reports that SC managers used SCM practices in decision-making. Conducting the same study in Mombasa will help provide answers as to how exactly SCP is affected by adopting specific supply chain practice considering the economic and social status in the county.

In conclusion, these studies indicate that supply chain management practices and initiatives are good for most businesses. These initiatives, when implemented concurrently with managing the supply base, are cited as vital practices to accomplish competitive preferred standpoint (Li & Lin, 2006). Quality management is critical aspect of managing firms and demand timely and consistent evaluation, quality planning, and senior management involvement (Black & Porter, 2006).

## 2.6 Summary and Knowledge Gap

The theories of supply chain management reviewed in this chapter include system and network theory. The chapter has also ventured into challenges of SCM and elements of SCM. It has also looked at results obtained by other researchers who studied SCM and its impact on operational performance. Many studies have demonstrated practices in supply chain to be of significance in the accomplishment of the desired firm performance. Few conclusive research

studies on the effect of SCMP on the SCP of fast food enterprises in Mombasa have been conducted.

## 2.7 Conceptual Framework

The figure 2.1 shows that supplier and customer relationship management, information sharing practices, logistics management practices and outsourcing practices affect supply chain performance.

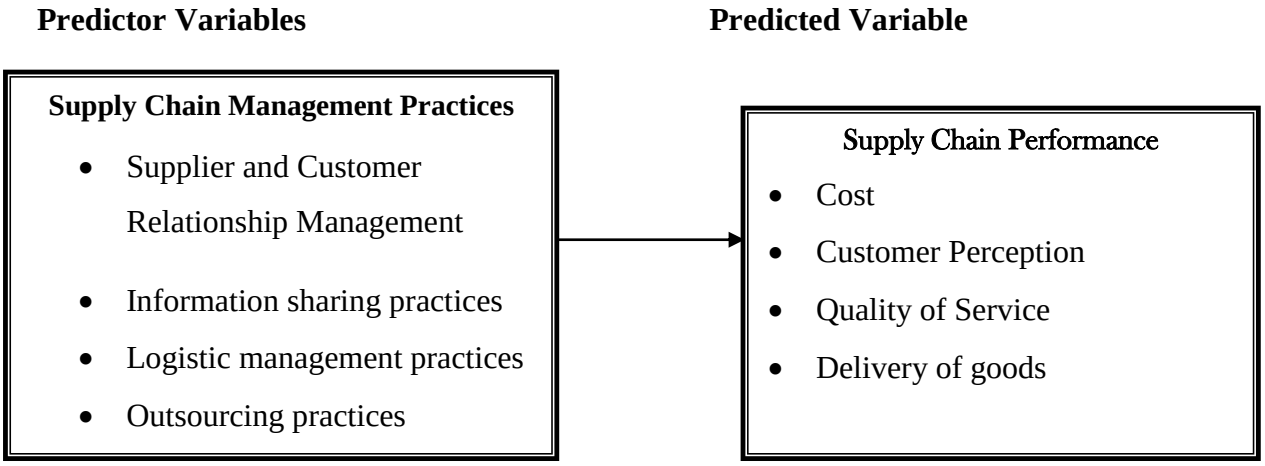



**Figure 2.1: Conceptual Framework**

# CHAPTER THREE: RESEARCH METHODOLOGY

## 3.1 Introduction

Research methodology is discussed in this section. These include the research design, a target population, necessary sampling procedures, techniques of collection of data and lastly data analysis of data gathered.

## 3.2 Research Design

The influence of SCM practices on the SCP of fast food outlets in Mombasa County was studied using a descriptive cross-sectional survey design. A descriptive study assesses research that provides facts that are critical for understanding the status of events and things. The study conducted a survey to obtain descriptive cross-sectional data. Through a descriptive cross-sectional survey design, a researcher can identify and quantify the prevalence of certain SCM practices and how they affect the SCP of given organizations (Nassaji, 2015). Since one of the main aims of this study is to determine the impact of SCMP on the performance of the supply chain of fast food restaurants in Mombasa County, this design was ideal.

## 3.3 Population of the Study

The population consisted of fast food restaurants based in Mombasa. There were 431 fast food restaurants in Mombasa County but only 300 were in operational according to Permit records obtained from Mombasa county offices, (Mombasa county Department of Health).

## 3.4 Sampling Procedures and Sample Size

From a total of 300 fast food establishments in Mombasa County, this study selected 171 using a simple random selection procedure. The 171 restaurants were derived from the list obtained from Mombasa County Business Permit records. This sample size was justified based on a study by Kish (1965) which suggested that a sample size of 30 to 200 is sufficient so long as the distribution of the approaches normality. The choice of the sampling technique was to ensure that each fast food restaurant within the county had a fair chance of being part of the desired sample.

A very good sample size for the population study can be arrived at by the estimated percentage prevalence of the population of interest, the desired confidence level and the

acceptable margin of error (Kate, 2006). The sample size for this investigation was chosen using the formula presented by Kish (1965).

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

$$n = \frac{300}{1 + 300(0.05^2)}$$

n=171.43

n=171

Where: n = desired sample size

N = population size

e = level of precision

According to Sekaran (2006), the range error of tolerance should be 95-100% confidence level with a margin of error of 0.05-0.01% respectively. The study uses the confidence level of 95%, which has a margin of error of 0.05%. The study therefore used a sample size of 171 fast food restaurants.

### 3.5 Data Collection

The research used a structured questionnaire to collect primary data. This questionnaire contained of three sections; Section A obtained information on demographic data, sections B contained questions regarding the 4 identified SCM practices in respective fast food chain restaurants. Finally, Section C questioned on SCP of the restaurants. The questionnaire research used both open-ended as well as closed-ended questions.

Data collection procedure involved distribution and collection of questionnaires. The researcher dropped questionnaires to respondents and collected after being filled. The researcher sought permission and obtained informed consent before carrying out the research. The next step involved administering the questionnaire to respondents. The researcher collected the filled questionnaire after two weeks for analysis. The respondents had two

weeks to fill the items in the document which was relatively enough time. Before distributing the surveys, the researcher informed the respondents about the study's goal.

Specifically, the study involved employees from the Supply Chain Management Department because they were the ones with the relevant information. Respondents were derived from a population of procurement, operation directors as well as inventory managers from various restaurants chosen from Mombasa County.

### 3.6 Operationalization of Study Variables

Table 3.1 indicates the operation definition of variables, sub variables, their respective indicators, sources and measurement scale.

**Table 3.1 Operationalization of Variables**

| Variable | Sub Variable | Indicators | sources | Measurement Scale |
|---|---|---|---|---|
| Supply chain management practices (Independent Variable) | Supplier and customer relationship management | Communication<br>Choice of suppliers<br>Supplier customer involvement<br>Legal binding agreements | Arshinder, 2008<br>Bearnon (2014<br>Flynn & Flynn, 2005). | Likert Scale |
| | Information Sharing | System of information sharing.<br>Advanced technology use.<br>Information security.<br>Information accuracy. | Moberg (2002),<br>(Chen &Paulraj, 2010). | Likert Scale |
| | Logistic Management | Subcontracting transportation.<br>Warehousing and inventory systems.<br>Reverse Logistics.<br>Ordering systems | (Alphonse, 2013).<br>(Bearnon, 2014).<br>Cooperetal. (2014) | Likert Scale |
| | Outsourcing Practices | Security services.<br>Recruitment of staff.<br>Auditing of financial records.<br>Transportation | (wisner 2003).<br>(Supalak, 2010). | Likert Scale |

| | | | | |
|---|---|---|---|---|
| Supply chain performance (Dependent Variable) | Cost reduction | Reduction of overall costs.<br>Cost of acquisition of raw materials.<br>Competitive advantage.<br>Production of cheap products<br>Waste reduction | (Sulaiman, 2018)<br>(Strahwald, 2017)<br>(Stefanovic, 2014) | Likert Scale |
| | Quality of goods | Supplier reliability.<br>Introduction of new improved products.<br>Supplier collaboration in production.<br>Highly rated products. | | |
| | Customer Service | Improved customer satisfaction levels.<br>Flexibility to dynamic customer needs.<br>Reduced waiting time.<br>Less customer maintenance. | | |
| | Productivity and efficiency | Improved production.<br>High asset utilization.<br>Less cost of production.<br>Communication | | |

| | | | | |
|---|---|---|---|---|
| | | effectiveness. | | |

### 3.7 Validity and Reliability

Heale and Twycross (2015) assert that validity defines the preciseness of an instrument in measuring a claim. While a reliable measure is required, it is sometimes difficult to obtain a valid tool. In this case, the researcher did a mock study to assess the validity of the questionnaire's items. Conversely, reliability concerns the estimate of stability of measures, assesses the scores to determine an instrument's reliability and internal consistency (Heale&Twycross, 2015).As such, the test-retest assessed the study's reliability and internal consistency of the questionnaire's items. Likewise, Cronbach's Alpha was useful in guaranteeing the reliability of the data based on the application of the five-point Likert scale. A score of 0.6 and above for the tool clarifies reliability (Cho &Kim, 2015).

