GLOBAL SUPPLY CHAIN MANAGEMENT PRACTICES AND PERFORMANCE OF TOYOTA KENYA LIMITED

BY

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DECLARATION

This research project is my original work and to the best of my knowledge has not been submitted for the award of a degree in any other university.

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This research project has been submitted for the award of degree of master of business administration with my approval as the University Supervisor.

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DEDICATION

I dedicate this study to my husband Robert and to my family for their constant encouragement and patience throughout my academic period. God bless you abundantly
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This research project would not have been possible without the support of many people. First and foremost, I would like to express my sincerer gratitude to the Almighty God for life, good health, strength and all that counts to complete this project and my studies.

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ABSTRACT

Globally, the manufacturing sector is growing rapidly in India and China and has shrunk in most advanced economies. The growth will require several changes, which include significant increase in productivity and quality at the plant levels, pursuit of worldwide competitive manufacturing strategies and operations and successful integration into the global supply chains. The study sought to establish the effects of the adopted global supply chain practices on the performance of Toyota Kenya Limited. The objectives of the study included establishing the global supply chain management practices adopted by Toyota Kenya Limited and determining the relationship between global supply chain management practices and organizational performance of Toyota Kenya Limited. The study adopted a case study descriptive research design. The study had 71 respondents. Since the target population was small, the study would incorporate all staff of Supply chain departments, hence a census study will be conducted. The study collected both primary and secondary data. Pearson’s correlation test was conducted to identify the correlation between the organisational performance and the adopted supply chain practices. The study found out that Toyota Kenya Limited adopted strategic sourcing to the supply chain network design affecting the organizational performance of the company and work environment and the organizational culture affected the organizational performance of the company. The study also established that the company purchases quality products to a greater extent. The study found out that practicing supply chain management has an effect on the performance of the organization. The study found out that the company’s supply chain network design contains an excellent compositional identification of suppliers, manufactures and distributors. The study concludes that adopting global supply chain practices affects the performance of Toyota Kenya Limited. The study further concludes that Toyota Kenya Limited adopted strategic sourcing to the supply chain network design affecting its organizational performance, work environment and the organizational culture. The study also concluded that the company purchases quality products to a greater extent. The study found out that the company’s supply chain network design contains an excellent compositional identification of suppliers, manufactures and distributors. The study further concludes that the purchasing manager monitors the company’s environment and shares relevant information with suppliers and colleagues. The study recommended that the management to continuously improve their supply chain management practices benchmark the same and ensure that the practices remain relevant. Toyota Kenya limited can save on financing costs in addition to achieving competitive advantage over the competitors and greatly improved performance.
CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Globalisation has transformed the process whereby global business partners connect with one another for faster and efficient operations, in supply chain, (Naslund and Hulthen, 2012). According to Gereffi and Lee (2012), globalization has given rise to a new era of international competition that is reshaping global production and trade and thereby altering the organization of industries. As supply chains go global, more intermediate goods are traded across borders, and more parts and components are imported for use in exports. Power (2005) acknowledges that the general purpose of supply chain management is to remove communication barriers and eliminate redundancies. This has led to integration of supply chains which attempts to elevate the linkages within each component of the chain so as to facilitate better decision making. This in turn gets all the pieces of the chain to interact in a more efficient way. Supply chain is a set of integrated processes, by which raw materials are manufactured into final products and delivered to customers, through warehousing, distribution activities and retailing (Prakash and Koroglu, 2006).

The common practice in the automotive supply chain for most of the automotive companies is that every chain is mainly tied to forecasts. The vehicle manufacturers must match supplies with demands from the first chain, raw material suppliers, to the last chain, car buyers. The variation or uncertainty of demand due to forecasting is produced from chain to chain causing bullwhip effect (Saad & Patel, 2006). Supply chains in the automotive sector have to contend with peculiarities mostly in developing nations. The
biggest challenge being integration of end-to-end supply chain followed by managing in-bound logistics, product and part proliferation. The new direction for automotive supply chain is still based in part, on the forecast and, in part, on the capable and responsive supply chain with a greater strategic emphasis, and subsequently, on the logistics operations.

The Toyota company supply chain has mainly incorporated lean supply chain and lean production. Lean manufacturing is the concept created by Toyota to make production development and the production system more efficient and remove waste from the process. It consists of three building blocks – creating continuous process flow, the pull system, and levelling out the workload. This is the type of supply chain that focuses on identifying waste and minimizing it. It also focuses on avoiding over production. The supply chain of Toyota embodies a manufacturing culture of continuous improvement based on setting standards aimed at eliminating waste through participation of all employees. The goal of the system is to reduce the timeline from the time an order is received until the time it is delivered to the actual customer. Ideally the system strives to produce the highest possible quality, at the lowest possible cost, with the shortest lead-time possible.

### 1.1.1 Global Supply Chain

Global Supply chain refers to all the linked individual organizations that by direct or indirect means, lead to delivery of a service or of a good to a customer between different countries across the globe (Chopra and Meindl, 2004). Supply chain also refers to the designing, planning, execution, controlling and monitoring of supply chain activities with
the objective of creating net value, building a competitive infrastructure, leveraging worldwide logistics, synchronizing supply with demand and measuring performance globally (Christopher, 2005). Supply chains generally indicate the upstream, downstream and internal organisational activities. Upstream activities, flows and relationships include purchasing and procurement functions. Internal organisational supply chain activities are related to traditional production. Downstream activities and flows may include outbound logistics, transportation, marketing, distribution, packaging and warehousing (Ballou, 2007).

When developing a supply chain strategy, the organisational structure of distribution channels can be altered to accommodate the movement of products, services and information. This channel integration process offers potential for improving the performance of all organisations along the supply chain and enables them to compete effectively in the marketplace (Tayur, Ganeshan and Magazine, 2012). Supply chain therefore provides a unique opportunity for organisations to utilize assets more effectively. The challenges involved with transportation, pricing, inventory management, facilities management, and information availability are some of the factors that lead an organisation to embrace supply chain management.

Supply chain management is a set of approaches utilized to efficiently integrate suppliers, manufacturers, warehouses, and stores so that merchandise is produced and distributed at the right quantities, to the right locations, and at the right time, in order to minimize system wide costs while satisfying service level requirements. Supply chain management means managing of the series of activities concerning the planning, coordinating and controlling movement of materials, parts and products from the suppliers to the customer.
This includes the management of material, information and financial flows in the supply chain. The decisions are made at strategic, tactical and operational levels throughout the supply chain (Na"slund and Hulthen, 2012). Supply chain management encompasses the planning and management of all activities involved in sourcing and procurement, conversion and all logistics management activities.

Global Supply Chain practices involve a set of activities undertaken in an organization to promote effective management of its supply chain (Koh, Demirbag, Bayraktar, Tatoglu, & Zaim, 2007). SCM practices can be defined in various ways. Donlon (1996) coined GSC practices as practices that include supplier partnership, outsourcing, cycle-time compression, continuous process flow and information technology sharing. Li, Chow, Madu, Kuei, and Yu (2005) defined GSC practices as the set of activities that organizations undertake to promote effective management of the supply chain. Otto and Kotzab (2003) termed GSC practice as a special form of strategic partnership between retailers and suppliers.

1.1.2 Organizational Performance

Organisational performance refers to the final achievement of an organization and contains; existence of certain targets to be achieved, has a period of time in achieving the targets and the realization of efficiency and effectiveness (Gibson, Mundy and Sink, 2010). According to Koontz and Donnell (2003), organizational performance refers to the ability of an organization to achieve objectives such as high profit, quality product, large market share, good financial results, and survival at pre-determined time using relevant strategy for action. It also refers to the reflection of productivity of members of an
enterprise measured in terms of revenue, profit, growth, development and expansion of
the organization (Kirkendall, 2010). Organisational performance comprises the actual
output or results of an organization as measured against its intended outputs or goals and
objectives.

