Effect of Supply Chain Function on Financial Performance of Brewery Companies

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Abstract:- This study investigated the extent at which supply chain management contributes to the financial performance of brewery firms in Rwanda in this era when supply chain management continue to attract very many researchers across the globe due to its contribution on the performance. The study adopted descriptive analysis and questionnaire was used as instrument for data collection. Regression analysis was also adopted to statistically analyze the contribution of supply chain function on financial performance. The findings indicated that the Adjusted R^2 =.602 representing 60.2%; P-value is less than 5% all indicated that there is a positive and significant contribution of supply chain integration in brewery firms in Rwanda. The study concluded that supply chain function which is efficient and effective has a positive contribution to the brewery's financial performance.

***Keywords**:- Breweries, Supply Chain, Financial Performance.*

I. INTRODUCTION

The focus of many company organizations in today's cutthroat business environment is now on providing value to the customers. Businesses should prioritize the demands of their customers because they are becoming more and more demanding. One of the key areas under which companies may give their consumers more value is the supply chain. The inbound and outward logistics are some of the elements that might assist the business add value for the customers, according to the Porter's value chain analysis.

Supply chain management (SCM) is seen as having a significant impact on a company's financial performance. The study shows that SCM emphasizes both positive and negative effects that have a variable impact on supply activities. Manufacturing companies' paradigms are increasingly driving the supply chain's responsiveness. To improve performance, businesses must build strong bonds with all its stakeholders. The literature contains numerous definitions of the SCM concept. It is highlighted in the study by Feldmann and Muller (2003) that there is no agreement on the definition of SCM. SCM is divided into three categories in the study: integrated logistics management, purchasing, and supply management. According to Kim (2006), supply chain management is a collection of distinct functional entities and procedures for improving the long-term competitive performance of specific enterprises and their supply chains (Soosay et al., 2008).

In order to boost organizational performance, supply chain management has been concentrating on the connections between buyers and suppliers during the past few years. Supply chain management has been recognized by management scholars since the 1980s as a useful strategy for enhancing financial performance. In order to guarantee that the company's products are accessible in an effective manner, supply chain management entails associated actions of the business processes between the suppliers and the clients. According to Nagar and Rajan (2005), a well-implemented SCM improves client happiness and business performance.

For many businesses, managing the supply chain is an essential activity. Several organizations compete to have the best supply chain. SCM is employed to reduce expenses for the entities. SCM is strategic in nature and recognizes that a company's competitive strength is influenced by not just its products but also by the operations and activities that put those items in the hands of customers and offer ancillary services. A well-designed SCM aids in enhancing business effectiveness. According to Rick (2004), SCM aids the company in gaining a competitive edge through efficient resource management. A company's supply chain's responsiveness and effectiveness enhance its capacity to prevail in the global economy (Nikos, 2007)

According to some sources, supply management can lower costs, increase customer satisfaction, and hence have a long-term financial impact on the company (Nagar and Rajan 2005). Customers that are happy with the products would frequently purchase them from the company (Gronholdt, Martense, Kristensen, 2000). Several researchers have noted that customer satisfaction has a considerable and favourable impact on the firm's profitability. This is as a result of the following factors: Customer pleasure increases loyalty, which affects future product purchases (Mittal and Kamakura 2001). Additionally, happy clients are more likely to pay premium prices, boosting the viability of the business. Customer happiness raises future sales, lowers price elasticity, and improves the company's reputation (Anderson, Fornell, Lehmann, 1994).

Businesses and management may continuously enhance the performance of their supply chains thanks to supply chain management. The organization can better utilize resources, opportunities, and performance thanks to the alignment of people, processes, the supply chain, and demand (Drucker, 2000). Supply chain management techniques give businesses a way to promote continuous improvement, address their current difficulties, and seize future opportunities (Fleming, Coffman and Harter, 2005). Since any number of supply chain management techniques can be adopted and copied, gaining a competitive advantage through supply chain management is necessary but insufficient. As competitors copy each other's advancements in quality, cycle times, or supplier partnerships, competition becomes a series of futile matching games that no one can win (Porter, 1996, Duggan, 2009). A disruption in the supply chain that affects how products are delivered to their own customers could have negative downstream effects on the reputation of the brand, regulatory compliance, product safety, and other concerns. Not only can sales and earnings suffer when a necessary supply is not received when it should, or when the amount is less than anticipated, or when the quality is subpar. In addition to these negative effects, supply chain disruptions can also have a number of additional negative effects that all have an adverse impact on profitability, such as lost customers, harm to brand, reputation, or image, decreased share price, higher cost of capital, inability to maintain customer services, failure to adhere to legal or regulatory requirements, and delays in projects, goods, or other strategic growth plans and lower employee morale (Nikos, 2007).