### 3.8 Diagnostic Tests

The researcher conducted tests to ascertain the validity of regression models. The test procedures detected the least violation of a linear model. Observation of any violation was remedied with proper actions.

#### 3.8.1 RESET Tests

The RESET tests assessed if the non-linear combination of the study's values to correct the functional form. RESET is effective as a diagnostic test to reveal omitted variables in the study. The test highlight irrelevant and reveals omitted variables.

#### 3.8.2 Heteroscedasticity Test

Heteroscedasticity was tested using the Koenker test. The test allows the researcher to determine whether or not constant variance is present. The test evaluates the consistency of the variable association between explanatory variables and the predicted variable in the model (Mur, Lopez & Angulo, 2009).

#### 3.8.3 Test for Multicollinearity

Multicollinearity assumes a linear relationship between all variables in a model which combine to form a biased regression model. Multicollinearity is said to exist when there

exists a relationship, also referred to as a 'correlation', which is assumed between any independent variables in a regression model. Their presence may have a negative impact on the study's outcomes. The variance inflation factor (VIF) was employed in this work to detect multicollinearity in regression analysis.

### 3.8.4 Test for Autocorrelation

The dependencies within the data obtained from the survey could lead to autocorrelation. The ordinary or first order Durbin-Watson statistic tests will be used to detect the presence, if any, of autocorrelation. According to King (2018), autocorrelation can be pure and this affects the design of the original model. Therefore, once it is clear that there is autocorrelation and that it is pure, the researcher will need to transform it such that it is not pure.

### 3.9Data Analysis

The researcher examined the gathered data from the questionnaires, examined the data, and made inference after tabulation. Analysis was made after editing to assert the consistency of the values. The researcher used descriptive statistics to assess the dispersion measures that is critical when handling data. SPSS version 22was used in data analysis and interpretation.

In order to understand SCMP that restaurants in Mombasa County have implemented, the study used the descriptive analysis approach. The effect of SCMP on the SCP was determined by regression analysis. The problems associated with implementation of SCMP were analyzed using descriptive statistics. The regression model that evaluated the second objective was

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where

**Y** = Supply Chain Performance

$\beta_0$= constant intercept

$\beta_1$- $\beta_4$, are regression coefficients

$X_1$=Customer-Supplier Relationship Management

$X_2$= Information Sharing Practices

$X_3$=Logistic Management Practices

$\mathbf{X_4}$=Outsourcing practices

# CHAPTER FOUR: DATA ANALYSIS, PRESENTATION AND INTERPRETATION

## 4.1 Introduction

Data analysis, tabular data, and interpretation of study findings are all included in this section, which is guided by the research objectives. Frequencies and percentages were calculated throughout the data analysis. The study assessed the level of SCMP implementation by fast food outlets in Mombasa County in order to meet the research's goal. The study looked at the impact of SCMP on the SCP of fast food restaurants in Mombasa County. Additionally, it revealed the difficulties that these fast food restaurants in Mombasa County have in implementing SCMP.

The chapter commenced with analysis of questionnaire return rate of the research instrument followed by the respondents' demographics.

## 4.2 Questionnaire Return Rate

This research targeted 171 participants from Procurement, Operations and Inventory sections of fast food restaurants in Mombasa County but due to COVID 19 pandemic which led to closure of these restaurants, the research only managed to administer 70 questionnaires. From the 70 questionnaires distributed, 60 questionnaires got appropriately completed and given back. The received questionnaires response from the 60 participants represented a completion rate of 86 %.

**Table 4.1Questionnaire Return Rate**

| Administered | Returned | Return Rate |
|---|---|---|
| 70 | 60 | 86% |

## 4.3 Demographic Features of the Respondent

The study on these features was necessary because they provided a broad grasp of the context for findings. The researcher bade respondents to indicate their gender, age, level of hierarchy in a firm, and the number of years in the firm.

### 4.3.1 Position in the Organization

The respondent's position at work was established with results tabulated in Table 4.2.

**Table 4.2 Position in the Organization**

| Position | Frequency | Percent |
|---|---|---|
| Procurement Officer | 20 | 33.3 |
| Operations Manager | 23 | 38.3 |
| Inventory Manager | 17 | 28.3 |
| Total | 60 | 100.0 |

**Source: Primary data (2020)**

Table 4.2 shows that a greater number of participants which represented 38.3 percent held the position of operations management followed by 33.3 percent representing respondents from procurement and 28.3 percent from inventory manager positions. Based on inference, the result clarifies that most of the respondents belonged to the operations department of the restaurants.

### 4.3.2 Gender of the Respondent

This was done to determine the gender of the respondents. This part displayed motive for getting different viewpoints from both the male and female participants therefore assessment of the sex of participants and the results are displayed in Table 4.3.

**Table 4.3 Gender of the Respondent**

| Gender | Frequency | Percent |
|---|---|---|
| Male | 22 | 36.7 |
| Female | 38 | 63.3 |
| Total | 60 | 100.0 |

Source: Primary data (2020)

Table 4.3 reveals that 63.3% of the respondents were female and 36.7% were male. Hence the discovery that majority of managerial staff within fast food firms is female. This implies that majority of the managerial staff of these fast foods restaurants complies of male gender.

### 4.3.3 Duration of Service

This was conducted to assess the duration that a respondent has served a firm. Respondents' lengthy service can be associated with experience gained in the line of duty and knowledge acquired over time which may be tied to superior organization performance. Employees who have been with a company for a long time are expected to have a thorough understanding and expertise with its processes. The frequency on how long the participants had worked for the organization is presented in Table 4.4.

**Table 4.4 Duration of Service**

| Duration of Service | Frequency | Percent |
|---|---|---|
| Less than 5 years | 11 | 18.3 |
| 6-10 years | 20 | 33.3 |
| 11-15 years | 14 | 23.3 |
| 16-20 years | 9 | 15.0 |
| Over 20 years | 6 | 10.0 |
| Total | 60 | 100.0 |

Source: Primary data (2020)

The outcome in Table 4.4 shows that a percentage of 33.3% of the employees had been employed in the organization for a duration ranging 6-10 years while 23.3 percent have been in their organizations for over 11-15 years. 18.3 percent represented respondents have worked for less than 5 years. Findings indicate that a bigger percentage of the participants worked for the company for a span not exceeding 15 years, entails a high mobility among them, tendency being looking for better opportunities.

### 4.3.4 Age of Respondent

This study sought to determine the respondents' ages. The outcome is presented in Table 4.5.

**Table 4.5 Age of Respondent**

| Age | Frequency | Percent |
|---|---|---|
| Less than 30 Years | 12 | 20.0 |
| 31-40 Years | 24 | 40.0 |

| | | |
|---|---|---|
| 41-50 Years | 15 | 25.0 |
| Over 50 Years | 9 | 15.0 |
| Total | 60 | 100.0 |

Source: Primary data (2020)

Analysis conducted on respondents' age showed that 40% ranged between 31 and 40 years, 25% between 41-50 and 20% represented less than 30 years. 15% represented respondents with over 50 years. The research findings indicated most of the employees in managerial positions in fast food business are young people.

### 4.4 Tests of Statistical Assumptions

In order to ensure that the regression model met all the statistical assumptions, various statistical assumptions were used to assess the data's validity. These assumptions include normality, autocorrelation, multicollinearity and heteroscedasticity.

#### 4.4.1 Normality Test

Normality of data collected was tested using Shapiro Wilk test, whereby the null null hypothesis is that the population is normally distributed. If the values of Shapiro-wilk Test are greater than 0.05, this will show a normal distribution of the data. If the values less than 0.05, then the data is not from a normal distribution. Table 4.6 shows the test results.

**Table 4.6 Tests of Normality**

| | Kolmogorov-Smirnov[a] | | | Shapiro-Wilk | | |
|---|---|---|---|---|---|---|
| | Statistic | df | Sig. | Statistic | df | Sig. |
| Unstandardized Residual | .078 | 60 | .200* | .978 | 60 | .359 |

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

From the results on tables 4.6, the value of the Sig columns in the table is greater than 0.05, which therefore implies that the data is from a normal distribution.

### 4.4.2 Test of Multicollinearity

The phenomenon of multicollinearity occurs when two or more independent variables have a precise linear connection. The approach is critical in assessing the correlation between independent variable. As such, it is possible to determine accurately one independent variable from the other in a regression analysis. In this study, Multicollinearity was checked using VIF (Variance Inflation Factor). When the value of the VIF ranges from 1 to 10, multicollinearity does not exist. Table 4.7 below presents the test outcomes.

