

**SUPPLY CHAIN INTEGRATION AND RESPONSIVENESS OF
SUPERMARKETS IN MOGADISHU, SOMALIA**

BY

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**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT OF
THE REQUIREMENTS FOR THE AWARD MASTER OF BUSINESS
ADMINSTRATION, SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI**

OCTOBER, 2019

DECLARATION

I, the undersigned, declare that this is my original work and has not been presented to any institution or university other than the University of Nairobi for examination.

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This research project has been submitted for examination on approval as the University Supervisors.

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DEDICATION

I dedicate this project to my father Nor Osman and my uncle Nor warsame.

ACKNOWLEDGEMENT

I give thanks to ALLAH for enabling me to complete this project.

ABBREVIATIONS AND ACRONYMS

CI:	Customer Integration
GOS:	Government of Somalia
II:	Internal Integration
SCI:	Supply Chain Integration
SCRM:	Supply Chain Relationship Management
SI:	Supply Integration
WFP:	World Food Programme

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ABSTRACT

The concept of supply chain integration has not been largely recognized among most of these supermarkets in Mogadishu. By recognizing appreciating supply chain integration in their operations, supermarkets in Mogadishu would be able to effectively compete in the retail sector given the greater opportunities of growth available. The focus of the study was on determining the interaction between supply chain integration and responsiveness with focus on supermarkets in Mogadishu, Somalia. The objectives of the study included: to determine the extent of supply chain integration among supermarkets in Mogadishu, determine the relationship between supply chain integration and responsiveness of supermarkets in Mogadishu and analyze the challenges of supply chain integration among supermarkets in Mogadishu. The design used in the study was descriptive and a total of 28 supermarkets were targeted and censured. Information for the study was gathered from primary sources. The analysis used descriptive and inferential statistics and tables helped in presentation of the findings. It was shown that internal, supplier and customer integration are key constructs of supply chain integration. A positive and significant link was established between supply chain integration and firm responsiveness. Inadequate trust between the firms, low commitment from the management of the firm and poor relationship management are some of the challenges affecting implementation of supply chain integration. The study concludes that supply chain integration has positive effect on timely order fulfillment, timely replenishment decisions and flexibility. The study recommends that in order to improve on their order processing abilities, the management team of all supermarkets in Mogadishu should invest in supplier, internal and customer integration. In order to remain flexible and make timely replenishment decisions, the study recommends that Supermarkets in Mogadishu should improve on their supplier, internal and customer integration mechanisms. The management of all supermarkets in Mogadishu should increase their commitment towards supply chain integration by availing all the required resources. The study was limited to primary data gathered with use of the study questionnaires. The study focused on Supermarkets operating in Mogadishu. Future studies should concentrate on other firms for instance commercial banks, insurance firms and the manufacturing businesses. There is also need for further studies to focus on firms across the East Africa region.

CHAPTER ONE: INTRODUCTION

1.1 Background of the study

Although scholarly attention has been paid to supply chain integration (SCI), it has however been under examined with respect to responsiveness (Roh, Hong & Min, 2014). SCI is viewed an effective way through which firms strive to remain competitive through reduction in operational costs and high level of customer services. SCI has grown to be recognized as new paradigm shift and strategy of improving responsiveness of the firm as informed by better response to customers' demands, reduction in lead time and greater responsiveness (Qrunfleh & Tarafdar, 2014). Supply chain integration is structured in nature.

Supermarkets operate in the retail sector which is a service segment. Most supermarkets in Somalia are still in their infancy stage following the collapse of Somali state in 1991 that increased the waves of conflicts and political tension that adversely affected their responsiveness (Menkhaus, 2013). Therefore, SCI especially in the retail sector in Somalia has not matured. For effective management of the services and products, the retailers and other partners within the supply chain experience a paradigm shift in their traditional business models including the adoption of SCI (Powell, Ford & Nowrasteh, 2008).

The relationship between SCI and responsiveness can be well understood through the agency theory, resource-based view and network theory. It is through the agency theory that the interaction between the agents as well as the principal is detailed in attainment of goals. The agent carries out transaction on behalf of the principal who ratifies and controls all the activities and undertakings by the agent. Similarly, supply chain involves the various parties within the

supply chain collaborating with one another and this collaboration can be viewed in terms of agency theory. In absence of conflicts of interest (as proposed by the agency theory) within the supply chain, SCI is likely to positively contribute towards greater responsiveness (Ross & Mitnick, 1970). According to the network theory, integration of the firms is largely influenced by networking of the various involved partners including suppliers and buyers as well as customers. It is this degree of networking among the partners that would influence supply chain responsiveness (Wasserman & Faust, 1994). The system theory views an organization as a set of interrelated components that collaborate and work together for attainment of the set goals and objectives (Senge, 1990). In terms of the system theory therefore, SCI is seen as the ability of various partners within the supply chain to interact with each other (suppliers, focal firm and customers) in order to attain the set goals which include improvement in responsiveness (Bertalanffy, 1928).

1.1.1 Supply Chain Integration

Globally, there exists no clear consensus among academicians on what supply chain integration (SCI) means. This brings in a gap of getting the exact meaning of SCI and its key constructs that scholars and literature has recently focused on. Ralston, Blackhurst, Cantor and Crum (2015) views SCI as a situation that entails collaboration between members in the entire supply chain for improved performance and the need to effectively meet demands from customers. SCI involves internal alignment of the core functions and process of the business with the various parties involved in the supply chains for costs reduction, creation of value for clients and improved performance within the chain. According to Cantor, Blackhurst, Pan and Crum (2014), SCI is coordination and linkage of the internal and external partners and members within the supply chain to enhance the flow of resources in a way that is both efficient as well as

effective. Resources in this context include monetary, information, materials and knowledge that help in realization of the needs of the customers in ways that are effective (Singh, 2015).

SCI as a process is not without benefits and barriers to the focal firm, suppliers and the customers. The keys benefits attributed to supply chain integration include greater responsiveness to customer demand, improved flow of information and greater flexibility. According to Dubey, Gunasekaran and Childe (2015), SCI helps in reducing the lead times of the firm which safeguards availability of the product offering of the firm. SCI is the only way that organizations aim to lower their costs across the supply chain. The ability of the firm to internally integrate with other parties is a necessary step towards response to needs and wants of the customers. In terms of the barriers, SCI lack trust between the partners in the supply chain, existence of conflict of interests and goals between the parties to contracts, lack of control on confidential and trade secret of the firm which may be revealed to third parties and the existing culture in the firm for instance resistance to change (Qi, Huo, Wang & Yeung, 2017).

Researchers have unanimously concurred that SCI can be operationalized into three key constructs or measures that include customers, suppliers and internal integration. Customer integration entails the activities and competencies at the strategic point of view that firms leverage on to provide optimal goods and service to customers by establishing relationship with them. Integrating with customers enables the firm to have a picture of the exact needs and specification of customers in mind which helps the firm to better serve them (Mustafa & Irani, 2014). Supplier integration defines the steps and process that help in flow of information while each party getting a chance to take part in making decisions on a joint basis. These are done to enhance realization of set goals and objectives including improvement in lead time, reduction in costs and increased satisfaction of customers (Jahre & Fabbe-Costes, 2015).