Profit maximization is one of supply chain management's objectives. There are many things that can be used to do this. Utilizing the following tactics—production mix efficiency, product route efficiency, and resource commitment—will help you maximize your profits. Giuntini (1996) outlines an instance in which subpar outcomes will result from a management approach that is not optimized. Such outcomes increase operational costs and solid and hazardous waste. A well-designed and reliable reverse logistics system is desired and required as a result of the forward supply chain problem. Disruptions to supply chains and a company's profitability present an increasing risk.

Businesses should engage in good supply chain management, which calls for internal cross-functional integration both inside and outside the firm, to improve supply chain performance (Kannnan and Tan, 2010; Kim, 2006). Numerous academics have noted that many business owners have disregarded the idea of supply chain management, such Jordan Jraisat (2010) and Abu-Alrejal (2007).

Many nations have updated their traditional production methods, and most businesses are now required to restructure their manufacturing networks (Chan and Lam, 2011). As a result, businesses continue to face numerous difficulties, such as obtaining goods and/or services at the ideal time, location, and cost. Many businesses have realized that increasing efficiency not only within the company but also throughout the entire supply chain is necessary.

A variety of internal and external variables are driving the evolution of supply chain management. The external drivers include rising levels of globalization, lowered trade restrictions, better access to information, and environmental concerns. The creation of computer-generated production schedules, the growing significance of inventory control, government regulations and initiatives like the establishment of a single European market, the creation of Qualified Industrial Zones (QIZs), and the Principles of the Global Agreement on Tariffs are just a few of the major factors that gave rise to supply chain management.

- ➢ *Statement of the Problem*

Supply chain management is a role that businesses are placing more and more emphasis on (Mentzer and Gundlach, 2009). The architecture of the supply chain is based on the requirement for businesses to reach their customers with goods and services in an effective manner (Lambert and Cooper, 2000).

Through effective coordination and integration of jobs across the chain, including those of customers, suppliers, and the organization, SCM techniques enable innovation and make it easier to create, develop, and deliver solutions. An organization can introduce new products, processes, and/or services into the market in order to retain current consumers and attract new ones. This is an example of innovation. Additionally, there is a decline in the veracity of findings from supply chain functions that are locally applicable, little to no sustainability in the activities of manufacturing companies, a decline in employee capacity for supply chain management, which in turn affects self-reliance, a lack of clarity in the functional structure of the supply chain, experiences, weakened accountability to the logistics department, and inefficient resource allocation.

There was minimal evidence in the developing economies in previous supply chain studies, which were biased toward developed and emerging economies. As an illustration, Huo et al. (2013) conducted a study to analyse the empirical evidence of the Chinese firm's performance and supply chain function. An analysis was conducted to determine whether supply chain management has an impact on business performance. Secondary data was gathered from the financial data repository of the chosen companies, which comprised a sample of 500 US companies. In order to examine the relationship between supply chain management and firm performance in the UK, Johnson and Templar (2017) conducted a study. Additionally, the majority of earlier studies ignored the qualitative approaches in favor of just using quantitative approaches to analyse the issue.

- ➢ *Research Question*

How does supply chain integration affect financial performance of Bralirwa?

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- *Objective of Study*

To examine the effect of supply chain function on the financial performance of Bralirwa Ltd

- *Hypothesis*

There is a significant effect of supply chain function on brewery firms in Rwanda.