**Table 4.7 Multi-Collinearity Test**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | Collinearity Statistics | |
|---|---|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | | Tolerance | VIF |
| 1 | (Constant) | 1.482 | .622 | | 2.381 | .021 | | |
| | Supplier_Customer Rlship | .150 | .078 | .231 | 1.918 | .060 | .869 | 1.151 |
| | InformationSharing | .234 | .113 | .253 | 2.067 | .043 | .839 | 1.192 |
| | LogisticMngnt | .200 | .092 | .253 | 2.168 | .034 | .927 | 1.079 |
| | Outsourcing Practices | .196 | .091 | .245 | 2.154 | .036 | .975 | 1.026 |

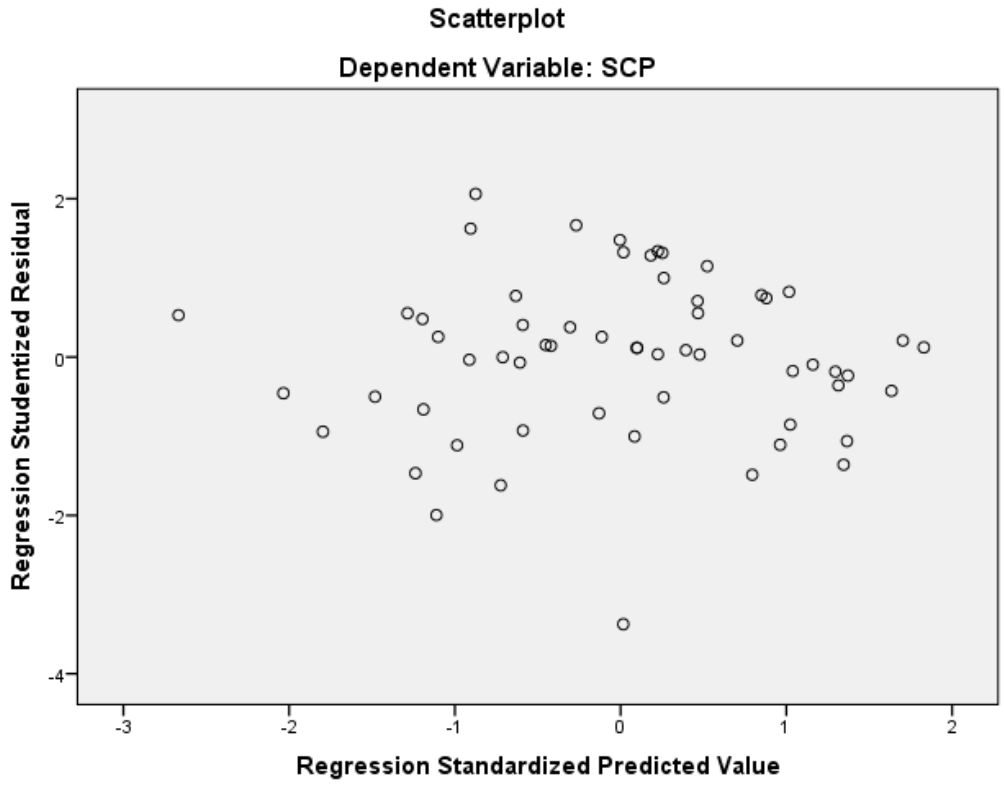
a. Dependent Variable: SCP

The results in Table 4.7 above clearly shows that Supplier customer relationship, Information sharing, logistic management and outsourcing variables recorded a tolerance of 1.151, 1.192, 1.079 and VIFs value 1.026 values respectively. A multicollinearity problem is indicated by a tolerance of less than 0.20 or 0.10 and a VIF of 5 or 10 and above. Therefore it's evident that; there is an indication that the problem of multicollinearity is deficient in this regression model.

### 4.4.3 Heteroskedasticity Test

Heteroskedasticity is opposite of homoscedasticity, this is another regression assumption whereby the homogeneity of variance is examined through a scatter plot of the residuals against the predicted values.

Figure 4.1 Heteroskedasticity Test Scatter Plot



The analysis began with a macro syntax by Gwilym Pryce on Breusch-Pagan and Koenker, which was run in SPSS and revealed the output below:

Run MATRIX procedure:
BP&K TESTS
==========

Regression SS
4.3701

Residual SS
179.3269

Total SS
183.6970

R-squared
.0238

Sample size (N)
60

Number of predictors (P)
4

Breusch-Pagan test for Heteroscedasticity (CHI-SQUARE df=P)
2.185

Significance level of Chi-square df=P (H0:homoscedasticity)
.7018

Koenker test for Heteroscedasticity (CHI-SQUARE df=P)
1.427

Significance level of Chi-square df=P (H0:homoscedasticity)
.8394

------ END MATRIX -----

Due to a small sample size of 48, the Koenker Test for Heteroscedasticity was found to be suitable as follows:

Step 1: Stating the hypotheses

$H_0$: There is no heteroscedasticity in the data (data is homoscedastic).

$H_1$: There is heteroscedasticity in the data.

Step 2: Level of significance

The level of significance, $\alpha = 0.05$

Step 3: Decision rule

Reject the null hypothesis if the p-value is less than 0.05

Step 4: Test statistic

From the output of SPSS, Koenker test statistic = 1.427 and p-value = 0.8394

Step 5: Conclusion

Since the p-value (0.8394) is greater than the level of significance (0.05), the null hypothesis is not rejected implying that the data is homoscedastic.

### 4.4.4 Autocorrelation Test

Autocorrelation test was done using Durbin-Watson test, which test statistic ranging from 0 to 4. When the registered value is close to 2, which is the middle of the range, this suggests less autocorrelation, and if the values are closer to 0 or 4, this indicate greater positive or negative autocorrelation respectively. In this study, the test of autocorrelation was performed and the results are as presented in Table 4.8.

**Table 4.8 Autocorrelation Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|---|---|---|---|---|---|
| 1 | .553[a] | .306 | .255 | .42020 | 1.795 |

a. Predictors: (Constant), OutsourcingPractices, Supplier_CustomerRlship, LogisticMngnt, InformationSharing

b. Dependent Variable: SCP

From the research results in Table 4.8, the Durbin Watson value is 1.795. To check presence of autocorrelation, the Durbin-Watson test was conducted as follows;

Step 1: Stating the hypotheses

$H_0$: $\rho = 0$ (autocorrelation is absent)

$H_1$: $\rho > 0$ (autocorrelation is present)

Step 2: Level of significance

Level of significance, $\alpha = 0.05$

Step 3: Decision rule

Number of independent variables, k = 4; Number of observation, n = 60. From the Durbin-Watson tables, $d_l$ =1.444 and $d_u$ = 1.727

Step 4: Test statistic

From table 3, the Durbin-Watson test statistic, d = 1.795

Step 5: Conclusion

Since computed d (1.795) is greater than $d_u$ (1.727), the null hypothesis is not rejected implying that there is no autocorrelation.

### 4.5. Descriptive Statistics Analysis of Supply Chain Management Practices

The measurement scale comprised 5 elements calculated on a 5 –point Likert scale ranging from (1) =No extent to (5) = Very large extent. Participants were requested to give their views on the extent of embracement of SCMP and their influence on SCP of fast food restaurants. Statements which displayed high mean showed participants agreed (>3.00) while the statements with a low mean signifies participants disagreement (<3.00).

#### 4.5.1 Descriptive Statistics of Supplier Customer Relationship

**Table 4.9 Mean and Standard Deviation of Supplier Customer Relationship**

| Supplier Customer Relationship | N | Mean | Std. Deviation |
|---|---|---|---|
| There is existence of excellent communication channels | 60 | 4.05 | .769 |
| Our firm rely on few dependable suppliers | 60 | 4.03 | .882 |
| There exist mechanisms of employing routine follow-up procedures for customer inquiries or complaints | 60 | 4.43 | .500 |
| There is existence of legal bidding agreements between management, suppliers and customers | 60 | 4.00 | .844 |
| Valid N (listwise) | 60 | | |
| Composite Mean Score and Standard Deviation | | 4.127 | 0.749 |

Source: Primary data (2020)

Table 4.9 results asserts that respondents agreed that the indicators of supplier customer relationship practices influenced firm-level activities, this is evident from the composite mean of 4.127 (SD=0.749). The indicator on whether there exist mechanisms of utilizing routine follow-up procedures for customer inquiries or complaints had the highest mean of 4.43 (SD=0.500) followed by the item existence of excellent communication channels with a mean of 4.05 (SD=0.769). The respondents also agreed that their companies rely on trustworthy

suppliers, with a mean of 4.03 (SD=0.882). The item on whether their existed legal bidding agreements between management, suppliers and customers registered the smallest mean of 4.00 (SD= 0.844). Based on these findings, it is clear that fast food companies have embraced customer relationship management strategies.