Internal integration on the other forms the basis for customer and supplier integration and it occurs when all the business processes are linked into a strategic fit for improvement in performance of the firm (Flynn, Koufteros & Lu, 2016).

1.1.2 Firm Responsiveness

Firm responsiveness is the extent which an organization is able to timely act to changes in its environment (Bruque-Cámara, Moyano-Fuentes & Maqueira-Marín, 2016). Firm responsiveness has been conceptualized differently by various scholars. Hult et al. (2005) operationalizes organizational responsiveness as the propensity of the firm to act on the basis of the generated information. Based on market information, McBeath et al. (2014) argues that organizational responsiveness constitutes two key sets of activities; response design (leveraging on market intelligence to formulate plans) and response implementation (relying on market intelligence for execution of such plans).

Yu, Lo, and Li (2017) identify several key forms of organizational responses to cover selection of target markets, offering of products that meet the customers' needs and production and distribution of products that meet the needs of the end users. In supply chain management school of thought, Bruque-Cámara et al. (2016) views organizational responsiveness as the firm's ability to flexibly and simultaneously react to operational as well as strategic demands. Dubey et al. (2015) define organizational responsiveness recognizing its key constructs including sensing and modular organizing. Sensing is the ability of an organization to fathom its complex interrelationship with the external world.

According to Qi et al. (2017), firm responsiveness can be measured by the manner which core operations in the entity are executed as well as put in place.

This covers coordination and flow of material, information, processes and knowledge. According to Flynn et al. (2016), the level of responsiveness determines the degree and extent of coordination within the supply chain systems. For instance, higher level of organizational responsiveness requires that the information between the parties flow timely with proper flow of materials. Hoyt et al. (2007) indicates that firm responsiveness can be reflected in the ability of the organization to timely fulfill orders and replenish inventories as well as an increase in flexibility in operations.

1.1.3 Supermarkets in Mogadishu

Supermarkets fall under the larger retail sector in Somalia. There are a total of 28 supermarkets in Mogadishu. Most of these supermarkets in Mogadishu are classified as either medium or large. It is worthwhile to note that Somalia is recovering from the past political violence and clashes that destabilized the economy in late 1990s. These clashes had an influence on the economy of the county including the businesses within the county. As such, most of the supermarkets are still recovering or at infant stage which require supply chain integration (GoS, 2018).

Supermarkets determine how an economy of the country grows. For instance, over 10% of the GDP of Somalia in 2017 was attributed to the growth of the supermarket sector. At least 20% of people all the population in Somalia is employed in the retail sector. The sector plays an important role in generation of tax revenue to the government that is used for investing in infrastructure projects and other facilities (Bahar, 2017).

Supermarkets in Somalia face a number of challenges that that affect their operations. These challenges include the increased level of competition from other new supermarket entrants,

political instability that makes it hard to plan, persistent attacks from the Al-shabaab terror group, protracted famine due to period of drought and the unstable regulatory environment (Mutuku, 2018). This therefore provided a justification for the need of the present analysis.

1.2 Research Problem

SCI is conceived as a tool for firms to remain responsive and thus meet customers' needs. SCI is a critical strategy for a firm striving to reduce its overall costs, better respond to the customer order, and reduce lead time, increase flexibility and effectiveness. In response to environmental turbulences, supply chain integration has gained relevance among scholars and academicians on a global scale. Theoretically, a positive relationship is expected between SCI and the ability of the firm to remain responsive (Sarrafha, et al., 2015).

In Mogadishu, supermarkets operate in a highly changing and competitive environment that calls for proper strategies to effectively respond to the needs of customers. At the same time, majority of these supermarkets are still in their early growth stage and hence they have greater potential of growth within the retail sector. As a concept, SCI has not received significant attention and recognition among most of these supermarkets in Mogadishu. By recognizing appreciating SCI in their operations, supermarkets in Mogadishu would be able to effectively compete in the retail sector given the greater opportunities of growth available (Ralston, et al., 2015).

There is a large body of literature on SCI in different content. For instance, in the automobile sector of United Kingdom, Ngo et al. (2016) examined the role played by SCI in realization of competitiveness. It was revealed that SCI is key driver of competitiveness. The study however was done in UK, and focused on competitiveness and not responsiveness. Kumar, Chibuzo,

Garza-Reyes, Kumari, Rocha-Lona and Lopez-Torres (2017) sought to establish how SCI impacts on performance with key focus on the food sector.

A significant link was established between SCI and firm's performance. The study however focused on UK and not in Mogadishu and it looked at performance and not responsiveness. Pakurár et al. (2019) examined the joint influence of SCI and internal controls on financial performance with a focus on banking entities in Jordan. It was noted that SCI has a positive influence on firm's ability to perform financially. The study's focus was on commercial banks and not supermarkets and it was done in Jordan and not in Somalia.

Locally, Kimani (2014) looked at SCI and its interaction with ability of banking entities to perform. The key finding was that SCI has an influence on performance. Abdallah (2015) examined the connection between management of the interaction with suppliers and how this determines performance of supply chains using evidence from WFP. The study found out that SRM has an influence on organizational performance. Rucha and Abdallah (2017) assessed the influence on SRM on humanitarian supply chain performance with focus on World Food Program and revealed positive relationship. These studies however focused on organizational performance and not responsiveness.

Thus, from the aforementioned studies, it is evident that supply chain integration and responsiveness is a contemporary issue among scholars. Some of the studies however focus on organizational performance, competitiveness, and not responsiveness creating a conceptual gap. Other studies were carried out in different countries and sectors including the automobile and the banking sector creating a contextual gap. Thus, the motivation of the study was to answer the following research question: what is the effect of SCI on firm responsiveness?

1.3 Research Objectives

- (i) Determining the extent of supply chain integration among supermarkets in Mogadishu
- (ii) Determining the relationship between supply chain integration and responsiveness of supermarkets in Mogadishu
- (iii) Analyzing the challenges of supply chain integration among supermarkets in Mogadishu

1.4 Value of the Study

The senior managers of the supermarkets in Somalia, other organizations and academicians would be beneficiaries of the results. To the management of supermarkets, the study would recommend the best way of improving on their SCI practices and the key challenges arising from collaboration with suppliers. This would help in formulation of the best strategy of improving on supply chain integration and thus greater responsiveness to customer needs.

To other organizations, the study would help in formulation of sound SCI strategies that would increase their responsiveness. Some of the other organizations that the findings of the study would be important to include the banking sector, insurance companies and other manufacturing firms. The study would recommend the best way which SCI can be improved among these organizations which would result into increased responsiveness.

The study would expand the existing literature on SCI and how it influences responsiveness. Future scholars and academicians will use the study as a reference point when carrying out further studies on SCI and its interaction with ability of the firm to remain responsive.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter will review literature on supply chain integration and how it influences responsiveness. The theories providing anchorage to the study are also clearly reviewed. The reviewed literature is summarized showing the research gaps. The conceptual framework showing the relationship between the variables is also clearly presented.

2.2 Theoretical Literature Review

A theoretical review looks at key theories that form the basis of the study. The agency theory, the network theory and the system theory are discussed in this section.

