

A Study of the Relationship between Supply Chain Management (SCM) and Operational Performance of Retailers in Makonde District

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Abbreviations and Acronyms

CSCMP	: Council of Supply Chain Management Professionals
GSCF	: Global Supply Chain Forum
ITESCM	: Integrated Tertiary Educational Supply Chain Management
NSSA	: National Social Security Authority
SCM	: Supply Chain Management
SCO	: Supply Chain Orientation
SPSS	: Statistical package for social scientists
RV	: Relational View
RBV	: Resource-Based View

Abstract: *Supply Chain Management is now a frequently encountered phrase these days, as managers strive to improve operational performance such that, a key feature of present day business is the idea that, it is supply chains that compete, not companies. Thus, the study determined the relationship between Supply Chain Management and operational performance of retailers in Makonde District. This was mainly because a number of retailers had been collapsing at an alarming rate. So, this drove the researcher to determine the kind, direction and strength of relationship between the Supply Chain Management (SCM) concept and operational performances in a way to sustain the retailers as the concept was gaining in popularity and importance in other parts of world like Brazil. SCM was bisected into three major components – materials and services flow, information flow and payment flow to enable a detailed and critical review of related literature. On the other hand, operational performance was conceptualized using competitive priorities literature. Theoretical and empirical gaps were identified as literature was being reviewed such as lack of a universally accepted definition of SCM. A correlational research design alternatively regarded as associational research was used for the study together with a contemporary research philosophy known as critical realism. The population of the study of 582 individuals which resulted in a sample size of 59 retailers was from all the retail companies in Makonde District where information was collected through use of questionnaires. Theoretical review was done to open up analysis of past events in order to investigate the research problem. Three theories were reviewed in the study – the coordination theory, Resource-Based View (RBV) and Relational View (RV). Basically, the research picked up from the point other researchers left off. Apart from what was argued by other prominent scholars in Supply Chain Management issues such as Lambert et al. 2005 and Stock et al. 2010 that, the concept of Supply Chain Management relatively lack the empirical evidence supporting the benefits attributed to Supply Chain Management. However this study empirically confirmed a positive relationship between Supply Chain Management (SCM) and operational performance of retailers in Makonde district in Mashonaland west province in Zimbabwe.*

1. Introduction

1.1 Introduction

This Chapter presents the background to the study, statement of the problem, aim, objectives, questions, rationale, limitations, scope, and structure of the whole report.

1.2 Background to the study

Supply chain management (SCM) has become such a “hot topic” in the world of business (Ross 1998). It is now a frequently encountered phrase these days, as managers strive to improve operational performance (Esper and Russell, 2014) such that, a key feature of present day business is the idea that, it is supply chains that compete, not companies

(Christopher, 1992). This is mainly because, “business management has entered the era of inter-network competition and the ultimate success of a single business will depend on management’s ability to integrate the company’s intricate network of business relationships” (Habib, 2011).

However, this is not the case with the majority of retail companies in Makonde District in Zimbabwe, as they are operating as individual companies not as supply chains. Therefore, local retailers in Makonde District have been losing and impacting negatively in economic, social, and environmental terms as the nation is considered a consumer economy. As a consequence this has led to the collapse of some retailers after failing to operationally perform while others are on the verge of collapse (Mangudhla 2016).

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According to the National Social Security Authority (NSSA)'s July 2013 report for the period July 2011 to July 2013, 711 companies in closed with 330 in the retail industry rendering 8336 individuals jobless in Zimbabwe with spar one of the big operating retailers in the country having retrenched around 40 employees at every branch. Hence, this was prompted by failure to operationally perform (Mangudhla 2016)

Inorder to enhance survival and sustainability of organisations, Supply Chain Management processes are now regarded as the operational heart of a company and are critical to achieving the level of cost, working capital investment and service needed to guarantee profitability (Wen, Li and Bai, 2007). So, SCM is mainly critical to operational performance of any organisation more particularly retailers. Thus, this has caused the global economic turmoil as many companies and commentators now tend to re-think their views on the likely shape of the future business environment in regards to Supply Chain Management as postulated by Richard et al. (2010). Consequently, this pushed for the best companies around the world to discover a powerful new source of competitive advantage (Zigiaris, 2000) to enhance efficient operational performance which is Supply Chain Management.

Apart from other related researches conducted so far globally, the relationship of SCM with performance cannot be regarded as conclusive (Cousins and Bulent, 2006). So, by the time this study was carried out in Zimbabwe, no study had been carried out on the relationship between Supply Chain Management and operational performance.

Therefore, it was against this background and more so, by deviating from traditional thinking of companies competing to provide a good or service to a modern approach where it is now supply chains competing with other chains to provide a product that triggered the study. Thus, "Retailers no longer compete as individual businesses but rather; they compete as supply chains," to ensure improved performance. So, survivors are not necessarily the retailers that have the best products and services, but the ones that have the most efficient supply chains as the fine line between success and failure is determined by the company's supply chain (Lambert et al. 2005 and Stock and Boyer, 2009).

1.3 Statement of the Problem

Despite the improved economic environment in Zimbabwe, since the adoption of the multicurrency basket in 2009 (Mutambanadzo, Bhiri, and Makunike, 2013), the industrial sector has been shrinking. This was witnessed according to the NSSA's July 2013 report, where 711 companies were reportedly closed with 330 in the retail industry during the period July 2011 to July 2013. This left many pondering, why retail companies have been closing at such an alarming rate because of failing to operationally perform in an improved economic environment. However, among other reasons, this was necessitated by the fact that, companies have been operating as individual companies and not as Supply Chains. So, Supply Chain Management is becoming the major competitive tool, this has seen global companies driving towards its adoption and

implementation to improve their performance. Thus, this leaves a lot to be learnt by local retailers in Makonde District in Zimbabwe in terms of the adoption of Supply Chain Management concept. Therefore, the study mainly focused on establishing the relationship between supply chain management and operational performance of retailers in Makonde District, as the adoption of the concept will aid in avoiding perpetual loss of jobs, shortage of goods on the market, dwindling profits and reduced revenue for the government.

1.4 Aim of the study

The aim of the study was to establish the relationship between supply chain management and operational performance of retailers in Makonde District.

1.5 Objectives of the study

The intentions or purposes of the study was clearly established by splitting the SCM concept into three major flows (material and services flow, information flow and payment flow) that also was used to define it. Therefore, the objectives of the study were:

- a) To establish the relationship between material and services flow and operational performance of retailers in Makonde District.
- b) To establish the relationship between information flow and operational performance of retailers in Makonde District.
- c) To establish the relationship between payment flow and operational performance of retailers in Makonde District.

1.6 Research Questions

In order to gain a better understanding of the stated aim of the study and to achieve the above objectives, the study was guided by the following research questions:

- a) What is the relationship between material and services flow and operational performance of retailers in Makonde District?
- b) What is the relationship between information flow and operational performance of retailers in Makonde District?
- c) What is the relationship between payment flow and operational performance of retailers in Makonde District?

1.7 Rationale of the study

The findings of the study may be of great value to the management of the retail companies in Makonde District, various retail boards in Zimbabwe and the retail research management and administrative team in the government of Zimbabwe under the Ministry of Industry and Commerce in establishing the relationship between Supply Chain Management and operational performance of local retailers.

More so, the findings of the study may be of great value to academicians and future researchers in literature review to enhance further research in regards to Supply Chain Management and operational performance.

1.8 Limitations of the study

The study faced the following as constraints that also influenced the scope of the study:

- a) The study sample had a scope limitation as the data used was collected only from registered retailers in Makonde District when quite a number of unregistered retailers had mushroomed at the time of the study.
- b) It was time consuming in accessing information as majority of the retailers were still operating manually.
- c) It was difficult to access certain information from some retailers who were not willing to release their company information for the fear of unknown. Thus, some respondents were reluctant to give full information for fear of disclosing sensitive information.
- d) Due to financial constraints, the study was under-powered, and thus, did not reach statistical significance
- e) Some of the selected respondents did not have enough time to attend to the researcher.

However, despite these limitations sufficient and reliable data was collected to render the study meaningful in order to arrive at a useful conclusion. This was mainly due to the fact that:

- a) It was a local research such that any data obtained but not clear, the researcher was in a position to re-visit the source and get clarification. Furthermore, the fact that it was a local research, this enabled the study to be managed within the limited time and budget allocated to the study.
- b) The researcher patiently and politely encouraged the respondents to respond timeously.
- c) The researcher explicitly informed the respondents that, the information collected was to be used particularly for the study with the information to be disclosed with a written consent from the respondent.

1.9 Scope of the study

Geographical scope

The study was conducted from selected registered retail companies in both urban and rural areas of Makonde District. It was the registers from Makonde rural planning office and Makonde urban (Chinhoyi Town) planning office which were used for the study (see appendix C).

Subject scope

The study investigated the relationship between Supply Chain Management and operational performance of retailers in Makonde District. Supply Chain Management was the independent variable which was conceptualised as material and services flow, information flow and financial flow while on the other hand operational performance being the dependent variable defined cost, delivery, quality and time.

Period

The study was more confined in gathering primary data that was for the period 2009 to 2015 after the hyperinflationary era, the period that disturbed the Zimbabwean economic stability.

1.10 Definition of terms

Operational performance

Operational performance is regarded as when a firm's performance is measured against standard or prescribed indicators of effectiveness, efficiency, and environmental responsibility. Particularly in this study, operational performance was measured through competitive priorities of cost, time, quality and delivery.

Supply Chain Management (SCM)

The management of a network of relationships within a firm and between interdependent organizations and business units consisting of material suppliers, purchasing, production facilities, logistics, marketing, and related systems that facilitate the forward and reverse flow of materials, services, finances and information from the original producer to final customer with the benefits of adding value, maximizing profitability through efficiencies, and achieving customer satisfaction (Stock and Boyer 2009, p.706). Particularly for this study it was conceptualised through the three main flows – materials and services flow, financial flow, and information flow.

Supply chain orientation (SCO)

These are specific behaviours of supply chain members such as trust, commitment, common vision and goals or top management support.

2. Literature Review

2.1 Introduction

This chapter provides a critical review of related literature on the relationship between Supply Chain Management (SCM) and operational performance of retailers. The chapter presents the variables of the study in terms of answering the research questions. The variables of the study were SCM and operational performance. SCM was divided into three major components – materials and services flow, information flow and payment flow. Operational performance was conceptualized using competitive priorities literature. More so, the chapter looks at the constructs of the SCM which also had an influence on the operational performance of supply chains. Furthermore, prior researches for the study were also reviewed.

2.2 Historical Background of Supply Chain Management (SCM)

SCM was founded under the fundamental assumptions which include: managing inter-organisational operations, which can be traced back to channels research in the 1960s (Bucklin 1966), systems integration research in the 1960s (Forrester 1969) and the more recent ideas of sharing information and exchanging inventory (La Londe 1984).

The first signs of SCM were perceptible in the Just In Time (JIT) delivery system as part of the Toyota Production System, (Shingo, 1988). The system was aimed at regulating supplies to the Toyota motor factory just in the right - small - amount, just on the right time. The main goal was to

decrease inventory drastically, and to regulate the suppliers' interaction with the production line more effectively.

According to Cooper, Lambert, and Pagh (1997) the term SCM first appeared in literature in 1982 although then, it was not well explained and understood in the business environment. On the other hand, Christopher (1992) agreeing to the period put forward by Cooper, Lambert, and Pagh (1997) argued that, the term appeared in the mid 1980s and did not give a specific year. Therefore, this ultimately suggests that, the term SCM was coined into the literature in the 1980s.

Around 1990, academics first described SCM from a theoretical standpoint to clarify the term and distinguished it from an old existing and well understood term which used to be regarded as a synonym which is logistics. So, SCM became to be understood as managing the flow of materials and the associated flow of information (Ellam and Martha

1990). The SCM concept originated and flourished in the manufacturing industry, according to (Vrijhoef et al., 1999). However, then payment flow was not given much significance as a major flow in the supply chain.

Along with the original SCM approaches and other management concepts such as value chain and extended enterprise have been influencing the conceptual evolution towards the present understanding of SCM. Thus, the concept of SCM represents a logical continuation of previous management developments as suggested by Van der Veen et al., (1997). Although largely dominated by logistics, the contemporary concept of SCM encompasses more than just logistics, (Cooper et al. 1997).

Therefore, the emergence and evolution of SCM may be depicted as a timeline shown in figure 2.1 below.

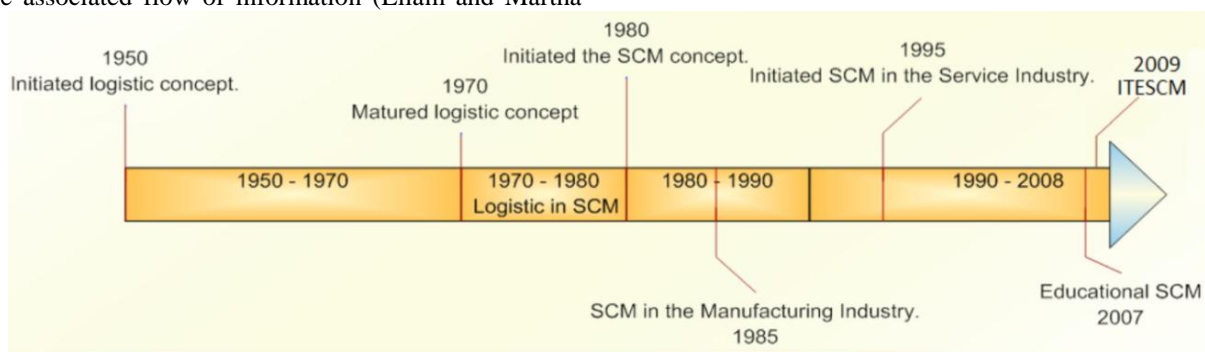


Figure 2.1: Evolutionary timeline of SCM (Habib 2011)

2.3 Supply Chain Management (SCM)

The term Supply Chain Management applies to the collaborative relationships of members of different echelons of the supply chain who have common and agreed practices performed jointly by one or two or more organizations. Thus, before SCM can be developed, the supply chain members must first have specific behaviours, called Supply Chain Orientation (SCO), like trust, commitment, common vision and goals or top management support (Miguel and Brito 2011).

Harland et al. (2006) demonstrated that SCM is still an emerging discipline and there is no consensus about its definition and constructs resulting in a fragmented literature. This was also supported by Burgess et al. (2006) who analyzed 100 randomly selected SCM articles and found that 12 articles posited unique definitions, 21 referred to existing definitions, 9 used slightly modified versions of existing definitions, and 58 left SCM undefined. Therefore, this has resulted in a number of definitions as there are several attempts made by researchers and practitioners to appropriately define SCM (Habib 2011).

Some authors defined SCM in operational terms involving the flow of materials and products, some viewed it as a management philosophy, some viewed it as integrated system and some viewed it in terms of a management process (Tyndall et al., 1998). Various definitions of SCM were put forward in this study in order to synthesis common elements to resultantly come up with a working definition of the study.

The Council of Supply Chain Management Professionals (CSCMP) which is the premier organization of supply chain practitioners, researchers, and academicians defined Supply Chain Management as “encompasses the planning and management of all activities involved in sourcing and procurement, conversion, and all Logistics Management activities. Importantly, it also includes coordination and collaboration with channel partners, which can be suppliers, intermediaries, third-party service providers, and customers. In essence, Supply Chain Management integrates supply and demand management within and across companies (Ballou, 2007 and www.cscmp.org).

On the other hand, Global Supply Chain Forum (GSCF) defined SCM as: “the integration of key business processes from end user through original suppliers that provides products, services, and information that add value for customers and other stakeholders” (Lambert et al, 1998). Thus, Global Supply Chain Forum viewed Supply Chain Management not as a business function but rather as a new business model necessary for an organization's success and everyone in the organization needs to be involved (www.scm-institute.org).

More so, the customized definition for the service industry provided for the study was that: The SCM for the service industry is the ability of the company/firm to get closer to the customer by improving its supply chain channels. The services supply chain includes responsiveness, effectiveness, efficiency, and controlling (Kathawala, 2003). The definition emphasises ‘customer-supplier duality.’ which

implies that service supply chains are bi-directional (Sampson, 2000).

The final and working definition of SCM for the study was modified from the definition provided by Stock and Boyer (2009). Their definition was based on a synthesis of a wide range of suggestions provided by a variety of practitioner, academic and hybrid sources including the Council of Supply Chain Management and the Global Supply Chain Forum. They deconstructed the commonalities in all the reviewed suggestions in order to develop their definition of SCM.

So, they defined SCM as, “The management of a network of relationships within a firm and between interdependent organizations and business units consisting of material suppliers, purchasing, production facilities, logistics, marketing, and related systems that facilitate the forward and reverse flow of materials, services, finances and information from the original producer to final customer with the benefits of adding value, maximizing profitability through efficiencies, and achieving customer satisfaction” (Stock and Boyer 2009, p.706).

Ultimately, the working definition was deduced as: The management and integration of a network of relationships (buyer-supplier) of various channel partners within a firm and between interdependent organizations and business units including all activities involved in sourcing and procurement, conversion, all Logistics Management activities and related systems that facilitate the forward and reverse flow of materials and services, finances and information through increased responsiveness to ensure efficiency and effectiveness thereby adding value and maximizing profitability by achieving buyer or supplier satisfaction.

In a nutshell, the working definition implied that, SCM involves management of flows of products and services, information, and finance upstream and downstream in the supply chain. Hence, the flows were particularly used in this study as the major components of defining SCM. Thus, the study looked at the relationship of the three flows of SCM with operational performance. Mainly, this was because all flows are necessary if a supply chain is to function and flourish, as successful supply chains manage these three areas.

Having defined SCM, Fisher (1997) proposed that, there are two basic types of supply chains:

Effective supply chains, which aim at cost effectiveness and lean operations, and Responsive supply chains, which aim at adapting the supply chain according to customer demand. Fisher’s proposal was even supported by Li and O’Brian (2001), Collin (2003) and de Treville et al. (2004), who all concluded with suggestions to add more supply chain types to the framework.

