

Supply Chain Management Processes and Performance of Broadband Systems Corporation Ltd, Rwanda

*Nshimiyimana Ndizera Moses, Dr. Eugenia Nkechi Irechukwu (PhD) School of Business and Economics, Mount Kigali University, Rwanda *Corresponding Author

DOI: https://dx.doi.org/10.47772/IJRISS.2023.701087

Received: 21 July 2023; Revised: 01 August 2023; Accepted: 19 August 2023; Published: 06 November

2023

ABSTRACT

The competitive nature of the contemporary business environment has continued to exert pressure on firms to enhance service delivery to customers. This has changed the focus of attention to business entities offering valuable goods and services when compared to potential competitors. Just as the emphasis is placed on the customer, the business operating environment is raging and multifaceted. The research used descriptive research design. The target population was 127 employees of different departments that are sensible to supply chain management processes and 10 chief officers of Broadband Systems Corporation. The researcher adopted probability-stratified, random and purposive sampling technics. The data collected was analyzed using SPSS program 21.0 version was used for data analysis. Descriptive statistics with the mean, standard deviation, and Pearson's correlation coefficient were utilised and inferential statistics with regression analysis were applied for data interpretation. Findings revealed that customer relationship management is very highly correlated with organisational performance with Pearson's correlation value=0.951, P_value =0.000<0.05, whereas supplier relationship management is positively correlated to organization performance as revealed by analysis 0.951, P_value=0.000<0.05. These statistical figures were supported by top managers in answers to interview who affirmed that the supply chain management process has a positive influence on performance of Broadband Systems Corporation Ltd. Thus, the researcher concluded that the supply chain management process influences the performance of Broadband Systems Corporation Ltd. The researcher recommended that managers should take a serious attention to the relationship among supply chain management processes and performance improvement in Broadband Systems Corporation Ltd by establishing the practice at company, department and staff levels with correct matrix of processes that would lead to improved performance as the combined effect is greater than one process. In order to make supply chain management processes of the company efficiently and effective, BSC Ltd should develop strong strategic supplier-customer partnership by focusing on key and important suppliers or customer segments.

Keywords: Supply Chain, Management, Performance, Rwanda

INTRODUCTION

Background

Due to constantly changing customer demands, it is essential for any organization to stay updated with the right information about the product at any point in time. The supply chain concept appears to be the answer to most of these challenges due to its ability to enhance business profitability, customer service, and the value delivered to customers while at the same time making firms more interconnected and interdependent. The global market forces have significantly increased customer demands in numerous ways, among them by placing demands on lower prices, enhancing delivery of high-quality products and services, and enhancing the variety of items made available to different consumers (Sanders, 2020).

In the African context, competition among firms is enhanced by globalized markets. Thus, challenges associated with the ability to source for products, and services at the right time for low costs present



fundamental challenges. Consequently, most of the organizations have embraced the supply chain concept after realizing the challenges associated with improving efficiencies. Globalization forces have enhanced competition in both global and local market places and hence the need for organizations to structure their internal systems with the aim of making the supply chain more efficient and effective that their competitors. Besides, there is need for organizations to comprehend supply chain management practices in order to enhance their competitive position in the market and increase profits (Towill, 2016).

Future research should concentrate on duplicating a modified supply chain management process deployment scale across various industries and sectors (Hesham and Bayan, 2011). For instance, in the manufacturing sector, environmental factors (such as market turbulence) were found to have a moderating effect on the relationship between supply chain management processes and business performance (Iranmanesh, 2023). In order to fill a gap in supply chain management process research literature, this study takes a broader perspective, focusing on the Broadband Systems Corporation Ltd (Internet Service Provider) in Kigali. This study will look at how supply chain management processes are updated and tailored to the company's demands, as well as how the aforementioned factors are integrated. Instead of a better relationship to retain consumers, this research seeks to address the challenges that businesses have, such as why they require supply chain management processes to be adopted to their business model and information technology structure. As a result, the purpose of this study is to develop a conceptual model that explains how supply chain management process affect organisational performance in Rwanda.