2.2.1 Agency Theory

Agency theory was formulated by Jensen and Meckling (1976) and it is used to explain the interaction between the principal and the agent. The agent carries out duties and operations on behalf of the principal. In other words, the agent acts in the name of the principal. It is the expectations of the principal that the agent will act in his/her best interest without consideration of self or individual interests. Existence of conflicting interests between the principal and the agent may result into conflicts since the actions of some agents may not be fully aligned with what the principal desires (Shapiro, 2005).

The resulting disagreement and miscommunication between the principal and the agent may bring about numerous discords in the firm. The principal-agent problem arises whenever their interests are completely in conflict. The theory offers an explanation of how best to manage this relationship between the principal and the agent (Donaldson & Davis, 1991).

The criticisms of this agency theory lie from its assumptions. The critiques argue that the theory unnecessarily point out the cynical as well as negative moral analysis and evaluation on people (Kivistö, 2008). The theory is relevant to the study because SCI covers all efforts and activities that results into coordinated efforts with a number of partners within the supply chains. These partners can be seen as the agents to the company and without trust, success of supply chain integration would be in doubt.

2.2.2 Network Theory

A network theory comprises of different sets of factors and how they relate with each other (Wasserman & Faust, 1994). Networks are multi-complex which shows that more than one tie are shared by the actors within the network. Trust is the most critical component of any network relationship (Danese, Romano & Formentini, 2013). There are different types of networks including the social networks. In addition to trust, coordination of activities is also an important aspect of the network relationship.

This theory is relevant to the study because supply chain integration involves an organization networking with different actors including suppliers, customers and internally. The success of this networking efforts in the supply chain integration largely depend on how information flows within the parties, the degree of coordination as well as the level of trust between different actors within the network. The theory is therefore relevant to the current study.

2.2.3 System Theory

System theory was formulated by Bertalanffy (1968), and it views an organization as an integration of systems. In its simplest form, a system is composed of a number of interrelated components that work together to achieve a common goal.

Example of these systems could be the breathing system, the digestive system as well as the excretory system. In supply chain context, the term system refers to the interrelationship between various partners within the chain.

Example of parties in the supply chain forming a system includes suppliers, buyers, customers as well as governmental organizations. Thus, all these partners will collaborate forming up a system. Hence, each of these individuals is an important component of the system as far as supply chain is concerned. Systems are important because they create synergy and unity of purpose which make it easier to realize the goals (Acedo, Barroso & Galan, 2006). The system concept is therefore central as far as SCI is concerned.

2.3 Supply Chain Integration

SCI is the degree that the operations and activities of the firm, its suppliers, the customers in place besides other parties within the supply chains are effectively coordinated together. Based on this definition, supply chain integration covers three critical components; suppliers, internal as well as customers. Suppliers and customers are broadly considered as integration externally (Flynn, Huo & Zhao, 2010). Integrating with customers heavily relies on accessing information of the customers including their buying behavior and patterns, their preferences on different products and their abilities in buying given products and all this information is crucial for sound decision making processes during sales or the manufacturing process. A firm that actively collaborates with its customers is better placed to effectively and timely respond to their needs of the customers in a quick and efficient way hence improved order fulfillment and visibility (Sarrafha, Rahmati, Niaki & Zaretalab, 2015).

In supplier integration, the firm ensures that its suppliers are involved in participation in making decisions of the firm including the prediction and forecast of demand, inventory and production levels being shared between the business entity and its suppliers. Supplier integration is usually designed in order to utilize the operational as well as strategic capabilities of parties taking part in the supply chain (Wiengarten, Humphreys, Gimenez & McIvor, 2016). The key features of supplier integration include sharing of information and technologies, trust between the parties, contracts extending over a long term horizon and investment in suppliers' assets. It also covers sharing of risks and rewards and involvement of suppliers in the initial stages of design of new products. Trust is essential in the interaction between the business entity and its suppliers because it strengthens the degree and level of commitment between the various individuals within the supply chains; it reduces the costs of transaction and reduces the conflicts between parties (Dubey, et al., 2015).

Internal integration is the interaction between different functions in an organization with constant communication, collaboration and cooperation which directs all these functional units into a single unit. It is the linking and coordination of information among different functions or department's in an organization and this makes it easier to access inventories, databases for extracting key operational information and integration of production/operational activities using computerized systems (Liu et al., 2016). Internal integration is the foundation of external integration. Internal integration ensures that parties with supply chains do receive information in a manner that is timely while being able to collaborate in a way to have an understanding of the actual desires of the customers. Internal integration is the process that results into collaboration and communication bringing together different functions of an organization (Prajogo, Oke & Olhager, 2016). According to Youn, Yang, Kim and Hong (2014), the first step in SCI is

alignment of the internal processes and departments within an organization. Internal integration is the necessary step towards reduction in costs, greater efficiency and effectiveness and the need to effectively respond to customer needs.

Customer integration covers a number of activities including integrated solving of problems, direct contact with customers, effective management of customer complaints, cultivation and establishment of long term interactions with customers and putting in place customer focus initiatives to bring about customer satisfaction (Ralston et al., 2015). Several benefits accrue to a firm after customer integration which includes the ability for product differentiation, an increase in the share of the market, greater loyalty from customers. Customer integration ensures that there is effective flow of products from an organization to its customers. It involves sharing of information on demand and involving customers' in the design of new products (Prajogo & Olhager, 2012).

2.4 Supply Chain Responsiveness

The key feature of a responsive supply chain is its ability to timely respond to the needs of the customers of the firm. The key measures of the ability of the firm to be responsive include accuracy and timeliness in order fulfillment, continuous communication, customer satisfaction, increased flexibility as well as timely replenishment of stocks that are out of order. All these help the firm to remain competitive in the ever changing business environment (McBeath et al., 2014).

The success of organizations is informed by how well the activities are coordinated and managed across the supply chain members and parties. According to Holweg (2005), supply chain responsiveness as an area is highly conceptual with less empirical analysis and research. RR

argues that supply chain responsiveness can be strengthened by dealing with supply chain management practices for increased leanness in the activities and operations of the firm.

2.5 Empirical Literature Review

Using a case of firms in USA, Danese, Romano and Formentini (2013) examined the effect of SCI on responsiveness. The objective was to determine how SCI influences responsiveness. The study found out that supply networks (both internal as well as external integration) have direct and significant influence on responses of the firm. It was shown that firms have invested in international supplier networks in order to enhance their ability of responding to the needs of their customers. The study was however not carried out in Somalia which point out the need for the current study.

A study was carried out in United Kingdom (UK) by Sabet, Yazdani and De Leeuw (2017) on SCI strategies among the fast moving consumer goods firms. The study adopted a desk review design where relevant literature on SCI was comprehensively reviewed. A conceptual model was developed and it was shown that SCI predicts the ability of the firm to perform. A positive interaction implies that any effort to improve on SCI would definitely result into an increase in performance of the firm. The recommendation put forward by the study was that firms need to embrace SCI practices for significant improvement in performance. This study however was done in UK and not in Somalia which point out the need for the current study.