Organisational performance incorporates multiple activities that help in establishing the
goals of the organization and monitor the progress towards the target (Johnson, Wood,
Wardlow and Murphy Jr, 2006). It is used to make adjustments to accomplish goals more
efficiently and effectively. Kirkendall (2010) further reveals that well defined system of
organizational performance measures can be a powerful tool for prioritising
organizational goals and achieving them. Performance measures are intended to be used
in the strategic planning process and thus inform planners of problems that require
attention and allow the organization to monitor progress toward goals. Organisational
performance measurement can be measured using profitability measures such as return
on assets (ROA) and return on Equity (ROE) with the aim of attaining the preset
objectives, providing relevant information on organisational performance that can be
utilized in the management and decision making process of the organisation (Poister,
2008).

Kaplan and Norton (2001) argued that many organisations focus on managing intangible
assets like customer relationships, innovative products and services, high quality and
responsive processes which are non financial in nature as opposed to tangible assets like
fixed assets and inventory. However, for any business to be successful, functions must be
defined and accomplished. It is important for an organisation to develop strategies that
are designed around the skills that would enhance the performance of the organisation.
The Balanced Scorecard (BSC) is a strategic performance management tool to take care of shortcomings in the previous tools. BSC has four measurement perspectives namely; Financials, Customer, Internal business processes and Learning and Growth. Organizations, have embraced this tool to measure performance. (Richard, 2009) indicated that performance encompasses three specific areas of firm outcome; financial performance, product performance and shareholders return. This study will adopt the definition that firm performance involves both financial and non-financial performance (economic) including both environmental and intangible performance.

1.1.3 Global Supply Chain and Organisational Performance

Global supply chain is an important factor of competitive strategy that enhances organizational productivity and profitability. Organisational performance depends on the outcomes supported by truncation metrics from GSC actions such as outsourcing. Organisational performance measurement and metrics have an important role to play in setting objectives, evaluating performance and determining future courses of actions for a firm (Gunasekaran & Kobu, 2007). The present day market is shifting from individual organisational performance to Global supply chain performance since organisational performance depends on the entire supply chain's ability to meet end-customer needs through product availability and responsive and on-time delivery.

Global supply chains carry unique risks that influence organizational performance, including variability and uncertainty in currency exchange rates, economic and political instability and changes in the regulatory environment. Currency exchange rates affect the price paid for goods that are purchased in the supplier’s currency and so influence the
timing and volume of purchases as well as the financial performance of the supply chain (Carter and Vickery, 2009). Accordingly, practitioners are well advised to factor these risks into their decisions when designing global supply chains.

The organisation’s performance measures must show not only how well the company is providing for its customers (service metrics) but also how it is handling its business in terms of speed, asset, inventory and financial metrics. The basic objective of supply chain management is to optimize the performance of the supply chain in order to improve the organisation’s performance at the least possible cost. This implies that the main objective is to link all the supply chain agents to jointly cooperate within the firm with the aim of maximizing productivity in the supply chain and deliver the most benefits to all related parties thus improving the organisational performance (Jie, Parton and Cox, 2007).

The main supply chain processes stated by Lambert (2004) are: Customer relationship management, Customer service management, Demand management, Order fulfilment, Manufacturing flow management, Supplier relationship management, Product development and commercialization and returns management. Studies have shown that there is a strong relationship between supplier and customer integration, market share, profitability and overall organisation’s performance. By taking advantage of supplier capabilities and emphasizing a long-term supply chain perspective in customer relationships, GSC can be correlated with an organisation’s performance.

1.1.4 Toyota Kenya Limited

Toyota Kenya Limited is fully owned by Toyota Tsusho Corporation which is the business arm of Toyota Motor Corporation. For over fifty years, Toyota vehicles have
found their way to over 170 countries and regions throughout the world. As their exports have continued to develop so has the localization of their production bases, in line with a policy of "producing vehicles where the demand exists". Now there are 51 bases in 26 different countries and regions distributed as follows: North America 11, Latin America 4, Europe 8, Africa 3, Asia 14, China 9, and Oceania 1.

In addition, there are design and R&D bases in nine locations distributed globally, showing that from development and design to production, as well as sales and service, Toyota has achieved consistent globalization and localization. Among the hurdles that this globalization of production has to overcome, the most important is quality assurance, which requires that no matter where Toyota vehicles are made, they must have the same high level of quality. Toyota doesn't put a label on vehicles which says "Made in The USA" or "Made in Japan", but instead opts for one label for all: "Made by TOYOTA."

This means that there is a need to spread Toyota's philosophy — the "Toyota Way" — to all of their overseas companies. The Toyota Way embraces policies such as total quality management, continuous improvement, team work among others.

Toyota believes that the way to achieve quality assurance and to spread the "Toyota Way" is by educating people. So in 2003 the Global Production Center (GPC) was established within the Motomachi Plant in Toyota City. Furthermore, in 2006, Toyota established regional GPCs in the United States, the United Kingdom, and Thailand to carry out corresponding activities in the North American, European, and Asia-Pacific regions. Toyota also developed Toyota Academies spread all over the globe to standardise the training of Toyota technicians. In Kenya the Toyota Academy is located at The Toyota Business Park.
Toyota’s Annual Report of 2012 identified a number of intentions for changing the nature of its supply chain operations. These included: a greater focus upon emerging market activity, with both production and sales, closer alignment of design, development and production for improved customer-product focus, enhanced development capacity to support product and process innovation, increased parts standardisation, enhancements to automation and just-in-time initiatives, increased flexibility of production capacity to meet demand, producing cars ‘attuned to regional needs’ and more rapid disaster recovery.

Toyota Kenya Limited Company is the sole distributor of Toyota, Yamaha and Hino Brands in Kenya, and also offers Vehicle After-Sales Support Services. Countries of supply for these brands include Japan, South Africa, Dubai, India, China, and Belgium. Its Head Office is in Nairobi; with branches in Mombasa, Eldoret, Kisumu, Lodwar, a parts retail shop in Kirinyaga road and a regional dealer representation in Nyeri, Nanyuki, Nakuru, Kericho, Meru & Kitale. Although it has been a giant for several years in Kenya, it faces stiff competition from other motor vehicle companies which include BMW, Mercedes Benz, Volkswagen, Nissan/Renault, General Motors, Ford and among others. In line with the ‘Toyota Way’, and Toyota’s values, Toyota Kenya Limited’s vision is: To be the company where customers love to visit and people love to work. This values help to create an enabling work environment/culture, team spirit, continuous improvement which are all intervening variables towards achievement of organisational performance.
1.2 Problem Statement

Globally, the manufacturing sector is growing rapidly in India and China and has shrunk in most advanced economies. The growth will require several changes, which include significant increase in productivity and quality at the plant levels, pursuit of worldwide competitive manufacturing strategies and operations and successful integration into the global supply chains (Deloitte, 2007). Emerging markets concentrate on mass manufacturing and competing on price. The growing importance of global supply chain and its practices is driven mainly by the escalating deterioration of the environment, e.g. diminishing raw material resources, overflowing waste sites and increasing levels of pollution. However, it is not just about being environment friendly; it is about good business sense and higher profits. This therefore requires companies to integrate their economic and the environment over the last several decades, business has become truly global.

Kenya’s automobile retail and distribution sector is rapidly expanding due to infrastructure development, increasing incomes and access to credit facilities. Similarly, Kenya’s is growing rapidly as the economy grew by 5.3% in the year 2012 and is projected to reach 10% growth by 2017 as the government takes steps to enhance Kenya’s economic competitiveness. The Automobile industry in Kenya is primarily involved in the retail and distribution of motor vehicles (GoK, 2013). The Kenya Motor Industry Association (KMI) (2012) reported that the supply of vehicles had increased in order to meet the ever growing demand. For instance, growth in the agriculture, manufacturing and trade sectors was the driving force behind the demand for pick-up
trucks, which accounted for 35% of total vehicle sales. Sales of heavy commercial vehicles still account for 26.8% of the market, behind pick-ups.