Problem Statement

The global market forces have significantly increased customer demands through numerous ways, among them placing demands to lower prices, enhancing delivery of high-quality products and services, and enhancing the variety of items made available to different consumers (Braunscheidel, 2005). Ahmed et al., 2018, rapid changes in business activities have increased the vulnerability of supply chains, while technological integration has supplied them with many improvement methods to make them resilient and efficient. Since companies take the benefits of the new way of operations, companies that keep several obsolete and labour intensive processes tend to fail. There is a need to bridge gaps while traditional organisation implements more digital procedures and moves forward with an innovative approach. Supply chain management processes are among decentralized trade initiatives, with the aim of ensuring universal accessibility and availability of quality products, in geographical and financial terms (Rwanda Ministry of Trade, 2016). The early attempts of empirical research in supply chain management have been limited at developing instruments capable of measuring supply chain management practices. Most recently, Gibson et al., (2006) and Alvarado et al., (2011), have focused their research efforts into exploring the relationship between practices of supply chain management and organisation performance. They have used financial and market criteria to operationalise organisation performance (return on investment, market share, profit margin on sale, the growth of return on investment, the growth of sales and the growth of market share). In addition, they investigated the relationship among supply chain management practices, operation performance and supply chain management- related organisation performance. These studies have produced various results due to operationalising the performance of the organisation subjectively and objectively. This has been attributed to the interdisciplinary origin of supply chain management, conceptual confusion, the evolutionary nature of supply chain management concepts and environmental differences where organisations operate. On the other hand, much of the current empirical studies in supply chain management focused on either the upstream or downstream side of the supply chain or certain aspects of the supply chain management. Amanuel (2018), identified the effects of supply chain management on organisation performance in Ethiopia. Gyaneshwar, (2012) studied operational performance through supply chain management practices and Moslem (2013) studied the impact of supply chain management practices on competitive advantage. However, the relationship of supply chain management with performance cannot be regarded as conclusive. Despite the increase of empirical research in the last few years, important differences in research design undermine comparability: lack of consensus about the definition and



dimensionality of the supply chain management practices, use of different units of analysis and different approaches to performance measurement. As far as the knowledge of the researcher is concerned, there is no empirical study on the effect of supply chain management processes on the organisation's performance from the perspective of Customer Relationship Management, Supplier Relationship Management, Order Fulfilment, Returns Management and ICT tools on organizational performance in Rwanda with a case study of Broadband Systems Corporation Ltd. Therefore, in the effort to achieve a generalisation of the causal relationship between supply chain management processes and organisation performance, this work aims to contribute to the debate by testing the relationship between supply chain management processes and organizational performance in the enterprise case.

LITERATURE REVIEW

Customer Relationship Management

According to Sunil et al., (2017), customer relationship management (CRM) consist of processes that take place between an enterprise and its customers downstream in the supply chain. The goal of the CRM is to generate customer demand and facilitate transmission and tracking of orders. It includes processes such as marketing, pricing, sales order management and call center management. Weakness in this process results in demand being lost and a poor customer experience because orders are not processed and executed effectively. The CRM process are crucial to the supplier as they cover a vast amount of interaction between an enterprise and its customers. The customer must be the starting point when trying to increase the supply chain surplus because all demand and therefore revenue ultimately arises from them. It is also important to note that customer relationship management processes (software) must be integrated with internal operations to optimise performance.

Richard et al. (2015) state that the ultimate objective of customer relationship management is to create a long-term relationship with customers. Good relationships with profitable customers pay off in the long run because the cost of reining in customers is less expensive than recruiting a new one. A company needs to perform a number of customer-related functions in order to satisfy its customers and earn their trust. CRM is comprised of Operational activities that include order taking, invoice/billing, and offering help desks, call centers, field services, recall, and customer services. Moreover, analytics consist of capturing, storing, filtering, cleansing, and analyzing customer data. These activities provide intelligence for the company in order to run promotional events and commercials and to provide personalized services to customers.

Supplier Relationship Management

Richard et al. (2015) states that supplier relationship management (SRM) addresses business issues associated with the procurement or sourcing process. Noteworthy SRM issues include spending analysis, catalog management, sourcing implementation and execution, payment, settlement, control, and monitoring of supplier performance. The goals in resolving these issues are to build close relationships with key suppliers and to flexibly manage the network of suppliers. A close supplier relationship can create benefits such as cost reductions on goods and services, streamlined procurement processes, and regulatory compliance.

Lambert (2014), defined supplier relationship as the process defining the interaction between a company and its suppliers. Just as the name suggests, supplier relationship management portrays the image of customer relationship management. An organization needs to develop relationships with customers on one end, and foster relationships with its suppliers on the other hand. Similar to SRM, organizations should furnace close relationships with a minimal subsection of its suppliers, and maintain traditional relationships with a majority.



