

ASSESSMENT OF SUPPLY CHAIN MANAGEMENT PRACTICES AND IT EFFECTS ON THE PERFORMANCE OF KASAPREKO COMPANY LIMITED IN GHANA.

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ABSTRACT: *This thesis is based on one manufacturing company in Ghana. The study sought to examine supply chain management practice and its effect on the performance of Kasapreko Company Limited (KCL). The objectives of the study were to examine supply chain management (SCM) practice in KCL, ascertain the influence of SCM practice on KCL performance, and to describe the trend in sales of KCL. A sample size of two-hundred (200) out of the numerous customers of KCL was administered with questionnaires in the Greater Accra Region of Ghana. The researchers also interviewed key employees of KCL using a semi-structured interview guide. A descriptive analysis with the aid of SPSS was used to quantify the relationship between the application of supply chain management practice and the performance of KCL. The result of the study indicated that KCL is applying supply chain management practice to its business activities. The study also indicated that supply chain management practice has significantly influenced KCL business performance and was evident in the sales performance of KCL over the years (2004-2010).*

KEYWORDS: Supply Chain, Practices, Performance and Supply Chain Management

INTRODUCTION

This introductory chapter covers areas such as the background of the study, justification and rationale of the study, research questions and objectives of the study.

Background of the Study

Over the years, the nature of competition has changed to the extent that companies no longer compete against other companies on the basis of quality as traditionally practiced in the 80s (Fawcett et al. 2007). However, the new source of business competition lies outside the walls of an organization, and is determined by how effectively companies link their operations with their supply chain partners; suppliers, distributors, wholesalers, retailers and end customers (Petrovic-Lazarevic et al. 2007). Being able to create business relationships with customers, suppliers and other strategic partners anchored on trust and long term commitment then becomes a crucial competitive parameter (Mattson 2002). For this, and factors like shorter product lifecycle and customer expectations, businesses have had to invest and re-focus greater attention on relationship with customers and suppliers. Consequently, an organization's supply chain has become a strategic agenda driving decision making at senior management level (Simchi-Levi et al. 2000).

The aim of every SCM is to minimize system-wide costs while satisfying customer service level requirements. Indeed, it is a customer oriented process for integrating business planning and balancing supply and demand across the entire value chain system. Ideally, in a typical

SCM structure, suppliers and customers are brought together in one concurrent business process which spans the entire chain from initial source to the ultimate consumer (Lambert and Cooper, 2000; Stern et al. 1996). Additionally, information and communications technology such as e-commerce systems have become the backbone of these integrated supply chains in recent time (Lancioni et al. 2001; Porter 2001). This suggests that every single company depends on other businesses to deliver its products or services to its customers (Ayers 2001). The non-application of principles of supply chain management practices could be adduced to the following: too much focus on procurement, lack of appropriate technologies, too many small scale industries, individual mind set and diseases such as HIV which have had negative implications for human resource development over the years in that regards (Buachi 2010).

Research Problem

In the theme: “Can Ghanaian and West African business executives and policy makers continue to underrate the strategic importance of SCM in today’s world” by the West African Institute for Supply Chain Management (WAISCL), it was contended that “African countries are suffering largely due to the non-application of the principles of supply chain management practices to business activities.”

Research Objective

The study sought to achieve the following objectives:

1. To examine Supply Chain Management practice at Kasapreko Company Limited.
2. To ascertain the effect or influence of SCM practice on KCL performance.
3. To describe the trend in sales of KCL in Ghana.

Research Questions

The research sought to address the following research questions:

1. Can Supply Chain Management improve businesses in Ghana and West Africa
2. What challenges faces businesses in an attempt to manage their supply chain.
3. What relationship exist between sales and performance at Kasapreko Company Limited

Justification and Significance of the Study

Empirical research provides that SCM contribute to organizational performances. Tan et al (1998) found that customer relation and purchasing practice impacts the effectiveness of SCM strategies and lead to the financial and market performances and Ghana seem to be grappling with performances. Could this problem be due to lack of adequate SCM practices? This study therefore seeks to investigate the impact of SCM practices on organizational performances in Ghana.