2.3 The Supply Chain Management Constructs

Two proposals about SCM constructs were put forward to establish how the concept was constructed to enable the

three flows to have an effect on operational performance of an organisation.

The first proposal was by Chen and Paulraj (2004). They presented SCM as a framework that constitute of three dimensions: *Supply network structure*, characterized by strong linkages between members, low levels of vertical integration, non-power based relationships; *long-term relationships*, managed with effective communication, cross-functional teams, planning processes; and *logistics integration*.

On the other hand, Min and Mentzer (2004) gave the second proposal. They represented SCM as a second order construct including agreed vision and goals, information sharing, risk and reward sharing, cooperation, agreed supply chain leadership, long-term relationship and process integration.

Therefore, consolidating both proposals above and also taking in account other influential contributions, this summarily gives seven constructs apart from five as highlighted by Miguel and Brito (2011) to represent SCM. Apart from supply chain network structure and agreed vision and goals among members, the five summarised constructs by Miguel and Brito (2011) were: information sharing, long-term relationship, risk and reward sharing, cooperation, and processes integration. Basically, the seven constructs act as the basis under which the concept of supply chain management was founded.

2.4 Operational performance

The performance measurement of either a business or a supply chain is an intricate activity (Coyle et al. 2003:482–483). If it is taken into account that a supply chain consists of various organisations, then clearly the operational performance measurement of a supply chain is even more complex than that of a single organisation (Hugo et al. 2004:101).

Operational performance is regarded as when a firm's performance is measured against a standard or prescribed indicators of effectiveness, efficiency, and environmental responsibility

(<http://www.businessdictionary.com/definition/starndard.html>).

There are a multitude of metrics that can be used to gauge the performance of supply chains which include, outbound freight cost, order fill rate, finished goods inventory turns, returns and allowances, customer complaints, back orders, order cycle times, forecast accuracy, invoice accuracy to orders processed per time unit, cash-to-cash cycle time, inquiry response, response delay (in terms of confirming a delivery date), work-in-progress stock (WIP), sales or inventory ratios and sales (Kleijnen & Smits 2003:1–2).

Particularly in this study, operational performance was measured through competitive priorities. The idea of competitive priorities has its roots in the trade-off approach (Skinner, 1969, 1974), according to which a manufacturing operation cannot be performed in all dimensions and one has to define priorities. Under the study competitive priorities used were defined to measure the performance of retailers

unlike the original idea of the concept where the focus was much more on manufacturing operations.

Henceforth, competitive priorities were used to measure operational performance of the study mainly because, historically, business performance measurement systems were mainly and often solely financially oriented which was not a perfect measure (Neely 2003). However, List and Machaczek (2004) argued that, financial figures were consequences of yesterday's decisions and do not indicate tomorrow's performance. Therefore businesses need to consider not only financial performance, but also performance in non-financial areas such as customer satisfaction, innovation and internal parameters such as process improvements. For this reason, the study actually included non financial issues on measurement through the employment of competitive priorities.

The most basic competitive priorities as argued by Boyer & Lewis (2002) and Ward et al., (1998) are cost, quality, flexibility and delivery. Nevertheless, of the basic competitive priorities, based on this study, flexibility and delivery were combined and represented by time to have only three priorities for this study. Mainly, this was driven by the underlining fact that time is one of the prime reasons Supply Chain Management was founded.

Quality

Apart from the eight dimension of quality by Garwin (1988) which include – performance, features, reliability, conformance, durability, serviceability, aesthetics and perceived quality, the study conceptualize quality in terms of three sub measures which were conformance quality, quality reliability and end product quality as products or services are relayed through the supply chain.

Cost

Cost mainly focused more on both external and internal cost contributing to the ultimate purchasing cost in the supply chain. These costs were defined as argued by Gadde and Hakansson (2001) as: purchasing costs, goods handling costs, storage costs, financial costs, supplier handling costs, administration costs and development costs.

Time

Time was comprehended through several performance measures. As put forward by Hill (2000), there are several performance sub-measures connected to time such as response rate to market changes, on time delivery, faster delivery times, delivery frequencies, delivery speed and delivery synchronization to ensure reliability.

So, each different priority was taken as different performance dimension. Basically, there were three performance dimensions which were used for the study – cost, quality and time. This was learnt from Vickery; Droge; and Markland (1997) who used a similar approach despite having four dimensions (cost, quality, flexibility and delivery), but called these as dimensions of manufacturing strength.

2.5 The relationship between Supply Chain Management and Operational Performance

The relationship between Supply Chain Management (material or services flow, information flow and financial flow) and operational performance (time, quality and cost) of retailers was evaluated based on the cumulative approach.

Cumulative approach

The approach was borrowed from the manufacturing sector. The cumulative perspective considers the competitive priorities as complementary rather than mutually exclusive. Therefore, with intense and global competition and also with the help of advanced technologies, companies need to excel in all dimensions which are quality, cost and time (Corbett & Wassenhove, 1993). So, each competitive priority was evaluated against each supply chain flow.

2.5.1 Relationship between information flow and operational performance of retailers

Christopher and Ryals (1999) emphasized the importance of managing 'the flow of information' in any supply chain if the chain is to operate successfully. So, information flow has become the key to successful Supply Chain Management as "no product or service or payment flows until information flows" (Mukaddes et al 2010). Thus, effective management of material and money flows is, predicated upon the effective management of the related information flows.

Mainly this has been caused by the fact that, information flow enhances characteristics such as speed of reaction, order accuracy, operational flexibility and sustained quality which have become fundamental in successful business today. Hence, information sharing is a prerequisite for any successful operation of the SCM (Mason-Jones & Towill, 1997). That is, from the information point of view, effective Supply Chain Management must provide the right amount of relevant information to the right person at the right time (Mukaddes et al 2010).

Information is the 'glue' that binds supply chain processes together, and which coordinates planning and fulfilment (Harrison et al 2008). Therefore, information flow (sharing) is the continuous flow of communications between partners that occurs in a formal or informal way and contributes for a better planning and control within the chain to ensure that, the right product of the right quality, in right quantities is delivered to the end user (Chen & Paulraj, 2004; Cooper et al., 1997; Mentzer et al., 2001).

Furthermore, Chopra and Meindl (2010) stress that, information "serves as the connection between the supply chain's various stages, allowing them to coordinate their actions and bring about many of the benefits of maximizing total supply chain profitability." Thus, the efficient flow of information between systems and humans is directly associated with the effective interoperability between the various entities handling the relevant information.

The design of information flow in supply chains has traditionally followed the physical flow along the chain (Lewis and Talalayevski, 2004). So, with the coming of reverse logistics in the modern business environment,

therefore, information flows in both directions (bidirectional) – toward the consumer and from the consumer up the supply chain toward the suppliers and today it is enhanced through information technology. In order to efficiently and effectively manage a supply chain, as well as to gain a competitive advantage, use of information technology is increasingly become extremely important especially on information flow (Mukaddes et al 2010). Information flow and the control thereof involves many heterogeneous technologies, including but not limited to computers, printers, digital image archiving systems, electronic records, paper-based records and human speech (Moser 2004).

Modern information technology nowadays offer a plethora of opportunities for retailers within their supply chains which include fast and safe transmission and processing of extensive amounts of data, both internally for users within the company and externally for suppliers and customers. For example, Internet and e-business has provided many possibilities for effective information sharing among retailers that enable seamless flow of transactions in the supply chain such as when sales are made in retail stores, the sales and inventory information is automatically captured by point-of-sale (POS), bar codes and radio frequency identification (RFID) scanners and conveyed to the suppliers through other information systems for replenishments. So, technologies facilitate relationships by their ability to transfer information (Wagner, Fillis, & Johansson 2003).

Van Eck (2003) noted that, in a way to improve the information flow in many cases, companies employ information systems applicable to members of its supply chains which may include:

- 1) Material Requirement Planning (MRP) system is software based production planning and inventory control system used to manage manufacturing processes. This system was later developed into:
- 2) Enterprise Resource Planning (ERP) systems, which are installed throughout the entire organisation and include all the fundamental activities. In order to achieve real time updating of the ERP systems, another system was developed which is called:
- 3) Manufacturing Execution Systems (MES). MES typically interface with manufacturing machinery to retrieve the occurrence of events and export the times and dates of such events to the ERP systems. Other later developments in supply chain information systems include:
- 4) Advanced Planning and Scheduling systems (APS), which enable companies to improve customer service dramatically and reduce costs.

So, information flow is a crucial aspect in SCM as it addresses various problems which mainly affect the performance of retailers such as the bullwhip effect (whiplash effect) which is a cost to any retailer. Lyons (2010) defined bullwhip as the uncertainty caused by information flowing upstream and downstream in the supply chain. The effect is caused when the fluctuations in the demand or inventory levels of the final company in the chain are propagated and enlarged throughout the chain. Mainly, this because each company in the chain will be having

incomplete information about the needs of others, therefore, it has to respond with the unproportional increase in inventory levels and consequently even larger fluctuation in its demand to others down the chain (Forrester, 1961; Forrester 1958).

Furthermore, Busch (2011) attributes that, poor information flow instances where each supply chain partner plans individually without a supply chain-wide data exchange increases errors in forecasts due to diminishing data quality. Basically, because of the bullwhip-effect, the distortion of demand information implies that the manufacturers who only observe their immediate order data will be misled by the amplified demand patterns for example, manufacturers could incur excess raw materials cost due to unplanned purchases of supplies, additional manufacturing expenses created by excess capacity, inefficient utilisation and overtime, excess warehouse expenses and additional transportation costs due to inefficient scheduling and premium shipping rates (Lee, Padmanabhan & Whang 2004).

In addition, Ravichandran (2008) qualified the effects of the bullwhip at various level of an organisation such as retailers. At the macro level, the bullwhip-effect induces poor service levels, inefficiencies in production, scheduling (capacity utilisation), sourcing, distribution, revenue generation and its realisation. At the operational level it generates more (additional) inventory and keeps it in the most inappropriate place to meet a specified service level. At a performance level it can reduce the velocity of cash, destroy potential revenue, and significantly erode revenue realisation through price discounts.

Inevitably, it is obvious that information flow needs to be managed in SCM as the flow of information in business organisations and particularly in supply chains affects productivity and innovation because it determines the speed by which individuals can act and plan future activities (Wu et al. 2005:1).

So, poor information flow results in the bullwhip-effect which is a direct consequence of a lack of real-time information sharing and efficient information flow through the entire supply chain (Simchi-Levi et al. 2009). Therefore, accurate and timely information allows a retailer to reduce uncertainty in the whole chain, minimize inventories, resulting in better planning and control processes such as improve routing and scheduling of transportation vehicles, and improve customer service levels (Mukaddes et al 2010 and Badenhorst-Weiss; Maurer & Brevis 2013).

However, Wagner et al., 2003 argued that, the effect of information flow alone is insignificant as it was found under the Scottish study of Small and Medium Enterprises that, Internet adoption alone has demonstrated no benefits in terms of reduced transaction costs or improved supply chain efficiency. Furthermore, in Slovenia it was found that, information flow alone failed to decrease the inventory level (Trkman, 2000). Basically, this derived a conclusion that only sharing of information will not lead to improvements, but also coordination of activities is crucial (Disney, Naim & Potter, 2004).

On the other hand, information flow can be a problematic issue as the companies in a supply chain may not be prepared to share their production data, lead times, especially when those companies are independent of each other (Terzi & Cavalieri, 2004). Indeed, the lack of trust between business partners is one of the main hindrances to collaboration in the supply chain context as supply chains are supposed to have what are called supply chain orientations (Barrat, 2004; Ireland & Bruce, 2000). Retailers may fear that the willingness to share information with their customers and suppliers would result in losing power within their partnerships.

In a nutshell, information flow has to be well managed as poor information sharing results in sub-optimal supply chain performance, which can only be mitigated by adopting advanced information systems, which enable efficient information sharing between the members of supply chains and over supply chain phases. Lee and Whang (2001:1–15) and Simchi-Levi et al. (2009:154–165) describe the benefits of sharing information in supply chain as: Reduced bullwhip effect, more effective forecasts, faster response and reduction in lead time, lower cost, better capacity utilisation, improved service, better asset utilisation and higher efficiency.

2.5.2 Relationship between payment flow and operational performance of retailers

When goods move or services are provided, business partners expect monetary compensation from their customers. Revenues need to flow in order to support the movement of goods and services from their origins to their final delivery to the end user, and vice versa. Thus, the need for payment flows in a supply chain is essential.

Payment flow also is regarded as funds flow, flow of money or financial flow in Supply Chain Management. Financial flows include all transfers of money, payments, credit card information and authorization, payment schedules, and e-payments (Crandall, Crandall, and Chen 2010).

Although there are other funds flow in a company, such as for equipment purchases and payroll, the study was only concerned with the flow along the supply chain, which affects the working capital of a company – its accounts receivable, inventory and accounts payable.

The money used to flow from the consumer upstream in a supply chain until all suppliers have received payment for the goods and services they provided. Consequently, with the more pronouncements of reverse logistics payment now flows from suppliers to customers. The timing of these flows is critical in ensuring that supply chain companies (particularly retailers) maintain the ability to meet their ongoing operational expenditure commitments (Sweeney E. 2006).

The primary benefit of improved funds flow to any retailer would be to reduce the cash-to-cash cycle time. It is calculated by adding the days of accounts receivable and days of inventory, and subtracting the days of accounts payable. The lower the better, because it means that the company is using less cash to manage its business (Farris and Hutchison 2002).

Improved funds flow would also tend to reduce the imbalances among supply chain participants. Large retailers tend to demand more liberal payables terms from manufacturers. In turn, large manufacturing companies tend to demand more liberal payables terms from their smaller suppliers. If funds flow were aligned with product and information flows, and integrated along the supply chain, it would tend to reduce the inequities resulting from company size or creditworthiness thereby improving the performance of the supply chain. (Grealish 2005)

Furthermore, improved funds flow would improve customer-supplier relationships and, conversely, improved customer-supplier relationships would determine improvements in funds flow. As the flow of goods and services improve and information sharing advances, funds flow will improve. If payments were made more promptly and consistently, relationships would improve. The result would be a win-win situation throughout the supply chain.

However, payment flow is difficult to manage in some of the supply chains because of:

Administrative processes - Many companies have not yet streamlined their internal procedures as there is still a lot of red tape in administration. Although lean methodology has been implemented and making great progress in manufacturing and distribution to create a synchronised flow of physical goods, however, this is still waiting to make its entrance into most financial paperwork processes as many administrative processes are still functionally separated into silo-like stations.

Errors - Errors in the physical flow of goods and services, such as partial shipments or defective goods, cause funds flow to be delayed. Customers will not complete payment until their orders have been satisfied. Even if the physical flow is correct, there may be errors in the paperwork. Satisfactory reconciliation of purchase order, receiving report and invoice is a prerequisite to payment. Even small discrepancies can cause delays and expenditures of employee time to resolve (Roberts 2002). Thus, errors need to be reduced to increase the ultimate performance of retailers.

Technology - Companies are not using the latest technology available in their funds flow. While few companies use cash anymore, some are still using cheques. Cheques are slower and less secure than electronic funds transfer (EFT) methods (Warwick 2002). In addition, companies have not adequately integrated funds flow with goods and information flows.

Adversarial attitude - Many companies have not yet made the transition from an adversarial attitude toward their customers and suppliers to a collaborative one. It is equally natural to push suppliers for extended credit terms because of “all the business we do with you.” This is especially true if the supplier is smaller and heavily dependent on “our business. This has affected the efficient flow of funds and ultimately the supply chain.

Nevertheless, companies can improve the flow of funds along the supply chain through:

First, companies should work to improve the physical flow of goods and services, and information flows, because funds flow depends on their proper and complete flow. They should align the funds flow more closely with the material and information flow (Bernabucci 2008).

Companies should try to integrate more closely the processes dealing with funds flow. Eliminating the batch processing and the functional silos would be desirable. However, if this is not feasible or appropriate, at least they should view the process as continuous and try to create a semblance of flow for funds.

Additionally, companies can adopt innovative technologies and payment solutions that enable greater, faster, and more cost efficient supply chains that include the latest trends and best practices in supply chain and financial flow management particularly in the area of automated payment solutions. Adopting new automation solutions to financial flows such as Purchasing Cards (P-Cards), Distribution Cards, and Electronic Invoice Presentation and Payment (EIPP) systems creates significant improvement opportunities in many areas including higher speed, cost savings, lower Days Sales Outstanding (DSO), and more reliable and predictable financial flows https://www.visaasia.com/ap/sea/commercial/corporates/incl udes/uploads/Supply_Chain_Management_Visa.pdf

So, financial flows are crucial in any supply chain as they act as a driving force to motivate customers and suppliers by ensuring that all expenditures attached to their operations are cleared thereby ensuring continuous business operations – thus an efficient supply chain.

2.5.3 Relationship between materials and services flow and operational performance of retailers

Materials and services flow is regarded as the physical flow (Crandall, Crandall, and Chen 2010). This is the flow of goods or services in the supply chain either in forward or reverse logistics. It encompasses physical products, new materials, supplies, and so forth that flow along the chain, including returned products, recycled products, and materials or products for disposal. Thus, this is the most visible flow. The aim within a supply chain is to keep materials flowing from source to end - customer and vice versa. The flow must be orchestrated so that parts movement is coordinated. The goal is to have continuous and synchronous flow which entails no interruptions, no dropping the ball and no unnecessary accumulations of inventory (Harrison A. and Van Hoek R. 2008).

Informational, and payment (funds) flow plays a supporting role of ensuring that the physical flow has been conducted efficiently and more so, the supply chain functions smoothly and efficiently from one business partner to another (Crandall, Crandall, and Chen 2010).