### 4.5.2 Descriptive Statistics of Information Sharing

**Table 4.10 Mean and Standard Deviation of Information Sharing**

| Information Sharing | N | Mean | Std. Deviation |
|---|---|---|---|
| There exist use of Electronic Data Interchange (EDI) systems of communications and information sharing | 60 | 4.28 | .804 |
| There is heavy deployment of advanced technology in sharing of data and information | 60 | 4.12 | .715 |
| Data and information is secured by intelligent security systems | 60 | 3.53 | .503 |
| Valid N (listwise) | 60 | | |
| Composite Mean Score and Standard Deviation | | 3.977 | 0.674 |

Source: Primary data (2020)

From the results on the Table 4.10, participants were in agreement that there existed use of Electronic Data Interchange systems of communications and information sharing, this indicator had a mean of 4.28 (SD=0.804). The respondents also claimed that modern technology was heavily used in data and information sharing, with a mean of 4.12 percent (SD=0.715). The item on data and information being secured by intelligent security systems had the smallest mean of 3.53 (SD=0.503). The composite mean of 3.977 (SD=0.674) was a clear indication that information sharing practices were being practices by the firms to a large extent.

### 4.5.3 Descriptive Statistics of Logistic Management Practices

**Table 4.11 Mean and Standard Deviation of Logistic Management Practices**

| Logistic Management Practices | N | Mean | Std. Deviation |
|---|---|---|---|

| | | | |
|---|---|---|---|
| Sub-contracting vehicles for transportation | 60 | 4.35 | .659 |
| Use of IT based automated ordering systems for food stuffs and supplies | 60 | 4.30 | .646 |
| There is availability of reverse logistics on customer food stuffs and supplies | 60 | 4.28 | .613 |
| Warehousing and inventory systems are well monitored | 60 | 3.68 | .596 |
| Valid N (listwise) | 60 | | |
| Composite Mean Score and Standard Deviation | | 4.153 | 0.629 |

Source: Primary data (2020)

The results in Table 4.11 indicate that the respondents were in agreement with the indicators of logistic management practices being embraced in their firms to a large extent, this is evident from the composite mean of 4.153 (SD=0.629). The indicator on whether there was sub-contracting vehicles for transportation had the highest mean of 4.35 (SD=0.659) followed by the item on use of IT based automated ordering systems for food stuffs and supplies with a mean of 4.30 (SD=0.646). The respondents also agreed that in their firms there existed availability of reverse logistics on customer food stuffs and supplies which had a mean of 4.28 (SD= 0.613). The item on whether warehousing and inventory systems were well maintained registered the smallest mean of 3.68 (SD= 0.596). Based on these findings, it is clear that fast food companies have embraced logistic management principles.

### 4.5.4 Descriptive Statistics of Outsourcing Practices

**Table 4.12 Mean and Standard Deviation of Outsourcing Practices**

| **Outsourcing Practices** | **N** | **Mean** | **Std. Deviation** |
|---|---|---|---|
| Availability of quality outsourced security services | 60 | 4.07 | .821 |
| Quality auditing services are offered by the outsourced auditing firms | 60 | 3.42 | .619 |
| There is transparency and equity in the process of recruitment of staff | 60 | 4.52 | .504 |

| | | | |
|---|---|---|---|
| Existence of excellent transportation services from outsourced companies | 60 | 3.98 | .770 |
| Valid N (listwise) | 60 | | |
| Composite Mean Score and Standard Deviation | | 3.998 | 0.679 |

Source: Primary data (2020)

From the results on the Table 4.12, participants were in agreement that there existed availability of quality outsourced security services, this indicator had a mean of 4.07 (SD=0.821). Outsourced auditing businesses also provide quality auditing services, according to the respondents, though only modestly - a mean of 3.42 (SD=0.619). The item on existence of transparency and equity in the process of recruitment of staff had the biggest mean of 4.52 (SD=0.504). The composite mean of 3.998 (SD=0.679) was a clear indication that outsourcing practices were being practices by the firms.

## 4.6 Descriptive Analysis of Supply Chain Performance

The measurement scale comprised 5 elements calculated on a 5 –point Likert scale ranging from (1) =No extent to (5) = Very large extent. Respondents were requested to react to the indicators of SCP in their firms.

### 4.6.1 Descriptive Statistics of Customer Satisfaction

**Table 4.13 Mean and Standard Deviation of Customer Satisfaction**

| **Customer Satisfaction** | **N** | **Mean** | **Std. Deviation** |
|---|---|---|---|
| The degree of customer satisfaction have greatly improved | 60 | 4.48 | .504 |
| There is high response to dynamic customer needs | 60 | 4.45 | .502 |
| Minimal cost of customer maintenance | 60 | 4.48 | .504 |
| Standardized goods are delivered on time | 60 | 4.50 | .504 |
| Valid N (listwise) | 60 | | |

| | | |
|---|---|---|
| Composite Mean Score and Standard Deviation | 4.476 | 0.504 |

Source: Primary data (2020)

From the results on the Table 4.13, participants were in agreement that customer satisfaction was greatly achieved, the composite mean for this construct was 4.476 (SD=0.504). The indicator which recorded the highest mean of 4.50 (SD=0.504) was delivery of standardized goods on time. The indicator for minimal cost of customer maintenance had a mean of 4.48 (SD= 504). Therefore, from the results of the findings, the respondents indicated customer satisfaction was greatly felt in their firms.

### 4.6.2 Descriptive Statistics of Cost Reduction

**Table 4.14 Mean and Standard Deviation of Cost Reduction**

| **Cost Reduction** | **N** | **Mean** | **Std. Deviation** |
|---|---|---|---|
| There is reduction of waste in terms of usage and storage | 60 | 4.45 | .502 |
| The total cost of acquisition of raw materials is reduced | 60 | 4.10 | .775 |
| Goods and services are made available to the consumers at cheaper rates | 60 | 3.52 | .504 |
| Competitive advantage is greatly experienced | 60 | 4.55 | .502 |
| Valid N (listwise) | 60 | | |
| Composite Mean Score and Standard Deviation | | 4.155 | 0.571 |

Source: Primary data (2020)

Based on Table 4.14 results, the respondents were in agreement that there is reduction of waste in terms of usage and storage and this indicator had a mean of 4.45 (SD=0.502). The indicator on total cost of acquisition of raw materials being reduced had a mean of 4.10 (SD= 0.775) whereas the highest mean on 4.55 (SD=0.502) was recorded on competitive advantage being greatly experienced. The composite mean of cost reduction was 4.155 (SD=0.571) which is a clear indication that cost reduction was experienced in large extent which greatly enhanced supply chain performance of the firms.

### 4.6.3 Descriptive Statistics Quality of Service

**Table 4.15 Mean and Standard Deviation of Quality of Service**

| Quality of Service | N | Mean | Std. Deviation |
|---|---|---|---|
| There is supplier reliability in delivery timelines | 60 | 4.45 | .502 |
| Our products are highly competitive in the industry | 60 | 3.58 | .497 |
| We have introduced new products and services | 60 | 4.43 | .500 |
| There is early supplier involvement in the development of specifications | 60 | 3.13 | .812 |
| Valid N (listwise) | 60 | | |
| Composite Mean Score and Standard Deviation | | 3.898 | 0.578 |

Source: Primary data (2020)

The research findings Table 4.15 indicate that there was supplier reliability in delivery of timelines, this had a mean of 4.45 (SD=0.502). The respondents also claimed that their products were highly competitive in the industry to a considerable extent, with a mean of 3.58 (SD= 0.497) whereas the indicator of new products and services being introduced by the firms had a mean of 4.43 (SD=0.500). The lowest mean of 3.13 (SD=0.812) was found for the presence of early supplier involvement in the deployment of specifications, indicating that not all companies did so. Quality of service had a composite mean of 3.898 (SD=0.578).

### 4.6.4 Descriptive Statistics of Delivery of Goods

**Table 4.16Mean and Standard Deviation of Delivery of Goods**

| Delivery of Goods | N | Mean | Std. Deviation |
|---|---|---|---|
| There is increased efficiency in the process of delivering goods | 60 | 4.40 | .494 |
| Goods/ products are delivered within the stipulated timeframes | 60 | 4.08 | .766 |
| Products /goods are delivered in the right quality and quantities | 60 | 4.47 | .503 |
| There exist a transparent logistical system on transportation and delivery of goods. | 59 | 4.47 | .504 |

| | | |
|---|---|---|
| Valid N (listwise) | 59 | |
| Composite Mean Score and Standard Deviation | 4.355 | 0.568 |

Source: Primary data (2020)

Based on Table 4.16 results, all the indicators of delivery of goods recorded means greater than 4.00, which indicates general respondents' agreements on the item. The highest mean of 4.47 (SD=0.503) was recorded on the indicator of products and goods being delivered in the right quality and quantities followed by existence of transparent logistical system on transportation and delivery of goods with a mean of 4.47 (0.504). Increased efficiency in the process of delivering goods in the firms had a mean of 4.40 (SD=0.494). Therefore, research findings shows that effectiveness and efficiency in the delivery of goods was greatly practiced.