The question however is, to what extents do supply chain management practices affect or influence the performance of businesses in Ghana? Is there a recognized and standardized framework for assuring business success through the application of the principles of supply chain management in Ghana? This study therefore sought to find some answers to these questions particularly from a Ghanaian perspective and to establish whether supply chain management practice affect business performance in Kasapreko Company Limited (KCL). The study further examines specific SCM practices implemented at (KCL).

LITERATURE REVIEW

Concepts and Ideas of Supply Chain Management

The term “supply chain management” (SCM), according to Van der Vorst (2004) is relatively new. It first appeared in logistics literature in 1982 as an inventory management approach with an emphasis on the supply of raw materials (Oliver and Webber 1982). By 1990, academics first described SCM from a theoretical standpoint to clarify how it differed from more traditional approaches to managing the flow of materials and the associated flow of information (Cooper and Ellram 1993). The growing interest in SCM, according to Lummus and Vokurka (1999) is attributable to three (3) basic factors, thus, growing specialization or focus on core activities by many firms, intense competition from both local and international sources, and the realization by firms that maximizing performance of one department or function may lead to less than optimal performance for the whole company. Agreeing with this assertion, Cooper et al. (1997) in their research concluded that, the concept of SCM arose over the recognition that sub-optimization occurs if each organization in a supply chain attempts to optimize its own results rather than to integrate its goals and activities with other organization to optimize the results of the chain.

For any market driven organization to be able to compete effectively with its competitors it must sustain certain core competencies, such as process management, integration of knowledge, and diffusion of learning. Competitive position of a business arguably results from the assessment of what the firm offers with regards to value creation as compared to that of its competitors (Gorynia 2004). Indeed, basic measures of the competitive position of a firm are its market share and financial position. Additionally, factors such as product quality, customer loyalty, and reputations are also used as additional measures of business performance and competitive position of a firm (Gorynia, 2004). Consequently, Lee and Billington (1992) pointed out that, SCM can be used as a strategic weapon to develop a sustainable competitive advantage by reducing investment without sacrificing customer satisfaction.

Supply Chain Management and Business Performance Performance Measurement

Generally, there have not been many studies regarding the practical part of performance managing (Jaakkola 2006). However, in 2000, Clark studied how managers actually judge marketing performance. Therefore, it is vital researchers account for the measures managers are using (Jaakkola 2006). It needs to however be noticed that performance is meaningful only when used in decision making (Lebas and Euske 2000). Also of importance is to what is performance compared (Clark 2000).

Measuring Business Performance

There are several points of departure that can be used to assess performance of a business (Jaakkola 2006). These include, among others, accounting perspective (assessment of financial measures of performance), marketing perspective (assessment of marketing inputs, too) and operations perspectives (assessment of effectiveness and efficiency) (Neely 2002). Apart from purely accounting-based assessment, all the assessment systems are increasingly using non-financial indicators to analyze according to Jaakkola (2006). For instance the Balanced Scorecard (BS), introduced by Kaplan and Norton (1992).

Conceptual and Theoretical Framework

Conceptual framework of SCM practice on the performance of KCL is defined according to synthesis of analyzed theoretical findings. Consequently, researchers has developed the conceptual framework on the basis of Li et al. (2006) model. The model have four (4) major components; (1) Level of information sharing, (2) Quality of information sharing, (3) Customer relationships, (4) Strategic supplier partnerships. The researchers, however, outlines what a SCM practice is and performance impact of SCM practice.