The essence of managing materials flow is to enable supply chain partners attempt to optimize the physical flow to ensure that customers receive goods on time and at a reasonable price. This will actually improve on performance of retailers within their supply chains through ensuring that, there are no shortages on the market and they are timeously

available. Therefore, moving physical goods from upstream to downstream and from downstream to upstream within a supply chain seamlessly is an indispensable situation to the sustainability of a supply chain.

Basically, physical flow has been the essence of the origin of any supply chain with the greatest motive of ensuring no shortages at the market through continuous supplies. This was further support supported Hill (2000) when he added the aspect of availability and timeous delivery. Hill (2000) argues that a company wins orders through its ability to deliver more quickly than competitors or to meet the required delivery date when few or none of the competition can do so. Thus, efficient material flow is one of the basis on which a retailer can improve the performance of any supply chain.

Ultimately the three flows of a supply chain do have an influence on the operational performance of SCM. The idea is to ensure that, SCM attain its core objectives. Basically, the goal of Supply Chain Management is to do a better job of serving the ultimate consumer. The superior service is to increase market share. Increased share, in turn, brings with it competitive advantages such as to achieve greater profitability by adding value and creating efficiencies, thereby increasing customer satisfaction (Stock and Boyer 2009, p.703).

2.6 Pilot research

Prior research was conducted to determine if SCM concept existed to retailers in Makonde district. The research was done on four purposively selected retailers – two in urban (TM supermarket and OK supermarket) and the other two in rural (Alpha trading and Lucky 7 supermarket). The research was based on the constructs of SCM to determine what a supply chain is, as postulated by Chen and Paulraj (2004) and Min and Mentzer (2004). However, the results concluded that, the concept existed although it was not formally well established. Of the four retailers, only three (OK, TM, and Lucky 7 supermarket) had an appreciation and understanding of concept although was not formally established.

2.7 Related research

An almost similar research was done in Brazil in 2011 by Priscila Laczynski de Souza Miguel and Luiz Artur Ledur Brito. The research was titled: **Supply Chain Management measurement and its influence on Operational Performance**. The research focused much into the constructs of SCM (information sharing, long-term relationship, risk and reward sharing, cooperation, and processes integration) in relation to performance. However, with this research, the main focus was to establish the relationship between the flows (materials and services flow; information flow and payment flow) and SCM rather than the constructs with operational performance. In other words this research used SCM main flows as the independent variables while Miguel and Brito (2011) used the constructs as independent variables. On the other hand, operational performance was used as the dependent variable in both of the studies.

Moreover, this study also employed both probability and non-probability methodologies which was not the same as the study by Miguel and Brito (2011) which was only confined to non-probability. Therefore, the fact that the study by Miguel and Brito (2011) only used non probability as method; this limited it from being generalised in emerging economies thereby narrowing its scope (Miguel and Brito 2011).

Furthermore, there is large evidence that cultural, social and economic aspects of each country do influence the link between SCM and performance (Harland, 1997; Mentzer et al., 2001; Kaufmann & Carter 2006). The fact that the research by Miguel and Brito (2011) was done in Brazil, as compared to this study, this gave different results because of different influences between Zimbabwe and Brazil. Basically, the study by Miguel and Brito (2011) concluded that there was positive empirical relationship between Supply Chain Management (SCM) and operational performance. This was attained from the findings of the study and was comprehended through the SCM constructs using the relational view.

3. Theoretical and Conceptual Framework

3.1 Introduction

This chapter examines both theoretical framework and conceptual framework for the study. Theoretical review was done to open up analysis of past events in order to investigate the research problem. Three theories were reviewed in the study – the coordination theory, Resource-Based View (RBV) and Relational View (RV). On the other hand, a conceptual framework was developed as a springboard to theory development to show the relationship of the stated hypothesis with key concepts.

3.2 Theoretical Framework

The background of this study was taken from the coordination theory. Malone and Crowston (1990) defined coordination theory as a body of principles about how activities can be coordinated, that is, about how actors can work together harmoniously. So, coordination theory offers a framework for identifying and classifying different types of dependencies and for proposing mechanisms that can be used to manage these dependencies (Malone and Crowston, 1994, Lewis and Talalayevski, 2004). Therefore, coordination theory was used to explain that, SCM is a concept that was developed out of the coordination where various stages are considered to be working in harmony to achieve a common ultimate goal.

More so, the other theories considered and relevant for the study which supports for the relation between SCM and operational performance that was reviewed are, Resource-Based View (RBV) and its extensions. RBV has been regarded as one of the most used theories in SCM research over a six year period of 2004 – 2009 (Defee, Williams, Randall & Thomas, 2010). The Resource-Based View (RBV) considers that firms are heterogeneous and achieve competitive advantage due to rare, valuable, inimitable and non substitutable resources and capabilities (Barney, 1991;

Dierickx & Cool, 1989; Peteraf, 1993). In other words, firms seeking positional advantage in the marketplace should identify the resources that will likely result in competitive differentiation then develop capabilities that effectively leverage the opportunity (Day & Wensley, 1988).

The original approach of the RBV, focused on the internal resources owned by a firm and was broadened to consider the relationship as a source of competitive advantage. Thus, the RBV posits that high-performing firms are those that can effectively combine, access, develop, and utilize strategic resources that are valuable, rare, and difficult to imitate (Sirmon, Hitt & Ireland, 2007). Such resources may be tangible in nature, such as people, cash, and equipment, or intangible, such as processes, information, organizational routines, values, and culture (Boddewyn & Brewer, 1994; Crook, Ketchen, Combs & Todd, 2008). Consequently, RBV was founded and supported the coordination theory to outline the aspects that, because of the heterogeneous, rare, valuable, inimitable and not substitutable resources and capabilities various stages of the SCM need to coordinate for ultimate success.

This gave rise to the Relational View (RV) (Dyer & Singh, 1998). The Relational View of competitive advantage (Dyer & Singh, 1998) is considered an extension of the RBV by proposing that a firm's critical resources and capabilities may extend beyond a firm's boundaries. Thus, a central theme of the Relational View is that a pair or network of firms can develop relationships that result in sustained competitive advantage. Therefore, to ensure competitive advantage, an interfirm relationship has to be created to enhance value streams that would be impossible for the individual firms to create independently. The RV considers relationships as potential sources of superior performance. It identifies four different sources of relational rents: investments in relation specific assets, substantial knowledge exchange, complementary and rare resources, and lower transaction costs. In essence, interfirm relationships that create value streams that would be impossible for the individual firms to create independently are themselves a resource and are a potential source of competitive advantage. Basically, RV embraces other two theories as it widens the scope by looking at the intercompany relationship which outlines that, only if different companies with different competitive advantages work in harmony can customers be satisfied by the final provision of the chain.

However, as much as RBV reinforced the significance of the study, the theory had a limited scope as it did not address the "how, why, and when" aspects but rather focused primarily on the "what" aspect of the resource (Barney, 1991). This led to other contemporary theories such as the Resource Management Theory (RMT) which focused beyond the "what" aspects. RMT focused on the allocation and management of resources. Thus, the underlying argument of RMT is that "possessing valuable, rare, inimitable, and non substitutable resources is a necessary but insufficient condition for value creation" (Sirmon et al., 2007, p.274).

3.3 Conceptual framework

The conceptual framework was developed from existing literature of Chopra & Meindl (2010). The framework illustrated the relationship between Supply Chain

Management which was mainly defined in this study through three flows (material and services flow, information flow and payment flow) and operational performance of retailers.

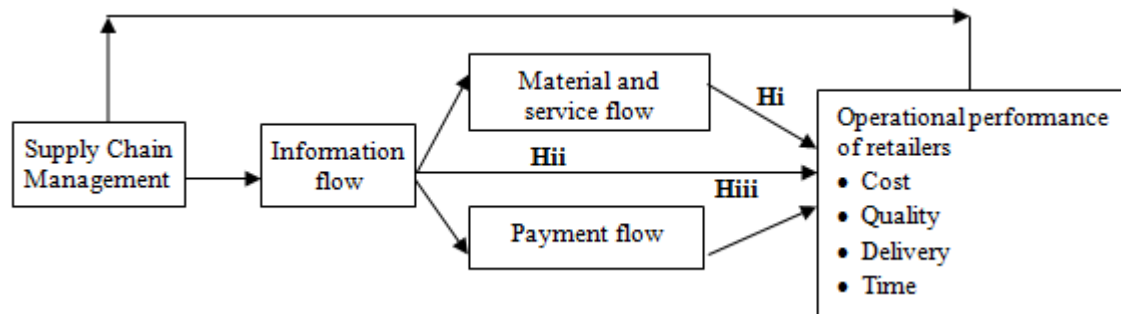


Figure 3.1: Relationship between supply chain management and operational performance

Source: Self developed from literature of (Chopra .S & Meindl .P 2010)

The above conceptual framework hypothesized that, operational performance of the retailers is influenced through the three main flows of material and services, information and payment. This however outlines that, SCM is related to operational performance as all flows are essential if supply chain is to function and flourish. Thus, the framework in Figure 1 above suggests that the independent variable was conceptualized as the three flows while the dependent variable as cost, quality, delivery and time of responsiveness.

3.4 Research Hypothesis

H_{0i} : There is no relationship between material and services flow and operational performance of retailers in Makonde District.

H_{1i} : There is a relationship between material and services flow and operational performance of retailers in Makonde District.

H_{0ii} : There is no relationship between information flow and operational performance of retailers in Makonde District.

H_{1ii} : There is a relationship between information flow and operational performance of retailers in Makonde District.

H_{0iii} : There is no relationship between payment flow and operational performance of retailers in Makonde District.

H_{1iii} : There is a relationship between payment flow and operational performance of retailers in Makonde District

4. Research Methodology

4.1 Introduction

This section presented the research methodology employed by the study to investigate the relationship between Supply Chain Management and operational performance of retailers in Makonde district. It described the research, design, philosophy, area of study, targeted population, sampling methods, sample size, data collection procedures, administration of research instruments, validity, reliability and measures. It further discussed the statistical analysis used in the study.

4.2 Research design

The researcher used correlational research design alternatively regarded as associational research. According to Orodho (2003) correlational research design is used to analyse the correlation between two or more variables. Therefore, the design was used based on the aspect that, the study intended to assess the form, direction and degree of relationship that existed between the two variables - SCM and operational performance of retailers. Particularly, of the two types of correlational research design (explanatory design and prediction design), the study employed explanatory design. This was mainly because, explanatory design, is conducted when researchers want to explore “the extents to which two or more variables co-vary, that is, where changes in one variable are reflected in changes in the other” (Creswell, 2008, p. 358).

Basically, since the study was one of its own kind in Zimbabwe, correlational was used to determine the strength and direction of a relationship between SCM and operational performance so that later studies can narrow the findings down, and if possible determine causation. Mainly, this was because correlational research design examine, test, reveal, compare, or describe a relationship between two variables.

So, both quantitative and qualitative approaches were adopted in the study. This was mainly because; the former enhanced the understanding of the meaning of numbers, while the latter gave precise and testable expression to qualitative ideas.

4.3 Research philosophy

The researcher employed critical realism as a research philosophy under the study. This was basically based on the assertion by Barrett (2010) who considered critical realism as the foundation of a mixed methodology. More so, Bhaskar (2013) suggests that, critical realism is arguably the best philosophy for understanding the relations of reality against the irrealist tendencies of philosophy. So, the philosophy is based on theory of reality and human knowledge. Mainly it was used as it highlights that, humans are capable of learning objectively about the world, without

much interference from human psychology or other subjective factors that colour perception as the researcher did.

4.4 Sampling design and procedures

Various sampling techniques were used in carrying out the study, both probability and non probability. This was mainly because; the aim of all sampling methods is to draw a representative sample from the population. With a representative sample one can confidently generalise the results to the rest of the population from whom the sample was drawn. This would not only save time and money but also dealing with problems of validity and generalisation.

Probability sampling was used because of its key component which is randomization or random selection, that is, it gives each unit or member of the population an equal chance of being included in the study. More so, probability sampling enables the researcher to generalise to the larger population and make inferences (Doherty, 2004). Under probability sampling, only simple random sampling was used for the study.

On the other hand since the researcher was more concerned in the representativeness of the concepts in their varying forms, this also actually led to the use of non – probability sampling where subjective methods were used to decide which elements were included in the sample. Consequently, non probability sampling was used because of the fact that it is less expensive than probability sampling and can often be implemented more quickly (Battaglia, 2011). Under the study, only one non probability sampling technique was used which was purposive sampling.

Initially, simple random sampling technique was used as a baseline to select Mashonaland West Province as the study province out of the entire ten provinces available in Zimbabwe. Simple random sampling was employed because of its advantage of being free from bias and ensuring that the population had an equal chance of being selected. So, using simple random sampling, the name of the province was determined through draws of a hat (Doherty 2004).

Purposive sampling or judgmental sampling or expert sampling was used to select Makonde district as the study site. Purposively Makonde was selected because it had the largest number of both small and large retailers also in both urban and rural areas among the seven districts in the province. The main objective of purposive sampling was to produce a sample that was considered ‘representative’ of the population. Therefore, the researcher purposively targeted Makonde district out of belief that it was more reliable in regards to other districts in terms of richness of the information and representativeness. More so, Chinhoyi was the provincial town of Mashonaland West Province where Makonde District was located.

Simple random sampling technique was used to select retailers as the targeted respondents within Makonde District because of randomization which enabled the researcher to generalise and make inferences.

4.5 Population

The population for the study was from all the retail companies in Makonde District. This was because; the study was looking at the relationship between SCM and operational performance of retailers in Makonde District. According to Chinhoyi Municipality Planning office and the D.A. Makonde rural office, the total number of retailers in Makonde district are 582 – with 151 in rural areas and 431 in urban (see attached lists on appendix A and B). More so, from each retail company depending on the size, the manager or owner was used as the targeted respondent. Therefore, this ultimately resulted in a study population of 582 retailers.

4.6 Sample size

The choice of sample size is often regarded as a budgetary consideration, as by the budget it will be useful to think of all resources (time, space and energy) not just money (Roscoe, 1975; Alreck & Settle, 1995). Therefore, a sample of retailers in Makonde District was drawn and used for the study from a population of 582 retailers. According to Roscoe (1975), sample sizes of less than 10 are not recommended. So, as argued by Alreck & Settle (1995), it is more recommended to use a sample size of 10% of parent population within the limits (30 to 500) as it is seldom necessary to sample more than 10%. Therefore, a sample of 59 retailers was used for the study.

4.7 Data source

The researcher used both primary and secondary data sources. Primary data was obtained using questionnaires while secondary data was found from the internet, journals, conference papers and books.

4.8 Data collection instruments

Questionnaires were used to collect data.

Questionnaire

Questionnaires were used as they are regarded as the main method of data collection (Sarantakos, 1997). The questionnaires were developed out of literature review of the independent and dependent variables. The questions constituted both open ended and closed ended questions. Closed- ended questions were developed because, they are easy to fill, save time and keep the respondents focused on the subject. On other hand, open ended questions enhanced the researcher to gather other varying opinions from the respondents.

The questionnaire consisted of three distinctive but related sections. The first part consisted of demographic profile of the company and respondents; the second part provided the background information and the last part sought answers for the research questions.

SCM constructs and flows were measured on a five-point Likert scale with anchors ranging from strongly disagree (1) to strongly agree (5). For the operational performance scales, the respondents were asked to evaluate their performance

based on cost, time, delivery and quality with a five-point scale ranging from much worse (1) to much better (5).

Before sending questionnaires to the final sample, a pre-test was performed to identify problems of question understanding, clarity and ambiguity and to assess measurement reliability (Forza, 2002). The refined questionnaires were made available to respondents (see appendix A) through email and physical distribution. Of the 59 questionnaires refined, 44 were physically distributed by the researcher with the help of one research assistant. On the other hand 15 questionnaires were distributed through email by the researcher. Distribution of the questionnaires was made in a day. Physically distributed questionnaire were collected after three working days, with those distributed by email were received back a day after distribution.

4.9 Validity of Research instruments

For validity the questionnaire was presented to at least six professional people, including the researcher's supervisor. This was according to Amin (2005) who argued that, validity is determined by expert judgment. Burns and Grove (1993) further argued that, the number of professional people should be at least five. After designing the questionnaire, it was subjected to rating using Content Validity Index (CVI). Content validity refers to the degree that the instrument covers the content that it is supposed to measure (Yaghmale 2003). The experts were asked to rate each item based on relevance, clarity, simplicity and ambiguity. Therefore, content Validity Index was computed using the following formula:

$$\text{Average of CVI} = \frac{\text{No of items rated valid}}{\text{All items in the questionnaires}}$$

The researcher analyzed the results of the content validity. As put forward by Amia (2005) that, the recommended CVI for validity of questionnaires is equal to 0.7 CVI. The items that had CVI over 0.7 remained and the rest were discarded with the remaining items modified, based on the experts' opinions.

4.10 Reliability

The questionnaires were tested and retested twice on two selected retail companies in Makonde urban district in a space of three days to ensured reliability under the same initial circumstances. Almost similar results were attained thereby revealing consistency of the results. Hence this confirmed how reliable the instrument was under the study.

4.11 Data Analysis

Data was analysed statistically using Microsoft excel, and Statistical Package for Social Scientists (SPSS) version 17 (quantitative software). The results of the analysis were presented in form of tables, and graphs for interpretation. To ascertain relationship of the variables, partial correlation analysis was used.

4.12 Ethical Considerations

The researcher gave assurance to respondents that the study was strictly academic and that utmost confidentiality would

be observed. This was done through anonymously coding of the data. Consequently, the researcher also ensured that all subject participants were involved voluntarily. Above all, the researcher was open and honest in dealing with other researchers' work and research subjects.