In Iran, Hooshangi, Sadaghiani, Astaneh and Afshar (2017) looked at the mediating influence of SCI in the interaction between the level of commitment of employees and performance of an organization. Supply chain integration was operationalized under supplier, customers as well as internal integration. The population of interest in the study was procurement managers and the

study focused on manufacturing entities in Qazvin province. Empirically, it was documented that employee commitment has positive influence on supply chain integration constructs.

In Rwanda, Uwamahoro (2018) analyzed SCI and its interlink with ability of the firms to perform. The design used was cross sectional and the views of respondents were gathered with use of questionnaires. The key finding was that SCI results into firm as well as operational performance. It was established that customer as well as internal integration are key in improvement of performance of the firm. This study was however carried out in Rwanda and not in Somalia.

Localy, Abdallah (2015) assessed the connection between management of the relationships with suppliers and its influence on ability of the firms to perform using a case of World Food Program in Somalia. The study had one objective which was to determine supplier relationship management in place. The design adopted was survey and respondents comprised of senior managers in the procurement department. In total, 87 respondents were sampled in the study. The notable result was that information is shared between the organization and its suppliers. The study established that employees are continuously trained at WFP. It was concluded supplier relationship management has significant effect on ability of the entity to perform. The study however focused on supplier relationship and not on supply chain integration which creates a gap.

While focusing on electronic firms in Somalia, Mohamud and Omar (2016) sought to determine the influence on inventory management on firm performance. Specifically, the study was interested in examining the role played by inventory management as well as cost reduction in the firm. The type of design adopted in the study was quantitative. The respondents of the study

included employees working in the electronic firms in Somalia. In total, 120 respondents were sampled and included in the study. The study established that inventory management results into improvement in firm's ability to perform at an operational level. This study however focused on electronic firms and not the supermarkets. The study was also limited to inventory management which can be a mere aspect of SCI. The study examined organizational performance and not responsiveness.

Anshur, Ahmed and Dhodi (2018) looked at inventory management and its influence on performance with key focus on manufacturing firms in Somalia. The analysis indicated a positive link between management of inventories and firm's ability to perform. This study however concentrated on inventory management and not SCI. The study also looked at the manufacturing firms and not specifically the supermarkets.

Osman and Mukhongo (2018) carried out a study on inventory management and its influence on how manufacturing firms in Mogadishu, Somalia perform. A total of five manufacturing firms were studied. The specific study variables included inventory planning, control and recording. The design adopted was descriptive and a total; of 100 employees from the firm were targeted and sampled. Purposive random sampling was used and data was collected with the aid of questionnaires. The finding from the study was that inventory management predict firm's ability to perform. However, the study looked at financial performance and not responsiveness. At the same time, the study concentrated on manufacturing firms not the supermarkets.

2.6 Challenges of Implementation of Supply Chain Integration

Mohammad, Shukor, Mahbub and Halil (2014) examined the challenges in supply chain integration. The analysis borrowed evidence from Malaysia in the construction industry. The

major challenges identified include poor relationship management and communication and differences in attitudes among supply chain partners. Poor relationship management is brought about by low level of trust among supply chain partners. SCI involves various partners with different attitudes and beliefs. These differences in these beliefs may adversely affect supply chain integration.

Jaradat (2018) evaluated the challenges linked to internal SCI. The study used a case of family owned firms and specifically the electronic firms. This was a review of literature besides the qualitative techniques. Key concepts and theories in development of supply chain integration were reviewed. Among the challenges identified include lack of top management support and inability of the various parties within the supply chain to trust each other. Top management of an organization play an important role as far as SCI is concerned. This includes communication of the mission and vision to employees and availing the required resources in SCI.

Gelagay (2018) studied the challenges of SCI, with major focus on firms that operate in Ethiopia's manufacturing segment. The unit analysis in the study comprised of 25 companies of manufacturing soap and other detergents. Questionnaires were issued to 75 respondents. The analyzed findings identified inflexibility in the systems within the firms, inadequate trust between supply chain partners, resistance to changes initiatives and low level of commitment from the top management team were key challenges in supply chain integration.

2.7 Summary of Literature Review and Research Gaps

Table 2.1 summarizes the reviewed literature. The table provides the authors, research methodology, key findings and research gaps for the current study to fill.

Table 2. 1: Summary of Literature Review and Research Gaps

Author	Study	Research Methodology	Key Findings	Research Gaps
Gelagay (2018)	challenges of SCI	Questionnaires used in collection of data	inflexibility in the systems within the firms, inadequate trust between supply chain partners, resistance to changes initiatives and low level of commitment from the top management team were hindrances as far as SCI is concerned	The investigation was limited to Ethiopia and not in Somalia
Uwamahoro (2018)	SCI and its interaction with firm's ability to perform	adopted a cross sectional design	Positive interaction revealed	The study was done was done in Rwanda and not in Somalia; it focused on organizational performance and not responsiveness
Sabet, Yazdani and De Leeuw (2017)	SCI strategies among the fast moving consumer goods firms.	adopted a desk review design	SCI has positive and significant effect on performance of an organization	The study looked at organizational performance and not organizational responsiveness
Hooshangi, Sadaghiani, Astaneh and	mediating influence of SCI in the interaction between the level of commitment of	Empirical studies were reviewed	supplier integration was found to have direct influence on firm's performance	The study's focus was on organizational performance and not responsiveness

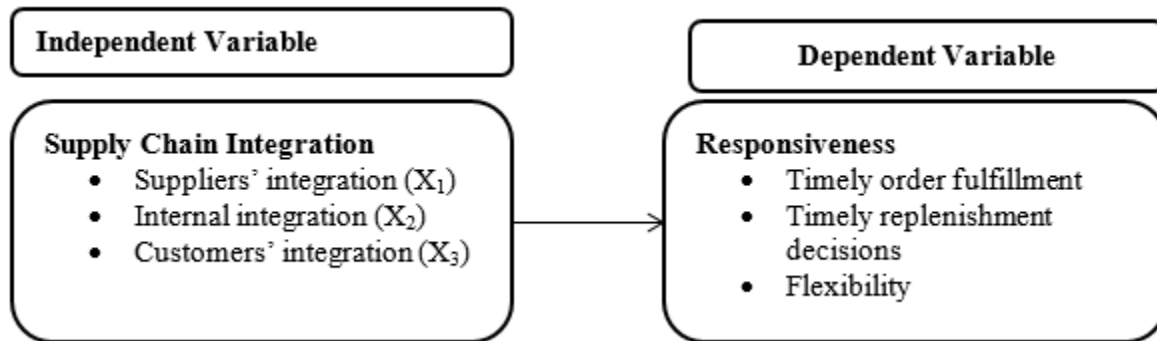
Afshar (2017)	employees and performance of an organization			
Asgari, Hamid and Ale-Ebrahim (2017)	comprehensively reviewed literature on SCI	The study was empirical review	SCI influences performance of the organization	It was limited on supply chain integration alone and did not relate it with organizational responsiveness

2.8 Conceptual Framework

The independent variable is SCI while the dependent variable is responsiveness which is operationalized as under timely order fulfillment, timely replenishment decisions and flexibility.

This is schematically presented in Figure 2.1 below.

Figure 2.1: Conceptual Framework



Source; Researcher (2019)

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

The type of research design that shall be adopted, the population and methods that shall be used in gathering data from the field are detailed in this chapter. The methods for analyzing the collected data to draw inferences and deductions are also discussed in this chapter.