Definition of Supply Chain Management Practice

Li et al. (2006) define SCM practices as a set of activities undertaken in an organization to promote effective management of its supply chains. From this definition one can conclude that components of SCM practices includes supply and material management issues, operations, information technology and sharing (ICT) and customer service (Tan et al. 2002). Other components such as technology, cost, inventory management, competitiveness and external regulations, according to McMullen (1996) needs to be managed effectively to achieve to business goals of each supply chain members. It also leads to value creation to end customer.

Performance Impact of Supply Chain Management Practice

Previous studies suggest that effective SCM practices have a direct impact on the overall financial and marketing performance of an organization (Shin et al. 2000; Prasad and Tata 2000). Indeed, SCM practices is expected to increase an organization's market share, return on investment and improve overall competitive positions. For instance, Tan et al. (1998) asserted that customer relations and purchasing practices impact the effectiveness of SCM strategy and lead to financial and market performance. Froehlich and Westbrook (2001) on the other hand suggested that companies with broader supply chain integrations with suppliers and customers showed the largest performance improvement in business achievements.

RESEARCH METHODOLOGY

A sample size of 200 respondents was used for the study. The sample size was taken after considering the relative number of customers who use KCL products. The sample frame includes: Kasapreko Company Limited and customers (distributors, wholesalers, retailers, and consumers) of alcoholic beverages produced by KCL. A quota sampling technique was employed in the selection of respondents to answer the questionnaires. The respondents were first divided in to two strata (retailers and final consumers of KCL products), and convenience sampling was used to select the required number from each stratum.

The study benefited from two main data sources; primary and secondary. The survey included the direct administration of questionnaires. Both qualitative and quantitative methods of analysis were employed in analysing the data collected. The qualitative data analysis involved an analysis of production output and sales level collected from the study area as means of assessing the company performance with regards to applying supply chain management practices to business processes. It also includes content an analysis of data or information collected during interviews in the form of notes jotted down during reconnaissance survey and in-depth interviews with key personnel. The quantitative analysis of the data involves the ranking and descriptive analysis of answers to questions according to their frequencies and distributions in the collected data from retailers and wholesalers in the

study area. Descriptive analytical technique was used with the aid of Statistical Package for Social Sciences (SPSS) to analyse the data collected with the use of questionnaires.

Limitations of the Study

The research scope should have covered the entire manufacturing companies in Ghana to give adequate grounds for generalization of the research findings but due to limited time frame the research was limited to Kasapreko Company Limited.

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

Demographical Description of Respondents (Age of Respondents)

Table 4.1: Age of Respondents

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Valid 20-24	15	7.5	7.5	7.5
25-29	44	22.0	22.0	29.5
30-34	66	33.0	33.0	62.5
35-39	38	19.0	19.0	81.5
40 and above	37	18.5	18.5	100.0
Total	200	100.0	100.0	

Source: Researchers field work, 2013

Table 4.1 is a representation of the ages of the respondents. Fifteen (15) of the respondents representing 7.5% are between the ages of 20 to 24 years. Forty-four (44) respondents fall between the ages of 25 to 29 years of ages. The modal age group is 30-34 which has sixty-six (66) respondents representing about 33% of the total respondents. Thirty-eight (38) of the respondents are between the ages of 35 to 39 years also representing 19% of the total respondents. Thirty-seven of the respondents are 40 years or above also constituting 18.5% of the respondents.