5. Results and Discussion

5.1 Introduction

This chapter presents the research findings in reference to the research questions and research objectives found in chapter one. Thus the chapter presents results of the research carried out on a study of the relationship between Supply Chain Management and operational performance of retailers in Makonde District. More so, Critical analysis and discussion of the results was provided in this chapter. Consequently, the correlation between the independent and dependent variable was presented with as well the hypothesis. The chapter was divided into five themes according to the questionnaire (Appendix A):

- Theme 1:** Company and Personal profile
- Theme 2:** Background information on Supply Chain Management
- Theme 3:** Relationship between material and services flow and operational performance
- Theme 4:** Relationship between information flow and operational performance of retailers
- Theme 5:** Relationship between payment flow and operational performance of retailers

5.2 Theme 1: Company and Personal profile

The theme comprised of the general information which included data on position of respondent, gender of the respondents, years of service for the company, number of years served by the respondent, and the type of industry.

5.2.1 Response rate

Table 5.1 below shows the number of the distributed questionnaires. Of the 59 questionnaires distributed, only 45 were returned. Therefore, the response rate was 76.3%. According to Cooper et al (2013) a response rate of 30% is considered satisfactory although most preferably for analysis the ideal is between 50% and 94%. The researcher concluded that the response rate of 76.3% was sufficient to validate the research findings.

Table 5.1: Questionnaires distributed

Questionnaires distributed					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Questionnaires returned	45	76.3	76.3	76.3
	Questionnaires not returned	14	23.7	23.7	100.0
	Total	59	100.0	100.0	

Source: Primary source

5.2.2 Respondents by gender

Table 5.2 below shows the distribution of respondents by gender:

Table 5.2: Distribution by gender

Gender of respondent					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	38	84.4	84.4	84.4
	Female	7	15.6	15.6	100.0
	Total	45	100.0	100.0	

Source: Primary source

The majority of the respondents were males with 84.4% against that of female which was 15.6%. This implies that, men dominated in most of the retail leadership since the study targeted managers or owners in determining the relationship between SCM and operational performance of retailers in Makonde District.

5.2.3 Distribution by Occupation

Table 5.3 below shows the distribution of respondents by occupation.

Table 5.3: Distribution by occupation

Position of respondent					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Manager	39	86.7	86.7	86.7
	Owner	6	13.3	13.3	100.0
	Total	45	100.0	100.0	

Source: Primary source

The table 5.3 above shows that, of the respondents 86.7% were managers while the remaining 13.3% were retail owners. This may be interpreted to mean that, the majority of the people involved in the study were employees. This brings in the aspect that, they had the expertise to provide reliable information as they were seen fit and qualified for the position in their organisations. More so, most of respondents confirmed to have studied something to do with Supply Chain Management in their course of academic life.

5.2.4 Distribution by years of establishment

Table 5.4 below shows the distribution of the number of years the company has been operating in the retail industry as alluded by respondents since the research was first on its kind in Makonde District. So, information on years of establishment of the retail company was attained from the respondents as respective offices which were supposed to provide had no information at hand at the time of the study. The registrar of companies in Zimbabwe was still in transition of coming up with an electronic database, therefore making it difficult to gather detailed information. On the other hand, both the Municipality of Chinhoyi which housed Makonde urban and Makonde rural district office at the time of the study only had names of the running companies (see attached appendix A and B) without much knowledge about their establishment. Therefore, reliable information particularly for the period of establishment for this study was obtained from the respondents.

Table 5.4: Distribution by years of establishment

Years in operation					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	less than 5 years	5	11.1	11.1	11.1
	6 to 10 years	24	53.3	53.3	64.4
	11 to 15 years	10	22.2	22.2	86.7
	16 and above	6	13.3	13.3	100.0
	Total	45	100.0	100.0	

Source: Primary source

Table 5.4 above illustrate that, 53.3% of the respondents which was the majority were from retailers that had been in existence for a period between 6 to 10 years. This was followed by 22.2% which was 11 to 15 years, 13.3% which was 16 years and above and lastly 11.1% which was less than 5 years. This indicated that the majority of the retailers had been in operation in the industry for a long period to be ascertained to have a stable supply chain as highlighted by Hausman (2003) that, the longer the period of operation the better the chances of having a good supply chain. .

5.2.5 Distribution by working experience

Table 5.5 below shows the distribution of the respondents by working experience.

Table 5.5: Distribution by working experience

Working experience					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	less than 5 years	8	17.8	17.8	17.8
	6 to 10 years	29	64.4	64.4	82.2
	11 to 15 years	6	13.3	13.3	95.6
	16 and above	2	4.4	4.4	100.0
	Total	45	100.0	100.0	

Source: Primary source

The results shown in table 5.5 above reveal that, the majority of respondents (64.4 %) had a working experience of between 6 and 10 years. In addition 17.8% had worked for a period of less than 5 years with the other (13.3%) between 11 and 15 years. Lastly, 4.4% were 16 years and above. The implication here is that, the majority of respondents were mature and therefore likely to provide reliable data as they would have gathered some wealth experiences to enable them to implement a functional supply chain system in order to improve their performances (Hausman, 2003). With only a few that were 16 years and above, possibly this could have been necessitated by the 2008 economic melt-down of the Zimbabwean economy where a number of companies once collapsed before resurrecting in the multicurrency era. However, this could be one of the drivers of mal functioning of particular supply chain and poor performance due to lack of experience.

5.2.6 Distribution by type of industry

Table 5.6 below shows the distribution of the respondents by type of industry.

Table 5.6: Distribution by industry type

Type of industry					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Food	13	28.9	28.9	28.9
	Clothing	8	17.8	17.8	46.7
	Hardware	8	17.8	17.8	64.4
	Service	4	8.9	8.9	73.3
	Fuel	5	11.1	11.1	84.4
	Banking	3	6.7	6.7	91.1
	Automotive	4	8.9	8.9	100.0
	Total	45	100.0	100.0	

Source: Primary source

From table 5.6 above 28.9% constitute the majority of the responses received from the food retail with clothing and hardware following sharing the same portion of 17.8%. Next was fuel industry which had 11.1% followed by the service and automotive industry which had 8.9% and lastly banking which had 6.7%. This entails that the Makonde retail industry was dominated by food providing shops (28.9%) which could implicate that is the most economic type of business. Therefore, the major part of the conclusion on the relationship between SCM and operational performance was much influenced by the food retailers at the expense of other few retailers such as banks (6.7%).

5.3 Theme 2: Background information on Supply Chain Management

The second theme looked at the general aspects of the independent variable which was Supply Chain Management. It focused on the understanding of the SCM concept and its aims to the retail industry. More so, it looked at the extent to which SCM was founded on certain behaviours.

5.3.1 Understanding of the term Supply Chain Management

Figure 5.1 below shows the distribution on the understanding of the term SCM

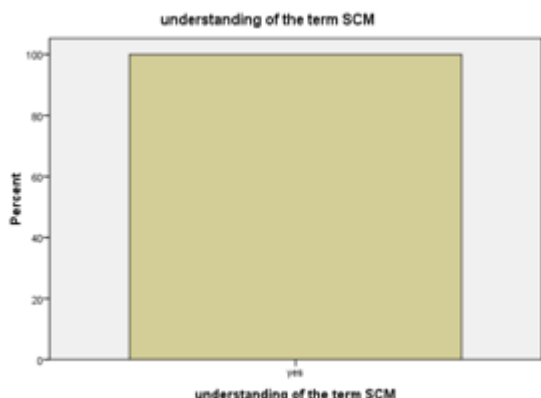


Figure 5.1: Understanding of the term Supply Chain Management

From figure 5.1 above, 100% of the respondents indicated that they had an appreciation of the term SCM. This reviewed that the term was not something new to them, only its execution was a matter of concern in Makonde District as much it was being regarded as a new concept in world of

business without a universally accepted definition as postulated by Harland et al. (2006).

5.3.2 Aims of SCM

Apart from analysing using SPSS, the aim of SCM was qualitatively analysed. From the responses provided by the 45 respondents, the researcher deduced various themes which he managed to qualify into three broad categories as the aims of Supply Chain Management. The three categories were Profit maximisation, Customer satisfaction and Adding value. The themes deduced by the researcher were in agreement with other prominent scholars in SCM such as Stock and Boyer (2009) who in their definition of the term SCM included the three themes as key elements of the concept.

5.4 Theme 3: Relationship between material or services flow and operational performance

5.4.1 Relationship between materials or services flow and operational performance

A 100% response rate indicated that there was a relationship between materials or services flow and operational performance. This is shown by the figure 5.2 below:

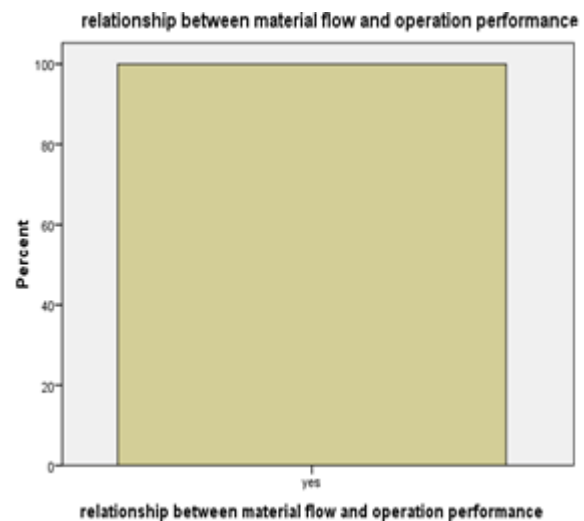


Figure 5.2: Relationship between material or services flow and operational performance

From the figure 5.2 above a 100% respondents indicated that SCM had an influence on performance of retailers. This also has been the driver as to why the research was carried to determine avenues of benefits that can be yielded by practicing the concept of SCM.

5.4.2 Performance value through material or services flow in supply chain

The value that is attached to the level of operational performance when considering materials or services flow was indicated through the use of a five point Likert scale. The scale ranged from very poor to very good. The results obtained are as shown below in figure 5.3

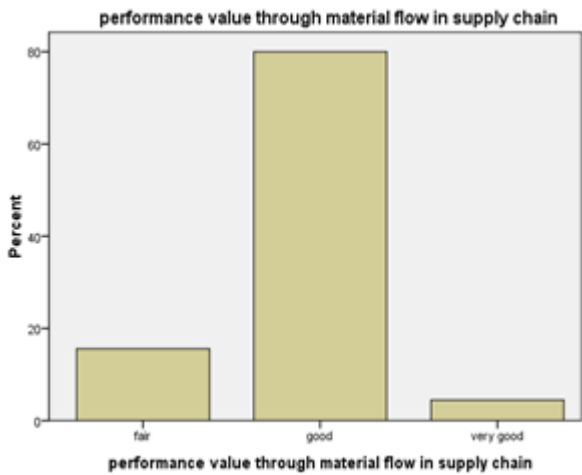


Figure 5.3: Performance value through material or services

From figure 5.3 above 80% of the respondents indicated the performance was good. This was followed 15.6% who indicated the performance as fair and lastly 4.4% as very good. This proved that the level of performance when it comes to material flow was being well conducted with the majority constituting 80% as shown in the above figure 5.3. However, this was not similar compared to a related study that was conducted in Brazil where materials or services flow was the key issue which required more improvements (Miguel and Brito, 2011).

5.4.3 Problems caused by poor material or services flow

Apart from analysing using SPSS, the problems caused by poor material or service flow were qualitatively analysed. From the responses provided by the 45 respondents, the researcher deduced various themes which he managed to qualify into three broad categories as the main problems caused by poor material or service flow. The three categories were Customer dissatisfaction, Shortages on the market and Poor quality. Three themes attained from the responses by the respondents were also supported by Hill (2000) who stated that, the greatest motive of materials flow which has been the essence of any supply chain was to ensure no shortages through availability and timeous delivery. Hill (2000) further argued that, a company wins orders through its ability to deliver more quickly than competitors. However, from the reviewed sources no scholar pointed out the issue of poor quality as suggested by the respondents.

5.5 Theme 4: Relationship between information flow and operational performance of retailers

5.5.1 Relationship between Information flow and operational performance

A 100% response rate indicated that there was a relationship between information flow and operational performance. This is shown by the figure 5.4 below:

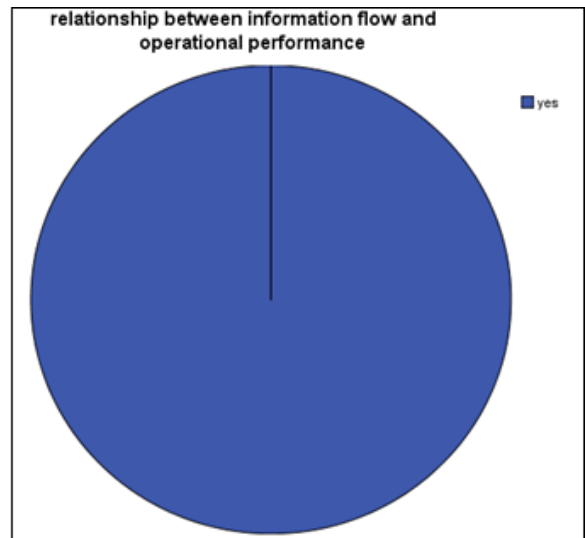


Figure 5.4: Relationship between Information flow and operational performance

From the figure 5.4 above a 100% respondents indicated that Information flow had an influence on performance of retailers. This implied that, information has a vital role in ensuring good performance for retailers in Makonde District. Mainly, this is as was put forward by Ryals (1999) who emphasized that, in order for an organisation to successfully operate, information flow should be well managed within the supply chain as it is the 'glue' that binds supply chain processes together. .

5.5.2 Performance value through Information flow in supply chain

The level of performance was also evaluated based on information flow using a five point Likert scale. The scale ranged from very poor to very good. This is as shown below in figure 5.5

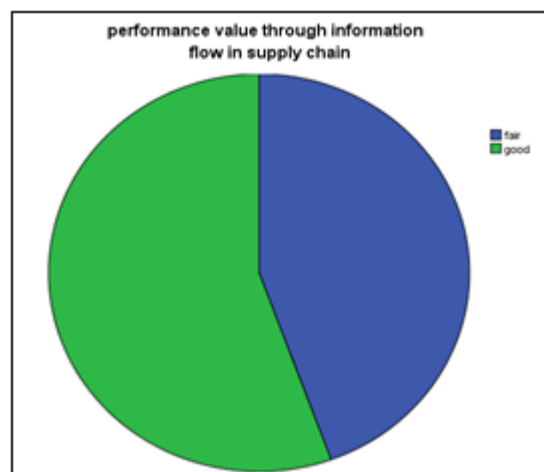


Figure 5.5: Performance value through information flow

From figure 5.5 above 55.6% of the respondents indicated the performance was good. On the other hand 44.4% respondents indicated that the performance was fair. This shows that, more is supposed to be done to improve the level of performance when it comes to information flow as the margin between two was small (11.2).

5.5.3 Problems caused by poor Information flow

Apart from analysing using SPSS, the problems caused by poor information flow were qualitatively analysed. From the responses provided by the 45 respondents, the researcher deduced various themes which he managed to qualify into four broad categories of problems caused by poor information flow. The four categories are excess inventories, shortages on the market, poor reaction speed, and increased cost. As much as Wagner et al., (2003) argued that, the effect of information flow alone is insignificant through a study that was carried out on Small and Medium Enterprises in Scotland, Lee and Whang (2001) and Simchi-Levi (2009) shared the same understanding with the respondents in Makonde District on problems that are caused by poor information flow such as bullwhip effect, poor response time, poor forecast long lead times, higher cost poor service and lower efficiency.

5.6 Theme 5: Relationship between payment flow and operational performance of retailers

5.6.1 Relationship between Financial flow and operational performance

A 100% response rate indicated that there was a relationship between financial flow and operational performance. This is shown by the figure 5.6 below:

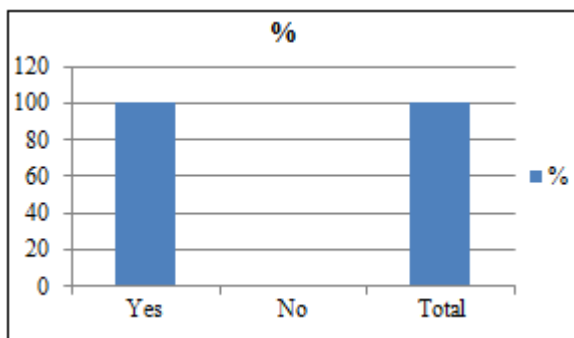


Figure 5.6: Relationship between financial flow and operational performance

From the figure 5.6 above, a 100% of respondents indicated that financial flow had an influence on performance of retailers. This also prompted the need to determine the relationship between SCM and operational performance. More so, respondents confirmed to the relationship between financial flow and operational performance mainly because, revenues need to flow in order to support the movement of goods and services from their origins to their final delivery to the end user and vice versa (Sweeney 2006). Therefore, this entails that, retailers in Makonde District value financial flow.

5.6.2 Performance value through financial flow in supply chain

The level of operational performance when considering financial flows was indicated as below in figure 5.7.

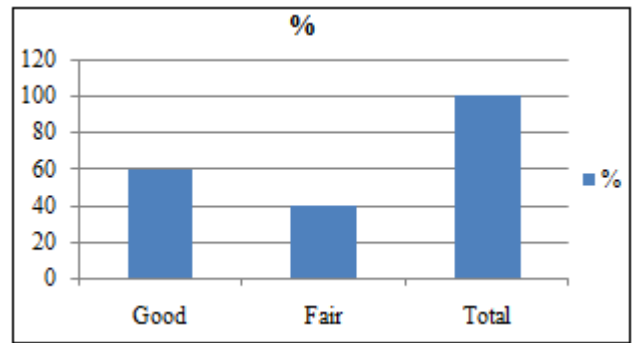


Figure 5.7: Performance value through financial flow

From figure 5.7 above 60% of the respondents indicated the performance was good, with remaining 40% indicating the performance as fair. This proved that the level of performance when it comes to financial flow was being well conducted although not effectively with the majority constituting 60% showing so. This was because of how financial administrative processes were structured. In Makonde many companies have not yet streamlined their internal procedures as there is still a lot of red tape in administration which among the other reasons resulted in the 40% evaluating it as fair.