Recent evidence indicates that leading edge companies are shifting their quality emphasis from inspection to designing quality products, accompanying this with process control and process improvement efforts (Greene, 2012). These initiatives, particularly when implemented concurrently with managing the supply base, are cited as strategic practices to achieve competitive advantage and improve performance. Other practices associated with quality improvement mirror those embodied in the evaluation criteria for awards such as the Baldrige and Deming awards (Black and Porter, 2006). These include strategic quality planning and senior management leadership.

There are a number of studies that have examined this concept of supply chain management. Increasing pressures have caused the automobile supply managers consider implementation of various global supply chain practices. Zhu (2004) recommended that both environmental and Economic Performances are the basis for organizational performance. There is a direct link between global supply chain practice implementation and business performance. The results indicated that business performance will be improved when global supply chain enhances operational efficiency.

Several studies have been conducted on global supply chain practices and organization performance. For instance, Ambe and Badenhorst-Wess (2013) note that real-time sharing of design, planning, production, logistics and sales information have served to make the ‘global automotive industry’ truly global. The study further notes that in South Africa, SCM is one of the important functional areas in the automotive industry and its
contribution has been particularly noteworthy. In 2012, Gilaninia carried out a research on the impact of supply chain dimension on customer satisfaction in Iran. Amue and Ozuru (2014) carried out a research to investigate the effect of supply chain integration on operational performance among firms in the oil and gas industry in Nigeria.

Mohamed (2012) found out that global supply chain practices have a positive impact on manufacturing firms in Mombasa and recommended further research to be done in manufacturing firms in other 8 parts of the country as well as service sector. Obiso (2011) found out that adoption of the practices had a positive relationship with the environmental performance of oil companies in Kenya. Mwirigi (2007) found out that attempts to overcome environmental challenges through practicing some aspects of global supply chain were evident but not indicative of full adoption of the strategy. These studies have not focused on the global supply chain practices and their impact on overall firm performance. Otila (2011) did a study on the supply chain management practices used in the cosmetic industry in Kenya, where else Kazi (2012) carried out a study that aimed at evaluating the supply chain management practices and performance at Kenya Medical Supplies Agency.

Although these studies focused on the context of supply chain, none of the studies conducted brought out the relationship between global supply chain and organisational performance. This study sought to fill the research gap by establishing global supply chain practices and performance at Toyota company ltd by answering the following research questions: What are the supply chain practices adopted by Toyota Kenya limited? What are the effects of the adopted global supply chain practices on the organisational performance of Toyota Kenya limited?
1.3 Research Objectives

The study sought to establish the effects of the adopted global supply chain practices on the performance of Toyota Kenya Limited.

1.3.1 Specific Objectives

I. To establish the global supply chain management practices adopted by Toyota Kenya Limited.

II. To determine the relationship between global supply chain management practices and organizational performance of Toyota Kenya limited.

1.4 Value of the Study

To researchers and future academicians, the findings would contribute new knowledge in the global supply chain practices and performance. The study would also acts as a source of reference for future scholars to suggest areas for further research.

Managers at Toyota Kenya limited would use the findings in understanding the global supply chain practices and factors influencing performance of the company and thus guide in development of guidelines which would improve the performance of the company. Managers can benefit from a tool that helps them assess their supply chain strategies, identifying the strengths, weaknesses, opportunities and threats of the different regions in the world.

The findings would be used by Kenya revenue authority (KRA), National Transport and Safety Authority and other motor industry stake holders in the formulation and regulation in the motor industry and government implementation policies.
CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presented a review of literature pertinent to the study as presented by various researchers, scholars’ analysts and authors. This section covered the theoretical framework whereby theories on supply chain are discussed. The review of empirical literature and the conceptual framework variables would also be discussed.

2.2 Theoretical Framework of Global Supply Chain

This section presented discussion of the theories that are relevant to the study on global supply chain practices. The resource based view and the transaction cost theories had been discussed as below.

2.2.1 Resource based view

This theory focuses on the resources that an organization has and how these resources can be used for competitive advantage to the organization (Barney, 1991). The theory had adequately explained the development of core competencies that can be used to design a better supply chain practices (Heinrichs, 2006), these practices, in turn improve the competitive position of a firm. This theory is relevant for studying global supply chains in a firm as it provides more insight into the understanding of value systems in the firms.

The theory emphasized the importance of knowledge as a production factor in the organizations. Firms endowed with better factors of production and competences would perform better in terms of GSCM. The theory has been widely used by organizations and scholars have also paid attention to its application during the past decade. Morash and
Lynch (2002) employed resources based view in their study of global supply chain capability and performance.

2.2.2 Transaction Cost Theory

The transaction cost theory of the firm was created by Ronald Coase. Transaction cost refers to the cost of providing for some good or service through the market rather than having it provided from within the firm. The early studies of transaction cost theory as described in the works of Coase et al (1937) had paid little attention to the internal operation of the organization. Williamson (1981) further expanded the application of transaction cost theory by highlighting the role of transaction cost theory in promoting vertical integration and trust in the organizations. These aspects of transaction cost theory are supporting evidence for the role of supply chain management in organizations.

This theory is relevant in the study of global supply chain practises as it explains that the firms can reduce the transaction costs associated with providing goods and services. Firms that have a lower transaction cost are therefore able to perform better in terms of their SCM. Grover and Malhotra (2003) conducted an extensive investigation on the application of transaction cost theory in supply chain management. In their empirical study of 1000 purchasing managers, Grover and Malhotra (2003) concluded that transaction cost applies to organizational supply chain management in four facets: effort, monitor problem, and advantage.

The theory applied to the effort to build and maintain the relationship with suppliers; cost of monitoring the performance of suppliers: resolving the problems that arises in the business relationships; and engagement of suppliers in an opportunistic behaviour. This is
one of the key practices of an effective supply chain. However, transaction cost theory is primarily concerned with the direct economic factors in organizations and hence fall to address some important aspects of the operation of the organizational supply chain, including personal and human relations among other factors in the supply chain (Juma, 2013).

2.3 Supply chain management

Supply chain is the designing, planning, execution, controlling and monitoring of supply chain activities with the objective of creating net value, building a competitive infrastructure, leveraging worldwide logistics, synchronizing supply with demand and measuring performance globally (Christopher, 2005). Generally, supply chain consists of the upstream, downstream and internal organisational activities. Upstream activities, flows and relationships include purchasing and procurement functions. Internal organisational supply chain activities are related to traditional production. Downstream activities and flows may include outbound logistics, transportation, marketing, distribution, packaging and warehousing (Ballou, 2007).

Global Supply Chain practices involve a set of activities undertaken in an organization to promote effective management of its supply chain (Koh, Demirbag, Bayraktar, Tatoglu, & Zaim, 2007). SCM practices can be defined in various ways. Donlon (1996) coined GSC practices as practices that include supplier partnership, outsourcing, cycle-time compression, continuous process flow and information technology sharing. Li, Chow, Madu, Kuei, and Yu (2005) defined GSC practices as the set of activities that organizations undertake to promote effective management of the supply chain. Otto and
Kotzab (2003) termed GSC practice as a special form of strategic partnership between retailers and suppliers.

The objective of Global Supply Chain Management (SCM) is to achieve sustainable competitive advantage. Supply chain management is a cross-function approach including managing the movement of raw materials into an organization, certain aspects of the internal processing of materials into finished goods, and the movement of finished goods out of the organization and toward the end consumer. As organizations strive to focus on core competencies and becoming more flexible, they reduce their ownership of raw materials sources and distribution channels. These functions are increasingly being outsourced to other entities that can perform the activities better or more cost effectively. The effect is to increase the number of organizations involved in satisfying customer demand, while reducing management control of daily logistics operations. Less control and more supply chain partners led to the creation of supply chain management concepts. The purpose of supply chain management is to improve trust and collaboration among supply chain partners, thus improving inventory visibility and the velocity of inventory movement (Boversox, 2002). Supply chain in the automotive industry mainly focuses on forecasting. Its production is based on forecasting the future demands of certain commodities. However most other industries supply chain is based on a pull system where the commodity is manufactured when there is a demand season.