3.2 Research Design

The design used in the study was descriptive. According to Yin (2017), a descriptive design is ideal in studies that seek to portray existing conditions in an exact manner. This design was appropriate in determining the current state of SCI among supermarkets in Somalia and how it has influenced responsiveness. According to Kothari (2004), a descriptive design gives an account of the way things exist in their original state.

3.3 Target Population

The Supermarkets of Mogadishu, which were 28 in number (Appendix II) were targeted. To find out information from the population, a census was adopted since the population was not large.

3.4 Data Collection

Information was gathered from primary sources with the aid of questionnaires. The structuring of the questionnaires was done based the established objectives of the inquiry. The respondents of the study comprised of supply chain managers or their equivalent. These positions were selected because they are directly involved in matters of supply chain in their respective organizations.

As such, they had clear information that the study was seeking on SCI and how it has influenced responsiveness of their respective firms.

3.5 Data Analysis

The gathered data of the respondents from the field were entered in SPSS tool. For objectives (i) which was to determine the extent of SCI among supermarkets in Mogadishu) and (iii) which was to determine the challenges of SCI among supermarkets in Mogadishu, the analysis was descriptively done. In achieving objective (ii) which sought to determine the interaction between SCI and ability of firms to remain responsive, regression analysis was used in establishing the relationship between variables. The overall regression model was adopted will take the following forms;

$$Y_1 = a + b_1X_1 + b_2X_2 + b_3X_3 + e \dots\dots\dots(i)$$

$$Y_2 = a + b_2X_2 + b_3X_3 + e \dots\dots\dots(ii)$$

$$Y_3 = a + b_3X_3 + e \dots\dots\dots(iii)$$

Where;

Y_1 = Timeliness of order fulfillment

Y_2 = Timeliness of replenishment decisions

Y_3 = Flexibility

β_0 = the Y- Intercept

$\beta_1, \beta_2, \beta_3$, are the independent variables of X_1 (Supplier integration), X_2 (Internal integration), and X_3 (customer integration), respectively. e is the error term

Table 3.1: Summary of the Data Collection and Data Analysis

Objective	Data Collection	Data Analysis
General information	Section A	Descriptive statistics (frequencies and percentages)
To determine the extent of SCI among supermarkets in Mogadishu	Section B	Descriptive statistics (Means and Standard deviations)
To determine the relationship between SCI and responsiveness of supermarkets in Mogadishu	Section B & C	Regression analysis
To determine the challenges of SCI among supermarkets in Mogadishu	Section D	Descriptive statistics (Means and Standard deviations)

Source; Researcher (2019)

CHAPTER FOUR: RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

This sections majorly focuses on presenting the findings from the analysis of the data. The views of respondents were gathered with aid of questionnaires.

4.1.1 Response Rate

The study targeted 28 supply chain managers or their equivalent from supermarkets in Mogadishu. From these questionnaires, 23 were returned as having been filled up. Thus, the response rate stood at 82.1% which was supported by Mugenda and Mugenda (2003) who preferred a sufficient rate as one above 70%.

4.2 General Information

The subsequent sections detail the general information.

4.2.1 General Information of Respondents

Table 4.1 is a summary of the general details concerning those individuals who took part in the field.

Table 4.1: General Information of Respondents

Classification	Category	Frequency	Percentage
Gender of Respondents	Male	14	60.9
	Female	9	39.1
	Total	23	100.0
Education of the Respondents	Certificate	3	13.0
	Diploma	11	47.8
	Undergraduate degree	9	39.1
	Total	23	100.0
Years of Experience	Less than 3 years	6	26.1
	3-6 years	14	60.9
	Over 6 Years	3	13.0
	Total	23	100.0

Source; Research Data (2019)

From Table 4.1, majority of the respondents (60.9%) were male having diploma (47.8%) as their highest level of education with an experience of 3-6 years (60.9%). In as much most of the respondents were male, there were an also female respondent which shows that there was a gender balance in the study. Furthermore, the findings on level of education imply that respondents of the study were literate and thus able to read and write.

4.2.2. General Information of the Firms

Table 4.2 is a summary of the findings on the general information of the studied firms.

Table 4.2: General Information of the Firms

Classification	Category	Frequency	Percentage
Length	of 3-6 years	17	73.9
Organizational	Over 6 Years	6	26.1
Existence	Total	23	100.0
Number	of 10-15 employees	8	34.8
Employees	15-20 employees	12	52.2
	Over 20 employees	3	13.0
	Total	23	100.0

Source; Research Data (2019)

As indicated in Table 4.2, most of the firms (73.9%) had been in operations for a period of 3-6 years with 15-20 employees (52.2%). Since the firms had operated for a longer period of time with a relatively larger number of employees, it can generally be concluded that SCI was paramount for proper supply chain responsiveness.

4.3 Supply Chain Integration

The first objective sought to determine the extent of supply chain integration among super markets in Mogadishu. Consider the subsequent sections for details.

4.3.1 Supplier Integration

The researcher sought to know how the participants' organizations had integrated suppliers into their supply chains. The participants were asked to specify, on a 5-point likert scale, the extent to which they agreed with statement telling how their organizations could integrate suppliers into the supply chain. Table 4.3. show the findings

Table 4.3: Supplier Integration

	Mean	Std. Dev
The firm involves suppliers in prediction and forecast of demand	3.66	0.825
There is collective sharing of risks with suppliers in the firm	3.65	0.982
Suppliers are actively involved in key decision making processes in the firm	3.61	0.902
There is collective sharing of rewards with suppliers in the firm	3.61	0.733
The firm involves suppliers in the initial stages of design of new products	3.59	0.994
Information on inventory is timely shared with suppliers	3.57	0.388
The firm shares information on production levels with suppliers	3.52	0.790
Overall Score	3.60	0.802

Source; Research Data (2019)

Table 4.3 indicate that on average ($M=3.60$, $SD=0.802$), some of the studied firms do embrace supplier integration. This is particularly realized by involving suppliers ion activities like prediction and forecast of demand, collective sharing of risks, the key decision making processes in the firm. Suppliers are also involved in the initial stages of design of new product, sharing of inventory is timely shared with suppliers as well as information on production levels.

4.3.2 Internal Integration

The researcher sought to assess how the participants' organizations had integrated internal into their supply chains. Using on a 5-point likert scale, the respondents were asked to demonstrate how they agreed with statement relating internal integration;

Table 4.4 is a summary of the results on extent of internal integration.

Table 4.4: Internal Integration

	Mean	Std. Dev
It is easier to access databases for extracting key operational information in the firm	4.13	0.344
Internal integration helps the functions in the firm to clearly understand the needs of the end users in a better way	4.10	0.765
There is high alignment of the internal processes with departments in the firm	4.09	0.949
There is free flow of information between different departments in the firm	3.85	0.487
Internal integration helps departments in the firm to work as one entity	3.70	0.974
Overall Score	3.97	0.704

Source; Research Data (2019)

As shown in Table 4.4, most of the studied firms internal integration in place (M=3.97, SD=0.704). Through internal integration, the studied firms find it easier to access databases for extracting key operational information in the firm. Internal integration helps the functions in the firm to clearly understand the needs of the end users in a better way. There is high alignment of the internal processes with departments in the studied firm. Internal integration has also resulted into free flow of information between different departments in the studied firms.