5.6.3 Problems caused by poor financial flow

Apart from analysing using SPSS, financial flow was qualitatively analysed. From the responses provided by the 45 respondents, the researcher deduced various themes which he managed to qualify into three broad categories of the problems caused by poor financial problems. The three categories were inconsistent deliveries, creating shortages and poor relationships. However, the cause of the problems from the respondents, among other reasons was being caused by the slow space in adoption of new technologies such as the purchasing cards and Electronic Invoice Presentment and Payment (EIPP) by retailers. Other the other hand the same problems initiated by poor financial flows were also noted by Bernabucci (2008).

5.7 Partial Correlation

Partial correlation was used to identify and test the strength of relationship between two sets of data – Supply Chain Management and operational performance while controlling the variable - period of establishment of the retailer. Period of establishment of the retailer had an influence on both variables of the study. Therefore, partial correlation was used as a statistical method to aid in either proving or disproving a hypothesis. Supply Chain Management was conceptualized in terms of three flows (material or services flow, information flow and financial flow). So the analysis was based on the three flows. On the other hand, operational performance was conceptualised and analysed in terms of cost, time, delivery, and quality.

5.7.1 Partial Correlation between materials or services flow and performance

Materials or services flow and Cost

Table 5.7 below shows the correlation between materials or services flow and cost within the supply chain while controlling the period at which the retailer was established.

Table 5.7: Correlation between materials or services flow and cost

Correlations						
Control Variables		Impact of Materials or services flow on cost	Value of Materials or services flow in Supply Chain	Years of Establishment		
-none ^a	Impact of Materials or services flow on cost	Correlation	1.000	.069	-.433	
		Significance (2-tailed)	.	.655	.003	
		Df	0	43	43	
	Value of Materials or services flow in Supply Chain	Correlation	.069	1.000	-.308	.039
		Significance (2-tailed)	.655	.	.	.039
		Df	43	0	43	43
	Years of Establishment	Correlation	-.433	-.308	1.000	.
		Significance (2-tailed)	.003	.039	.	.
		Df	43	43	43	0
Years of Establishment	Impact of Materials or services flow on cost	Correlation	1.000	-.076	.	
		Significance (2-tailed)	.	.626	.	
		Df	0	42	42	42
	Value of Materials or services flow in Supply Chain	Correlation	-.076	1.000	.	.
		Significance (2-tailed)	.626	.	.	.
		Df	42	0	0	0

a. Cells contain zero-order (Pearson) correlations

The table 5.7 above indicates that, there was a weak negative partial correlation between materials or services flow (Mean = 3.89, Standard Deviation = 0.438) and cost (Mean = 4.07, Standard Deviation = 0.252) while controlling years of establishment of a retailer, with $r(42) = -0.076$, $p = 0.626$. This entails that, when controlling years of operation, materials or services flow and cost do not flow in the same direction as increase in materials or services flow is associated with a decrease in cost. Thus, improvement in materials or services flow is actually regarded as efficient with the least cost involved.

Results of the zero order correlation yielded that, there was a weak positive correlation between materials or services flow and cost with $r(43) = 0.069$, $p = 0.655$. So, that entails that, without controlling the period of operation of the retailer, an increase in material flow is associated with increase in time involved. Therefore, this indicated that, controlling the period of establishment of a retailer had a great effect on the strength of the relationship between the two variables as the margin for their r values was large.

Materials or services flow and Time

Table 5.8 below shows the correlation between materials or services flow and time within the supply chain.

Table 5.8: Correlation between materials or services flow and time

Correlations						
Control Variables		Value of Materials or services flow in Supply Chain	Impact of Materials or services flow on time	Years of Establishment		
-none ^a	Value of Materials or services flow in Supply Chain	Correlation	1.000	.095	-.308	
		Significance (2-tailed)	.	.534	.039	
		Df	0	43	43	
	Impact of Materials or services flow on time	Correlation	.095	1.000	-.763	.000
		Significance (2-tailed)	.534	.	.	.000
		Df	43	0	43	43
	Years of Establishment	Correlation	-.308	-.763	1.000	.
		Significance (2-tailed)	.039	.000	.	.
		Df	43	43	43	0
Years of Establishment	Value of Materials or services flow in Supply Chain	Correlation	1.000	-.227	.	
		Significance (2-tailed)	.	.138	.	
		Df	0	42	42	42
	Impact of Materials or services flow on time	Correlation	-.227	1.000	.	.
		Significance (2-tailed)	.138	.	.	.
		Df	42	0	0	0

a. Cells contain zero-order (Pearson) correlations

The table 5.8 above indicates that, there was a weak negative partial correlation between materials or services flow (M = 3.89, SD = 0.438) and time (Mean = 3.96, Standard Deviation = 0.424) while controlling years of establishment of a retailer, with $r(42) = -0.227$, $p = 0.138$. This entails that, when controlling years of operation, materials or services flow and time do not flow in the same direction as increase in materials or services flow is associated with a decrease in time. Thus, improvement in materials or services

flow is actually regarded as efficient with the least time involved. Results of the zero order correlation yielded that, there was a weak positive correlation between materials or services flow and time with $r(43) = 0.095$, $p = 0.534$. So, that entails, without controlling the period of operation of the retailer, an increase in material flow is associated with increase in time involved.

Therefore, this indicated that, controlling the period of establishment of a retailer had a great effect on the strength of the relationship between the two variables as the margin for their r values was large.

Materials or services flow and Delivery

Table 5.9 below shows the correlation between materials or services flow and delivery within the supply chain.

Table 5.9: Correlation between materials or services flow and delivery

Correlations						
Control Variables			Value of Materials or services flow in Supply Chain	Impact of Materials or services flow on delivery	Years of Establishment	
-none ^a	Value of Materials or services flow in Supply Chain	Correlation	1.000	-.880	-.308	
		Significance (2-tailed)	.	.244	.039	
		Df	0	43	43	
	Impact of Materials or services flow on delivery	Correlation	-.880	1.000	.260	.085
		Significance (2-tailed)	.244	.	.	.085
		Df	43	0	43	43
	Years of Establishment	Correlation	-.308	.260	1.000	.
		Significance (2-tailed)	.039	.085	.	.
		Df	43	43	43	0
Years of Establishment	Value of Materials or services flow in Supply Chain	Correlation	1.000	-.871	.	
		Significance (2-tailed)	.	.187	.	
		Df	0	42	42	42
	Impact of Materials or services flow on delivery	Correlation	-.871	1.000	.	.
		Significance (2-tailed)	.187	.	.	.
		Df	42	0	0	0

a. Cells contain zero-order (Pearson) correlations

The table 5.9 above indicates that, there was a strong negative partial correlation between materials or services flow (M = 3.89, SD = 0.438) and delivery (Mean = 4.07, Standard Deviation = 0.393) while controlling years of establishment of a retailer, with $r(42) = -0.871, p = 0.187$. This entails that, when controlling years of operation, materials or services flow and delivery do not flow in the same direction as increase in materials or services flow is associated with a decrease in on time delivery and delivery frequencies. Thus, improvement in materials or services flow is actually regarded as efficient with the least delivery frequencies and delivery times involved.

Results of the zero order correlation yielded that, there was a strong negative correlation between materials or services flow and delivery with $r(43) = -0.880, p = 0.244$. So, that entails, without controlling the period of operation of the retailer, an increase in material flow is associated with a decrease in delivery frequencies and times involved. Therefore, this indicated that, controlling the period of establishment of a retailer had a small effect on the strength of the relationship between the two variables as the margin for their r values was small.

Materials or services flow and Quality

Table 5.10 shows the correlation between materials or services flow and quality within the supply chain.

Table 5.10: Correlation between materials or services flow and quality

Correlations						
Control Variables			Value of Materials or services flow in Supply Chain	Impact of Materials or services flow on quality	Years of Establishment	
-none ^a	Value of Materials or services flow in Supply Chain	Correlation	1.000	-.099	-.308	
		Significance (2-tailed)	.	.516	.039	
		Df	0	43	43	
	Impact of Materials or services flow on quality	Correlation	-.099	1.000	-.303	.043
		Significance (2-tailed)	.516	.	.	.043
		Df	43	0	43	43
	Years of Establishment	Correlation	-.308	-.303	1.000	.
		Significance (2-tailed)	.039	.043	.	.
		Df	43	43	43	0
Years of Establishment	Value of Materials or services flow in Supply Chain	Correlation	1.000	-.213	.	
		Significance (2-tailed)	.	.166	.	
		Df	0	42	42	42
	Impact of Materials or services flow on quality	Correlation	-.213	1.000	.	.
		Significance (2-tailed)	.166	.	.	.
		Df	42	0	0	0

a. Cells contain zero-order (Pearson) correlations.

The table 5.10 above indicates that, there was a weak negative partial correlation between materials or services flow (M = 3.89, SD = 0.438) and quality (Mean = 4.00,

Standard Deviation = 0.522) while controlling years of establishment of a retailer, with $r(42) = -0.871, p = 0.000$. This entails that, when controlling years of operation,

materials or services flow and quality do not flow in the same direction as increase in materials or services flow is associated with a decrease in quality. Results of the zero order correlation yielded that, there was a weak negative correlation between materials or services flow and quality with $r(43) = -0.099$, $p = 0.516$. So, that entails, without controlling the period of operation of the retailer, an increase in material flow is associated with a decrease in quality.

Therefore, this indicated that, controlling the period of establishment of a retailer had a great effect on the strength of the relationship between the two variables as the margin for their r values was large.

5.7.2 Correlation between information flow and performance

Information flow and Cost

Table 5.11 below shows the correlation between information flow and cost within the supply chain.

Table 5.11: Correlation between information flow and cost

		Correlations			
Control Variables		Impact of Information flow on cost	Value of Information flow in Supply Chain	Years of Establishment	
-none ^a	Impact of Information flow on cost	Correlation	1.000	-.106	
		Significance (2-tailed)	.	.489	
		Df	0	43	
	Value of Information flow in Supply Chain	Correlation	-.106	1.000	-.759
		Significance (2-tailed)	.489	.	.000
		Df	43	0	43
	Years of Establishment	Correlation	-.042	-.759	1.000
		Significance (2-tailed)	.784	.000	.
		Df	43	43	0
Years of Establishment	Impact of Information flow on cost	Correlation	1.000	-.212	
		Significance (2-tailed)	.	.167	
		Df	0	42	
	Value of Information flow in Supply Chain	Correlation	-.212	1.000	
		Significance (2-tailed)	.167	.	
		Df	42	0	

a. Cells contain zero-order (Pearson) correlations

The table 5.11 above indicates that, there was a weak negative partial correlation between information flow (M = 3.56, SD = 0.503) and cost (Mean = 4.04, Standard Deviation = 0.475) while controlling years of establishment of a retailer, with $r(42) = -0.212$, $p = 0.167$. This entails that, when controlling years of operation, information flow and cost do not flow in the same direction as increase in information flow is associated with a decrease in cost. Thus, improvement in information flow is regarded as efficient with the least cost involved. Results of the zero order correlation yielded that, there was a weak negative correlation between information flow and cost with $r(43) =$

-0.106 , $p = 0.489$. So, that entails, without controlling the period of operation of the retailer, an increase in information flow is associated with a decrease in cost. Which also means an improvement in information flow is regarded as efficient with the least cost involved. Therefore, this indicated that, controlling the period of establishment of a retailer had a great effect on the strength of the relationship between the two variables as the margin for their r values was large.

Information flow and Time

Table 5.12 shows that, the correlation between information flow and time within the supply chain.

Table 5.12: Correlation between information flow and time

		Correlations			
Control Variables		Value of Information flow in Supply Chain	Impact of Information flow on time	Years of Establishment	
-none ^a	Value of Information flow in Supply Chain	Correlation	1.000	-.395	
		Significance (2-tailed)	.	.067	
		Df	0	43	
	Impact of Information flow on time	Correlation	-.395	1.000	.674
		Significance (2-tailed)	.067	.	.000
		Df	43	0	43
	Years of Establishment	Correlation	-.759	.674	1.000
		Significance (2-tailed)	.000	.000	.
		Df	43	43	0
Years of Establishment	Value of Information flow in Supply Chain	Correlation	1.000	.242	
		Significance (2-tailed)	.	.113	
		Df	0	42	
	Impact of Information flow on time	Correlation	.242	1.000	
		Significance (2-tailed)	.113	.	
		Df	42	0	

a. Cells contain zero-order (Pearson) correlations.

The table 5.12 above indicates that, there was a positive partial correlation between information flow (M = 3.56, SD = 0.503) and time (Mean = 4.11, Standard Deviation = 0.318) while controlling years of establishment of a retailer, with $r(42) = 0.242$, $p = 0.113$. This entails that, when controlling years of operation, information flow and time flows in the same direction as increase in information flow is associated with an increase in time. Thus, improvement in information flow is regarded as efficient with the most time involved.

Results of the zero order correlation yielded that, there was a moderate negative correlation between information flow and time with $r(43) = -0.395$, $p = 0.067$. So, that entails, without

controlling the period of operation of the retailer, an increase in information flow is associated with a decrease in time. Which also means an improvement in information flow is regarded as efficient with the least time involved.

Therefore, this indicated that, controlling the period of establishment of a retailer had a great effect on the strength of the relationship between the two variables as the margin for their r values was large.

Information flow and Delivery

Table 5.13 shows that, the correlation between information flow and delivery within the supply chain.

Table 5.13: Correlation between information flow and delivery

Correlations						
Control Variables			Value of Information flow in Supply Chain	Impact of Information flow on Delivery	Years of Establishment	
-none ^a	Value of Information flow in Supply Chain	Correlation	1.000	-.713	-.759	
		Significance (2-tailed)	.	.521	.000	
		Df	0	43	43	
	Impact of Information flow on Delivery	Correlation	-.713	1.000	.812	.812
		Significance (2-tailed)	.521	.	.000	.000
		Df	43	0	43	43
	Years of Establishment	Correlation	-.759	.812	1.000	1.000
		Significance (2-tailed)	.000	.000	.	.
		Df	43	43	0	0
Years of Establishment	Value of Information flow in Supply Chain	Correlation	1.000	-.253	.	
		Significance (2-tailed)	.	.097	.	
		Df	0	42	.	.
	Impact of Information flow on Delivery	Correlation	-.253	1.000	.	.
		Significance (2-tailed)	.097	.	.	.
		Df	42	0	.	.

a. Cells contain zero-order (Pearson) correlations.

The table 5.13 above indicates that, there was a negative partial correlation between information flow (M = 3.56, SD = 0.503) and delivery (Mean = 4.29, Standard Deviation = 0.458) while controlling years of establishment of a retailer, with $r(42) = -0.253$, $p = 0.097$. This entails that, when controlling years of operation, information flow and delivery do not flows in the same direction as increase in information flow is associated with a decrease in delivery frequencies. Thus, improvement in information flow is regarded as efficient with the least delivery frequencies involved.

Results of the zero order correlation yielded that, there was a strong negative correlation between information flow and delivery with $r(43) = -0.713$, $p = 0.521$. So, that entails, without controlling the period of operation of the retailer, an

increase in information flow is associated with a decrease in delivery. Which also means an improvement in information flow is regarded as efficient with the least deliveries involved. Therefore, this indicated that, controlling the period of establishment of a retailer had a great effect on the strength of the relationship between the two variables as the margin for their r values was large.

Information flow and Quality

Table 5.14 below shows the correlation between information flow and quality within the supply chain.

Table 5.14: Correlation between information flow and quality

Correlations						
Control Variables			Value of Information flow in Supply Chain	Impact of Information flow on Quality	Years of Establishment	
-none ^a	Value of Information flow in Supply Chain	Correlation	1.000	-.299	-.759	
		Significance (2-tailed)	.	.056	.000	
		df	0	43	43	
	Impact of Information flow on Quality	Correlation	-.299	1.000	.510	.510
		Significance (2-tailed)	.056	.	.000	.000
		df	43	0	43	43
	Years of Establishment	Correlation	-.759	.510	1.000	1.000
		Significance (2-tailed)	.000	.000	.	.
		df	43	43	0	0

Years of Establishment	Value of Information flow in Supply Chain	Correlation	1.000	.157	
		Significance (2-tailed)	.	.308	
		df	0	42	
	Impact of Information flow on Quality	Correlation	.157	1.000	
		Significance (2-tailed)	.308	.	
		df	42	0	
a. Cells contain zero-order (Pearson) correlations					

The table 5.14 above indicates that, there was a weak positive partial correlation between information flow (M = 3.56, SD = 0.503) and quality (Mean = 4.07, Standard Deviation = 0.252) while controlling years of establishment of a retailer, with $r(42) = 0.157$, $p = 0.308$. This entails that, when controlling years of operation, information flow and quality flows in the same direction as increase in information flow is associated with an increase in delivery frequencies. Thus, improvement in information flow is regarded as efficient with the most delivery frequencies involved.

Results of the zero order correlation yielded that, there was a moderate negative correlation between information flow and quality with $r(43) = -0.299$, $p = 0.056$. So, that entails,

without controlling the period of operation of the retailer, an increase in information flow is associated with a decrease in quality.

Therefore, this indicated that, controlling the period of establishment of a retailer had a great effect on the strength of the relationship between the two variables as the margin for their r values was large.

5.7.3 Correlation between financial flow and performance **Financial flow and Cost**

Table 5.15 below shows the correlation between financial flow and cost within the supply chain.