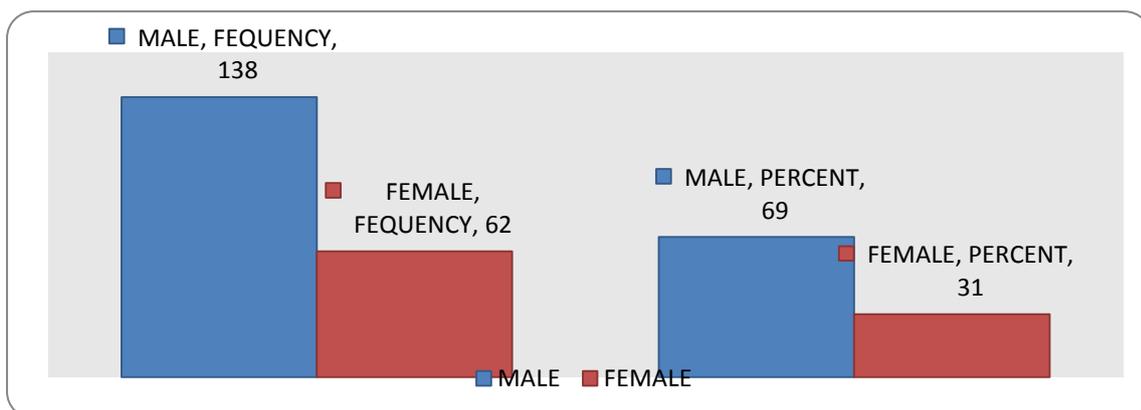


Figure 4.1: The Gender of Respondents

Figure 4.1 above is a graphical representation of the gender of respondents. One hundred and thirty-eight (138) are males, representing 69% of the respondents. Only sixty-two (62) are female also representing 31% of the total respondents. This seeks to suggest that there are more male consumers of Kasapreko Company Ltd products than female consumers.

Table 4.2: Marital Status of Respondents

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Single	59	29.5	29.5	29.5
Married	101	50.5	50.5	80.0
Divorced	27	13.5	13.5	93.5
Widow/Widower	13	6.5	6.5	100.0
Total	200	100.0	100.0	

From Table 4.2 above, 59 respondents, representing 29.5% of the total respondents are singles. About 50.5% of the total respondents constituting 101 respondents are married. However, twenty-seven (27) respondents are married but divorced. Thirteen (13) representing 6.5% of the respondents are widows or widowers.

Research Question One: Describe the supply chain network of Kasapreko Company Limited.

In an interview with the Procurement Manager, he stated that their supply chain begins with upstream; farmers Midland International (GH) Ltd, Mampong Institute for Scientific Research (MISR), and suppliers of bottles used for bottling the alcohol of various kinds that we manufacture. These companies enumerated delivers directly to the company for onward manufacturing process or transformation into products. Subsequently, we bottle them for distribution to customers (wholesaler, retailers, and final consumers) across the country and export to Nigeria downstream. We even have 1000 acre herbal plant in the Eastern Region producing alcohol to supplement what our suppliers are supplying and to cater for any future uncertainties.

Research Question Two: What is the nature of relationship with your suppliers' suppliers?

Procurement Manager responded that its long term in nature because of the nature of our raw materials couple with intense competition within the alcoholic beverage industry in recent, we need to secure our sources of supply to ensure continuous supply and avoid any shortage which have the risk of affecting production process and our ability to deliver to market. Indeed, it is a backward integrated system, where we take serious activities of our suppliers and those who supplies our suppliers to ensure that quality is built in the raw materials from onset.

Research Question Three: Does the company have interest in which suppliers their suppliers are dealing with?

Production Manager: We do, but only in the farmers, especially those supplying MISR, because as you understand weather conditions in the country can hamper the work of the farmers thereby affecting their ability to meet to meet the requirement of the institute which can also affect us. Also, we have invested capital to resource the institute to function as expected to be able to meet our request.