### 4.7 Regression Analysis for Influence of Supply Chain Management Practices on Supply Chain Performance

The goal is to learn more about the relationship between SCMP and SCP in Mombasa County's fast food businesses. Because the correlation analysis clearly showed a link between the independent and dependent variables, a regression analysis was performed to determine the strength of the link.

From the regression analysis, the various outcomes were observed as presented in this section.

Table 17 presents the regression model summary.

**Table 4.17Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .553[a] | .306 | .255 | .42020 |

a. Predictors: (Constant), OutsourcingPractices, Supplier_CustomerRlship, LogisticMngnt, InformationSharing

**Table 4.17 b ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 3.963 | 4 | .991 | 5.434 | .001[b] |
| | Residual | 10.029 | 55 | .182 | | |
| | Total | 13.992 | 59 | | | |

a. Dependent Variable: SCP
b. Predictors: (Constant), InformationSharing, SCPcustomerSatisfaction, OutsourcingPractices, LogisticMngnt

Table 4.17 summarizes the regression model and emphasize a positive moderate correlation coefficient of 0.553 with a significance of r = 0.01 as per the sig. column in the ANOVA table. This indicates that there is a moderately defined relationship between the predictor factors and fast food restaurant supply chain performance. This view was further enhanced when a coefficient of determination ($R^2$) of 0.306 was realized which indicates that the study independent variables explained 30.6% of the variability in the dependent variable (Supply chain Performance), which gives the indication that though the relationship is significant, the moderate correlation (0.553) meaning that SC management practices have a moderate impact on the supply chain performance.

Table 4.18 shows analysis of ANOVA for the relationship of the study variables.

**Table 4.18 Regression ANOVA Table**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 4.281 | 4 | 1.070 | 6.061 | .000[b] |
| | Residual | 9.711 | 55 | .177 | | |
| | Total | 13.992 | 59 | | | |

a. Dependent Variable: SCP
b. Predictors: (Constant), OutsourcingPractices, Supplier_CustomerRlship, LogisticMngnt, InformationSharing

The Table 4.18 presents the Analysis of Variance (ANOVA) to test the variability of SCMP and supply chain performance. The outcomes presented, F-test was 6.061, the p-value =0.000 ($p<0.05$) and residual of 9.711 indicating that SCMP significantly influences the SCP of fast food restaurants firms at 95% confidence level. Therefore, this analysis backs up the study results in the model summary, which show that SCMP has a stronger impact on firm-level SCP.

A further regression analysis on the association was done, and the outcomes of the analysis are presented in Table 4.19 showing the regression model coefficients.

**Table 4.19Regression Coefficients**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 1.482 | .622 | | 2.381 | .021 |
| | Supplier_CustomerRlship | .150 | .078 | .231 | 1.918 | .060 |
| | InformationSharing | .234 | .113 | .253 | 2.067 | .043 |
| | LogisticMngnt | .200 | .092 | .253 | 2.168 | .034 |
| | OutsourcingPractices | .196 | .091 | .245 | 2.154 | .036 |

a. Dependent Variable: SCP

The findings in Table 4.19 indicate that Because their correlations are statistically significant, the independent factors (supplier customer relationship, information exchange, logistic management, and outsourcing methods) have an impact on the SCP on the fast food restaurants enterprises in Mombasa (p=0.06, 0.043, 0.034 and p=0.036 respectively). With coefficients of 0.15, 0.234, 0.2, 0.196, and a constant of 1.482, the regression model reveals that the link between supply chain performance and independent variables is positive.

The regression model of this relationship is as follows:

**$Y$ (SCP) $=1.482 +0.15X_1 +0.234X_2 +0.2\ X_3+0.196\ X_4$**

Where:

y = Supply Chain performance

$X_1$ = Supplier Customer Relationship

$X_2$= Information sharing

$X_3$= Logistic Management

$X_4$= Outsourcing practices

Based on the regression analysis results above, the regression model used in this research study is statistically significant, with $R^2$ explaining 30.6% improvement in supply chain performance due to supply chain management practices and the P value being less than 0.05 that is 0.000.

### 4.8. Correlation analysis

The purpose of correlation was to look into the relationship between the independent and dependent variables. Correlation was used to indicate the direction and degree to which the dependent variable differs from the independent variables.

The correlation analysis in this study used Pearson correlation coefficients, where the correlation coefficient (R) was computed to show the extent and direction of the predictor variables on the predicted variable, and the coefficient of determination, which is a statistic that assesses the closeness of data on the regression line. It's also the proportion of response variable fluctuation described by the linear model R squared, (R2), which was used to figure out how the independent variable affected the predicted variable.

**Table 4.20Correlation Analysis of Study Variables**

| **Correlations** | | | | | | |
|---|---|---|---|---|---|---|
| | | Supplier Customer Rlship | Information Sharing | Logistic Mngnt | Outsourcing Practices | SCP |
| Supplier Customer Rlship | Pearson Correlation | 1 | | | | |
| | Sig. (2-tailed) | | | | | |
| Information Sharing | Pearson Correlation | .351** | 1 | | | |
| | Sig. (2-tailed) | .006 | | | | |
| Logistic Mngnt | Pearson Correlation | .139 | .232 | 1 | | |
| | Sig. (2-tailed) | .288 | .074 | | | |
| Outsourcing Practices | Pearson Correlation | .029 | -.076 | -.137 | 1 | |
| | Sig. (2-tailed) | .825 | .566 | .298 | | |
| SCP | Pearson Correlation | .363** | .375** | .311* | .198 | 1 |
| | Sig. (2-tailed) | .004 | .003 | .016 | .129 | |
| **. Correlation is significant at the 0.01 level (2-tailed). | | | | | | |
| *. Correlation is significant at the 0.05 level (2-tailed). | | | | | | |

The results from Table 4.20 show a weak positive and significant correlation between firms SCP and supplier customer relationship ($r = 0.363$, $p<0.04$). Similarly a weak positive and significant association existed between firms SCP and information sharing ($r = 0.375$, $p<0.03$). Also, a weak positive and significant relationship existed between SCP and logistics management practices ($r=0.311$, $p<0.016$).

As a result, the correlation matrix's result implies that there are substantial relationships between the variables.

# CHAPTER FIVE: SUMMARY, DISCUSSION, CONCLUSION AND RECOMMENDATIONS

## 5.1 Introduction

This section provides a high-level summary of the findings, conclusions, and suggestions. The results and observations for the study objectives are included in the summary of the findings.

The study objectives informed the presentation of the debates and conclusions, which were suitably informed by the study data, analysis, and interpretation. The study's theoretical implications and recommendations were thoroughly studied using the study's conclusions as a guide.

## 5. 1 Summary and Discussion of findings

The study's major goal was to look into the relationship between fast food businesses' SCMP and SCP in Mombasa County. To achieve the aforesaid goal, a conceptual model was created and evaluated in accordance with the three study objectives.

The initial goal was to determine the extent to which fast food outlets in Mombasa County used SCMP. The SCMP that steered this objective were: supplier customer relationship, information sharing practices, logistic management practices and outsourcing practices. In supplier customer relationship management practices, it was established that majority of the fast foods restaurants in Mombasa county have adopted these practices. This was evident from study findings. The composite mean of supplier customer relationship was 4.127 (SD=0.749), this showed respondents agreement on the implementation of SCMP in their firms. The findings show that there were excellent communications channels, there existed mechanisms of employing routine follow up on customer complaints. Also legal bidding agreements existed between the parties.

The research findings also revealed that information sharing practices were adopted to a large extent and this was evident from the composite mean of the indicators which was 3.977 (SD=0.674). Results of the findings indicated that there was heavy deployment of advanced technology in information sharing which enabled all parties of the supply chain to receive timely information. Security of data and information was also secured by intelligent security systems.

The study's findings on logistic management methods showed that respondents have implemented the practices in their businesses, as evidenced by the composite mean of 4.153 (SD=0.629). The firms heavily depended on subcontracting vehicles from the transportation of their products. The findings also indicated that the firms used IT based automated ordering systems for their food stuffs and supplies. Availability of reverse logistics systems was also evident. The findings also indicated that outsourcing practices were adopted to a large extent in respondents' firms. This was evident from the composite mean of 3.998 (SD=0.679). The study revealed that the firms depended on outsourced quality security services, excellent transportation services and quality-auditing services were also from outsourced companies.