Table 5.15: Correlation between financial flow and cost

Correlations					
Control Variables		Impact of Financial flow on cost	Value of Financial flow in Supply Chain	Years of Establishment	
-none ^a	Impact of Financial flow on cost	Correlation	1.000	.673	-.757
		Significance (2-tailed)	.	.421	.000
		Df	0	43	43
	Value of Financial flow in Supply Chain	Correlation	.673	1.000	-.871
		Significance (2-tailed)	.421	.	.000
		Df	43	0	43
	Years of Establishment	Correlation	-.757	-.871	1.000
		Significance (2-tailed)	.000	.000	.
		Df	43	43	0
Years of Establishment	Impact of Financial flow on cost	Correlation	1.000	.053	
		Significance (2-tailed)	.	.782	
		Df	0	42	
	Value of Financial flow in Supply Chain	Correlation	.053	1.000	
		Significance (2-tailed)	.782	.	
		Df	42	0	
a. Cells contain zero-order (Pearson) correlations					

The table 5.15 above indicates that, there was a weak positive partial correlation between financial flow (Mean = 3.64, Standard Deviation = 0.484) and cost (Mean = 3.80, Standard Deviation = 0.405) while controlling years of establishment of a retailer, with $r(42) = 0.053$, $p = 0.782$. This entails that, when controlling years of operation, financial flow and cost flows in the same direction as increase in financial flow is associated with an increase in cost. Thus, improvement in financial flow is regarded as efficient with the most cost involved.

Results of the zero order correlation yielded that, there was a strong positive correlation between financial flow and cost

with $r(43) = 0.673$, $p = 0.421$. So, that entails, without controlling the period of operation of the retailer, an increase in financial flow is associated with an increase in cost.

Therefore, this indicated that, controlling the period of establishment of a retailer had a great effect on the strength of the relationship between the two variables as the margin for their r values was large.

Financial flow and Time

Table 5.16 below shows the correlation between financial flow and time within the supply chain.

Table 5.16: Correlation between financial flow and time

Correlations					
Control Variables			Value of Financial flow in Supply Chain	Impact of Financial flow on time	Years of Establishment
-none ^a	Value of Financial flow in Supply Chain	Correlation	1.000	-.168	-.871
		Significance (2-tailed)	.	.269	.000
		df	0	43	43
	Impact of Financial flow on time	Correlation	-.168	1.000	-.104
		Significance (2-tailed)	.269	.	.495
		df	43	0	43
	Years of Establishment	Correlation	-.871	-.104	1.000
		Significance (2-tailed)	.000	.495	.
		df	43	43	0
Years of Establishment	Value of Financial flow in Supply Chain	Correlation	1.000	-.530	
		Significance (2-tailed)	.	.071	
		df	0	42	
	Impact of Financial flow on time	Correlation	-.530	1.000	
		Significance (2-tailed)	.071	.	
		df	42	0	
a. Cells contain zero-order (Pearson) correlations.					

The table 5.16 above indicates that, there was a moderate negative partial correlation between financial flow (Mean = 3.64, Standard Deviation = 0.484) and time (Mean = 4.07, Standard Deviation = 0.539) while controlling years of establishment of a retailer, with $r(42) = -0.530$, $p = 0.071$. This entails that, when controlling years of operation, financial flow and cost do not flow in the same direction as increase in financial flow is associated with a decrease in time. Thus, improvement in financial flow is regarded as efficient with the least time involved.

Results of the zero order correlation yielded that, there was a weak negative correlation between financial flow and time

with $r(43) = -0.168$, $p = 0.269$. So, that entails, without controlling the period of operation of the retailer, an increase in financial flow is associated with a decrease in time.

Therefore, this indicated that, controlling the period of establishment of a retailer had a great effect on the strength of the relationship between the two variables as the margin for their r values was large.

Financial flow and Delivery

Table 5.17 below shows the correlation between financial flow and delivery within the supply chain.

Table 5.17: Correlation between financial flow and delivery

Correlations					
Control Variables			Value of Financial flow in Supply Chain	Impact of Financial flow on delivery	Years of Establishment
-none ^a	Value of Financial flow in Supply Chain	Correlation	1.000	-.578	-.871
		Significance (2-tailed)	.	.324	.000
		Df	0	43	43
	Impact of Financial flow on delivery	Correlation	-.578	1.000	.746
		Significance (2-tailed)	.324	.	.000
		Df	43	0	43
	Years of Establishment	Correlation	-.871	.746	1.000
		Significance (2-tailed)	.000	.000	.
		Df	43	43	0
Years of Establishment	Value of Financial flow in Supply Chain	Correlation	1.000	.219	
		Significance (2-tailed)	.	.153	
		df	0	42	
	Impact of Financial flow on delivery	Correlation	.219	1.000	
		Significance (2-tailed)	.153	.	
		df	42	0	
a. Cells contain zero-order (Pearson) correlations.					

The table 5.17 above indicates that, there was a weak positive partial correlation between financial flow (Mean = 3.64, Standard Deviation = 0.484) and delivery (Mean = 4.16, Standard Deviation = 0.367) while controlling years of establishment of a retailer, with $r(42) = 0.219$, $p = 0.153$. This entails that, when controlling years of operation, financial flow and delivery flows in the same direction as increase in financial flow is associated with an increase in

delivery. Thus, improvement in financial flow is regarded as efficient with the most delivery frequencies involved.

Results of the zero order correlation yielded that, there was a moderate negative correlation between financial flow and time with $r(43) = -0.578$, $p = 0.324$. So, that entails, without controlling the period of operation of the retailer, an increase

in financial flow is associated with a decrease in delivery frequencies.

Therefore, this indicated that, controlling the period of establishment of a retailer had a great effect on the strength of the relationship between the two variables as the margin for their r values was large.

Financial flow and Quality

Table 5.18 below shows the correlation between financial flow and quality within the supply chain.

Table 5.18: Correlation between financial flow and quality
Correlations

Control Variables			Value of Financial flow in Supply Chain	Impact of Financial flow on quality	Years of Establishment
-none ^a	Value of Financial flow in Supply Chain	Correlation	1.000	-.528	-.871
		Significance (2-tailed)	.	.073	.000
		Df	0	43	43
	Impact of Financial flow on quality	Correlation	-.528	1.000	.748
		Significance (2-tailed)	.073	.	.000
		Df	43	0	43
	Years of Establishment	Correlation	-.871	.748	1.000
		Significance (2-tailed)	.000	.000	.
		Df	43	43	0
Years of Establishment	Value of Financial flow in Supply Chain	Correlation	1.000	.376	
		Significance (2-tailed)	.	.072	
		Df	0	42	
	Impact of Financial flow on quality	Correlation	.376	1.000	
		Significance (2-tailed)	.072	.	
		Df	42	0	

a. Cells contain zero-order (Pearson) correlations.

The table 5.18 above indicates that, there was a weak positive partial correlation between financial flow (Mean = 3.64, Standard Deviation = 0.484) and quality (Mean = 4.13, Standard Deviation = 0.344) while controlling years of establishment of a retailer, with $r(42) = 0.376$, $p = 0.072$. This entails that, when controlling years of operation, financial flow and quality flows in the same direction as increase in financial flow is associated with an increase in quality. Thus, improvement in financial flow is regarded as efficient with the most quality involved.

Results of the zero order correlation yielded that, there was a moderate negative correlation between financial flow and quality with $r(43) = -0.528$, $p = 0.073$. So, that entails, without controlling the period of operation of the retailer, an increase in financial flow is associated with a decrease in quality.

Therefore, this indicated that, controlling the period of establishment of a retailer had a great effect on the strength of the relationship between the two variables as the margin for their r values was large.

5.8 Hypothesis testing

First hypothesis

A partial correlation was used to evaluate the null hypothesis that there is no relationship between material and services flow and operational performance of retailers in Makonde District.

Using SPSS, the significance values or p-values attained are shown in table 5.19 below.

Table 5.19: Significance values – first hypothesis

			Significance level
Cost	Zero Order correlation	Materials or services flow and cost	0.655
	Covariate	Materials or services flow and cost	0.626
Time	Zero Order correlation	Materials or services flow and time	0.534
	Covariate	Materials or services flow and time	0.138
Delivery	Zero Order correlation	Materials or services flow and delivery	0.244
	Covariate	Materials or services flow and delivery	0.187
Quality	Zero Order correlation	Materials or services flow and quality	0.516
	Covariate	Materials or services flow and quality	0.166

From the above table, since the significance value or the p values were greater than alpha 0.05 however implied that operational performance was not significantly influenced by material or services flow, at the five percent level of significance.

Second hypothesis

A partial correlation was used to evaluate the null hypothesis that there is no relationship between information flow and operational performance of retailers in Makonde District.

Using SPSS, the significance values or p-values attained are shown in table 5.20 below.

Table 5.20: Significance values – Second hypothesis

			Significance level
Cost	Zero Order correlation	Information flow and cost	0.489
	Covariate	Information flow and cost	0.167
Time	Zero Order correlation	Information flow and time	0.067
	Covariate	Information flow and time	0.113
Delivery	Zero Order correlation	Information flow and delivery	0.521
	Covariate	Information flow and delivery	0.097
Quality	Zero Order correlation	Information flow and quality	0.056
	Covariate	Information flow and quality	0.308

From the above table, since the significance value or the p values were greater than alpha (0.05) however, this implied that operational performance was not significantly influenced by information flow, at the five percent level of significance.

Third hypothesis

A partial correlation was used to evaluate the null hypothesis that there is no relationship between financial flow and operational performance of retailers in Makonde District. Using SPSS, the significance values or p-values attained are shown in table 5.21 below.

Table 5.21: Significance values – Third hypothesis

			Significance level
Cost	Zero Order correlation	Financial flow and cost	0.421
	Covariate	Financial flow and cost	0.782
Time	Zero Order correlation	Financial flow and time	0.269
	Covariate	Financial flow and time	0.071
Delivery	Zero Order correlation	Financial flow and delivery	0.324
	Covariate	Financial flow and delivery	0.153
Quality	Zero Order correlation	Financial flow and quality	0.073
	Covariate	Financial flow and quality	0.072

From the above table, since the significance value or the p values were greater than alpha value 0.05 however implied that operational performance was not significantly influenced by financial flow, at the five percent level of significance.

6. Conclusion and Recommendation

6.1 Introduction

This Chapter presents the conclusions, recommendations and areas for further research. The first Section advances conclusions drawn from the discussion. The second Section gives recommendations drawn from the conclusions. The third Section puts forward possible areas for further research.

6.2 Conclusions

Since operational performance was conceptualised as cost, time, delivery and quality while SCM as materials or services flow, financial flow and information flow, the conclusions arrived at for the objectives of the study were:

6.2.1 Relationship between material and services flow and operational performance of retailers

A 100% response rate indicated that there was a relationship between materials or services flow and operational performance from what was gathered from respondents. Using Spearman’s r values, the type of relationships and their strengths attained are as indicated in table 5.22 below:

Table 5.22: Type of relationship – Materials or services flow and operational performance

			Coefficient r	Type of Relationship
Cost	Zero Order correlation	Financial flow and cost	0.069	Positive
	Covariate	Financial flow and cost	-0.076	Negative
Time	Zero Order correlation	Financial flow and time	0.095	Positive
	Covariate	Financial flow and time	-0.227	Negative
Delivery	Zero Order correlation	Financial flow and delivery	-0.880	Negative
	Covariate	Financial flow and delivery	-0.871	Negative
Quality	Zero Order correlation	Financial flow and quality	-0.099	Negative
	Covariate	Financial flow and quality	-0.213	Negative

6.2.2 Relationship between information flow and operational performance of retailers

A 100% response rate indicated that there was a relationship between information flow and operational performance. Using Spearman’s r values, the type of relationships and their strengths attained are as indicated in table 5.23 below:

Table 5.23: Type of relationship – Information flow and operational performance

			Coefficient r	Type of Relationship
Cost	Zero Order correlation	Financial flow and cost	-0.106	Negative
	Covariate	Financial flow and cost	-0.212	Negative
Time	Zero Order correlation	Financial flow and time	-0.395	Negative
	Covariate	Financial flow and time	0.242	Positive
Delivery	Zero Order correlation	Financial flow and delivery	-0.713	Negative
	Covariate	Financial flow and delivery	-0.253	Negative
Quality	Zero Order correlation	Financial flow and quality	-0.299	Negative
	Covariate	Financial flow and quality	0.157	Positive

6.2.3 Relationship between payment flow and operational performance of retailers

A 100% response rate indicated that there was a relationship between financial flow and operational performance. Using Spearman's r values, the type of relationships and their strengths attained are as indicated in table 5.24 below:

Table 5.24: Type of relationship – Financial flow and operational performance

			Coefficient r	Type of Relationship
Cost	Zero Order correlation	Financial flow and cost	0.673	Positive
	Covariate	Financial flow and cost	0.053	Positive
Time	Zero Order correlation	Financial flow and time	-0.168	Negative
	Covariate	Financial flow and time	-0.530	Negative
Delivery	Zero Order correlation	Financial flow and delivery	-0.578	Negative
	Covariate	Financial flow and delivery	0.219	Positive
Quality	Zero Order correlation	Financial flow and quality	-0.528	Negative
	Covariate	Financial flow and quality	0.376	Positive

6.3 Recommendations

Basing on the study findings and the conclusions, the researcher derived the following recommendations:

- a) As there were 100% of the respondents who indicated that information flow had an influence on performance of retailers. On the other hand the value that was generated from the responses was, 55.6% of the respondents indicated the performance was good, 44.4% respondents indicated that the performance was fair. This shows that, more is supposed to done to improve the level of performance when it comes to information flow as the margin between two was small (11.2). That means, Retailers need to improve communications between supply chain members. This is enabled by employing the latest technology such the Advanced Planning and Scheduling systems (APS) and Manufacturing Execution System (MES). Mainly, this because information sharing is a prerequisite for any successful operation of the SCM that target to improve its performance (Mason-Jones & Towill, 1997).
- b) Companies should try to integrate more closely their processes in order to reduce red tape in managing their financial flows. This was mainly because 60% of the respondents indicated the performance was good, with remaining 40% indicating the performance as fair. This proved that the level of performance when it comes to financial flow was being well conducted although not effectively with the majority constituting 60% showing so all being caused by how the internal processes are structured.
- c) As 100% of the respondents indicated that they had an appreciation of the term SCM. This reviewed that the term was not something new, only its execution was a matter of concern in Makonde District in order to yield cost effective results. Therefore, retailers needs to be

educated as to how they should formulate, design and implement supply chains so they can improve their performance.

- d) Respondents indicated the aims of Supply Chain Management. So, retailers need to value the aims as indicated by the respondents which are Profit maximisation, Customer satisfaction and Adding value. Thus, retailers need to make use of their supply chains to provide a quality product timeously and at an optimum price as the avenue to achieve the stated objectives thereby improving there performance.

6.4 Recommended areas for further research

Apart from the limitations of this study which included:

- a) Covering all retail sectors rather than concentrating on type of a retailer.
- b) Being confined to Makonde District of all the districts in Mashonaland west

The results of this research revealed the kind of relationships between SCM and operational performance. Therefore, more research should be done on the followings areas:

- a) Impact of the SCM concept on performance of any type of business.
- b) Supply chain designs that yield the best results based on buyer – supplier relation

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APPENDIX A - QUESTIONNAIRE

A STUDY OF THE RELATIONSHIP BETWEEN SUPPLY CHAIN MANAGEMENT AND OPERATIONAL PERFORMANCE OF RETAILERS IN MAKONDE DISTRICT

In order to develop and improve the present Supply Chain Performance in the retail industry, the researcher was determined to look at the relationship between Supply Chain Management and Operational Performance of retailers in Makonde District. The purpose of this questionnaire is to collect information on Supply Chain Management and operational performance of retailers and to locate possible problems and suggest for further solution development. Please kindly fill the questionnaire that is fully confidential. Thank you for your contribution!

General Instructions and Information

- This research is being conducted by **Champion Crawford Mukayani**
- Please answer **all** questions. There is no right or wrong answer.
- When given **use an X** to indicate your response in the box
- If you have any questions, please contact the researcher:

Champion Crawford Mukayani
 Phone: (263) 772628943/737657563
 Email: mukk06@gmail.com/cmukayani@cut.ac.zw

ALL RESPONSES WILL BE KEPT CONFIDENTIAL. DATA WILL BE USED FOR STATISTICAL ANALYSIS ONLY

THEMES OF THE QUESTIONNAIRE

- Theme 1:** Company and Personal profile
Theme 2: Background information on Supply Chain Management
Theme 3: Relationship between material and services flow and operational performance
Theme 4: Relationship between information flow and operational performance of retailers
Theme 5: Relationship between payment flow and operational performance of retailers

Part 1: Theme 1

1. Name of Company:.....
2. Position in Company:.....
3. Gender
 Male :
 Female :
4. Years of service the company has been in the retail business?
 Less than 5 years 6 to 10 years to 15 years 16 y[]s +
5. How long have you worked for the company?
 Less than 5 years 6 to 10 years to 15 years 16 y[]s +
6. Indicate the type of retail industry:
 Food :
 Clothing :
 Hardware :
 Service :
 Fuel :
 Banking :
 Automotive :

Part 2: Theme 2

Supply Chain Management is the management of a network of relationships within a firm and between interdependent organizations and business units consisting of material suppliers, purchasing, production facilities, logistics, marketing, and related systems that facilitate the forward and reverse flow of materials, services, finances and information from the original producer to final customer with the benefits of adding value, maximizing profitability through efficiencies, and achieving customer satisfaction.

7. Do you have an understanding of the term Supply Chain Management?
 Yes :
 No :

If Yes answer question 9 and 10

8. What are the aims of Supply Chain Management (SCM) to your business operation? (Any number is acceptable)
- i.
 - ii.
 - iii.
 - iv.

Part 3: Theme 3

Material and service flow is the flow of goods or services in the supply chain either in forward or reverse logistics. It encompasses physical products, new materials, supplies, and so forth that flow along the chain, including returned products, recycled products, and materials or products for disposal

10. Is there any relationship between material or service flow and operational performance of your organisation?
 Yes :
 No :

If Yes answer question 11, 12 and 13

11. How do you value the impact of material or services flow on your company's performance based on the following variables:

	Very Low	Low	Moderate	High	Very High
Cost					
Time					
Delivery					
Quality					

12. How do you value your performance through materials or services flow in your supply chain?

	Very Poor	Poor	Fair	Good	Very Good
Value of materials or services flow in the supply chain					

13. What are the problems that are caused by poor material or service flow to performance in your supply chain? (Any number is acceptable)

- i.
- ii.
- iii.