The automotive industry is known as a typical industry adopting mass production as its standard strategy of production. The automotive industry practice the traditional mass production which relies heavily on a company’s ability to forecast demand accurately, which in turn guides the firm’s decisions about operations and production which is
characterised as a push system, forecast driven production is a highly efficient but somewhat rigid system that utilises historical data and projections to create a production plan and makes use of existing configurations to produce products for stock (Zhang & Chen, 2006). Muller (2009) agrees that the automotive industry faces new and pressing challenges. According to the Kotler Marketing Group (2009), Original Equipment Manufacturers are required to enhance quality, improve styling, increase organisational efficiencies and drive innovative features into their products in an effort to attract customers and expand into new markets. The industry is at the cutting edge and adopting new technologies.

In recent years, the automotive industry has experienced strong competition on a global scale in highly competitive markets (Pires & Neto, 2008). From a global perspective, it has been challenged to face issues such as: strong pressures for price and delivery time reductions; quality and overall customer service improvements and environmentally friendly products; with strong pressure to reduce the time-to-market; a substantial reduction in product life cycles and the rapid introduction of new products, and product development costs; the pressure to supply new markets and the strengthening of relationships and intensification of communication channels in supply chains in general (Pires & Cardozo, 2007).

2.4 Global Supply Chain Management Practises

This section presented a discussion on the global supply chain practises. The main practises that have been highlighted include strategic sourcing and supply chain network design
2.4.1 Strategic sourcing

Sourcing is seen somewhat narrowly as “finding sources of supply, guaranteeing continuity in supply, ensuring alternative sources of supply, gathering knowledge of procurable resources (Vollman, Berry & Whybark, 1984). Strategic sourcing is defined as the process of planning, implementing, controlling, and evaluating highly important purchasing in an effort to meet a firm’s goals (Carr & Pearson, 2002). However, Porter (1980) defines strategic sourcing as the process of evaluating, selecting and aligning with suppliers or consortiums of suppliers to achieve operational improvements in support of an organization’s strategic objectives. Strategic sourcing comprises concepts of strategic purchasing, supplier development, information sharing with suppliers and inter-functional integration of purchasing. Strategic sourcing is defined as a critical challenge of designing and managing supply networks in line with the organizations operational and performance objectives (Chiang, Tsai & Hsu 2011).

A strategic sourcing department is viewed by top management as an important resource of the firm. From a theoretical perspective, a firm’s resources can be used to support its capabilities so the firm can achieve a competitive advantage (Carr and Pearson, 2002). The strategic sourcing department is involved in the firm’s strategic planning process and purchasing is treated as an equal to other major functions in the firm (Van Weele, 2010). At a macro level, a strategic use of sourcing requires a purchasing manager to monitor the company’s environment, forecast changes in that environment, share relevant information with suppliers and colleagues in other functions, and identify the company’s competitive advantages and disadvantages relative to its suppliers (Gonzalez-Padron, Hult & Calantone, 2008).
Because of the expanded competition, strategic sourcing needs to consider the total cost of ownership (Faes & Matthyssens, 2009). Total Cost of Ownership (TCO), plays a major role in strategic sourcing: Strategic sourcing performance objectives are based on TCO, and TCO is a well-understood and accepted measurement tool used by the organization and by strategic sourcing management (Ting and Cho, 2008). In analyzing a supplier structure, one consideration is the breakdown of a supplier’s cost structure for key purchases (Kremic, Tukel & Rom, 2006). Strategic sourcing management works with suppliers to encourage them to disclose their costs and cost structures. Strategic sourcing management and suppliers work together to reduce the costs of products and services (Bendixen, Abratt & Jones, 2007). Business relationships between suppliers and strategic sourcing management are also important to the organisation (Stringfellow, Teagarden & Nie, 2007).

Johnsson (2005) posited that strategic sourcing has a crucial contribution to the bottom line of a manufacturing company. Handfield, Monczka, Giunipero and Patterson (2009) established that there are four groups in which products are divided; critical, routine, leverage and bottleneck products. Depending on the type of product the sourcing strategy is identified. Following categories of products and suppliers are identified as a foundation of determining the sourcing strategy. Critical products are often high-tech, high volume products and are often supplied at customer specification. There is also only one source of supply available and usually the type of product represent a high share in the cost price of the company’s end product (Stringfellow et al., 2007). The suppliers should preferably be strategic and can be seen as means to help develop competitive advantage and work...
beyond a simple purchasing agreement (Koufteros, Vickery & Droge, 2012). If focus is on selecting strategic supplier, there is an enhanced chance of integration.

2.4.2 Supply Chain Network Design

Supply chain network design is the practice of locating and rationalizing the facilities within the supply chain, the capacity of these facilities, determining how to source demand through the network and selecting modes of transportation in a manner that provides the required level of customer service at the lowest cost (Klibi, Martel & Guitouni, 2010). It is a strategic planning process for evaluating alternative structures for a supply chain, and selecting the one that maximizes profitability and helps to improve performance at each link in the supply chain (Nourelfath, Zanjani & Ait-Kadi, 2010). Supply chain network design is many times called network modelling because of its use of mathematical models to streamline the supply chain. The resulting models then work to provide solutions through optimized techniques and analysis for such issues as determine to best location of facilities, plants, warehouses, lines and suppliers, and the most productive flow of goods throughout the supply chain structure.

Nagurne and gurney (2010) claim that, the design of operating and highly efficient networks for global operations is widely perceived as one of the key challenges in supply chain management. The right supply chain network design is one of the essential tools for a company to achieve its desired goals and performance and gain competitive advantage (Wang, Lai & Shi, 2011). The key methodology used to perform supply chain network design is quantitative modelling and optimization. This model evaluates the complex relationships and trade-offs of the overall system by tying together large numbers of variables in a conceptual framework that makes it much easier for the user to define
relationships. Qiang, Ke, Anderson and Dong (2013) also acknowledge that utilizing quantitative tools to perform analysis also makes the translation of an operational strategy to a financial business case a much more straightforward task.

Companies all over the world are confronted with designing and redesigning their supply chain. According to Pishvaee and Rabbani (2011), a typical supply chain consists of suppliers, plants, distribution centres and customer markets. The location of Distribution Centres is an expensive and an almost irreversible long-term, strategic decision that can be handled with Supply Chain Network Design (SCND). However, tactical and operational levels decisions are often taken into account when addressing SCND issues; the material flow and order quantity between consecutive supply chain stages depend on the network design. Simply designing of supply chain network design containing excellent compositional identification of suppliers, manufactures and distributors that clears special compound of customers demand (Pa & Nagi, 2010).

The complexity of supply chain design increases with the number of stages, products and integrated decision levels. To achieve intertemporal integration, a suite of hierarchical models is needed, that is consistent with the strategic, tactical, and operational planning problems faced by a company (Lin & Wang, 2011). This is achieved through linking and overlapping the different model classes which address different supply chain activities. The importance of integrating these decision levels can hardly be overestimated. Production capacities and inventory decisions regarding the determination of the size and location of the different stock levels should be taken into consideration when addressing strategic network design issues (Liu & Papageorgiou, 2013).
2.5 Intervening Variables

2.5.1 Organizational Culture

McCarthy and Perreault (1993) define culture as the whole set of beliefs, attitudes and ways of doing things of a reasonably homogenous set of people. It a set of basic values, perceptions, wants and behaviours learned by a member of society from family and other important institutions (Sangkaworn & Mujtaba, 2010). According to Schiffman and Kanuk (2004), culture is the sum total of learned beliefs, values and customs that serve to direct the consumer behaviour of members of a particular society. Culture is formed by the leaders of an organization mostly those who have shaped it in the past. According to Mujtaba (2008), it is the “normative glue” that holds an organization together.