4.3.3 Customer Integration

The findings on the extent of customer integration are shown in Table 4.5.

Table 4.5: Customer Integration

	Mean	Std. Dev
There are customer focus initiatives that bring about customer satisfaction in the firm	4.05	1.301
Efforts are place to ensure that there is effective flow of products from an organization to its customers	3.85	1.337
The firm maintains direct contact with its customers	3.83	0.937
There is effective management of customer complaints in the firm	3.82	0.671
The firm cultivates long term interactions with its customers	3.72	1.310
Overall Score	3.85	1.111

Source; Research Data (2019)

The overall score in Table 4.5 (M=3.85, SD=1.111) imply that most of the studied firms have in place customer integration. There were customer focus initiatives that bring about customer satisfaction in the firm. Efforts were place to ensure that there was effective flow of products from an organization to its customers. The firm maintained direct contact with its customers. There was effective management of customer complaints in the firm. The firm cultivated long term interactions with its customers.

4.4 Firm Responsiveness

Table 4.6 gives the findings on firm responsiveness as the dependent variable of the study.

Table 4.6: Firm Responsiveness

Statement	Mean	Std. Dev
The firm is flexible to changes in customer needs	3.87	0.815
The firm replenishes its inventories on time	3.74	1.010
The firm ensures that customer orders are fulfilled in a timely manner	3.70	0.765
Overall Score	3.77	0.863

Source; Research Data (2019)

The findings in Table 4.6 indicate that the overall mean score ($M=3.77$, $SD=0.863$); this means that most of the studied firms were responsive.

4.5 Relationship between Supply Chain Integration and Responsiveness

The second objective was to establish the relationship between supply chain integration and responsiveness of supermarkets in Mogadishu. The study regressed SCI against the identified measures of firm responsiveness. The findings are indicated in subsequent sections.

4.5.1 Supply Chain Integration and Timely Order Fulfillment

The study sought to determine the relationship between SCI and timely order fulfillment as a measure of firm responsiveness. The significance of the study variables is shown in Table 4.7.

Table 4.7: Regression Coefficients

	Unstandardized Coefficients		Standardized		
	B	Std. Error	Beta	t	P-value.
(Constant)	17.016	2.477		6.869	.000
Supplier Integration	.302	.061	.624	4.913	.000
Internal Integration	.355	.061	.725	5.783	.000
Customer Integration	.091	.028	.381	3.212	.005

a. Dependent Variable: Timely order fulfillment

Source; Research Data (2019)

$$Y_1 = 17.016 + .302X_1 + .355X_2 + .091X_3 \dots\dots\dots(i)$$

From Table 4.7, for 5% level and df= 19, critical value is 2.083. The computed t-value are 4.913, 5.783, 3.212 for X₁, X₂ and X₃ respectively since all are larger than 2.083, all the supplier integration, internal integration and customer integration are statistically significant, these are correspondent by the value of 0.00, 0.00 and 0.005 which are all less than 5%.

Table 4.8: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.863 ^a	.744	.704	.41611

a. Predictors: (Constant), Customer Integration, internal integration, supplier integration

Source; Research Data (2019)

As shown in Table 4.8, the value of adjusted R square is 70.4%; according to the rule of thumb this means that regression model is statistically significant to the change in timely order fulfillment is explained by changes in SCI. The ANOVA findings are shown in Table 4.9.

Table 4.9: ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	9.580	3	3.193	18.442	.000 ^b
Residual	3.290	19	.173		
Total	12.870	22			

a. Dependent Variable: Timely order fulfillment

b. Predictors: (Constant), Customer Integration, internal integration, supplier integration

Source; Research Data (2019)

At 5% level of significance, Table 4.9 shows that the calculated value of F is 18.442 while F critical is 3.127; hence the study model is statistically significant, this is supported by the value of 00 which is less than 5%. Hence, SCI is suitable predictor of timely order fulfillment.

4.5.2 Supply Chain Integration and Timely Replenishment Decisions

The study was keen to bring out how SCI interacts with timely replenishment decisions. Table 4.10 is a summary of the model beta.

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Table 4.10: Regression Coefficients

	Unstandardized		Standardized	t	Sig.
	B	Std. Error	Beta		
(Constant)	4.595	1.745		2.633	.001
Supplier Integration	.509	.143	.344	3.559	.000
Internal Integration	.201	.068	.563	2.956	.000
Customer Integration	.397	.080	.439	4.963	.000

a. Dependent Variable: Timely replenishment decisions

Source; Research Data (2019)

$$Y_2 = 4.595 + .509X_1 + .201X_2 + .397X_3 \dots\dots\dots(ii)$$

Y₂= Timeliness of replenishment decisions

Therefore, at 5%, and df= 19, critical value is 2.083. The computed t-value are 3.559, 2956, 4.963 and for X₁.509, X₂ .201 and X₃ .397 respectively since all are larger than 2.083, all the supplier integration, internal integration and customer integration are statistically significant, these are correspondent by the value of 0.00, 0.00 and 0.00 which are all less than 5%.

The study's model summary is indicated in Table 4.11.

Table 4.11: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.835 ^a	.698	.650	.55404

a. Predictors: (Constant), Customer Integration, internal integration, supplier integration

Source; Research Data (2019)

As indicated in Table 4.11, the value of adjusted R square is 65.0%; according to the rule of thumb this means that regression model is statistically significant to the change in timely replenishment decisions is explained by SCI.

The findings on ANOVA are indicated in Table 4.12.

Table 4.12: Analysis of Variance

	Sum of Squares	df	Mean Square	F	Sig.
Regression	13.472	3	4.491	14.630	.000 ^b
Residual	5.832	19	.307		
Total	19.304	22			

a. Dependent Variable: Timely replenishment decisions

b. Predictors: (Constant), Customer Integration, internal integration, supplier integration

Source; Research Data (2019)

At 5% level of significance, Table 4.12 shows that the calculated value of F is 14.630 while F critical is 3.127; hence the study model is statistically significant, this is supported by the value of 00 which is less than 5%. Hence, SCI is appropriate predictor of timely replenishment decisions. .

4.5.2 Supply Chain Integration and Flexibility

The findings on supply chain integration and flexibility are shown subsequent sections.

The findings on regression beta coefficients are indicated in Table 4.13.

Table 4.13: Regression coefficient

	Unstandardized Coefficients		Standardized	t	Sig.
	B	Std. Error	Coefficients		
	B	Std. Error	Beta		
(Constant)	5.198	1.092		4.760	.066
Supplier Integration	.312	.095	.234	3.284	.015
Internal Integration	.241	.094	.355	2.563	.032
Customer Integration	.296	.094	.314	3.148	.034

a. Dependent Variable: Flexibility

Source; Research Data (2019)

$$Y_3 = 5.198 + .312X_1 + .241X_2 + .296X_3 + \dots \dots \dots (iii)$$

Where;

Y₁= Flexibility

Thus, at 5%, and df= 19, critical value is 2.083. The computed t-value are 3.284, 2.563 and 3.148 for X₁.312, X₂ .241 and X₃ .296 respectively since all are larger than 2.083, all the supplier integration, internal integration and customer integration are statistically significant, these are correspondent by the value of 0.015, 0.032 and 0.034 which are all less than 5%.