The second goal was to see how SCMP affected the SCP of fast food restaurants in Mombasa. In order to determine the effect, regression analysis was conducted. Results indicate that SCMP contributed 30.6% of the variation in SCP of the fast food restaurants. The study model found a positive moderate correlation coefficient of 0.553 (r =0.01) existed which was clear indication of a moderate defined association between the predictor variables and SCP of fast food restaurants. As a result, the regression model revealed that there is a link between supply chain performance and independent factors (Supplier customer relationship, information sharing, logistic management and outsourcing practices) was positive with coefficients of 0.15, 0.234, 0.2, 0.196 and a constant of 1.482 and also significant with p-value lower that the 0.05 (p = 0.000).

### 5.3 Conclusions of the Study

The major aim of the work was to assess the association between SCMP and SCP of fast foods restaurants in Mombasa County and the outcome of the study reveal that SCP of these firms is subjective to several practices. Findings reveal that the relationship between the supplier and customer, and management practices influence a firm's performance within the SC. Excellent communication channels should be put in place, dependence on few reliable suppliers is ideal. Retention of customers is greatly influenced by existence of proper mechanisms ensuring routine follow up on customers concerns. This was consistent with the study conducted by Afamah (2017) on Nairobi fast food chains, which found that integration of the SC management with performance. Afamah (2017) also found that a strong correlation exists between SC integration and SC performance. The study findings were also consistent with Bhimani and Ncube (2006) who claim that good customer relationships leads to customer loyalty and integration of SC expands customers' value. The study also revealed

that information sharing also plays a great part in the enhancing better performance of supply chain (Bhimani & Ncube, 2006). This is achieved by ensuring that proper advanced technologies are deployed in information and communication systems, use of secure systems to handle data and information and use of electronic data exchange systems to share information (Bhimani & Ncube, 2006). The findings were consistent with the findings in Li & Lin (2006), which clarify that a firm must find means of exploiting and sharing critical information concerning the SC management with partners. The approach aids a firm in grasping customers' needs and integrating cost-effective mechanisms. On logistic management, reverse logistics should place a great role in enhancing asset utilization and reducing losses and unplanned revenues. Warehousing and inventory systems should also be well monitored.

Lastly, the study revealed that outsourcing practices are significant determinants of success of the supply chain performance of fast food firms. Outsourcing of resources like security, transport and other services plays a great role in ensuring firms overall costs are minimized, better skilled resources are accessed and greater flexibility in maintaining and operating supply chain is achieved in the study. This finding was consistent with a past study by Piplani R. (2014) who pointed that due to outsourced reliable transport system that can enhance access to fresh raw material from producers.

### 5.4 Recommendations of the Study

Focusing on the study results, the researcher made the subsequent endorsements; Supplier customer management practices being the most influential determinant for the firms supply chain performance should be greatly improved so as to achieve good customer supplier relations hence increasing the firm's productivity. Proper mechanism should be put in place to ensure that excellent communication channel exist, proper legal documents to strengthen the relationship should also be present. The firms should also invest heavily of use of advanced technological systems on their operations to ensure effective and efficient service delivery. The researcher also recommends availability of proper reverse logistics within the firms, this will go an extra mile ensuring that increased asset utilization is achieved, losses and unplanned revenues are greatly reduces and finally customer retention is achieved.

Also based on the results, its recommended that the fast food restaurants to outsource some of their services like security, auditing and transportation so as to minimize overall costs, have

access to better skilled resources and also help in increasing the firms efficiency in their operations. Outsourcing of some services help the firms in saving on infrastructure and technology. Moreover, outsourcing services enables the firms to have access to faster and better services as compared to employing full time staff to provide the services, which also helps in reducing costs.

### 5.5 Limitations of the Study

Despite the study being successful, a few challenges were encountered. Firstly, it was very challenging to access the respondents so as to deliver the questionnaires due ministry of Health restrictions as a result of COVID 19 pandemic. It was very challenging to have access to restaurants staff due the pandemic, which resulted in emailing the questionnaires to the firms' emails and also to individual emails which posed a threat of delay when it came to following up.

Secondly, some respondents did not fill the questionnaires for fear of not exposing their firms' information that they termed as confidential, this also affected the study. Thirdly, some of the questions on the questionnaires were left unanswered which affected the outcome of the study. Finally, time and resources were limited; due to restrictions and lockdown to some specific areas in Mombasa County, it was very had to access some fast-food restaurants which delay data collection exercise and also affected the project timelines.

### 5.6 Suggestions for Further Research

Outcomes of this work serves as a source for further research to studies scrutinizing the association between SCMP and SCP of fast foods restaurants. Future researchers who would like to do more research on the same, the study findings of this work will guide them accordingly on what has been done and what ought to be done. Future researchers could also consider looking into contribution of heavy deployment of advanced information technology on the implementation of SCM practices to ensure the performance of firms.

A substantive study should be conducted on the major challenges affecting adoption of SCM practices on SC performance of firms. The approach should identify issues revolving around SCM practices and device strategies of addressing them. Further research can address problems in the SC performance and boost the SC management in these firms.

## References


Afamah, C. (2017). Supply chain integration and supply chain performance of fast food chain restaurants in Nairobi County. Unpublished thesis, The University of Nairobi.

Agustina D., Lee C.K.M., Piplani R. (2014) Vehicle scheduling and routing at a cross docking center for food supply chain, [available] http://www.elsevier.com/locate/ijpe, 25.06.2019.

Alvarado, U. Y., &Kotzab, H. (2001). Supply Chain Management: The Integration of Logistics in Marketing. *Industrial Marketing Management, 30*(2), 183–198.

Andebe, E. O. (2011). *Green Supply Chain Management Practices of the Textile Industry inn Kenya* (Unpublished MBA project).University of Nairobi, School of Business, Nairobi, Kenya.

Bhimani, A. & Ncube, M., 2006. Virtual integration costs and the limits of supply chain scalability. *Journal of Accounting and Public Policy*, 25(4), pp. 390-408.

Chen, I. J., &Paulraj, A. (2004). Towards a theory of supply chain management: the constructs and measurements. *Journal of Operations Management, 22*(2), 119–150.

Ellinger, A.E., Natarajarathinam, M., Adams, F.G., Gray, J.B., Hofman, D., and O'Marah, K. 2011. "Supply Chain Management Competency and Firm Financial Success." *Journal of Business Logistics* 32(3): 214– 26.

Frohlich, M. T., & Westbrook, R. (2001). Arcs of integration: an international study of supply chain strategies. *Journal of Operations Management, 19*(2), 185–200.

Green, K. W., & Inman, R. A. (1993). The impact of JIT-II-selling on organizational performance. *Industrial Management & Data Systems*, *107*(7), 1018– 1035.

Handfield, R. B., & Nichols Jr, E. L. (1999). Introduction to. *Supply Chain Management, Prentice Hall, Englewood Cliffs, NJ*.

Hung, W. Y., Samsatli, N. J., & Shah, N. (2006). Object-oriented dynamic supply-chain modelling incorporated with production scheduling. *European Journal of Operational Research, 169*(3), 1064–1076. https://doi.org/10.1016/j.ejor.2005.02.009

Ibrahim, S. B., & Hamid, A. A. (2014). Supply chain management practices and supply chain performance effectiveness. *International Journal of Science and Research*, *3*(8), 187- 195.

Kate C. (2006). Statistical Methods and Computing:

King, M. L. (2018). Testing for autocorrelation in linear regression models: A survey. In *Specification analysis in the linear model* (pp. 19-73). Routledge.

Kish, L. (1965). *Survey Sampling.* New York: John Wiley and Sons, Inc. Sample size for confidence intervals with known t intervals.374 SH, ISBN. 335-0727.UIOWA

Kyengo, E. N. (2012). *Supply Chain Strategy and Competitive Advantage of Nation Media Group Ltd* (Unpublished MBA project). University of Nairobi, School of Business, Nairobi, Kenya.

LaMarco, N. (2018, June 27). What Are the Four Elements of Supply Chain Management? Retrieved December 17, 2018, from https://smallbusiness.chron.com/four-elements-supply-chain-management-52355.html

Lambert, D. M., & Cooper, M. C. (2000). Issues in Supply Chain Management. *Industrial Marketing Management, 29*, 65–83.

Li, S. & Lin, B., (2006). Accessing information sharing and information quality in supply chain management. *Journal of Decision Support Systems*, 42(3), pp. 1641-1656.

Li, S., Ragu-Nathan, B., Ragu-Nathan, T. S., &Rao, S. S. (2006). The impact of supply chain management practices on competitive advantage and organizational performance. *Omega*, *34*, 107–124.

Lin, C., Chow, W. S., Madu, C. N., Kuei, C.-H., & Pei Yu, P. (2005). A structural equation model of supply chain quality management and organizational performance. *International Journal of Production Economics*, *96*(3), 355–365.