II. LITERATURE REVIEW

- *The effect of Supply chain integration function on company's performance*

Supply chain integration has drawn increased attention in company management as a crucial tactic to improve the effectiveness of organizations. The Potter analysis model of the value chain is where supply chain management began. This value chain analysis model made an effort to connect the numerous value chain management concepts that can improve organizational performance. Supply chain integration is crucial to businesses' efforts to strategically position themselves in markets and be able to achieve improved performance through enhancement of the efficacy of supply chain activities and procedures (SCI). SCI refers to a company's strategic collaboration, coordination, and management of both internal and external organizational processes with its suppliers and customers. The basic argument of SCI is that streamlining essential business processes within organizations gives them an edge over rivals by lowering costs and/or producing higher customer value, which is connected to superior firm performance (Leuschner, Rogers, & Charvet, 2013; Mackelprang, Robinson, Bernardes, & Webb, 2014). Performance-related research.

- *Financial performance*

Financial performance is a broad term that describes a company's overall financial health. When you hear that a business has strong financial performance, that often means it has growing revenues, manageable debt, and a healthy amount of free cash flow. This study looked at key performance indicators such as return of assets, return on investment and earnings per share. These KPIs are among the most used KPIs to assess the financial performance. performance (Axel Tracy,2012).

III. THEORETICAL REVIEW

The study employed Supply Chain management. The phrase "supply chain management" is used to describe how materials and information are controlled and planned both within and externally across firms. The framework for how the supply chain works consists of a number of different elements, including purchasing and supply, logistics and transportation, operations management, marketing, organizational theory, management information systems, and strategic management, all of which have influenced the growth of the SCM theory. There is a need for a properly defined supply chain management, according to numerous academics.

SCM theory places a strong emphasis on cooperative advantage. With the aim of providing mutual advantages to all supply chain participants, the current business activities are made up of interrelated activities that build a network of interdependent interactions(Miles and Snow, 2017). SCM elevates inter-company competition to inter-supply chain competition by aiming for higher performance through better utilization of both internal and external capabilities in order to establish a smoothly coordinated supply chain (Chopra and Meindl, 1999). The success of a company is impacted by the supply chain management's overall performance because of the interconnected activities that make up the network of a business organization.

IV. METHODOLOGY

The study adopted descriptive survey research design. The study used primary data that were collected by using adopted structured questionnaire to get the perceptions of the respondents and documentary review such as published financial statements of Bralirwa Ltd. The population of the study was 78 staff of Bralirwa Ltd. All 78 participated in the study. A structured, valid, and reliable questionnaire was used to collect primary data.

Supply chain management was measured based on the independent variable of : supply chain integration (SCI).On the other side, return on asset, return on investment, and earnings per share were used to gauge financial performance, which is the dependent variable.

Financial Performance (FP) = F (Supply chain management (SCM)

$FP = \beta 0 + \beta 1SCM + \mathcal{E}$ ………………………………. 1

But SCM is a function of SCI

Replacing in equation one

$\boldsymbol{FP = \beta 0 + \beta 1SCI + \mathcal{E}}$

V. FINDINGS

The data gathered on supply chain management and financial performance were created by having responses of all items of the variable. The results of regression are presented as follows.

Table 1 Supply chain integration practices in Bralirwa limited

	N	Mean	Std. Deviation
Our organization rely on few dependable suppliers	88	4.0455	1.28572
Our organization rely on few high-quality suppliers	88	4.6591	.64123
Our organization consider quality as number one criterion in selecting suppliers	88	4.7386	.57724
Orders for shipping supplies are fulfilled in time	88	4.5114	.60637
Our organization strive to establish long term relationship with its suppliers	88	4.3523	.64398
Our organization helps its suppliers to improve their product quality	88	4.4205	.65603
Our organization has continuous improvement programs that include its key suppliers	88	4.4886	.60637
Your organization include its key suppliers in its planning and goal setting activities	88	4.2955	.66366

Source: Primary Data (2022)

The respondents to the table 4.4 were asked what they thought of Bralirwa Limited's supply chain integration. There are numerous structures for supply chain integration in the business. The survey's findings on whether the company relies on reliable suppliers showed that the majority of participants believed that it does, as reflected by a mean score of 4.0455 and a standard deviation of 1.2. The survey's results on whether the organization relies on high-quality suppliers reveal that it does, as shown by a mean score of 4.659. This indicates that the majority of respondents agreed, and the standard deviation of 0.64 indicates that there is little departure from the mean.