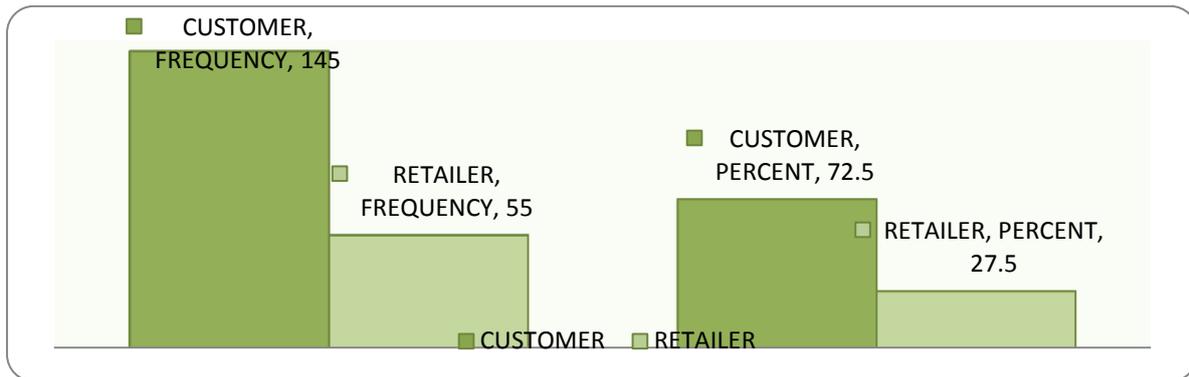


Figure 4.2: Respondents Relation to Kasapreko Company Limited

Figure 4.2 is also a graphical representation of respondents' relation to the company. One hundred and forty-five (145) respondents are customers to the company; final consumers of alcoholic beverages produced by Kasapreko Company Ltd. This represents 72.5 Percentage of the total respondents. Fifty-five respondents are retailers. These are individuals who sell alcoholic beverages to final consumers. They also constitute 27.5% of the total respondents.

Delivery Dependency and Performance

One major activity firms undertake to ensure the management of their supply chain is encouraging delivery dependency. This section presents analysis on activities that ensure delivery dependency and how delivery dependency influences the performance of the organization.

Table 4.3: Responds on Whether KCL Delivers Customers Choice of Products

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Valid Strongly Agree	34	17.0	17.0	17.0
Agree	123	61.5	61.5	78.5
Neutral	39	19.5	19.5	98.0
Disagree	3	1.5	1.5	99.5
Strongly Disagree	1	.5	.5	100.0
Total	200	100.0	100.0	

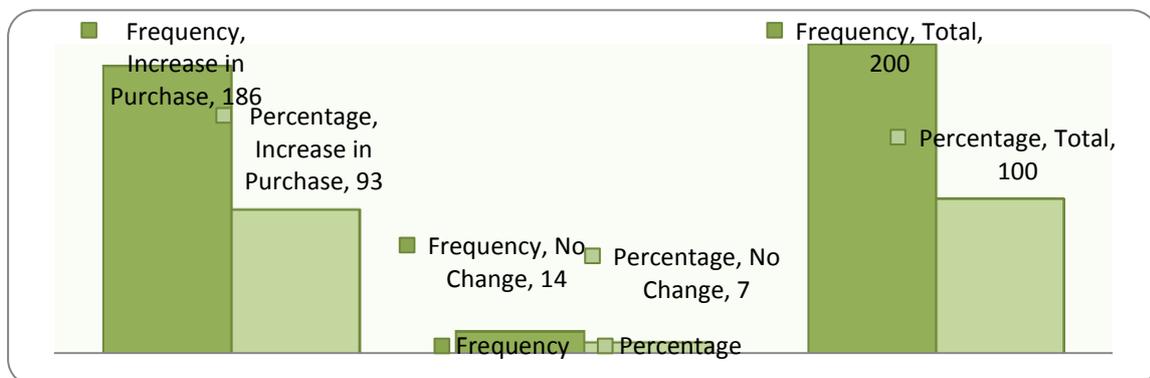
Source: Field Survey, 2012

Table 4.3 above illustrates customers' responds as to whether KCL produce products they the customers want. Thirty-four respondents indicated that they strongly agree that KCL produce products they the customers want. One hundred and twenty-three (123) respondents; representing 61.5% of the total respondents agreed that KCL really produce customers choice of products. This clearly indicates that KCL produces products that customers demand for and therefore provide an opportunity towards establishing product dependency.