Srivastav, (2009) indicates that people tend to identify themselves with visionary leaders in terms of their assumptions, adaptations, perceptions and learning. As organizations expand beyond the territories of their nation of domicile, they carry with them their culture into the new market as it may not be easy to adopt the culture of the new foreign market at once. To reinforce this culture, most organization bring along expatriates from their home country to help in the running of the business in the new country for a while. The expatriates impart some of the cultural values of the organization including core values, and vision into the new local employees engaged by the organization. The culture of a group is a pattern of shared basic assumptions that the group has learned as it solves its problems of external adaptation and internal integration, that has worked well enough to be considered valid and therefore to be taught to new members as the correct way to perceive, think, and feel in relation to those problems (Olu, 2009)
2.5.2 Working Environment

Workplace entails an environment in which the worker performs his work (Chapins, 1995). An effective workplace is an environment where results can be achieved as expected by management. Physical environment affect how employees in an organization interact, perform tasks, and are led. Physical environment as an aspect of the work environment have directly affected the human sense and subtly changed interpersonal interactions and thus productivity. This is so because the characteristics of a room or a place of meeting for a group have consequences regarding productivity and satisfaction level. The workplace environment is one of the factors that keep an employee satisfied in today’s business world. Today’s workplace is different, diverse, and constantly changing. The typical employer employee relationship of old has been turned upside down. Workers are living in a growing economy and have almost limitless job opportunities. This combination of factors has created an environment where the business needs its employees more than the employees need the business (Smith, 2011).

2.6 Empirical Review

Amue and Ozuru (2014) carried out a research to investigate the effect of supply chain integration on operational performance among firms in the oil and gas industry in Nigeria. The results of this study indicated that firms that had integrated supply chain had better operational performance than those that had not integrated their supply chain process.
Gilaninia (2012) carried out a research on the impact of supply chain dimension on customer satisfaction in Iran. The study used field research method to examine correlation between two independent and dependent variables. Data collection tool of this study was a questionnaire. The study found that the supply chain dimension has direct relationship with customer satisfaction.

In 2011, Otila carried out a study on the supply chain management practices used in the cosmetic industry in Kenya. He used a descriptive design and studied all the cosmetic firms in Kenya dealing with skin care products which are located in Nairobi industrial area. He used both primary and secondary data. The study found that there is consistent performance measures used across the supply chain in the cosmetic companies and suppliers are involved in production planning. The researcher however also found major challenges affecting adoption of the supply chain e.g. geographical distance, supply chain disruptions, resistance to supply chain management changes, lack of adequate resources to implement supply chain initiatives and customer’s geographical distance.

Abuko (2011) carried out a study to determine the Impact of Green Supply Chain on the performance of oil marketing firms in Kenya. This study used a survey research design and sampled 6 respondents from each of the 5 major oil marketing firms. A structured questionnaire was used to collect data and a multivariate data analysis technique was used. The study found out that Green Supply Chain Management practices had positive impact on the overall firms’ performance by improving quality, productivity, efficiency and cost savings.
Kazi (2012) carried out a study that aimed at evaluating the supply chain management practices and performance at Kenya Medical Supplies Agency. A case study design was chosen, the target population of interest in this study consisted of staff members at KEMSA representing the top, middle and low level management. The findings revealed that the major challenges that were identified by the respondents include: Poor infrastructure, Bulky materials to be transported and uncertainty in terms of demand. Lack of cold chain maintenance and lack of qualified personnel were considered as the least supply chain management challenges at KEMSA.
<table>
<thead>
<tr>
<th>Authors</th>
<th>Focus of the previous researchs</th>
<th>Methodologies</th>
<th>Findings</th>
<th>Research Gaps.</th>
</tr>
</thead>
</table>
| Amue and Ozuru (2014)   | The effect of supply chain integration on operational performance among firms in the oil and gas industry in Nigeria | Cross sectional survey data.                                                  | Firms that had integrated supply chain had better operational performance than those that had not integrated their supply chain process.                                                              | -Focused on integration  
-Study was done in Nigeria  
-Focus was on oil and gas industry                                                                 |
| Gilaninia (2012)        | The impact of supply chain dimension on customer satisfaction in Iran       | The study used field research method to examine correlation between the independent and dependent variables | The study found that the supply chain dimension has direct relationship with customer satisfaction                                                                                                         | -Study was done in Iran  
-Focused on customer satisfaction                                                                 |
| Kazi (2012)             | Evaluating the supply chain management practices and performance at Kenya Medical Supplies Agency | A case study design was chosen, the target population of interest in this study consisted of staff members at KEMSA representing the top, middle and low level management | The findings revealed that the major challenges that were identified by the respondents include: Poor infrastructure, Bulky materials to be transported and uncertainty in terms of demand | -Focus was on KEMSA                                                                                   |
| Otila (2011)            | The supply chain management practices used in the cosmetic industry in Kenya | He used a descriptive design and studied all the cosmetic firms in Kenya.     | The study found that there is consistent performance measures used across the supply chain in the cosmetic companies and suppliers are involved in production planning                                                 | -Focused on cosmetic firm  
-Did not address global supply chain                                                                 |
| Abuko (2011)            | The Impact of Green Supply Chain on the performance of oil marketing firms in Kenya. | This study used a survey research design and sampled 6 respondents from each of the 5 major oil marketing firms | The study found out that Green Supply Chain Management practices had positive impact on the overall firms’ performance by improving quality, productivity, efficiency and cost savings | -Focused on oil marketing firms  
-Focus was on green supply chain                                                                        |
2.7 Conceptual Framework

The researcher used a conceptual framework to show the relationship between the dependent and the independent variable. For this study, global supply chain practices which include strategic sourcing and supply chain network design were identified as the independent variables. Organizational performance which was measured by profitability and market growth was identified as the dependent variable. The outcome of the interaction between the above dependent and independent variables is influenced by organizational culture and working environment.

![Conceptual Framework Diagram]

Figure 2.1: Conceptual Framework
Source: (Author, 2015)
CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter discusses the methodology that would be used in gathering the data, analyzing the data and reporting the results. It specifically presents the research design, population of the study data collection and data analysis.

3.2 Research Design

The study adopted a case study descriptive research design which includes making inferences about relationships between variables from independent and dependent variables. This method was chosen because it best provides a large pool of information which will otherwise take long to collect if it is collected through observation. Further, the design was suitable for collecting data across many units in the organization at one point in time. This design had been successfully applied by other scholars including Ochieng’ (2014) and Mbae (2014).

3.3 Population of Study

The target population will be 1 company, Toyota Kenya Limited. The study had 71 respondents. Since the target population was small, the study would incorporate all staff of Supply chain departments, hence a census study will be conducted.

3.4 Data Collection

The study would collect both primary and secondary data. Primary data were collected using a semi structured questionnaire. Open ended questions were used in order to allow respondents to provide information which they may deem relevant for the study. Closed
ended questions were be used in order to standardize the responses and save on the respondents’ time taken to fill in the questionnaire. The researcher maintained a register of questionnaires, which will be sent, and which will be received.

In preparation for the data collection exercise, a pretest of the data collection instrument was conducted on the Nairobi office of the same organization. This would ensure that the questions are understandable and provide relevant information for the study.

3.5 Data Analysis
The data collected was grouped into two categories and analyzed differently and separately depending on the category. The data was categorized as either qualitative or quantitative. Data analysis tools that were used depended on the type of data to be analyzed, whether qualitative or quantitative.