Order Fulfilment

Lambert *et al.*, (2014), states that order fulfilment process involves more than just filling orders. It includes all activities necessary to design a network and enable a firm to meet customer requests while maximizing its profitability. At the strategic level, for example, it is necessary to determine which countries should be used to service the needs of various customers considering service requirements, tax rates and where profits should be earned as well as import and export regulations. While much of the actual work will be performed by the logistics function, it needs to be implemented cross-functionally and with input from key suppliers and customers.

Davenport (2016), states that an order fulfilment process starts with receiving orders from the customers and ends with having the finished goods. The order fulfilment cycle time is defined as the period from order receipt productivity. The process is complex because it is composed of several activities, executed by different functional entities and heavily interdependent among the tasks, resources and agents involved in the process. This process involves the coordination of diverse activities such as sales commitment, credit checking, manufacturing, logistics, account receivable, and relationships with external suppliers for purchasing or shipping, which normally take place in several different business units.

Returns Management (Reverse logistics)

Blackstone (2013), defines return management as a complete supply chain dedicated to the reverse flow of products and materials for the purpose of returns, repair, remanufacturing or recycling. There are a number of reasons why attention needs to be place on the processes, dynamics and structure involved in the return of goods, materials and parts from the field at the end of the direct supply chain since their value could be recovered through repair, disposition and recycling, such that it may not be efficient to simply throw them away. In addition to the normal situation, where the products and goods at the end of the supply chain are no longer wanted or needed or have little value because they are obsolete or not operating, there is of course a requirement for disposal, which deals with specific questions involving solid waste, liquid waste and hazardous materials.

Richard et al. (2015) states that return management refers to the process of handling returns and how best to reintroduce the returns, as whole units or components, back into the forward supply chain through repackaging, remanufacturing, or reprocessing. While the forward supply chain moves products and services from the point of origin to the point of use, return management is concerned with what happens to the product after its useful life ends or it is not sold to a consumer. The most direct benefit of return management is cost avoidance.

Organizational Performance

Tharenou et al. (2017) found that indicators of organization performance include profits, return on investment, assets, equity, and stock market performance. Financial and non-financial criteria are used to measure organizational performance. Empirical studies examining the relationship between SCM processes and organizational performance are momentous. Items that measure organizational performance include increased sales, high accuracy in costing, and enhanced coordination between departments, suppliers, and customers.

According to Herman (2013), performance is not self-evident; it demands effort to be translated into the business organisational orientations and daily activities. Performance is connected to an organization's target in terms of its operations, production and efficacy. The term organization performance is denoted as the final economic goal of an organization that is measured in terms of profits, sales growth, return on



investments, performance of the business, and the effectiveness of the organization. Conversely, the nonfinancial criteria for measuring organization performance include innovation performance, market share, resource planning, and quality improvement.

METHODOLOGY

The research used a descriptive research design. The target population of this research comprised 127 employees of different departments that are sensitive to supply chain management processes and 10 chief officers of Broadband Systems Corporation. The researcher adopted probability stratified, random, and purposive sampling techniques. The collected data was analyzed using SPSS version 21.0 for data analysis. Descriptive statistics with the mean, standard deviation, and Pearson's correlation coefficient were utilized, and inferential statistics with regression analysis were applied for data interpretation.

FINDINGS

Introduction

The purpose of the study was to identify the effects of supply chain management processes on the organization's performance at Broadband Systems Corporation (BSC) Ltd. The present section develops study findings and discussions resulting from data collected in the field. The research gathered data using 127 questionnaires handed out to respondents and interviews administered to four members of the administration. Respondents were required to provide answers to questions and deposit them at the reception, whereas interviews were done face-to-face and recorded. Gathered data summarized in different tables will be analyzed and interpreted in connection with the objectives of this study.

Effects of Customer Relationship Management on organizational performance.

The respondents were asked to indicate the effect that various supply chain practices have had on the performance of the organisation. Customer Relationship Management has been rated according to the Likert scale ranging from (1) strongly agree, (2) Agree, (3) Neutral, and (4) Disagree.

Table 1: The effect of Customer Relationship Management and organisation performance.