Table 4.4: Impact of Delivery Dependency on Customers Purchases

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Valid Yes	187	93.5	93.5	93.5
No	3	1.5	1.5	95.0
Not Certain	10	5.0	5.0	100.0
Total	200	100.0	100.0	

From Table 4.4 above, one hundred and eighty-seven (187) representing 93.5% of the total respondents indicated that the delivery process has impact on their purchases. However, whether the impact is positive or negative; Figure 4.4 beneath illustrates that:

**Figure 4.4: Responds on How Delivery Dependency Influence Purchases**

From Figure 4.4 above, one hundred and eighty-six (186) respondents indicated that delivery dependency influences their purchases positively; hence increase in purchase. This represents 93% of the total respondents. However 14 respondents representing just about 7% of the total respondents indicated that delivery dependency has no influence on their purchases and consequently no change on purchases. This analysis clearly indicates that delivery dependency impacts positively on customers purchases.

Customer Relation and KCL Performances

Customer relation with regards to SCM practices comprises activities that are employed for the purpose of managing customer complaints, and improving customer satisfaction. This paragraph provides analysis on whether KCL engages in building customers relationship strategies and whether such relationship contributes to the performance of KCL.

Table 4.5: Responds on Whether KCL Frequently Interact with Customers

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Valid Strongly Agree	70	35.0	35.0	35.0
Agree	95	47.5	47.5	82.5
Neutral	34	17.0	17.0	99.5
Disagree	1	.5	.5	100.0
Total	200	100.0	100.0	

Table 4.5 above, illustrates responds on whether KCL frequently interact with their customers. From Table 4.5 seventy (70) respondents strongly agreed that KCL frequently interacts with them. This represents 35% of the total respondents. Ninety-five (95) respondents representing 47.5% of the respondents and the modal frequency agreed that KCL frequently interact with their customers. Thirty-four respondents are however uncertain as to whether KCL frequently interacts with their customers or not. One person disagree that KCL frequently interact with their customers.

Table 4.6: Responds on How Customer Relationship Influence Purchase

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Valid Increase in Purchase	194	97.0	97.0	97.0
No Change	6	3.0	3.0	100.0
Total	200	100.0	100.0	

From Table 4.6 above, one hundred and ninety-four respondents (97%) confirmed that the relationship they have with KCL influences them to purchase more of the product. Six respondents however indicated that customer relation does not change their purchases. The gap between those who say customers relationship leads to increase in purchase, and those who say no charge clearly suggest that customer relationship; if well managed could increase organizational performances.

Information Sharing and KCL Performances**Table 4.7: Responds on Whether Information Influence Customers' Purchasing Decision**

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Valid Yes	195	97.5	97.5	97.5
No	3	1.5	1.5	99.0
Not Certain	2	1.0	1.0	100.0
Total	200	100.0	100.0	

From Table 4.7 above, one hundred and ninety-five respondents representing 97.5% of all respondents confirmed that the information they receive from KCL influences their purchasing decisions. Three respondents indicated that the information they receive has no influence on purchases hence the performance of KCL. Two respondents were however uncertain.

Table 4.8: Responds on How SCM Influence Purchase of Customers

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Valid Increase in Purchase	157	78.5	78.5	78.5
Decrease in Purchase	8	4.0	4.0	82.5
No Change	35	17.5	17.5	100.0
Total	200	100.0	100.0	

From Table 4.8 above, one hundred and fifty-seven (157) respondents indicated that SCM influences their purchases positively; hence increase in purchase. This represents 78.5% of the total respondents. However thirty-five respondents representing just about 17.5% of the total respondents indicated that SCM has no influence on their purchases and as a result no change on purchases. This analysis clearly indicates that SCM impacts positively on customers purchases.