Descriptive statistics includes mean, frequency, standard deviation and percentages to profile sample characteristics and major patterns emerging from the data. Data was presented using a table to present the findings of this study before drawing conclusions and making necessary recommendations. Pearson’s correlation test was conducted to identify the correlation between the organisational performance and the adopted supply chain practices. In addition, the study conducted a multiple regression analysis using the model below:

\[ Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \varepsilon \]

Where ;

\[ Y = \text{Organisational Performance of Toyota Kenya Limited} \]
\( X_1 = \text{Strategic Sourcing} \)

\( X_2 = \text{Supply chain network design} \)

\( X_3 = \text{Work Environment and Organizational Culture} \)

\( \varepsilon = \text{Error Term} \)

\( \beta = \text{Coefficients} \)
CHAPTER FOUR

DATA ANALYSIS, FINDINGS AND DISCUSSIONS

4.0 Introduction

The study objective was to establish the effects of the adopted global supply chain practices on the performance of Toyota Kenya Limited. This chapter highlights the results of the analysis. Descriptive statistics was used whereby means and standard deviation were computed and Pearson correlation and multiple regression models was also used to analyse the data.

4.1 Response Rate

The study targeted all the supply chain department staff at Toyota Kenya Limited. Out of 71 questionnaires administered, a total of 56 filled questionnaires were returned. This translates to a response rate of 78.87%, which was good enough and representative of the population and conforms to Mugenda and Mugenda (1999) stipulation that a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and above is excellent

4.2 Demographic Information

The researcher sought to determine the demographic information of the respondents and the results are as explained in the subsequent sections.

4.2.1 The age bracket of the respondents

The researcher sought to know the age bracket of the respondent and the results of the finding are shown in Table 4.1
Table 4.1: Age bracket of respondents

<table>
<thead>
<tr>
<th>Age Bracket</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-25 years</td>
<td>9</td>
<td>16.1</td>
</tr>
<tr>
<td>26-34 years</td>
<td>15</td>
<td>26.8</td>
</tr>
<tr>
<td>35-42 years</td>
<td>22</td>
<td>39.3</td>
</tr>
<tr>
<td>43-50 years</td>
<td>2</td>
<td>3.6</td>
</tr>
<tr>
<td>Above 50 years</td>
<td>8</td>
<td>14.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>56</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

The researcher established that the highest group of respondents were between 35-42 years which is 39.3% of the total respondents; while the smallest group of respondents were between 43-50 years at 3.6%. This shows that the respondents were in a position to provide accurate information thus the study is reliable.

4.2.2 The highest level of education

The researcher sought to know the education levels of the respondents and the findings are shown in the Table 4.2

Table 4.2: Highest level of education

<table>
<thead>
<tr>
<th>Highest Level</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificate</td>
<td>13</td>
<td>23.2</td>
</tr>
<tr>
<td>Diploma</td>
<td>12</td>
<td>21.4</td>
</tr>
<tr>
<td>Bachelor degree</td>
<td>22</td>
<td>39.3</td>
</tr>
<tr>
<td>Postgraduate degree</td>
<td>9</td>
<td>16.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>56</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

The highest level of education of the respondents had Postgraduate degree at 16.1% accounting for the lowest percentage of the group while Bachelors’ degree at 39.3% formed the highest group of the total respondents. This indicates that the respondents had knowledge on the topic of global supply chain management and performance therefore data collected was reliable.
4.2.3 How long the respondents have worked within the company

The researcher sought to find out the length at which the respondents have worked within the company. The findings are shown in Table 4.3

<table>
<thead>
<tr>
<th>Length working within company</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 5 years</td>
<td>23</td>
<td>41.1</td>
</tr>
<tr>
<td>6 – 10 Years</td>
<td>11</td>
<td>19.6</td>
</tr>
<tr>
<td>10 - 15 years</td>
<td>11</td>
<td>19.6</td>
</tr>
<tr>
<td>More than 15 years</td>
<td>11</td>
<td>19.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>56</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

As indicated in Table 4.3, majority of the respondents at 41.1% had worked at Toyota Kenya for less than 5 years; and 19.6% are the respondents who had worked for the company for 6-10 years: 10-15 years and those who have worked for more than 15 years. This shows that they had experience and are familiar with supply chain management and performance.

4.2.4 The practice of supply chain management in recognition of the effect on organizational performance

The researcher sought to know if the practice of supply chain management has an effect of the performance of the organization. The findings are shown on Table 4.4

<table>
<thead>
<tr>
<th>Practice supply chain management</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>56</td>
<td>100.0</td>
</tr>
</tbody>
</table>

As indicated in Table 4.4, all the respondents were in agreement that practicing supply chain management has an effect on the performance of the organization.
4.3 Strategic Sourcing

The study sought to find out to what extent strategic Sourcing had been used in its application of supply chain practises at Toyota Kenya limited. A Five Point Likert scale was provided ranging from 1-5 where 1= no extent , 2=little extent , 3= moderate extent , 4= great extent , 5= Very great extent. From the responses descriptive measures of central dispersion; Mean and Standard Deviation were used for ease of interpretation. The findings are as presented on Table 4.5
<table>
<thead>
<tr>
<th>Description</th>
<th>Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our firm’s resources are utilized to support its capabilities to achieve competitive advantage</td>
<td>3.5714</td>
<td>.80582</td>
</tr>
<tr>
<td>Our strategic sourcing department is involved in the strategic planning, process and purchasing</td>
<td>3.2500</td>
<td>.83666</td>
</tr>
<tr>
<td>Our strategic sourcing department is treated as an equal to other major functions and departments in the firm</td>
<td>3.8571</td>
<td>.86189</td>
</tr>
<tr>
<td>The purchasing manager monitors the company’s environment and shares relevant information with suppliers and colleagues</td>
<td>3.8750</td>
<td>1.06280</td>
</tr>
<tr>
<td>Our strategic sourcing has also influenced knowledge creation and sharing among suppliers and retailers</td>
<td>3.7500</td>
<td>.74468</td>
</tr>
<tr>
<td>There is a good relationship between suppliers and the strategic sourcing management</td>
<td>3.9107</td>
<td>.74533</td>
</tr>
<tr>
<td>Our strategic sourcing management works with suppliers to encourage them to disclose their costs and cost structures</td>
<td>3.1429</td>
<td>.92301</td>
</tr>
<tr>
<td>Our suppliers help develop competitive advantage and work beyond a simple purchasing agreement</td>
<td>3.5000</td>
<td>.85280</td>
</tr>
<tr>
<td>Our company has only one source of supply</td>
<td>2.5893</td>
<td>1.10826</td>
</tr>
<tr>
<td>Strategic sourcing department and suppliers work together to reduce the costs of products and services</td>
<td>3.5536</td>
<td>.89279</td>
</tr>
<tr>
<td>Our company purchases quality products</td>
<td>4.4286</td>
<td>.75936</td>
</tr>
<tr>
<td>Strategic sourcing affected the organizational performance of your company</td>
<td>3.7321</td>
<td>.82000</td>
</tr>
<tr>
<td>Our company’s supply chain determines how to source demand through the network</td>
<td>3.6786</td>
<td>.95550</td>
</tr>
<tr>
<td>Our company’s supply chain network evaluates alternative structures that maximize profitability and improve performance</td>
<td>4.1429</td>
<td>.72434</td>
</tr>
<tr>
<td>Our company’s supply chain network determines the best location of facilities, warehouses and suppliers</td>
<td>4.0179</td>
<td>.75054</td>
</tr>
<tr>
<td>Our company’s supply chain network is highly efficient</td>
<td>4.0179</td>
<td>.75054</td>
</tr>
<tr>
<td>Our company’s supply chain network has the essential tools to achieve the desired goals and gain competitive advantage</td>
<td>3.7679</td>
<td>.93402</td>
</tr>
<tr>
<td>Our company’s supply chain network utilizes quantitative tools to perform operational strategy analysis for financial business</td>
<td>3.8393</td>
<td>.49642</td>
</tr>
<tr>
<td>Our company’s Supply Chain Network Design makes strategic decisions on location of distribution centres</td>
<td>3.8571</td>
<td>.77292</td>
</tr>
<tr>
<td>Our suppliers help develop competitive advantage and work beyond a simple purchasing agreement</td>
<td>3.7500</td>
<td>.99544</td>
</tr>
<tr>
<td>Our company has a suite of hierarchical models for intertemporal integration</td>
<td>3.7500</td>
<td>.74468</td>
</tr>
<tr>
<td>Our company’s supply chain network design contains an excellent compositional identification of suppliers, manufactures and distributors</td>
<td>4.1071</td>
<td>.70527</td>
</tr>
</tbody>
</table>
The findings on Table 4.5 indicate that the company purchases quality products as applied at a greater extent since it has the highest mean score at 4.4286 and standard deviation of .75936. Followed by The Company’s supply chain network design contains an excellent compositional identification of suppliers, manufactures and distributors which had the Mean of 4.1429 and a standard deviation of .72434 and the company’s supply chain network is highly efficient which had the mean of 4.0179 and a standard deviation of .75054 This shows that Toyota Kenya Limited Company had adopted the application of global supply chain practices to a great extent.