	S.A (%)	A (%)	N (%)	D (%)	Mean	Std. Deviation
Our firm has developed a CRM process team	44.9	51.2	3.1	0.8	3.45	0.594
Our firm ensures our CRM process is aligned with our corporate strategy	37.8	55.9	2.4	3.9	3.36	0.572
Our firm identifies target segments that are critical to organization's success	39.4	59.1	1.6	0.0	3.33	0.617
Our firm develops PSAs that do not enhance the profitability of the firm	40.2	59.8	0.0	0.0	3.37	0.665
Our firm develops PSAs that do not enhance the profitability of our customers	44.9	51.2	3.1	0.8	3.26	0.683
Our firm's customers understand how their decision/ action benefits with customers	29.9	70.1	0.0	0.0	3.25	0.657
Our firm uses guidelines for sharing process improvement benefits with customers	23.6	70.9	1.6	3.9	3.25	0.645
N					127	

Source: Primary data 2023



Table 1 shows that that customer relationship management is a process that defines a firm's relationship with its customers, and identifies ways of maintaining these relationships. The findings indicate that the mean and standard deviation are 3.45 and 0.594 respectively for our firm has developed a CRM process team. Our firm ensures our CRM process is aligned with our corporate strategy; the mean and standard deviation are respectively 3.36 and 0.572. Our firm identifies target segments that are critical to our organization's success; the mean and standard deviation are 3.33 and 0.617 respectively. Our firm develops PSAs that enhance the profitability of the firm; the mean and standard deviation are 3.37 and 0.665 respectively. Our firm develops PSAs that enhance the profitability of our customers; the mean and standard deviation are 3.26 and 0.683 respectively. Our firm's customers understand how their decision/actions affect the CRM process; the mean and standard deviation are 3.25 and 0.657 respectively. Our firm use guidelines for sharing process improvement benefits with customers; the mean and standard deviation are 3.25 and 0.657 respectively.

Based on the above findings, the values of mean and standard deviation showed that many respondents had a dispersive tendency to strongly agree that customer relationship management has a strong effect on the operation performance of the firm. From this point of view, the researcher came to the conclusion that the BSC Ltd team in charge of reviewing the corporate and marketing strategies identifies customer segments that are significant to the success of the organization in the present and future time. The research done by Richard *et al.*, (2015) indicated that the ultimate objective of customer relationship management is to create a long-term relationship with customers. Good relationships with profitability customers pay off in the long run because the cost of reining customer is less expensive than recruiting a new customer. A company needs to perform a number of customer related functions in order to satisfy their customers and earn their trust.

Effects of Supplier Relationship Management (SRM) on organizational performance.

To analyse SRM, researcher used the following assumptions to rate the results as per Likert scale ranging from (1) strongly agree, (2) Agree, (3) Neutral, and (4) Disagree.

	S.A (%)	A (%)	N (%)	D (%)	Mean	Std. Deviation
Our firm examined how corporate strategy influence the SRM process	45.5	55.9	0.0	1.6	3.39	0.579
Our firm identified key criteria for segmenting suppliers	38.6	57.5	3.9	0.0	3.42	0.525
Our firm document our relationship with suppliers through formal PSA	37.8	58.3	2.4	1.6	3.36	0.602
Our firm has SRM metrics that are related to our firm's financial performance	24.7	70.4	3.7	1.2	3.19	0.554
Our firm regularly measures our supplier's contributions to our profitability	44.1	53.5	2.4	0.0	3.4	0.538
Conflicting functional objectives often hinder the performance of supplier relationship process	40.2	56.7	1.6	1.6	3.35	0.597
Our key suppliers' customers understand howtheir decision/ action affect the SRM process	46.5	50.4	2.4	0.8	3.42	0.584
Our firm share benefits from process improvements with suppliers	40.9	53.5	3.1	2.4	3.33	0.655
Ν					127	

Table 2: The effects of Supplier Relationship Management on organisation performance.

Source: Primary data (2022).



Table 2 shows the findings based on the progress of the organisation's Supplier Relationship Management as per the request from the organisation's clients. The mean and standard deviation associated are 3.39 and 0.579 respectively for our firm examined how corporate strategy influences the SRM process. Our firm identified key criteria for segmenting suppliers; the mean and standard deviation are respectively 3.42 and 0.525. Our firm documents our relationship with suppliers through formal PSA; the mean and standard deviation are 3.36 and 0.602 respectively. Our firm has SRM metrics that are related to our firm's financial performance; the mean and standard deviation are 3.34 and 0.554 respectively. Our firm regularly measures our supplier's contributions to our profitability; the mean and standard deviation are 3.40 and 0.538 respectively. Conflicting functional objectives often hinder the performance of supplier relationship process; the mean and standard deviation are 3.35 and 0.597 respectively. Our firm share benefits from process improvements with suppliers are 3.33 and 0.655 respectively.

Based on these findings, the values of mean and standard deviation showed that many respondents had a dispersive tendency to strongly agree that Supplier Relationship Management has a strong impact to the firm/organisation performance. In the above findings it has been identified that BSC Ltd examines how corporate strategy influences the SRM process activities which in return improves the organization performance.