Liu, F. C., Ou, C. S., Yen, D. C., & Hung, Y. C. (2010). A structural model of supply chain management on firm performance. *International Journal of Operations & Production Management*, *30*(5), 526–545. https://doi.org/10.1108/01443571011039614

Lori, S. C., & Daniel, R. H. (2011). The moderating effect of supply chain role on the relationship between supply chain practices and performance. *International Journal of Physical Distribution & Logistics Management*, *41*(2), 104–134.

Lyman, S. B., Tan, K. C., & Wisner, J. D. (2002). Supply chain management: a strategic perspective. *International Journal of Operations & Production Management*, *22*(6), 614–631.

Meindl, S. C. P. (2016). *Supply Chain Management--Strategy, Planning and Operation*. Tsinghua University Press. Wheat soybean others land for no use.

Min, S., & Mentzer, J. T. (2004). Developing and Measuring Supply Chain Concepts.*Journal of Business Logistics*, *25*(1), 63–99.

Moeller, S., Fassnacht, M., & Klose, S. (2006). A framework for supplier relationship management (SRM).*Journal of business-to-business marketing*, *13*(4), 69-94.

Mur, J., Lopez, F., &Angulo, A. (2009). Testing the hypothesis of stability in spatial econometric models. *Papers in Regional Science*, *88*(2), 409-444.

Mwale, H. (2014). *Supply Chain Management and Organizational Performance of Large Manufacturing Firms in Nairobi, Kenya* (Unpublished MBA project). University of Nairobi, School of Business, Nairobi, Kenya.

Mwingi, S. A. (2012). *Effect of Government Regulations on Supply Chain Performance of Oil Marketing companies in Kenya* (Unpublished MBA project). University of Nairobi, School of Business, Nairobi, Kenya.

Nassaji, H. (2015). Qualitative and descriptive research: Data type versus data analysis. Language Teaching Research, 19(2), 129–132. https://doi.org/10.1177/1362168815572747

Nyangweso, W. (2013). Supply Chain Management and Organizational Performance in the Sugar Industry in Kenya (Unpublished MBA project). University of Nairobi, School of Business, Nairobi, Kenya.

Paasi, J., Luoma, T., Valkokari, K., & Lee, N. (2010). Knowledge and intellectual property management in customer–supplier relationships.*International Journal of Innovation Management*, *14*(04), 629-654.

Patil, M. (2015). Challenges for Supply Chain Management in Today's Global Competitive Environment. *European Journal of Business and Management*, *7*(10).

Qureshi, M. N., Kumar, D., & Kumar, P. (2007). Modeling the logistics outsourcing relationship variables to enhance shippers' productivity and competitiveness in logistical supply chain. *International Journal of Productivity and Performance Management*.

Reade, D., Emberson, C., & Storey, J. (2005). The barriers to customer responsive supply chain management. *International Journal of Operations & Production Management*, *25*(3), 242–260.

Sandberg, K. (2007). Supply chain management practices in Indian industry. *International Journal of Physical Distribution & Logistics Management*, *33*(7), 582–606.

Sanderson, J., Lonsdale, C., Mannion, R., &Matharu, T. (2012). Towards a framework for enhancing procurement and supply chain management practice in. *studies*, *10*(171), 192-193.

Schniederjans, M. J., Schniederjans, A. M., &Schniederjans, D. G. (2015). *Outsourcing and insourcing in an international context*. Routledge.

Sekaran, U. (2006). *Research Methods for Business: A Skill Building Approach.* Third Edition, New York, John Wiley and Sons.

Stål, H. I., & Jansson, J. (2017). Sustainable Consumption and Value Propositions: Exploring Product–Service System Practices Among Swedish Fashion Firms. *Sustainable Development*, *25*(6), 546–

Tan, K., Kannan, V., &Handfield, R. (1998). Supply Chain Management: Supplier Performance and Firm Performance. *International Journal of Purchasing & Materials Management*, *34*(3), 2–9.

Wellenbrock, M. (2013). *Theoretical basis of supply management: the network theory in supply management* (Bachelor's thesis, University of Twente)

# APPENDICES

## Appendix I: Questionnaire

The main purpose for the design of this questionnaire is collecting data on the relationship between SCMP and SCP of fast food restaurants in Mombasa County. Information collected through this tool will be used for educational purposes only and highest degree of confidentiality will be maintained.

### Section A: General information

1. Name of the organization (Optional)……
2. Position in the organization

   Procurement officer ( )

   Operational Manager ( )

   Inventory manager ( )

3. Respondent gender Male ( ) Female ( )
4. What duration of time you have served in the organization?

   Less than 5 years ( )

   6-10 Years ( )

   11-15 Years ( )

   16-20 Years ( )

   Over 20 Years ( )

5. Respondent Age Bracket

   Less than 30 Years ( )

   31-40 Years ( )

   41-50 Years ( )

   Over 50 Years ( )

### Section B: Supply Chain Management Practices

Please indicate on the following statement, the extent you agree with your firms in embracement of SCMP. Rate the statements of the scale of 1-5 where 1= No extent, 2=small extent, 3= moderate extent, 4= large extent and 5= very large extent.

| **Supplier customer relationship management** | | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 1 | There is existence of excellent communication channels | | | | | |
| 2 | Our firm rely on few dependable suppliers | | | | | |
| 3 | There exist mechanisms of employing routine follow-up procedures for customer inquiries or complaints | | | | | |
| 4 | There is existence of legal bidding agreements between management, suppliers and customers | | | | | |
| **Information Sharing** | | 1 | 2 | 3 | 4 | 5 |
| 1 | There exist use of Electronic Data Interchange (EDI) systems of communications and information sharing | | | | | |
| 2 | There is heavy deployment of advanced technology in sharing of data and information | | | | | |
| 3 | Data and information is secured by intelligent security systems | | | | | |
| **Logistic Management Practices** | | 1 | 2 | 3 | 4 | 5 |
| 1 | Sub-contracting vehicles for transportation | | | | | |
| 2 | Use of IT based automated ordering systems for food stuffs and supplies | | | | | |
| 3 | There is availability of reverse logistics on customer food stuffs and supplies | | | | | |
| 4 | Warehousing and inventory systems are well monitored | | | | | |
| **Outsourcing Practices** | | 1 | 2 | 3 | 4 | 5 |
| 1 | Availability of quality outsourced security services | | | | | |
| 2 | Quality auditing services are offered by the outsourced auditing | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | firms | | | | | |
| 3 | There is transparency and equity in the process of recruitment of staff | | | | | |
| 4 | Existence of excellent transportation services from outsourced companies | | | | | |

**Section C: Supply Chain Performance**

| **Customer Satisfaction** | | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 1 | The degree of customer satisfaction have greatly improved | | | | | |
| 2 | There is high response to dynamic customer needs | | | | | |
| 3 | Minimal cost of customer maintenance | | | | | |
| 4 | Standardized goods are delivered on time | | | | | |
| **Cost Reduction** | | | | | | |
| 1 | There is reduction of waste in terms of usage and storage | | | | | |
| 2 | The total cost of acquisition of raw materials is reduced | | | | | |
| 3 | Goods and services are made available to the consumers at cheaper rates | | | | | |
| 4 | Competitive advantage is greatly experienced | | | | | |
| **Quality of Service** | | | | | | |
| 1 | There is supplier reliability in delivery timelines | | | | | |
| 2 | Our products are highly competitive in the industry | | | | | |
| 3 | We have introduced new products and services | | | | | |
| 4 | There is early supplier involvement in the development of specifications | | | | | |

| **Delivery of Goods** | | | | | | |
|---|---|---|---|---|---|---|
| 1 | There is increased efficiency in the process of delivering goods | | | | | |
| 2 | Goods/ products are delivered within the stipulated timeframes | | | | | |
| 3 | Products /goods are delivered in the right quality and quantities | | | | | |
| 4 | There exist a transparent logistical system on transportation and delivery of goods. | | | | | |

**Appendix II: List of Fast Food Restaurants in Mombasa County**

1. ZubiDubi Restaurant
2. ZubiDubi Restaurant
3. ZeenatCafè
4. Zain’s Barbeque house
5. Yukay Chicken Inn
6. Yukay Chicken & Chips
7. Yes Camels Joint
8. Wayside Cafe
9. View Inn Restaurant
10. Urban Street Food (USF)
11. Tuskys Supermarket (Bandari)
12. TUM Canteen
13. Tropic trade market ltd
14. Tizedy Cafe
15. Tifred Fries
16. Tic Tac Pastry Shop
17. The Tavern Grill
18. The Penda Cafe
19. The New Big Tree
20. The Grand Camel's Joint
21. The Grand Camel's Joint
22. The Fort Seafood Restaurant and Pizzeria
23. The Fort Restaurant
24. The coffee lounge & restaurant
25. The Coffee Lounge
26. The Big Orange
27. The Alishaan Sea View Restaurant
28. The African Fast Food Restaurant
29. Temptations Ice-cream& Coffee
30. Tea And Cake Pop Up
31. Tawfiq Cafe
32. Tasty bites bbq
33. Tamtam Cafe
34. Tamarind
35. Supa Loaf Bakers
36. Stavrose
37. Star View Cafe
38. Splendid View Restaurant
39. Splendid Grill
40. Sonia Delites Cakes
41. Snacks Point