The research findings also indicate that there is a good relationship between suppliers and the strategic sourcing management with response rate of great extent at a mean of 3.9107 and standard deviation of .74533. This is followed by the purchasing manager monitors the company’s environment and shares relevant information with suppliers and colleagues with a mean score of 3.8750 and standard deviation of 1.06280 and The strategic sourcing department is treated as an equal to other major functions and departments in the firm at a Mean of 3.8571 and standard deviation of .86189. This indicates global supply chain practices are adopted and applied by a great extent by the company.

The findings further the company having only one source of supply is rated at moderate extent as shown by a Mean of 2.5893 and standard deviation of 1.10826 this indicates that global supply chain practices are adopted at a moderate extent by the company.
4.3.1 Extent of Supply Chain Network Design

The study sought to know the extent that the supply chain network design affects the organizational performance of the company. The findings of the study are as shown on Table 4.6:

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moderate extent</td>
<td>17</td>
<td>30.4</td>
</tr>
<tr>
<td>Great extent</td>
<td>25</td>
<td>44.6</td>
</tr>
<tr>
<td>Very great extent</td>
<td>14</td>
<td>25.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>56</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

The findings revealed that majority of the respondents were in agreement that supply chain network design affects the organizational performance of Toyota Kenya Limited to a great extent as indicated by 44.6%, 30.4% indicated a moderate extent while 25% indicated very great extent. This shows that the supply chain network design affected the organizational performance to a great extent.

4.3.2 Work Environment and Organizational Culture

The researcher sought to know the extent in which the work environment and the organizational culture affected the organizational performance of the company. The findings from the study is shown in Table 4.7

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moderate extent</td>
<td>9</td>
<td>16.1</td>
</tr>
<tr>
<td>Great extent</td>
<td>25</td>
<td>44.6</td>
</tr>
<tr>
<td>Very great extent</td>
<td>22</td>
<td>39.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>56</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>
The findings show that majority of the respondents were in agreement that work environment and the organizational culture affected the organizational performance of Toyota Kenya Limited to a great extent as shown by 44.6%, 39.3% showed a very great extent while 16.1% indicated a moderate extent. This indicates that work environment and the organizational culture affected the performance of the company to a great extent.

### 4.4 Regression Analysis

The study conducted a cross-sectional multiple regression. The findings are shown in Table 4.8 below;

<table>
<thead>
<tr>
<th>Table 4.8 Model Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
</tr>
<tr>
<td>0.864</td>
</tr>
</tbody>
</table>

Table 4.15 above shows a model summary of regression analysis between three independent variables, strategic sourcing, Supply Chain Network Design and work environment & organisational culture. The value of R was 0.864; the value of R square was 0.746 and the value of adjusted R square was 0.729. From the findings, 74.6% of changes in the organization performance were attributed to the three independent variables in the study. Positivity and significance of all values of R shows that model is significant and therefore gives a logical support to the study model.

<table>
<thead>
<tr>
<th>Table 4.9 ANOVA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>Regression</td>
</tr>
<tr>
<td>Residual</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

ANOVA statistics of the processed data at 5% level of significance shows that the value of calculated F is 8.560 and the value of F critical at 5% level of significance was 1.96
Since F calculated is greater than the F critical (8.560>1.96), this shows that the overall model was significant.

### Table 4.10: Coefficients

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>2.777</td>
<td>.680</td>
<td>4.085</td>
<td>.000</td>
</tr>
<tr>
<td>Strategic Sourcing</td>
<td>.442</td>
<td>.096</td>
<td>4.588</td>
<td>.000</td>
</tr>
<tr>
<td>Supply Chain Network Design</td>
<td>.199</td>
<td>.147</td>
<td>1.355</td>
<td>.181</td>
</tr>
<tr>
<td>Work Environment &amp; Organisational Culture</td>
<td>.334</td>
<td>.154</td>
<td>2.167</td>
<td>.035</td>
</tr>
</tbody>
</table>

From the regression findings, the substitution of the equation becomes:

\[ Y = 2.777 + 0.442 X_1 + 0.199 X_2 + 0.334 X_3 + \varepsilon \]

Where Y is the organization performance, X_1 is Strategic Sourcing, X_2 is Supply Chain Network Design, and X_3 is Work Environment & Organisational Culture.

The regression equation above established that taking all factors into account (strategic sourcing, Supply Chain Network Design and work environment & organisational culture) constant, the organization performance would be 2.777. The findings presented also show that strategic sourcing had the greatest effect on the organization performance (\( \beta_2 = 0.442 \)), followed by Work Environment & Organisational Culture (\( \beta_3 = 0.334 \)) while Supply Chain Network Design had the least effect (\( \beta_2 = 0.199 \)). All the variables were significant (p<0.05).

### 4.6 Discussion of Results

The research findings showed that that practicing supply chain management has an effect on the performance of the organization. This is in line with Amue and Ozuru (2014) who investigated the effect of supply chain integration on operational performance among
firms in the oil and gas industry in Nigeria and found that firms that had integrated supply chain had better operational performance than those that had not integrated their supply chain process.

The study also established that the company purchases quality products to a greater extent. This concurs with Greene (2012) who deduced that recently the leading edge companies are shifting their quality emphasis from inspection to designing quality products, accompanying this with process control and process improvement efforts. The company’s supply chain network design contains an excellent compositional identification of suppliers, manufactures and distributors. This is in line with Pishvaee and Rabbani (2011), who state that a typical supply chain consists of suppliers, plants, distribution centres and customer markets and companies all over the world are confronted with designing and redesigning their supply chain.

The purchasing manager monitors the company’s environment and shares relevant information with suppliers and colleagues this is in line with Power (2005), who acknowledges that the general purpose of supply chain management is to remove communication barriers and eliminate redundancies. This has led to integration of supply chains which attempts to elevate the linkages within each component of the chain so as to facilitate better decision making. Ambe and Badenhorst-Wess (2013) noted that real-time sharing of design, planning, production, logistics and sales information have served to make the ‘global automotive industry’ truly global.
CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a general summary and conclusions from the study, as well as recommendations. At the end of the chapter, limitations of the study and suggestions for further studies are provided.

5.2 Summary of Findings

The objective of the study was to determine the effects of the adopted global supply chain practices on the performance of Toyota Kenya Limited. The study found out that Toyota Kenya Limited adopted strategic sourcing to the supply chain network design affecting the organizational performance of the company and work environment and the organizational culture affected the organizational performance of the company.

The study found out that practicing supply chain management has an effect on the performance of the organization. This correlated with Amue and Ozuru (2014) who found that firms that had integrated supply chain had better operational performance than those that had not integrated their supply chain process.

The study also established that the company purchases quality products to a greater extent. This concurs with Greene (2012) who deduced that the leading edge companies are shifting their quality emphasis from inspection to designing quality products.

The study found out that the company’s supply chain network design contains an excellent compositional identification of suppliers, manufactures and distributors. This
correlated with Pishvaee and Rabbani (2011), who established that a typical supply chain consists of suppliers, plants, distribution centres and customer markets.

According to the study, the purchasing manager monitors the company’s environment and shares relevant information with suppliers and colleagues this is in concurred with Power (2005), who acknowledges that the general purpose of supply chain management is to remove communication barriers and eliminate redundancies. Ambe and Badenhorst-Wess (2013) agreed that real-time sharing of design, planning, production, logistics and sales information had served to make the ‘global automotive industry’ truly global.