Effects of Order Fulfilment on organizational performance.

The respondents were asked to indicate the effect of various supply chain practices that have had on the performance of the organisation. The principal goal of supply chain management is the ability to meet the requirements of the customer by fulfilling their orders effectively and efficiently. Order fulfilments has been rated according to the Likert scale ranging from (1) strongly agree, (2) Agree, (3) Neutral, and (4) Disagree.

	S.A (%)	A (%)	N (%)	D (%)	Mean	Std. Deviation
Our firm has developed an order fulfilment process team	38.6	57.5	1.6	2.4	3.32	0.628
Our firm understands how our order fulfilment process is tied to our customer service strategy	44.9	51.2	3.1	0.8	3.44	0.686
Our firm has identified our core competencies within order fulfilment	39.4	59.1	1.6	0.0	3.38	0.591
Our firm works with customers to understand their order fulfilment requirements	24.7	70.4	3.7	1.2	3.39	0.536
Our firm differentiates order fulfilment terms for each customer segment based on profitability	38.6	57.5	3.9	0.0	3.36	0.516
Our firm utilizes technology to support our order fulfilment activities	40.2	56.7	2.4	0.8	3.37	0.516
Our firm has established ordering rules that minimize demand variability	3.9	96.1	0.0	0.0	3.35	0.57
Our firm's customer understands how their decisions affect the order fulfilment process	42	34.4	0.8	0.0	3.35	0.542
N					127	

Table 3 : The effects of Order Fulfi	lment for the organisation performance.
Table 5. The cheets of Order Full	ment for the organisation performance.

Source: Primary data (2022).



Table 3 shows the findings based on the progress of the organisation Order Fulfilment as per the order from organisation customers. The mean and standard deviation associated are 3.48 and 0.628 respectively for our firm has developed an OF process team. Our firm understand how us OF process is tied to our customer services strategy; the mean and standard deviation are respectively 3.44 and 0.686. Our firm has identified our core competencies within order fulfilment; the mean and standard deviation are 3.38 and 0.591 respectively. Our firm works with customers to understand their order fulfilment requirements; the mean and standard deviation are 3.36 and 0.516 respectively. Our firm differentiates order fulfilment policies for each customers' segments; the mean and standard deviation are 3.37 and 0.516 respectively. Our firm has established ordering rules that minimize demand variability; the mean and standard deviation are 3.35 and 0.570 respectively. Our firm's customer understands how their decision/actions affect the order fulfilment process; the mean and standard deviation are 3.35 and 0.542 respectively.

Based on these findings, the values of mean and standard deviation showed that many respondents had a dispersive tendency to strongly agree that for order fulfilment has a strong effect on the operation performance of the organisation. In the above findings it has been identified that BSC Ltd utilizes technology to support their order fulfilment activities were customers/clients order online the required services through available platforms hence effectively improving the organization performance. The findings are supported by research done by Croxton et al, (2014) who indicated that meeting the customer requirements in terms of effective order fulfillment requires integration of the firm's logistics and marketing plans and the partnerships with key members of the supply chain are necessary to meet customer requirements and reduces total delivered cost to customers.

Effects of Returns Management (RM) on organizational performance.

Returns management is an essential component of supply chain management. In most instances firms ignore this component due to lack of adequate information about its importance. However, returns management has the potential of assisting firms to achieve sustainable competitive advantage through the identification of productivity improvement opportunities. To analyse RM, researcher used the following assumptions to rate the results ranging from (1) strongly agree, (2) Agree, (3) Neutral, and (4) Disagree.

	S.A (%)	A (%)	N (%)	D (%)	Mean	Std. Deviation
Our firm has formally developed a return management process team	40.2	56.7	2.4	0.8	3.36	0.572
Our firm considers internal constraints when determining goals for return management	36.4	55.9	3.1	1.6	3.33	0.617
Our firm has identified types of return	38.6	57.5	1.6	2.4	3.32	0.628
Our firm has developed disposition guidelines	44.9	51.2	0.8	3.1	3.37	0.665
Our firm developed plans for dealing with product recalls	35.4	59.8	4.7	0.0	3.26	0.683
Our firm has developed a method of valuing returned products	37	63	0.0	0.0	3.25	0.657
Our firm has return management metrics that are related to financial performance	33.9	61.4	1.6	3.1	3.25	0.645
Ν					127	

Table 4 : The impact of Returns Management (RM) for the organisation performance.