42. Snack Attack Restaurant
43. Snack Attack @ Nyali Centre
44. Skipper's Deck - Illovo
45. Siloamu Cafe
46. Sidra Gardens
47. Shehnai
48. Shaheen's Tasty Tikas
49. Shaan Cafe
50. Shaam Delicacies
51. Sengas Cafe restaurant
52. Sega Restaurant
53. Scorpion Cafe
54. Sanz Barbeque
55. Saharcon Confectionery
56. Sadru's Cafe
57. Rozina Restaurant-Nyali Rd
58. Rozina restaurant-nyali
59. Rozina Restaurant
60. Roberto's Italian Shop & Sandwiches
61. Right Choice Cake And Slice
62. Ricoda Cafe
63. Rendevous Cafe
64. Ree’s Bites
65. Recoda Restaurant
66. Quick Bites
67. Queen Arts Cakery
68. Qoffee& shakes
69. Qaffee Point
70. Qaffee POINT
71. Pwani Dishes
72. Pwani Dishes
73. Punjabi Dhaba
74. Prestige Cafe
75. Polyben Cafe
76. Planet Yoghurt-Nyali
77. Pizza inn-nyali
78. Pizza Inn MwembeTayari
79. Pizza Inn & Chicken Inn
80. Pizza Inn & Chicken Inn
81. Pizza Inn
82. Pizza hotline
83. Pitmaster's
84. Pistachio Restaurant
85. Pine breeze holiday resort

86. PiliPili Grill and Spice House
87. Palm Cuisine
88. Osteria Del Chianti
89. One-Stop Zanzibar Café
90. Ocean Crown Cafe
91. Nyali Cinemax
92. Nur's Barbeque
93. New Ramadhan Cafe
94. New Milani Pan House
95. New Chetna Restaurant
96. New African Dishes
97. Net Place Cyber Cafe'
98. NdiaKuu Cafe
99. Naushad's Cold House
100. Nanga Pork & Fast Foods
101. Nanga Pork & Fast Foods
102. Namaskar Restaurant
103. Naivas Supermarket Mwembe
104. Mwanainchi Bakers and Confectioners Ltd
105. Mwanainchi Bakers & Confectioners
106. Mwambao Cafe
107. Mustafa Y. G
108. Mun's Chick
109. Mukami's Chips & Juice
110. Mubins Cafe
111. Mubins Cafe
112. Mombasa Go-Kart
113. Mombasa Dishes
114. Misono Japanese restaurant-Mombasa
115. Mishami Fast Food
116. Minazi
117. Milios Pizza Mombasa
118. Milia Gardens Nyali
119. Milas Fresh Chicken
120. Mikaye Restaurant
121. Mei Place Apartments
122. Marhaba Stylish Food
123. Maranatha Cakes House
124. Mamtaz Cafe
125. Mambuzi Restaurant
126. Mama Tony Cafe
127. Mama Rose Cafe
128. Madres Le Cafe
129. Lukiedee Extra Fast Foods

130. Liz Snacks
131. Links Inn And Grills
132. Liddo Seafood Restaurant
133. Liddo Seafood & Grill
134. Le-Sega Cafe
135. Lemma
136. La Veranda Italian Restaurant
137. La Marina
138. KwaMbula Cafe
139. KwaMaalim Cafe
140. Kitobero Cafe Ltd
141. Kitchen Queen
142. Ken's Chick Inn
143. Kenleees Restaurant
144. Kenchick Inn
145. Ken Chic Inn Bamburi
146. Karibu Old Town Restaurant
147. Kahawa Special Palour
148. Kadiris Cafe
149. Juicebox& barbeque
150. Jeyram Chips Inn
151. JDs
152. Java House - Nyali Cinemax
153. Java House - Nyali Centre
154. Jarned Food Palace
155. Jahazi Grill
156. Jahazi Coffee House
157. Island Ice Lollies
158. Island Dishes & Barbeque
159. Island Breeze Dishes
160. Indiana Beach Grill Restaurant
161. Imtisam - Cafe
162. Ilus Barbeque
163. Husseini Barbeque
164. Huseini Bakery
165. Huseini Bakery
166. Hot Pot Cafe
167. Hemed Bakers
168. Hannan BBQ
169. Half London Cafe
170. Hairif Cafe
171. Gulshan Cafe
172. Grub Hub Nyali
173. Grill House

174. Green Garden Bamburi
175. Govindas
176. Good Samaritan Cafe
177. Golden Star Bakery
178. Gelato Divino Mombasa
179. Galitos-City Mall
180. Fro Fast Foods.
181. French Bakery
182. Frangipani Beach Restaurant
183. Frangipani
184. Fosters bakery ltd
185. Foster's Bakery Limited
186. Fischer's Joint
187. Fischer's Hut Tudor
188. Fayaz Bakery - MwembeTayari
189. Fayaz Bakers ltd
190. Fayaz Bakers Limited
191. Fayaz Bakers
192. Fast Fries Parlor
193. Fast Foods
194. Emyz Bakes
195. Emirate Dishes
196. emak's Grill
197. Emages Cafe
198. Drivers Cafe
199. Dr. Chefs Bakeries, Kenya.
200. Domino’s Pizza
201. Desire Cafe
202. Densa Cafe
203. Delite Confectioners
204. Delicious Food & Refreshments
205. Delicious Cafe
206. Deens BBQ
207. Dee Diz Cafeteria
208. Debonairs
209. Damascus Barbeque
210. Creamy Inn-Haile Selassie
211. Creamy Inn-City Mall
212. Creamy Inn
213. Coston Poa
214. Corner Rabai House
215. Chubby Chicks
216. Chicky Chippi Fast Food
217. Chicken Licken Restaurant

218. Chicken Licken
219. Chicken Inn-Haile Selassie
220. Chicken Inn Restaurant
221. Chicken inn Bamburi
222. Chicken Inn - Moi Avenue
223. Chicken Inn
224. Chicken And Chips
225. Cheers
226. Caribou restaurant
227. Capital Bakery
228. Cakeology Mombasa
229. Cafe Stavrose
230. Café Somo
231. Café Roma
232. Cafe Mwambao
233. Cafe Mocha
234. Cafe Havillah Limited
235. Cafe Espresso
236. Cafe Deli
237. Cafe Arabika, City Mall
238. Cafe Arabika, City Mall
239. Café Arabika
240. Cafe Abdurabi's
241. Burhani bakers
242. Bridge Hotspot PIZZA
243. Breezes Restaurant & Hotel
244. Bon Appetit Restaurant
245. Bon apetite
246. Bollywood Bites
247. Boda Hotel
248. Bob's Cafe
249. Bluefin Fish & Chips Restaurant
250. Blue Room Restaurant & Ice Cream
251. Blue Room Co
252. Blue Room Cafe
253. Blue Lagoon Speciality Restaurant
254. Blue Bubbles Restaurant
255. Blessed Cafe
256. Bismillah Cafe
257. Big Square Nyali
258. Bibla Fruit Parlour
259. Bhagwanji Fast Foods Corner
260. Bhagwanji Confectioners
261. Bhagwanji Confectioneries LTD

262. Best Food & Fruits Cafe
263. Bekis Cakes Delicacies
264. Bebos
265. Beams Garden Mombasa
266. BBQ EATS
267. Barka
268. Barbeque World
269. Baraka Cafe
270. Baps ShayonaNyali
271. Baobab Gold Chopsticks
272. Bakers Inn - Haile Selassie
273. Bakers Inn
274. Bahar Cold House
275. Azura Restaurant
276. Ayman's Delicacy
277. Aroma Cafe
278. Armana BBQ
279. Arbe'sShawarma& Fries
280. Arabika Café English Point Marina
281. Arabica Restaurant
282. AquadromYul's
283. AmooHadi Cafe
284. Amona Cafe
285. Al-Yusra Restaurant Mombasa
286. Ali's Restaurant
287. Albaik
288. alarbi restaurant
289. Alarabi restaurant
290. Al sultan dishes
291. Al Majlis Restaurant
292. Al Fur Qaan Cafe
293. Al Diwan Arabian Food Restaurant
294. Ahmed Suleiman Cafe
295. Africana Cafe
296. African Dishes
297. Abu - Amin Café
298. Aberdare Restaurant Nyali
299. Abbasi Darbar Cafe
300. 10 Street