Table 4.14 is the presentation of the model summary.

Table 4.14: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.911 ^a	.831	.813	.21764

a. Predictors: (Constant), Customer Integration, internal integration, supplier integration

Source; Research Data (2019)

As indicated in Table 4.14, the value of adjusted R square is 81.3%; according to the rule of thumb this means that regression model is statistically significant to the changes in flexibility is explained by SCI. The findings of the ANOVA are shown in Table 4.15.

Table 4.15: Analysis of Variance

	Sum of Squares	df	Mean Square	F	Sig.
Regression	4.418	3	1.473	31.340	.000 ^b
Residual	.900	19	.047		
Total	5.318	21			

a. Dependent Variable: Flexibility

b. Predictors: (Constant), (Constant), Customer Integration, internal integration, supplier integration

Source; Research Data (2019)

At 5% level of significance, Table 4.15 shows that the calculated value of F is 31.340 while F critical is 3.127; hence the study model is statistically significant, this is supported by the value of 00 which is less than 5%. Hence, SCI is fit predictor of flexibility.

4.6 Challenges in Supply Chain Integration implementation

The third objective of the study was to analyze the challenges of supply chain integration among supermarkets in Mogadishu.

Table 4.16 gives the findings on the challenges in implementation of SCI.

Table 4.16: Challenges in Supply Chain Integration

Statement	Mean	Std. Dev
Supply chain integration is affected by inadequate trust between the firm with its suppliers	4.35	0.487
Supply chain integration has not received significant commitment from the management team of the firm	4.17	0.717
Poor relationship management affects supply chain integration in our firm	4.13	0.694
Inadequate support from the top management of the firm affects supply chain integration	3.91	0.949
There is high resistance to change in the firm which affect supply chain integration	3.74	0.752
The differences in attitudes among supply chain partners affects supply chain integration in our firm	3.52	0.511
Overall Score	3.97	0.685

Source; Research Data (2019)

From Table 4.16, SCI is affected by inadequate trust between the firm with its suppliers (M=4.35, SD=0.487). Supply chain integration has not received significant commitment from the management team of the firm (M=4.17, 0.717). Poor relationship management affects supply chain integration in our firm (M=4.13, SD=0.694). Inadequate support from the top management of the firm affects supply chain integration (M=3.91, SD=0.949). There is high resistance to change in the firm which affect SCI (M=3.74, SD=0.752). The differences in attitudes among supply chain partners affects supply chain integration in our firm (M=3.52, SD=0.511).

4.7 Discussion of the Findings

Supply chain integration comprises of three key activities namely internal integration, customer integration and supplier integration. Ralston, Blackhurst, Cantor and Crum (2015) views supply chain integration as a situation that entails collaboration between members in the entire supply

chain for improved performance and the need to effectively meet demands from customers. According to Cantor, Blackhurst, Pan and Crum (2014), supply chain integration is coordination and linkage of the internal and external partners and members within the supply chain to enhance efficient and effective flow of resources.

Supply chain integration has positive and significant relationship with timely order fulfillment. Ngo, Kumar, Kumari, Garza-Reyes and Akkarangoon (2016) examined the role played by supply chain integration in realization of competitiveness and revealed that supply chain integration is key driver of competitiveness. Kumar, Chibuzo, Garza-Reyes, Kumari, Rocha-Lona and Lopez-Torres (2017) sought to establish how supply chain integration impacts on performance with key focus on the food sector and established a significant link between SCI and firm performance. Pakurár, Haddad, Nagy, Popp and Oláh (2019) examined the joint influence of supply chain integration and internal controls on financial performance with a focus on commercial banks in Jordan and established that supply chain integration has a positive influence on financial performance.

Supply chain integration has positive and significant effect on timely replenishment decisions. Kimani (2014) analyzed the influence of supply chain integration on performance of commercial banks and revealed that supply chain integration has an influence on performance. Abdallah (2015) examined the influence of supplier relationship management on humanitarian supply chain performance with focus on World Food program and found out that SRM has an influence on organizational performance. Rucha and Abdallah (2017) assessed the influence on SRM on humanitarian supply chain performance with focus on World Food Program and revealed a positive relationship.

Supply chain integration has positive and significant relationship with flexibility. Sabet, Yazdani and De Leeuw (2017) found out that supply chain integration has positive and significant effect on performance of an organization. Hooshangi, Sadaghiani, Astaneh and Afshar (2017) established that supplier integration was found to have direct influence on performance of the firm. Uwamahoro (2018) analyzed SCI and its influence on performance of the firm and established that customer as well as internal integration is key in improvement of performance of the firm. This study was however carried out in Rwanda and not in Somalia.

A number of challenges are faced during implementation of supply chain integration efforts in the firm. These challenges include inadequate trust between the firms, low commitment from the management of the firm and poor relationship management. Mohammad, Shukor, Mahbub and Halil (2014) examined the challenges in supply chain integration. The study was carried out in Malaysia in the construction industry and the major challenges identified poor relationship management is brought about by low level of trust among supply chain partners. Supply chain integration involves various partners with different attitudes and beliefs. The other challenges established include inadequate support from the top management, high resistance to change and the differences in attitudes among supply chain partners. Gelagay (2018) looked at the challenges of supply chain integration, with major focus on firms in the manufacturing sector in Ethiopia and analyzed findings identified inflexibility in the systems within the firms, inadequate trust between supply chain partners, resistance to changes initiatives and low level of commitment from the top management team were key challenges in supply chain integration.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter will summarize the findings of the analysis as informed by the study objectives. In addition to the summary, the chapter also concludes the findings with recommendations as supported by the findings. The limitations and the areas for further studies are also well pointed out.

5.2 Summary of the Findings

This section summarizes the findings from the analysis

5.2.1 Supply Chain Integration

From the findings, most of the studied firms had internal integration, customer integration and supplier integration. SCI helped the firms to involve suppliers in activities like prediction and forecast of demand, collective sharing of risks, the key decision making processes in the firm, in the initial stages of design of new product.

Through internal integration, the firm was able to access databases for extracting key operational information in the firm. Internal integration helps the functions in the firm to clearly understand the needs of the end users in a better way. There is high alignment of the internal processes with departments in the studied firm.

Customer integration resulted into customer focus initiatives that bring about customer satisfaction in the firm. Efforts were place to ensure that there the products flowed in a smooth way from the firm to the clients. The firm maintained direct contact with its customers. There

was effective management of customer complaints in the firm. The firm cultivated long term interactions with its customers.

5.2.2 Relationship between Supply Chain Integration and Responsiveness

The study established that supplier integration has positive and significant relationship with timely order fulfillment. Internal integration has positive and significant relationship with timely order fulfillment. Customer integration has positive and significant relationship with timely order fulfillment.

It was established that supplier integration has positive and significant effect on timely replenishment decisions. Internal integration has positive and significant effect on timely replenishment decisions. Customer integration has positive and significant relationship with timely replenishment decisions.