Source: Primary data (2022).



Table 4 shows that based on the progress of the organisation Returns Management as per the order from organisation customers/clients. The mean and standard deviation associated are 3.36 and 0.572 respectively for our firm has formally developed a return management process team. Our firm considers internal constraints when determining goals for return management; the mean and standard deviation are respectively 3.33 and 0.617. Our firm has developed disposition guidelines; the mean and standard deviation are 3.32 and 0.628 respectively. Our firm developed plans for dealing with product recalls; the mean and standard deviation are 3.37 and 0.665 respectively. Our firm has developed a method of valuing returned products; the mean and standard deviation are 3.25 and 0.657 respectively. Our firm has return management metrics that are related to financial performance; the mean and standard deviation are 3.25 and 0.645 respectively.

Based on these findings, the values of mean and standard deviation showed that many respondents had a dispersive tendency to strongly agree that for RM has a strong impact to the organisation performance. In the above findings it has been identified that BSC Ltd developed a return management process team to support in the RM activities where customers can return given products if not working properly for replacement hence improving the organization performance. However, BSC Ltd needs to properly develop disposition guidelines for the returns in relation to the environment protection. Disposition deals with the refurbishing and remanufacturing returned products. The findings are supported by research done by Dawei Lu, (2011) indicated that the last and final stage of supply chain management is referred as the return. In the stage, defective or damaged goods are returned to the supplier by the customer. Here, the companies need to deal with customer queries and respond to their complaints. The planners of supply chain need to discover a responsive and flexible network for accepting damaged, defective and extra products back from their customers and facilitating the return process for customers who have issues with delivered products.

Effects of ICT tools used in supply chain management on organizational performance.

Information and Communication Technology (ICT) is used in delivering various tools that are fundamentally needed to collect, process and manage data and present it in a standardised format. Application of ICT has a high influential impact on the improvement of supply chain. To analyse the impact of ICT tools, the researcher used the following assumptions to rate the results as per Likert scale ranging from (1) strongly agree, (2) Agree, (3) Neutral, and (4) Disagree.

	S.A (%)	A (%)	N (%)	D (%)	Mean	Std. Deviation
Electronic mail (Email)	97.6	2.4	0.0	0.0	1.02	0.152
Electronic data interchange (EDI)	94.5	5.5	0.0	0.0	1.06	0.229
Enterprise resource planning (ERP)	81.9	18.1	0.0	0.0	1.18	0.387
Global positioning system (GPS)	70.1	29.9	0.0	0.0	1.3	0.460
Radio frequency identification (RFID)	35.4	59.8	4.7	0.0	1.69	0.557
Business Intelligence (BI)	93.7	6.3	0.0	0.0	1.06	0.244
Barcoding	59.1	40.9	0.0	0.0	1.41	0.494
Supply chain communication systems	96.1	3.9	0.0	0.0	1.04	0.195

Table 5: The effects of ICT tools on the organizational performance.

Source: Primary data (2022).

Table 5 shows that ICT tool used in supply chain management contribute to the organisation performance in



BSC Ltd. The mean and standard deviation associated are 1.02 and 0.152 respectively for electronic mail usage in the organisation communication. Electronic data interchange; the mean and standard deviation are respectively 1.06 and 0.229. Global positioning system; the mean and standard deviation are 1.18 and 0.387 respectively. Radio frequency identification; the mean and standard deviation are 1.69 and 0.557 respectively. Business Intelligence); the mean and standard deviation are 1.06 and 0.244 respectively. Barcoding; the mean and standard deviation are 1.41 and 0.494 respectively. Supply chain communication systems; the mean and standard deviation are 1.04 and 0.195 respectively.

Based on these findings, the values of mean and standard deviation showed that majority respondents had a dispersive tendency to strongly agree that ICT tool used in supply chain management have a strong impact to the organisation performance. In the above findings it has been identified that BSC Ltd examines how corporate strategy influences the ICT tools usage which in return improves the organization performance. The findings are supported by research done by Rajeev (2015) indicated that ICT plays a significate role in improving the services of the organisation, as IT-enabled tools support the SCM process with improved information management, modelling and facilitate the decisions of the firm. In other words, it can be said that an IT-enabled SCM support organisational process with improved operation benefits helps the firm to gain strategic advantage over its competitors, such as the framing an e-commerce environment, single point data and access, increased visibility, reduction in transportation and inventory cost, improved supplier and customer management, planning activity through real-time data processing and information trade-off with SCM entities.