Trend in Growth of Sales of KCL

On the question of trend in growth of KCL, the company recorded a total sales of one million five hundred and thirty-nine thousand, one hundred and thirty-eight cedis (GH¢ 1,539,138.00) in the year 2004. This amount increased to one million eight hundred and thirty thousand, and thirty-six cedis (GH¢1,830,036.00) in 2005 representing a growth of approximately 18.90%. The total sales again grew by approximately 24.95% from 2005 to 2006. There appears to be a reduction in the rate of growth from the year 2006 to 2007 compared with the growth rate from 2005 to 2006. KCL recorded total sales of one million, seven hundred and sixty-five thousand, eight hundred and fifteen cedis (GH¢1,765,815.00) in 2007. This represents a growth rate (-22.78%) from 2006. The total sales amount increased from two million four hundred and ninety-eight thousand seven hundred and eleven cedis

(GH¢ 2,498,711.00) in 2008 to two million eight hundred and six thousand five hundred and ninety-nine cedis (GH¢2,806,599.00) in 2009 also representing a growth of approximately 12.32%. The sales further grew at the rate of approximately 24.51% from the year 2009 to 2010.

CONCLUSION

The findings of this work showed that the effective application of the principles of SCM practice as asserted by Li et al. (2006) is instrumental in ensuring sustainable business performance in KCL. Among these findings is the realization that: KCL is practicing supply chain management in its operational activities. The company has ensured that its supply chain is able to provide the needed service required for satisfying its teeming customers who are the backbone of the company. For instance, due to its strategic supplier partnership relationship and investment in suppliers, the supply of raw materials considered as critical to continuous operations is secured. In this light, the company does not foresee disruptions in materials flow in the future. In fact, the findings indicate that suppliers and the company have adopted an open book concept to continuously explore areas of product and cost improvement, thereby selling product at competitive prices as compared to their competitors.

Some suppliers have even been given warehouses within the company to stock and manage materials on behalf of KCL. This according to KCL has significantly reduced cost of operation and reduces lead time. The study revealed that KCL also recognizes the need to ensure effective communications between members of their supply chain network. The free flow of adequate information through established channels internally to make information available exactly when is needed by any member of the supply chain has been instrumental to their progress. Another finding of the study was the fact that, delivery dependency to customers and customer relationships through regular interactions aim providing the necessary feedback for service improvements has been instrumental towards an effective business performance. This has been the bases for product improvement and new product development to satisfaction of customers.

Furthermore, findings from customers confirm the delivery dependability of KCL has impacted or influenced their performances. In effect the delivery process of the company has impacted positively to performance. Factors such as customer relationships from both upstream and downstream of the supply chain have impacted positively on performance with 97% confirming that relationships they have with KCL influence them to purchase more of the product.

Thus, with ever growing private sector especially in the brewery industry in Ghana coupled with increasing price volatility the paper seeks to bring in to perspective the contribution that effective and efficient management of the supply chain to profitability. The brewery industry in Africa and for that matter Ghana must improve their supply chain activities in order to compete with foreign brands and the paper gives basis for industries to operate.

RECOMMENDATIONS FOR FUTURE RESEARCH

In reference to the findings of this study, the following recommendations are being proposed to aid in ensuring businesses adopt SCM practices in business activities in Ghana. The research recommends that KCL needs to improve in the provision of information to

customers on time. This is because about 18% of the respondents cannot confidently agree that KCL provides timely information. Meanwhile information customers receive is found to have positive impact on performance. So if KCL improves on this information provision it is expected that their performance will as well improve.

Businesses are also advised to view supply chain management as a strategic activity, rather than just mere operational activity. Acceptance of suppliers as being part of the business is professed to improve organizational performance. Corporate entities are recommended to engage in employment of appropriate professionals with the expertise requisite to manage the chain at every stage of the process. This is because professionals in SCM are expected to improve delivery dependency which also has positive influence on performance. Improvement in social infrastructure to facilitate communication with supply chain partners by governments and policy makers. Increase education and public awareness of the need to adopt supply chain principles to business operations.

Also, future research could be conducted on “the contribution of supply chain management practice to attaining business goals.”

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