Part 3: Theme 4

Information flow (sharing) is the continuous flow of communications between partners that occurs in a formal or informal way and contributes for a better planning and control within the chain to ensure that, the right product of the right quality, in right quantities is delivered to the end user.

14. Is there any relationship between information flow and operational performance of your organisation?
 Yes :
 No :

If Yes answer question 15, 16 and 17

15. How do you value the impact of information flow on your company's performance based on the following variables:

	Very Low	Low	Moderate	High	Very High
Cost					
Time					
Delivery					
Quality					

16. How do you value your performance through information flow in your supply chain?

	Very Poor	Poor	Fair	Good	Very Good
Value of information flow in the supply chain					

17. What are the problems that are caused by poor information flow to performance in your supply chain? (Any number is acceptable)
- i.
 - ii.
 - iii.
 - iv.

Part 3: Theme 4

Financial flows (Payment flow or funds flow or flow of money) include all transfers of money, payments, credit card information and authorization, payment schedules, and e-payments.

18. Is there any relationship between financial flows and operational performance of your organisation?

Yes :
 No :

If Yes answer question 19, 20 and 21

19. How do you value the impact of financial flows on your company's performance based on the following variables:

	Very Low	Low	Moderate	High	Very High
Cost					
Time					
Delivery					
Quality					

20. How do you value your performance through financial flows in your supply chain?

	Very Poor	Poor	Fair	Good	Very Good
Value of financial flows in the supply chain					

21. What are the problems that are caused by poor financial flows to performance in your supply chain? (Any number is acceptable)

- i.
- ii.
- iii.
- iv.

END OF QUESTIONNAIRE

Appendix B – Makonde Urban Retailers

CHINHOYI URBAN RETAILERS	
TRADING NAME	RETAIL BUSSINES ADDRESS
COUNTY BIKES	STD 5343 CBD
3BS	STD 3916 CHENGAOSE
ACTION HORSE GROCERIES	STD 4437 COLDSTREAM
ADAM TRADING	STD No 51 MAGAMBA WAY
ADVENTIST BK CENTRE	STD NO 253 COMMERCIAL STREET
AFRICA STUDIOS	6 MAGAMBA WAY
AGRIBANK	STD NO 145 COMMERCIAL STREET
AK INSURANCE	STD NO 63 MAGAMBA WAY
ALLIED BANK	STD NO 253 COMMERCIAL STREET
ALLNITE INVESTMENTS	STD No 66 MAGAMBA WAY
ALTFIN BANK	STD NO 253 COMMERCIAL STREET
AMC CHINHOYI	STD No 49 MAGAMBA WAY
ANLAND INVEST AND T/A KWIKSUID HARD	STD 6134 HUNYANI INDUSTRY
ARK ENTERPRISES/CHINESE RESTAURANT	STD No 11445 MAGAMBA WAY
ASAHA INVESTMENTS	STD No 5 MAGAMBA WAY
ASHTONS	STD 8 CHINHOYI T/SHIP
ASHTONS HARDWARE	STD No 786 SHOP 3 MIDWAY ST
AUXDAN INVESTMENTS	STD No 12 SHOP 7 CHINHOYI T/SHIP
AYIRE INVESTMENT	SHOP No 14 B PFUNGWA DZAKANAKA CHIKONOHONO
B.M INVESTMENTS	STD No 7 MAGAMBA WAY
BABIES PARADISE	STD No 7 SHOP 3 MAGAMBA WAY
BABY SHOP	STD 43 MAGAMBA WAY
BABY SHOP	5 MIDWAY STREET
BAIN NEW HOLLAND	STD No 567 MAGAMBA WAY
BAKER S BEST	STD 84 MANCHESTER RD
BANC ABC	STD 470 MAGAMBA WAY

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BANGIRA STORES	STD 19 CHINOYI T/SHIP
BARBER	STD No 134 MIDWAY ST
BC MARKETING	6 ROBSON MANYIKA AVENUE
BEER GALLERY BAR	STD
BETHEL PHARMACY	STD 31 MAGAMBA WAY
BLASS WORKS	STD No 66 MAGAMBA WAY
BRIDGEXIEW GAS CAMP	STD 38 MAGAMBA WAY
BROWN STUDIO & SALON	STD No 2859 CHIKONOHONO
BRUNDISH BUTCHERY	STAND 16344 SHOP No 2 BRUNDISH
BUDGET TUCK SHOP	STAND 12944 BRUNDISH
BUSS HAIR SALON	STD 173 MIDWAY ST
BUTCHERY SALES	STD 25 MAGAMBA WAY
BUTTLE RESS AND SANDERS	259 COMMERCIAL ST
C & T INVESTMENTS	STD NO 5332
C&C GENERAL DEALERS	STAND 3 SHOP No 3 RANK TUCKSHOP
CABLE EXPRESS	STD No 66 MAGAMBA WAY
CABS BANK	STD No 11 SHOP 1 MAGAMBA WAY
CAKE WORLD	STD No 7 SHOP 9 MAGAMBA WAY
CATALONIA TRADING	STD No 141 MIDWAY ST
CATANOLIA TRADING	STD 141 MIDWAY ST
CHANDURU AND FAMILY SHOP	STD 11256 CHIKONOHONO
CHAUKE MINI HARDWARE	137 MIDWAY STREET
CHENGAOSE BAR	STD
CHENGAOSE BUTCHERY	CHIKONOHONO CHERIMA
CHERIMA MINI HARDWARE	STAND 3914 SHOP No 6 CHERIMA CHIKONOHONO
CHIDEME & SONS TUCK SHOP	STAND 12947 BRUNDISH
CHIGWIDA TUCKSHOP	STD No 11263 CHERIMA
CHIGWIDA TUCKSHOP	STD No 11259 CHERIMA
CHIKODZA BAR	BRUNDISH
CHIMENYA TUCKSHOP	PFUNGWA DZAKANAKA T-SHIP
CHIN & ROSS ENTERPRISE	STD 3 ROBSON MANYIKA
CHINHOYI HARDWARE	STD No 6 MAGAMBA WAY
CHINHOYI MEDICAL CENTRE	STD 9 CHINHOYI HOTEL
CHINHOYI RURAL TRAINING CENTRE	STD 9 R. MUGABE RD
CHIPANGO GROCERIES	STD 25 COLD STREAM
CHIPUTI BUTCHERY	STAND 2858 CHIKONOHONO
CHIRENDA DRIVING SCHOOL	CHINHOYI HOTEL COMPLEX
CHIRON -AGRICHEM T/A AGRIC	STD 14 PARK ST
CHIZVARWA STORE	STAND 10331 COLD STREAM T-SHIP
CHRISTOS BOTTLE STORE	STD No 15184 MILLENIUM INDUSTRIAL PARK
CHRISTOS SPORTS BAR	STD No 15184 MILLENIUM INDUSTRIAL PARK
CHUNIZEE Pvt Ltd	STD No 48 MAGAMBA WAY
CLARLON INSUARANCE	STD 5343 MIDWAY ST
CLASSIC SHOP	STAND A 2 CHENGAOSE CHIKONOHONO
CODZA S GYM	STD 171PARK ST
COLD APPLE	STD No 786 SHOP 5 MIDWAY ST
COLOURSELL FURNITURES	STD 34 MAGAMBA WAY
COMPU-NERD PVT LTD	STD 1467 MAGAMBA WAY
COMPUTERS AND PRINTERS	STD No 66 MAGAMBA WAY
COSTAM TRADING	
COUNRTY BIKES	STD 5343 MIDWAY STREET
CREATIONS FASHIONS	STD No 3 SHOP 2 R. MANYIKA
CREATIVE CREDIT	STD 253 WEST ST
CUT ABOVE HAIR SALON	STD 171 PARK ST
D & R MOTORS	STD No 663 MAGAMBA WAY
D&T TUCKSHOP	STD No 11265 CHERIMA,CHIKONOHONO
DAY DAY DAY ELECTRICIANS	STD NO 5312
DAYLIGHT DRIVING SCHOL	5350 MAGAMBA WAY SHOP 7
DECROM HARDWARE	SHOP No 17 PFUNGWA DZAKANAKA TUCK SHOPS
DEF KENTOS	STD NO 5331
DELTA BEVERAGES	STD No 658 J. TONGOGARA INDUSTRIAL SITE
DENMARG ENTERPRISES	STD124 MIDWAY ST
DENMARY	
DIFF COUNT HARDWARE	STD 256 COMMERCIAL ST

DIVINE MEATS BUTCHERY	CHIKONOHONO T-SHIP
DREAM GLORY INVESTMENTS	139 MIDWAY STREET
DZVOKORA GRINDING MILL	STD 6136 HUNYANI
E & C SALOON	STD 5350 MIDWAY STREET
E.T.G PARROGATE	STD 500 HULL RD SHOP 1
EBRON HAIR SALON & BARBER	SHOP No 14 A PFUNGWA DZAKANAKA CHIKONOHONO
ECONET GREEN WOSK	MZIMBA SHOPPING CENTRE
EDGARS STORE	STD 132 MAGAMBA WAY
ELECTRO PUMP HARDWARE	STAND 38 D.GEES COMPLEX
ELECTRO -SALES HARDWARE	STD 30 MAGAMBA WAY
ELECTROPLUMB	STD 6130 LIGHT INDUSTRY
ELEGANT CAKES	34
ENBEE	STD No 67 MAGAMBA WAY
ENBEE CN No 1 STORES	STD No 66 MAGAMBA WAY
ENGEN CHINHOYI	STD No 663 MAGAMBA WAY
ENGEN CHINHOYI	STD No 663 MAGAMBA WAY
ESSENTIAL FASHIONS	STD No 786 SHOP 2 MIDWAY ST
ESSENTIAL FURNITURE	STD 46 MIDWAY ST
ESSENTIAL FURNITURE	STD 46, SHOP 20 MIDWAY STREET
F TRADE LINK	STAND 11353 MPATA SECTION
F TRADE LINK TUCK SHOP	STAND 11354 MPATA SECTION
FARMERS WARCHIONS	STD No 51A MANCHESTER Rd INDUSTRIAL SITE
FARMONE ENTERPRISES	STD 123A MIDWAY ST
FAST FOOD TAKE AWAY	STD 19 CHINHOYI T/SHIP
FAST GROCERIES	STD 14051 BRUNDISH
FAST POOL INVESTMENTS	STD 2869 CHIKONOHONO
FAVOR MOTOR SPARES	STAND 20 SHOP No3 CHINHOYI T-SHIP
FIFS FASHIONS	STD 5351 MIDWAY STREET
FINCH ELECTRONICS	STD No 4435 MAGAKA COMPLEX COLDSTREAM
FIRST BANK	STD No 5305 MAGAMBA WAY
FISH CENTRE	STAND 2869 SHOP No 4 CHIKONOHONO
FOUNTAIN PRODUCTS	STD 19 CHINOYI T/SHIP
FOUNTAIN PRODUCTS	139 MIDWAY STREET
FRANCE TRADING	STD 5332 MIDWAY ST EXT
FREE STYLE BOTIQUE	STD No 135 MIDWAY ST
FRILL INVESTMENTS	STAND No 34 MAGAMBA WAY CHINHOYI
FROST INVEDERS	STD 134 MAGAMBA WAY
FUSION CAFE	STD No 663 MAGAMBA WAY
G AND C ENTERPRISES	STD 6135 HUNYANI LIGHT
G&S HARDWARE	STAND 38 D.GEES COMPLEX
G.M MINI HARDWARE	STD15994 CHINHOYI T/SHIP
GAME SHOP	STAND 38 SHOP No4 CHINHOYI T-SHIP
GENESIS EXPRESS STORE	STAND 9566 RUVIMBO PHASE 2
GENESIS TRADING	STAND 5185 MILLENIUM PARK, CHINHOYI
GEORGE BULB CENTRE	PFUNGWA DZAKANAKA T-SHIP
GEORGE BULB GROCERY	SHOP No19 PFUNGWA DZAKANAKA CHIKONOHONO T-SHIP
GOGO S BOUTIQUE	STD 5331 MIDWAY ST
GOLDEN CRUST AND LICH	STD 2 SHORT ST
GOOD HOPE INVESTMENTS	STAND 11278 HUNYANI SECTION
GOOD HOPE STORE	STAND 11538 BRUNDISH
GOODHOPE TAILORING	STD 467 MAGAMBA WAY
GOROMONZI INVESTMENT	STAND 2863 CHIKONOHONO
GRACE BRIDAL SHOP	STD No 7 SHOP 6 MAGAMBA WAY
GRATILEY INVESTMENTS	STD 30 SHOP 1 MAGAMBA WAY
GREATER TEE PRE-SCHOOL	
GREEN DOOR	STD No 8 MAGAMBA WAY
GREEN GROCERY	STD
GREEN VALLEY BUTCHERY	STD 11095 SHOP 4 BRUNDISH
GREEN VALLEY BUTCHERY	STAND 11048 SHOP No 4 BRUNDISH
GREENS MINI MARKET	STAND 4445 COLD STREAM T-SHIP
GREENS SUPERMARKET	STD NO 4501
GRINDING MILL	STAND 14061 BRUNDISH
GRINDING MILL	STAND 11287 MPATA SECTION
GROCERY SHOP	BRUNDISH

GUARDIAN SECURITY	
HAIR ATTITUDE HAIR SALOON	34 SHOP 3B
HAIR SALON	STAND 20 SHOP No 4 CHINHOYI T-SHIP
HAIR VILLE SALON	STD No 134 MIDWAY ST
HAIRTECH BARBER	
HARDWARE	STAND 5 MAGAMBA WAY CHINHOYI
HARDWARE MAN	STD 5331 MIDWAY ST
HAVILAH STREAM FINANCE	STD NO 260 COMMERCIAL STREET
HEAVENLY BRIDAL	STD No 7 SHOP 9 MAGAMBA WAY
HEPFIZI BAR HARDWARE	STD 14045 SHOP A4 BRUNDISH
HERBAL TUCKSHOP	STAND 38 SHOP No 8 CHINHOYI T-SHIP
HEXANTO SUSPENSIOWS	STD 171B PARK ST
HICHCROFT	STD 2 SHORT ST
HIDDEN BOTTLE STORE	
HIDEOUT BAR	CHENGAOSE T-SHIP CHIKONOHONO
HOME CENTRE	STD No 7 SHOP 12 MAGAMBA WAY
HOVE & FAMILY STORE 1	STAND 11275 HUNYANI SECTION
HOVE & FAMILY STORE 2	STAND 11281 HUNYANI SECTION
HUNYANI BUTCHERY AND EATING HOUSE	STAND 11234 HILLSIDE CHINHOYI
HURUNGWE FUNERAL SERVICES	STD 127 MIDWAY ST
HURUNGWE FUNERAL SERVICES	
HUSKY BUTCHERY	STAND 14045 SHOP No 9 BRUNDISH
I. MUSSA	STD 468 MAGAMBA WAY
INSTANT STUDIO	STD 66 MAGAMBA WAY
INSTANT STUDIO	STD 3 ROBSON MANYIKA
J TAKAWIRA	ROOM 12 J TAKAWIRA 1ST FLOOR
J.C STORE	STD 8 CHINHOYI T/SHP
JAHKINGDOM INVESTMENT	STD 3801 LIGHT INDUSTRY
JANE TAILORING	STD No 171 PARK ST
JET STORES	STD No 4 R. MANYIKA Ave
JET VICE	STD No 66 MIDWAY ST
JET VICE INVESTMENTS	STD No 66 MAGAMBA WAY
JLOR INVESTMENT	STAND 14061 BRUNDISH
JOESAM TUCKSHOP	STD 4335 COLDSTREAM
JUAN'S BEAUTY PARLOUR	STD 5312 NORTHEN DRIVE
JUBILEE & MOTHERS TUCKSHOP	STD No 11264 CHERIMA
JUNIOUR MARKETING PRINTERS	STD 31 MAGAMBA WAY
KASHE BAR	SHOP No 3 CHIKONOHONO
KASWAVAM ENTERPRISES	STD 7502 COLDSTREAM
KEY CUTTING	STD 129 SHOP 2 MIDWAY STREET
KINGSTONS	STD 8 MAGAMBA WAY
KINGSTONS LIMITED	STD No 8 MAGAMBA WAY
KREAMON INVESTMENTS	STD NO 253 COMMERCIAL STREET
KUGUTA KUSHANDA MINI HARDWARE	STAND 14058 BRUNDISH
KWIK BUILD	STD 32 MAGAMBA WAY
KWIK BUILD HARDWARE	STAND 2868 CHIKONOHONO T-SHIP
LADY PEE HAIR SALON	STD 19 CHINOYI T/SHP
LEATHER MARKET	STAND 34 SHOP No 3A MAGAMBA WAY CHINHOYI
LEATHER MARKET	34 SHOP 3A
LENFAS	STD 5351 MIDWAY STREET
LINK STREET AGRO CHEMIST	STD 265
LIONS PRIDE BUTCHERY	STAND 1158 CHIKONOHONO
LIQOUR WHOLESALE	STD No 658 J. TONGOGARA INDUSTRIAL SITE
LITTLE KINGS PRE-SCH	STD 8198 RUVIMBO
LLILIAN MUWARURWA HAIR SALON	STD 5225 CHIKONOHONO
LLOYD INVESTMENT	STAND 11287 MPATA SECTION
LOMAGUNDI PHARMACY	STD No 11 SHOP 2 MAGAMBA WAY
LOMAGUNDI PHARMACY	STD No SHOP 2 MAGAMBA WAY
LOWCRAFT ENTERPRISES	STD No 63 MAGAMBA WAY
M&K TRADING	SHOP No 15 PFUNGWA DZAKANAKA CHIKONOHONO T-SHIP
M.C.P MILLERS	STD 6133 RUSUNUNGUKO
M.J ENTERPRISES	STD 4444 COLDSTREAM
MAD INVESTMENTS	STD NO 5331
MAGE PRINTERS	STD No 50 MAGAMBA WAY