DISCUSSION OF THE FINDING

Introduction

In an effort to summarize the major findings, we need to be reminded that, the study determines the contribution of supply chain management processes on the organizational performance of BSC Ltd. The study was based on the profile of respondents in terms of gender, age bracket, working experience and educational level.

Discussions

The research findings have been presented in accordance with the chronological order of the research objectives of this study. These objectives include: identifying the effect of Customer Relationship Management on organization performance; analyzing the effect of Supplier Relationship Management on organization performance; examining the effect of Order fulfillment on organization performance; evaluating the impact of return Management on organization performance; and analyzing the effects of ICT tools used in supply chain management and their contribution to the organizational performance of BSC Ltd. With regards to the respondents' identification, the finding presents the demographic characteristics of the respondents in terms of age, gender, level of education, and working experience for employees of BSC Ltd.

As far as gender is concerned, majority of the respondents were male with the percentage of 58.3% male, while their counterparts the female respondents took a smaller portion of 41.7% respondents. Therefore, views and inferences were represented by both male and female respondents. Regarding the age group, the majority is age bracket of 26-30 with the percentage of 39.4%. This meant that most employees of BSC were in the active age of employment, which implies that the respondents were actively engaged in budgetary control and financial performance. For the level of Education, the findings show that the majority of the respondents of BSC had bachelor's degrees with the percentage of 74.8% which is an appropriate level of qualification for professional staff in any organization especially in the organization. Such people had professional knowledge and skills about supply chain management processes and organizational



performance. Regarding the work experience, the respondents who had worked with BSC in the period of four to six years were the majority with the percentage of 34.6%. This means that, most employees were very familiar with organisation SCM processes and how it influences organizational performance.

The first objective of the present study was to assess effects of customer relationship management on organizational performance of BSC Ltd. Eight statements detecting the influence of customer relationship management on organisation performance of BSC Ltd were presented to respondents. A mean of 35.4% of respondents strongly agreed with all the statements, 59.9% agreed whereas 0.6 strongly disagreed and 4.1% disagreed with all the statements. Pearson's correlation coefficient between customer relationship management and BSC Ltd.'s performance was revealed by analysis to be 0.951, with a P-value of 0.0000.05, indicating a very significant relationship. In an interview with ten managers of the organization BSC Ltd., all of them agreed that customer relationship management has an important impact on their organization's performance. A value of R2 = 0.944 allowed the researcher to reject the hypothesis with a p-value of 0.000 for HO₁ and a p-value of 0.000 for HO₂.

The second objective of the current study was to determine the influence of Supplier Relationship Management on the performance of BSC Ltd. Eight statements were presented to respondents in order to achieve this objective. A mean of 38.8% of total respondents strongly agreed with all the statements, 57% agreed, but 3.7% disagreed and 0.5% strongly disagreed with the presented statements. The correlation coefficient value of 0.932 p=0.00<0.01 uncovered that Supplier Relationship Management is significantly positively correlated to BSC Ltd performance.

The third objective of current study was to determine the influence of Order Fulfilment on the performance of BSC Ltd. Eight statements were presented to respondents in order to achieve this objective. A mean of 31% of total respondents strongly agreed with all the statements, 59.3% agreed, but 2.5% disagreed and 7.4% strongly disagreed with presented statements. The correlation coefficient value of 0.887 P=0.00<0.01 revealed a significant positive relationship between Order Fulfilment and BSC Ltd performance. A value of R^2 = 0.944 allowed the researcher to reject the hypothesis with p-value =0.001 for HO₃, p-value=0.002.

The fourth objective of the present study was to assess the influence of Returns Management on organizational performance of BSC Ltd. Eight statements detecting the influence of Returns Management on organisation performance of BSC Ltd were presented to respondents. A mean of 34% of respondents strongly agreed with all the statements 66% agreed whereas none of the respondents disagreed with all the statements. Pearson's correlation coefficient between Returns Management and BSC Ltd performance was revealed by analysis is 0.997, P-value=0.000<0.05, indicating a very significant relationship. In an interview with ten managers of the organisation of BSC Ltd, all of them agreed that return management has important impact to their organisation performance. A value of R^2 = 0.944 allowed the researcher to reject the hypothesis with p-value =0.001 for HO₄, p-value=0.000.