5.3 Conclusion
The study concludes that adopting global supply chain practices affects the performance of Toyota Kenya Limited. This is through promotion of efficiency in sourcing and distribution of both raw materials and finished products in their different stores around the world.

The study further concludes that Toyota Kenya Limited adopted strategic sourcing to the supply chain network design affecting its organizational performance, work environment and the organizational culture. The Company adopted lean production technologies to improve its operational efficiency.

The study concludes that practicing supply chain management has had an effect on the performance of the organization. This correlated with Amue and Ozuru (2014) who expressed that firms that had integrated supply chain had better operational performance than those that had not integrated their supply chain process.
The study also concluded that the company purchases quality products to a greater extent. This concurred with Greene (2012) who deduced that the leading edge companies are shifting their quality emphasis from inspection to designing quality products.

In conclusion the study found out that the company’s supply chain network design contains an excellent compositional identification of suppliers, manufactures and distributors. This correlated with Pishvaee and Rabbani (2011), who concludes that a typical supply chain consists of suppliers, plants, distribution centres and customer markets.

The study further concludes that the purchasing manager monitors the company’s environment and shares relevant information with suppliers and colleagues this is in agreement with Power (2005), who acknowledged that the general purpose of supply chain management is to remove communication barriers and eliminate redundancies. Ambe and Badenhorst-Wess (2013) agreed that real-time sharing of design, planning, production, logistics and sales information had served to make the ‘global automotive industry’ truly global.

The study concludes that supply chain management practices are strongly related to performance and the profitability where adoption of superior practices leads to increased profitability.

5.4 Limitations of the Study

The study adopted a case study approach whereby only Toyota Kenya Limited was studied. This limits the study in that the results obtained cannot be generalized and in
addition Toyota Kenya Limited cannot be representative of the motor vehicle industry hence the findings cannot relate to other firms nor can conclusions be related to the Industry practices.

Furthermore, most respondents had worked for the company for less than 5 years at 41.1% which is the majority group of respondents; their knowledge base of the company is limited to the short period they have been with the company.

5.5 Recommendations

The study recommended that the management to continuously improve their supply chain management practices benchmark the same and ensure that the practices remain relevant. By maximizing the benefits of efficient supply chain management, Toyota Kenya limited can save on financing costs in addition to achieving competitive advantage over the competitors and greatly improved performance. Where Supply chain processes are not optimized, the results will be less than optimal, posing an increasingly significant risk to supply chains and business performance of the company.

5.6 Suggestions for Further Study

Based on the limitations of the study and the researcher’s experience when conducting the study, recommendations for further study were developed. First, the study was limited by the case design adopted. As a result, the study recommends a similar study to be done but not using case study design. All motor vehicle companies could be studied. This will enable conclusions that could be generalized as relating to all motor vehicle companies. The research can also be done on sampled firms from different Industries using a large sample capable of being representative.
Current study though with some limitations in terms of response and scope has served the purpose of creating a quest for further research on supply chain management practices in the motor vehicle industry which can be beneficial to the management of other motor vehicle companies.

Further research should be done to establish practical tools that the motor vehicle industry in Kenya can apply to measure supply chain management and performance so that they can fully realise the benefits of supply chain management practices.

Green Supply Chain Management is another area that could look into for further studies in providing design specifications to suppliers including environmental requirements and eco-designs to boost green designs in the motor vehicle industry.

5.7 Implications for Policy and Practice

The study found that global supply chain management practices affected the performance Toyota Kenya limited and therefore the company should also find appropriate business processes needed in implementing supply chain management practices.

The company should practice reduction, reuse and recycling approaches in order to enhance effectiveness in the supply chain management and improve performance.
REFERENCES


Coase, R.H. (1937). The problem of social cost. *Journal law and Economics*, 3; 144


APPENDICES

APPENDIX I: RESEARCH QUESTIONNAIRE

The purpose of this questionnaire is to collect data on the effects of the adopted global supply chain practices on the performance of Toyota Kenya Limited. Kindly provide the appropriate responses for each of the questions. The information provided will be held confidential since it is meant for academic purposes only.

SECTION A: Demographic Information

(Please tick one box for each of the questions)

1. What is your age bracket?
   
   - 18-25 years [ ]
   - 26-34 years [ ]
   - 35-42 years [ ]
   - 43-50 years [ ]
   - Above 50 years [ ]

2. What is your highest level of education?

   - Certificate [ ]
   - Diploma [ ]
   - Bachelor degree [ ]
   - Postgraduate degree [ ]

3. For how long have you worked with this company?

   - Less than 5 years [ ]
   - 6 – 10 Years [ ]
   - 10 - 15 years [ ]
   - More than 15 years [ ]

4. Does your organization practice supply chain management in recognition of its effect on organisational performance?

   - Yes [ ]
   - No [ ]

SECTION B: GLOBAL SUPPLY CHAINS PRACTICES ADOPTED BY TOYOTA KENYA LIMITED
5. The following are statements on Strategic sourcing adopted by Toyota Kenya limited. Rate the Extent to which they are applied on a scale of 1-5 where 1= no extent, 2= little extent, 3= moderate extent, 4= great extent, 5= Very great extent

<table>
<thead>
<tr>
<th>Strategic sourcing</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our firm’s resources are utilized to support its capabilities to achieve competitive advantage</td>
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<tr>
<td>Our strategic sourcing department is involved in the strategic planning, process and purchasing</td>
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<tr>
<td>Our strategic sourcing department is treated as an equal to other major functions and departments in the firm</td>
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<td>The purchasing manager monitors the company’s environment and shares relevant information with suppliers and colleagues</td>
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<tr>
<td>Our strategic sourcing has also influenced knowledge creation and sharing among suppliers and retailers</td>
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<td>There is a good relationship between suppliers and the strategic sourcing management</td>
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<tr>
<td>Our strategic sourcing management works with suppliers to encourage them to disclose their costs and cost structures</td>
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<td>Our suppliers help develop competitive advantage and work beyond a simple purchasing agreement</td>
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<tr>
<td>Our company has only one source of supply</td>
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<tr>
<td>Strategic sourcing department and suppliers work together to reduce the costs of products and services</td>
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<tr>
<td>Our company purchases quality products</td>
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<tr>
<td>Strategic sourcing affected the organisational performance of your company</td>
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<tr>
<td>Our company’s supply chain determines how to source demand through the network</td>
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<tr>
<td>Our company’s supply chain network evaluates alternative structures that maximize profitability and improve performance</td>
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<tr>
<td>Our company’s supply chain network determines the best location of facilities, warehouses and suppliers</td>
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<tr>
<td>Our company’s supply chain network is highly efficient</td>
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</tbody>
</table>
Our company’s supply chain network has the essential tools to achieve the desired goals and gain competitive advantage

Our company’s supply chain network utilizes quantitative tools to perform operational strategy analysis for financial business

Our company’s Supply Chain Network Design makes strategic decisions on location of distribution centres

Our suppliers help develop competitive advantage and work beyond a simple purchasing agreement

Our company has a suite of hierarchical models for intertemporal integration

Our company’s supply chain network design contains an excellent compositional identification of suppliers, manufactures and distributors

<table>
<thead>
<tr>
<th>6. To what extent has the Supply Chain Network Design affected the organisational performance of your company?</th>
</tr>
</thead>
<tbody>
<tr>
<td>5= Very great extent [   ]  4= Great extent [   ]  3= Moderate extent [   ]  2= little extent [   ]  1= No extent [   ]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>7. To what extent has the work environment &amp; organisational culture affected the organisational performance of your company?</th>
</tr>
</thead>
<tbody>
<tr>
<td>5= Very great extent [   ]  4= Great extent [   ]  3= Moderate extent [   ]  2= little extent [   ]  1= No extent [   ]</td>
</tr>
</tbody>
</table>