MAHACHI FIRST CHOICE FASHION	STD 32 MAGAMBAWAY
MAI MATONHODZE TUCK SHOP	PFUNGWA DZAKANAKA T-SHIP
MAKONDE MOTORS	STD 3475 HULL RD INDUSTRY
MANNA BUTCHERY	STAND 4444 COLD STREAM T-SHIP
MANYEWE TRADING	STAND 19 SHOP No7 CHINHOYI T-SHIP
MAPONGA SISTERS TUCKSHOP	STD No 4262 CHIKONOHONO
MAPUTO TRADING	STD No 786 SHOP 6 MIDWAY ST
MAREDZA ELECTRICAL	STD No 30 CBD
MAX TRADING	STAND 7 CHENGAOSE CHIKONOHONO
MAX TRADING	STAND 4 CHIKONOHONO
MAX TRADING	STD 4 CHIKONOHONO T/SHIP
MAZUVA GRINDING MILL	BRUNDISH
MEAT CENTRE	STD 4436 COLDSTREAM
MEG PRINTERS	6 MAGAMBA WAY
METBANK	STD No 5309 MAGAMBA WAY
METRO STORE	STD 19
METROPOLITAN	STD NO 146 COMMERCIAL STREET
MGANSI HAIR SALON	STD 786 MIDWAY ST
MIDAS CHINHOYI	STD NO 50 MAGAMBA WAY CHINHOYI
MIMI PRODUCTS	STD 122 MIDWAY ST
MIMMIES RESTAURANT	STD 5351 MIDWAY EXT
MINI SMART BUSINESS	STD 2 SHORT ST
MJ BOTIQUE	STD 34 MAGAMBA WAY
MK INVESTMENT	STAND 2862 CHIKONOHONO
MMD TUCKSHOP	STD 11269 BRUNDISH
MOBILE CENTRE	STAND 19 SHOP No 10 CHINHOYI T-SHIP
MOPIES INVEST AND GLOBAL STATIONERY	STD146 COMMERCIAL ST
MORMINO Pvt Ltd	STD No 283 MAGAMBA WAY
MOZTECH INVESTMENT	SHOP No 16 PFUNGWA DZAKANAKA T-SHIP
MR & MRS MLAMBO AND SONS	STAND 14049 BRUNDISH
MR AND MRS MLAMBO GROCERY SHOP	STD 14049 BRUNDISH
MR T BARBER SHOP AND SALLON	SHOP No 13 PFUNGWADZAKANAKA
MUFANEDZIYA TAILORING	STD 2 ROBSON MANYIKA
MUJOMA ENTERPRISE	STD 467
MUJOMA ENTERPRISES	STD No 66 MAGAMBA WAY
MUNETSI FURNITURES	STD 5332 ZIMBITI BUILDING
MUPAMOMBE GRINDING MILL	STD 15185 LIGHT INDUSTRY
MURISI INVESTMENTS	STD 3 CHINHOYI T/SHIP
MURISI INVESTMENTS	STD 3 CHINHOYI T/SHIP
MUSHAKARARA STORE	STAND 2859 CHIKONOHONO T-SHIP
MUSSA	STD 468
MUSSA	STD 468
MUSSA	STD 468
MUSSA	STD 468
MUTANECHIYA TAILORING	STD 2 ROBSON MANYIKA
MUTSVANGIWA TAKEAWAY	STD No 171 PARK ST
MUTUKURA	STD NO 1450 COMMERCIAL STREET
MWANJALI INVESTMENTS	STD No 10 MAGAMBA WAY
MY SHOP	STD No 63 MIDWAY ST
MYTECH BARBER	STD 134 No 1 MIDWAY ST
MZANSI BOTIQUE AND HAIR SALON	STD No SHOP 8 MIDWAY ST
N/S BEARING SUPPLIERS P/L	STD 5386 MAGAMBA WAY
NASH'S FASHIONS	STD No 133 MIDWAY ST
NATIONAL FOODS	STD No 95 J.TONGOGARA IDUSTRIAL SITE
NATIONAL PRINTERS	STD 31 MAGAMBA WAY
NESOC OASIS	STD NO 146
NGONI	STD No 42 ROBSON MANYIKA Ave
NICOZ DIAMOND	STD 5305 SHOP No 2 MAGAMBA WAY
NIGHT CLUB	STAND 16344 BRUNDISH
No 1 STORES	STD 66/67
NO LEAKS MOTORS	STD 10895 CHINHOYI T/SHIP
NORTHGATE CAR WASH	STD 5340 MIDWAY ST
NYAMA	STD 38 CHINHOYI T/SHIP
NYANDS SHOE REPAIRS	257 COMMERCIAL ST

NYAZAMBA GROCERY AND BUTCHERY	STAND 14045 BRUNDISH	
NYEVEDZANAI GROCERY SHOP	STAND 3916 SHOP No 1 CHERIMA CHIKONOHONO	
OCCASSIONS RESTUARENT	STD 253 COMMERCIAL ST	
OCEAN PEACH BOUTIQUE		43
OK SUPERMARKET	STD No 837 COMMERCIAL ST	
ONLINE FASHIONS	STD No 8 MAGAMBA WAY	
OPTICAL SURGERY	STD NO 259	
P.C BUTCHERY	STD 4449 COLDSTREAM	
PACE WAY GROCERY	BRUNDISH	
PACHEDU BUTCHERY	STD 3492 INDUSTRIAL SITE	
PACKZONE INVESTMENTS	STD No CHINHOYI HOTEL R. MANYIKA	
PAINTS SHOP	STAND No 34 MAGAMBA WAY CHINHOYI	
PALM BEACH	131 MIDWAY STREET	
PANASHE INVESTMENTS	STD NO 5331	
PANASHE MGT SERVICES	STD 66 MAGAMBA WAY SHOP5	
PARK LANE MEGA SHOP	STAND 14045 SHOP A 8 BRUNDISH	
PASTOLOGY SUPER MARKET	STD 3665 H.CHITEPO MZARI	
PATHEZE BARBER	STD5440 MIDWAY STREET	
PATMAC SALOON	STD NO 5 ROBSON MANYIKA	
PELHAMS LTD	STD 201 MAGAMBA WAY	
PELHAMS SHOP	STD No 201 MAGAMBA WAY	
PFUNGWA DZAKANAKA BAR	STAND 2858 CHIKONOHONO	
PHOTOCOPYING AND TYPING	STD 5351 MIDWAY STREET	
PICK POINT TAKEAWAY	STD 50MAGAMBA WAY	
PISDOM TAILORING	STD 5350 MIDWAY SHOP 2	
PISDOM TAILORING	STD 5350 MIDWAY SHOP 2	
POWER PRODUCTS	STD 5350 MAGAMBA WAY	
POWER SALES CHINHOYI	STD No 11 SHOP 3 MAGAMBA WAY	
POWER SALES MIDWAY	STD 123 MIDWAY ST	
PRECIOUS JEWELS CRECHE	STD 5765 GOLF COURSE	
PREMIER CLINIC LABORATORY	STD 9 MAGAMBA WAY	
PROFEEDS CHINHOYI	STD 256 COMMERCIAL ST	
PROGRESSIVE INSURANCE BROKERS	STD 3386 MAGAMBA WAY	
PURE GOLD HOUSING TRUST	STD 5351 MIDWAY EXT	
QEENS FASHIONS	STD 25 MAGAMBA WAY	
QUANTIFIED INVESTMENTS		43
RACHAELS HAIR SALOON	STD 3 ROBSON MANYIKA	
RAINBOW STYLE	STD NO 5331	
RAM PETROLEUM	61 MAGAMBA WAY	
RAMS PEST CONTROL	STD 5348 MIDWAY STREET	
RANGAMAFAUNE INVESTMENT	STD 38 DEE GEES COMPLEX	
REVCROWN INVESTMENTS	STD No 7 MAGAMBA WAY	
REVIVAL GROCERY	STAND 2869 ,CHIKONOHONO	
RISDOM TAILORING SHOP	STD 5350 SHOP 2 MIDWAY ST	
RIZE STORE	STAND No 6 CHERIMA	
ROYAL MEATS	STD 5335 MIDWAY STREET	
RUJEKO TUCKSHOP	STD 11286 MPATA	
SAKS GROCERY SHOP	STAND 2869 SHOP No 3 CHIKONOHONO	
SALVEST INVESTMENTS	STD 786 MIDWAY ST	
SALVEST INVESTMENTS	STD No 786 SHOP 7 MIDWAY ST	
SAMBILI MILLERS	CHENGAOSE T-SHIP CHIKONOHONO	
SAMMY AND STEVE FASHIONS	STD 7502 COLDSTREAM	
SANYANGARE BOTIQUE	STD No 786 SHOP 7 MIDWAY ST	
SAXETOM ENTERPRISES PVT LTD	STD 34 MAGAMBA WAY	
SAXUTUM ENTERPRISES	42 ROBSON MANYIKA WAY	
SEDFARM FARMERS	STD 61 MAGAMBA WAY	
SELTAZ INVESTMENTS		39
SHAMZ BOUTIQUE	STD NO 256 COMMERCIAL STREET	
SHANIWE INVESTMENTS	STD 786 MIDWAY ST	
SHAVA MINI SHOP	STAND 11279 HUNYANI SECTION	
SHOE REPAIRS	STD No 66 MAGAMBA WAY	
SHRODENS INVESTMENTS	STD 3968	
SHRODENS INVESTMENTS	STAND 3968 COLD STREAM T-SHIP	
SHYNEVEE	STD 3445 MIDWAY STREET	

SHYNEVEE INVESTMENTS	MACHAVA T/SHOPS C/STREAM
SIBANDA INVESTMENT	STAND 11274 HUNYANI SECTION
SINYORO TUCK SHOP	PFUNGWA T/SHOP No 18
SIYAPAMBILI CAFÉ AND ELECTRICALS	STD No 66 MAGAMBA WAY
SIZZLERS TAKEAWAY	STD 3491 HULL ROAD
SOUND SHOPS	STD No 43A MAGAMBA WAY
SPACERING	STD No 9 SHOP 11 MAGAMBA WAY
STARCOM TECHNOLOGY	STD 17 CHINHOYI T/SHIPSHOP 5
STD 130 MIDWAY STREET	
STEEL PROFILE TRADE PVT	STD 3501 R. MUGABE WAY
STOCKDAY DISTRIBUTORS	
STONES HIDEOUT BOTTLE STORE	CHENGAOSE T-SHIP CHIKONOHONO
SUDDEN S INVESTMENT	STD 8 MAGAMBA WAY
SUDDENS INVESTMENTS	STD 467
SUGARIS	STD 467 SHOP
SUPER BARGAINS	STD No 63 SHOP 3 MIDWAY ST
SUPERFOODS	STD No 133 MIDWAY ST
SUPERSNACKS RESTAURANT	STD No 9 SHOP 5 MAGAMBA WAY
SWIFT UNIFREIGHT	STD 96 JOSIAH TONGOGARA
T & J GENERAL DEALERS GROCERY SHOP	
T.V SALES AND HOME	STD 28 MAGAMBA WAY
TADYA GENERAL DEALER	STAND 11095 SHOP No 1&2 BRUNDISH
TAFZ	STD 278 PARK ST
TAILORING SHOP	STD NO 5331
TANONIC DRIVING SCH	STD 5331 MIDWAY EXT
TAPIWA GROCERY	BRUNDISH
TARGET MARKET	STD 128 MIDWAY STREET
TAROTH INVESTMENTS	STD No 133 MIDWAY ST
TAUTES ENTERPRISES	INDUSTRIAL SITE
TAZORODZWA STORE	STD 8 CHINHOYI T/SHIP
TEES SHOP	STD No 15184 MILLENIUM INDUSTRIAL PARK
TERNORTH MILLERS	STD A3 CHIKONOHONO
TESHIO TRADING	STD 470 MAGAMBA WAY
THANKS TUCKSHOP	STD 11137 COLDSTREAM
THE MARKET	STD 32 MAGAMBA WAY
THE PIPE FIG DELI	STD 32 MAGAMBA WAY
THIS RIVER BUTCHERY	STD 15185 MILLINUM INDUSTRY
THREE B'S	STAND 3916 CHENGAOSE CHIKONOHONO
TICHAEDZA BUTCHERY	STAND 2863 CHIKONOHONO
TINDOS BARBER SHOP	138 MIDWAY STREET
TINOVIMBANASHE SALON	SHOP No 20 PFUNGWA DZAKANAKA T-SHIP
TK SOLUTION	STD No 134 MIDWAY ST
TM SUPERMARKET	STD No 12 MAGAMBA WAY
TM SUPERMARKET	STD No 5381 MAGAMBA WAY
TOPICS STORES	STD 469 MAGAMBA WAY
TRAC SPARES	STD 3475 HULL RD INDUSTRY
TRACMA INVESTMENT	STAND 11356 MPATA SECTION
TREK PETROLEUM	STD No 5378 MAGAMBA WAY
TRISH HAIR SALON	
TRISH HAIR SALOON	STD 33 MAGAMBA WAY
TUCK SHOP	STAND 9566 RUVIMBO PHASE 2
TWATASHA BOUTIQUE	STD NO 151 CORMECIAL STREET
TWICEGOOD INVESTMENT	STD 3492 INDUSTRIAL SITE
UMZARI HARDWARE	STD No 171 PARK ST
V & V CLOTHING	STD NO 5331
VALTMART INVESTMENTS	STD 128 MIDWAY STREET
VEV EXCLUSIVE	STD 46, SHOP NUMBER 2 MIDWAY STREET
WALNY ENTERPRISES	STD 123A MIDWAY ST
WASHERAN ENTREPRENURSHIP	STD 128 MIDWAY
WENHATU BUTCHERY	STD 10333 COLDSTREAM
WESTVIEW BUTCHERY	STD 11255 CHIKONOHONO
WHIRLWIND INVESTMENTS	
WHITE CITY STORE	STD 2 SHOP 2
WISECELL ACCESSORIES	STD 468 MAGAMBA WAY

WW ELECTRICALS	STD No 66 MIDWAY ST
WW FASHIONS	STD No 66 MIDWAY ST
YEBO YES BOTIQUE	STD No 786 MIDWAY ST
ZATA ZATEX SHO AND BUTCHERY	STD 3693 COLDSTREAM
ZUVA BUTCHERY	STAND 15353 CHIKONOHONO
ZVAKANAKA STORE	STAND 2864 CHIKONOHONO
	SHOP No 11 PFUNGWADZAKANA CHIKONOHONO
	STAND 14061 SHOP No 1A BRUNDISH
	STAND 25411 CHIKONOHONO T-SHIP
	STAND 61 SHOP No 1 HUNYANI SECTION
	STAND 2869 CHIKONOHONO
TIGERE INVESTMENTS	6 DILMITIS ROBERT MANYIKA STREET
	STD NO 276
	STD NO 256 COMMERCIAL STREET
	STD NO 256 COMMERCIAL STREET
	STD NO 30, SHOP 1 MAGAMBA WAY
	STD 2 ROBSON MANYIKA
	STD 3, SHOP 4 ROBSON MANYIKA
	STD 5 ROBSON MANYIKA
	5350 MAGAMBA WAY
	STD 5340 MIDWAY STREET

APPENDIX C – MAKONDE RURAL RETAILERS

Bussiness Centres in Makonde Ruaral

Province	DistrictName	Constituency	Ward	Centre Name	Status	Electrification	Retail Outlets
Mash West	Makonde	Mhangura	13	Chipfundi	BC	Yes	3
Mash West	Makonde	Makonde	18	Chemundi	BC		
Mash West	Makonde	Mhangura	2	Doma	BC	yes	4
Mash West	Makonde	Mhangura	6	Glen A Mel	BC	Yes	6
Mash West	Makonde	Makonde	16	Godzi	BC		5
Mash West	Makonde	Mhangura	3	Gudubu	BC	yes	4
Mash West	Makonde	Mhangura	6	Gyps Lander	BC	yes	
Mash West	Makonde	Makonde	15	Hombwe	BC		8
Mash West	Makonde	Makonde	18	Kamhonde	BC		
Mash West	Makonde	Makonde	8	Kanyaga	BC	Yes	20
Mash West	Makonde	Mhangura	1	Kosana	BC	Yes	3
Mash West	Makonde	Makonde	17	Kasonde	BC		
Mash West	Makonde	Makonde	18	Kenzamba	BC	yes	10
Mash West	Makonde	Makonde	9	Magogi	BC	Yes	4
Mash West	Makonde	Makonde	12	Mainga I	BC		
Mash West	Makonde	Mhangura	11	Matoranjera	BC	yes	1
Mash West	Makonde	Makonde	12	Mburungwe	BC		2
Mash West	Makonde	Mhangura	11	Mhangura	BC	yes	56
Mash West	Makonde	Makonde	14	Mukowe Valley	BC		
Mash West	Makonde	Mhangura	7	Murereka	BC	yes	4
Mash West	Makonde	Mhangura	4	Nhakasiwa	BC	yes	
Mash West	Makonde	Makonde	10	Nyamasanga	BC	yes	
Mash West	Makonde	Makonde	18	Obva	BC		
Mash West	Makonde	Mhangura	3	River Ranch	BC		
Mash West	Makonde	Makonde	17	Runene	BC	No	5
Mash West	Makonde	Makonde	15	St Ruperts	BC	yes	
Mash West	Makonde	Mhangura	5	Temperly	BC	yes	3
Mash West	Makonde	Mhangura	4	Umboe	BC	Yes	4
Mash West	Makonde	Makonde	14	Zumbara	BC	yes	7
							149