The study noted that supplier integration has positive and significant relationship with flexibility. Internal integration has positive and significant relationship with flexibility. Customer integration has positive and significant relationship with flexibility.

5.2.3 Challenges of Supply Chain Integration implementation

The study established that SCI is affected by inadequate trust between the firms with its suppliers. SCI has not received significant commitment from the management team of the firm. Poor relationship management affects supply chain integration in our firm. Inadequate support from the top management of the firm affects SCI. There is high resistance to change in the firm which affects SCI. The differences in attitudes among supply chain partners affects supply chain integration in our firm.

5.3 Conclusion

SCI comprises of three key activities namely internal integration, customer integration and supplier integration. SCI helps the firms to involve suppliers in activities like prediction and forecast of demand and collective sharing of risks. Through internal integration, the firm was able to access databases for extracting key operational information in the firm. Internal integration helps the functions in the firm to clearly understand the needs of the end users in a better way. Customer integration results into customer focus initiatives that bring about customer satisfaction. It also helps the firm to maintain direct contact with its customers.

SCI has positive and significant relationship with timely order fulfillment. SCI has positive and significant effect on timely replenishment decisions. SCI has positive and significant relationship with flexibility.

A number of challenges are encountered as far as efforts to implement SCI in the firm are concerned. These challenges include inadequate trust between the firms, low commitment from the management of the firm and poor relationship management. The other challenges established include inability of the management to support, high resistance to change and the differences in attitudes among supply chain partners.

5.4 Recommendations of the Study

In order to improve on their order processing abilities, leadership of all supermarkets in Mogadishu should invest in supplier, internal and customer integration. In order to remain flexible and make timely replenishment decisions, the study recommends that Supermarkets in Mogadishu should improve on their supplier, internal and customer integration mechanisms.

A number of challenges faced in supply chain integration include resistance to change and low level of support from the top management. Thus, the managers of all supermarkets in Mogadishu should increase their commitment towards supply chain integration by availing all the required resources.

5.5 Limitations of the Study

The study was limited to SCI and its influence of firm responsiveness. The study focused on internal integration, supplier integration and customer integration and how they influence firm responsiveness. The study was limited to primary data gathered with use of the study questionnaires. The study focused on Supermarkets operating in Mogadishu.

5.6 Suggestions for Further Research

It was shown from the results that apart from SCI, there are other factors that affect firm responsiveness that should raise an area of focus for studies in future. The current study focused on Supermarkets operating in Mogadishu. Future studies should concentrate on other firms for instance commercial banks, insurance firms and the manufacturing businesses. Furthermore, there is need for further studies to focus on firms across the East Africa region.

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APPENDICES

APPENDIX I: QUESTIONNAIRE

SECTION A: GENERAL INFORMATION

1. Kindly indicate your gender

Male () Female ()

2. What is your highest level of education?

Certificate () Diploma () Undergraduate degree () Post graduate degree ()

3. How many years have you worked in your present role in the organization?

Less than 3 years () 3-6 years () Over 6 Years ()

4. How many years has your organization been in operation?

Less than 3 years () 3-6 years () Over 6 Years ()

5. How many employees does your organization currently have?

Less than 10 employees () 10-15 employees () 15-20 employees () Over 20 employees ()

SECTION B: SUPPLIER INTEGRATION

6. Given below are statements on supplier integration among supermarkets. Kindly indicate the extent of your agreement with each of these statements. Use a Likert scale of 1-5, where 1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5=strongly agree.

SUPPLIER INTEGRATION					
	1	2	3	4	5
Suppliers are actively involved in key decision making processes in the firm					
The firm involves suppliers in prediction and forecast of demand					
Information on inventory is timely shared with suppliers					
The firm shares information on production levels with suppliers					
There is collective sharing of risks with suppliers in the firm					
There is collective sharing of rewards with suppliers in the firm					
The firm involves suppliers in the initial stages of design of new products					

SECTION C: INTERNAL INTEGRATION

6. Given below are statements on internal integration among supermarkets. Kindly indicate the extent of your agreement with each of these statements. Use a Likert scale of 1-5, where 1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5=strongly agree.

INTERNAL INTEGRATION					
	1	2	3	4	5
There is free flow of information between different departments in the firm					
It is easier to access databases for extracting key operational information in the firm					
Internal integration helps departments in the firm to work as one entity					
Internal integration helps the functions in the firm to clearly understand the needs of the end users in a better way					
There is high alignment of the internal processes with departments in the firm					

SECTION D: CUSTOMER INTEGRATION

6. Given below are statements on customer integration among supermarkets. Kindly indicate the extent of your agreement with each of these statements. Use a Likert scale of 1-5, where 1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5=strongly agree.

CUSTOMER INTEGRATION					
	1	2	3	4	5
The firm maintains direct contact with its customers					
There is effective management of customer complaints in the firm					
The firm cultivates long term interactions with its customers					
There are customer focus initiatives that bring about customer satisfaction					

in the firm					
Efforts are place to ensure that there is effective flow of products from an organization to its customers					

SECTION E: FIRM RESPONSIVENESS

8. Below are statements on firm responsiveness. Kindly indicate the extent of your agreement with each of these statements. Use a Likert scale of 1-5, where 1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5=strongly agree.

Statement	1	2	3	4	5
The firm ensures that customer orders are fulfilled in a timely manner					
The firm replenishes its inventories on time					
The firm is flexible to changes in customer needs					

SECTION F: CHALLENGES OF SUPPLY CHAIN INTEGRATION AMONG SUPERMARKETS IN MOGADISHU

7. Given below are statements on the challenges of supply chain integration among supermarkets. Kindly indicate the extent of your agreement with each of these statements. Use a Likert scale of 1-5, where 1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5=strongly agree.

Statement	1	2	3	4	5
Poor relationship management affects supply chain integration in our firm					
Inadequate support from the top management of the firm affects supply chain integration					
The differences in attitudes among supply chain partners affects supply chain integration in our firm					
Supply chain integration is affected by inadequate trust between the firm with its suppliers					
There is high resistance to change in the firm which affect supply chain integration					
Supply chain integration has not received significant commitment from the management team of the firm					

END

APPENDIX II: LIST OF SUPERMARKETS IN SOMALIA

- 1) Aaran supermarket
- 2) Al bayan supermarket
- 3) AL ISLAM supermarket
- 4) AL KOWTHAR supermarket
- 5) Axlam supermarket
- 6) Bin aarif supermarket
- 7) Ceelqalow supermarket
- 8) Cosob supermarket
- 9) Dalsoor supermarket
- 10) Fadli supermarket
- 11) Farayare supermarket
- 12) Ikhlas supermarket
- 13) Imam supermarket
- 14) Jubba supermarket
- 15) Karama supermarket
- 16) Kulmiye supermarket
- 17) Macruuf supermarket
- 18) Midnimo supermarket
- 19) Mogadishu supermarket
- 20) Nabaad supermarket
- 21) Nagaad supermarket
- 22) Nasiye supermarket

23) Sahura supermarket

24) Shakataa supermarket

25) Shariifa supermarket

26) Somsacid supermarket

27) Taqal supermarket

28) Ugbaad supermarket

Source: Ministry of Commerce and Industry (2018)