The fifth objective of current study was to determine the influence of ICT tools in supply chain management and their contribution to organizational performance of BSC Ltd. Eight statements were presented to respondents in order to achieve this objective. A mean of 38% of total respondents strongly agreed with all the statements, 57% agreed, but 3.7% disagreed and 0.5% strongly disagreed with presented statements. Correlation coefficient value of 0.874, P-value 0.00<0.05 revealed that ICT tools in supply chain management are significantly positively correlated to BSC Ltd performance. ICT tools enhances the quality, reduction in various costs involved in the supply chain, increases profit margin, ROI, sales, information sharing and reducing procurement costs.

CONCLUSION

The present study aimed at identifying the effect of supply chain management processes on organisational



performance in Rwanda with a case of Broadband Systems Corporation Ltd. Five objectives and Hypotheses were established and three indicators of independent variable were identified to guide the researcher throughout this study. After collecting Data, analysing and interpreting results the researcher drew important conclusions that supply chain management processes are positively and significantly affect the performance of an organisation with R=0.964, P-value 0.000<0.05, indicating a very significant performance relationship with the organisation. Efficient supply chain management processes helps an organisation to achieve better organisation performance through applying the SCM processes properly.

RECOMMENDATIONS

The researcher recommended that, Managers should take a serious attention on the relationship among supply chain management processes and performance improvement in Broadband Systems Corporation Ltd by establishing the practice at company, department and staff levels with correct matrix of processes that would lead to improved performance as the combined effect is greater than one process. In order to make supply chain management processes of the company efficiently and effective, BSC Ltd should develop strong strategic supplier-customer partnership by focusing on key and important suppliers or customer segments.

ABOUT THE AUTHORS

Nshimiyimana Ndizera Moses holds bachelor's degree in Business Administration from University of Rwanda.

Dr. Eugenia Nkechi Irechukwu is PhD holder in Business Administration, Human Resource Management option from Jomo Kenyatta University of Agriculture and Technology. She has a wide experience in the lecturing position of over 10 years in a number of universities in Nigeria and Rwanda. She has rose through the ranks to a senior lecturer position and has served as the dean of a faculty of Business. Her main area of interest is human resource management, leadership, and governance.

REFERENCES

- 1. Moslem (2013). *Effective Supply Chain Management: A strategic tool for profitability enhancement in the competitive marketing environment.* Vol, No.13.
- 2. Chen, I. J., and Paulraj., A. (2004). "Towards A Theory of Supply Chain Management: The Constructs and Measurements", *Journal of Operations Management*, 22(2), pp. 119- 50.
- 3. Daneshjo Naqib. (2015). Supply Chain Management Processes. University of Economics in Bratislava. *International Journal of Supply Chain Management*, pp. 126-127.
- 4. Dawei Lu. (2011). Fundamentals of Supply Chain Management. Ventus Publishing.
- 5. Magdalena Daniela. (2014). Supply Chain Management-Key Factors. *International Journal of Supply Chain Management*, Vol. 2 pp. 1-6.
- 6. Michael Hugos. (2018). Essentials of Supply Chain Management. Fourth Edition.
- 7. Panchuk, P. (1998). *The future of manufacturing: an exclusive interview with Peter Drucker*, Industry Week Sep. 21, pp. 36-42.
- 8. Sunil et al., (2017. The relationships among investment in workplace learning, organizational perspective on human resource development, organizational outcomes of workplace learning, and organizational performance (*Doctoral dissertation*).
- 9. Podsakoff, P. M., and Organ, D.W. (2016). Self-reports in organizational research: problems and prospects, *Journal of Management*, Vol. 12, No. 4, pp. 531-544.
- 10. Poirier, C.C., (2016). *Supply chain optimization: building the strongest total business network*, San Francisco, CA: Berrett-Koehler Publishers.



- 11. Rasheed A., Faroq A. A. (2020). The role of business strategy to create a competitive advantage in the organization. *Open Access Journal of Science*, 4(4).
- 12. Richard E. Crandall, William R. Crandall and Charlie C. Chen. (2015). *Principals of Supply Chain management*. Second Edition.
- 13. Rogers, D.S., Lambert D.M. and Knemeyer A. M. (2004). The product development and commercialization process, *The International Journal of Logistics Management*, pp.43-56.
- 14. Uwamahoro S. (2018). Monitoring and evaluation mechanisms and performance of government projects in Rwanda [Master's research project, Mount Kenya University].
- 15. Van Hoek R.I. (2018). *Measuring the unmeasurable-measuring and improving performance in the supply chain*. Supply Chain Management, Vol. 3, No.4, pp.187–92.
- 16. Werner Delfmann and Sacha Albers. (2016). *Supply Chain Management in the Global Context*. Working paper No. 102.