The respondents were next asked if the organization uses quality as one of several criteria when choosing suppliers. According to survey results, the organization considers a lot of factors when choosing suppliers, as indicated by a mean score of 4.738 and a standard deviation of 0.577. The respondents were also questioned on the timeliness of shipping supply orders. The survey's results suggest that most participants agreed that shipping orders are completed on time, as shown by a mean of 4.511 and a standard deviation of 0.606. In addition, the data indicate that the majority of respondents believed that the organization aims to forge a lasting bond with its suppliers when asked if it makes an effort to do so.

The respondents were also questioned about if the organization aids its suppliers in raising the caliber of their output. According to the survey results, which have a mean of 4.420 and a standard deviation of 0.656, the majority of respondents believed that the organization helps its suppliers enhance the quality of their products. The results showed that the organization continues to improve its programs with the main supplier, as shown by a mean of 4.488 and a standard deviation of 0.606. This is in reference to whether the organization has continuous improvement programs that include its important suppliers. The respondents were also questioned if the company includes its important vendors in its goal setting and planning processes. According to the results, which had a mean of 4.295 and a standard deviation of 0.663, the majority of respondents agreed. The survey results showed that the organization has a strong practice of supply chain integration.

➢ *Test of Hypothesis*

This part shows the results from the data collected that helps in answering research question one, achievement of objective one and testing null hypothesis one. There is a significant effect of supply chain integration on financial performance.

Table 2 Model Summary of supply chain integration and financial performance

Model	R	R Square	Adjusted R Square	Std Error of the Estimate
1	.850[a]	.723	.602	.47655
a. Predictors: (Constant), Customer integration, Supplier integration				

From the results of the analysis in table 2, . R-square and adjusted R-square results demonstrate a significant correlation between the two variables. The findings showed that of the variation in financial performance, supply chain integration accounted for 72.3% of it, whereas other variables not included in the model accounted for just 27.7%. The survey's results are related to other research's findings from earlier studies. According to Spillan's (2014) study, the integration of the supply chain and financial performance are strongly correlated.

Table 3 ANOVA[a] of supply chain integration and financial performance

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2.696	2	1.348	5.936	.004[b]
	Residual	19.304	85	.227		
	Total	22.000	87			
a. a. Dependent Variable: ROA						
b. Predictors: (Constant), Supplier integration, Customer integration						

The model's ability to forecast the relationship between the dependent and independent variables is tested in Table 4.9. A P-value of 0.004 indicates that the model is significant and that the results demonstrate that the model is suitable to forecast the link between the studied variable.

TABLE 4 Coefficients Predictors of supply chain integration and financial performance

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.673	.580		8.056	.000
	Supplier integration	.180	.089	.207	2.032	.045
	Customer integration	-.227	.084	-.274	-2.698	.008

a. Dependent Variable: ROA

Table 3 examines the link between the research variables and the determinants in the model. As evidenced by P-values of 0.045 and 0.008, which are both less than 5%, the results demonstrate that both supplier integration and customer integration are statistically significant in explaining the link between the research variable. The research also found a link between financial performance and both a positive connection between supplier integration and financial performance as well as a negative correlation between customer integration and financial performance. This goes against the earlier findings. According to Carid's (2016) study, financial success is strongly correlated with both supplier and customer integration.

VI. SUMMARY OF THE FINDINGS

The study entitled "Supply Chain management practices and financial performance of brewery firms in Rwanda, evidence from Bralirwa Ltd.

The study's initial goal was to determine how supply chain integration might affect Bralirwa Limited's financial well-being. According to R-square and adjusted R-square results, supply chain integration has a significant impact on financial performance.

VII. CONCLUSION

The study showed that supply chain management has an impact on financial performance of breweries. Integration of the supply chain is an important element in a company's financial performance. Consequently, a key factor in evaluating a company's financial performance is supply chain management.

RECOMMENDATION

The study focused on the extent at which the financial performance is impacted by supply chain function. However, supply chain management comprises a very big part of operational performance of a company which has not been assessed;therefore researchers should study how supply chain function impacts a company's operational performance in Breweries.

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