SJ Business Research Africa
Vol. 1 No. 1 (2024): January 2024 Issue
https://doi.org/10.51168/sjbusiness.v1i1.33
Original Article

THE VARIOUS TYPES OF SUPPLY CHAIN MANAGEMENT SYSTEMS USED BY COCA-COLA BOTTLING COMPANY IN NAMANVE.

*Grace Kobusingye, Dr. Muhamad SSendagi**
School of Graduate Studies, Team University.

Abstract

Background

This study aims to find out the various types of supply chain management systems used by Coca-Cola bottling companies in Namanve.

Methodology

The study adopted a cross-sectional study. The target population was 428 and the sample was 209. However, the response rate of 86% gave 179 participants. The main research instrument was questionnaires. Data was analyzed using mean and standard deviation; Pearson Correlation and Regression Analysis.

Results

The majority, 57% of the respondents were male while 43% were female. The dominance of the male respondents in this study could mean that Coca-Cola employees are more male than female.
The study found that the types of supply chain management systems used by Coca-Cola were satisfactory (general average mean=2.64, Std=1.034). The study further found that supplier and customer integration were poorly practiced by the company. However, information sharing and internal integration were satisfactorily practiced by the company.

Conclusion

The study found that the supply chain management system was satisfactory in the Coca-Cola company (general average mean=2.64, Std=1.034).

Recommendation

There is a need for Coca-Cola Company to improve its relationship with suppliers. This can be achieved by sharing information with suppliers and regularly solving problems jointly with suppliers where needed. This will help in building a good relationship which will guarantee company performance both financially and structurally.
There is a need for Coca-Cola Company to handle their customers properly. This can be achieved by attending to them promptly and responding to their complaints professionally and satisfactorily.

Keywords: *Supply Chain Management Systems, Coca-Cola Bottling Company, Namanve.*
Submitted: 2024-01-03 Accepted: 2024-01-30

Corresponding author: Dr. Muhamad SSendagi
Email: Sendagimoh@gmail.com
School of Graduate Studies and Research, Team University

Background of the study

Supply Chain Management is regarded as one of the most influential development business management techniques and it has gained significance for improving organizational performance (Lampert and Cooper, 2011). In practice, supply chain management is regarded as a successful business concept and a good practice to link all stakeholders and ensure cost-effective and timely movement of materials and information from the inception of a product or service to its final consumption (Giannakis and Groom, 2014). The traditional understanding of supply chain management is to leverage the supply chain to achieve the lowest initial purchase prices while assuring supply. Typical characteristics include multiple partners; partner evaluations based on purchase price; cost-based information bases; arm 's-length negotiations; formal short-term contracts; and centralized purchasing. Operating under these conditions encourages fierce competition among suppliers, often requiring playing one supplier against the others, and uses rewards or punishment based on performance. The fundamental assumption in this environment is that trading partners are interchangeable and that they will take advantage if they become too important. In addition, there is a belief that maximum competition, under the discipline of a free market, promotes a healthy and vigorous supply base that is predicated on the "survival of the fittest" (Robert, 2010).
Coca-Cola plant started its performance in Wakiso district in South-Eastern Uganda in 1986. The company uses different supply chain systems including integrated systems (system application and products) responsible for management information systems which help us to make serious decisions (Supply and chain manager Coca Cola com[pany-Namanve, 2009). Supply chain management at the Coca-Cola plant includes bottle packing, buying raw materials, supplying customers, and issuing raw materials. Coca-Cola's supply chain management system faces several shortfalls that include among others poor

SJ Business Research Africa
Vol. 1 No. 1 (2024): January 2024 Issue
https://doi.org/10.51168/sjbusiness.v1i1.33
Original Article

information sharing, poor customer and supplier orientation, and poor internal integration. This study aims to find out the various types of supply chain management systems used by Coca-Cola bottling companies in Namanve.

Methodology

Research Design

A cross-sectional study is a type of observational study that analyses data collected from a population, or a representative subset, at a specific point in time—that is, cross-sectional data. This study employed a cross-sectional research design. The cross-sectional design allows for the study of the population at one specific time and the difference between the individual groups within the population to be compared. It also provides for the examination of the co-relationship between the study variables (Amin, 2005)

However, cross-sectional studies also have some weaknesses. For example, routinely collected data does not normally describe which variable is the cause and what the effect is. Cross-sectional studies using data originally collected for other purposes are often unable to include data on confounding factors and other variables that affect the relationship between the putative cause and effect (*Schmidt and Kohlmann, 2013)*.

This study adopted a cross-sectional study because it is less expensive than other research designs. This is because in a cross-sectional survey, a specific group is looked at to see if an activity, say, financial performance, is related to the supply chain management system being investigated (*Lee, 2014).*

Quantitative data analysis was used to describe the statistics of the scores using indices that describe the current situation and investigate the associations between the study variables using information gained from the questionnaires.

Study Area

This study was carried out in Namanve where the coca cola plant is located.

Target Population

According to Mohamoud (2014), there are a total of 428 employees working in the Coca-Cola plant in Namanve. These employees were the target population in this study. The employees included both managerial and support staff.

This study used Solven's formula to determine the sample size of the study.

$$n = \frac{N}{1 + N(\alpha)^2}$$

Where;

N=target population

n=sample size

$\alpha = level\ of\ significance$

$$n = \frac{428}{1 + 428(0.05)^2}$$

$$\frac{428}{2.05}$$

$$n = 209$$

Table 1 gives the summary of the Target population and Sample Size Computation

Table 1: Target Population and Sample Size

Category of Respondents	Target Population	Sample Size
Managerial staff	15	7
Support Staff	413	202
Total	**428**	**209**

Sampling Techniques

The researcher selected the managerial staff using a purposive sampling method based on his own knowledge and professional judgment. This is because purposive sampling is usually used when a limited number of individuals possess the trait of interest. It is the only viable sampling technique for obtaining information from a very specific group of people (Amin, 2005). Furthermore, the researcher used a simple random sampling method to select the support staff. In this technique, each member of the population has an equal chance of being selected as a subject. The entire process of sampling is done in a single step with each subject selected independently of the other members of the population. The researcher achieved this by writing the names of all the respondents obtained from the human resource department. The names were put in a bowl and shaken like lotto and then randomly selected. The names were selected until the researcher was satisfied with the number that he needed.

Data Collection Instruments

This study used a questionnaire as the main data collection tool. Closed-ended questionnaires – where some questions were presented the responses were fined and the respondent was expected to choose the answer from the options given him/her. This was done to provide quick results and a lot of information in no time. A four-point Likert scale of strongly agree, agree, disagree and strongly disagree was used. The study used a nominal scale where the numbers or letters were assigned to objects to serve as labels for identification or classification. The ordinal scale was used to include the characteristics of the nominal scale plus an indicator of order by weighting from the highest of 4 (strongly agree) and lowest of 1 (strongly disagree). The use of the nominal scale shows a statement of "greater than" or "less than" without stating how much greater or less. The researcher preferred to use questionnaires because they are relatively easy to analyze; they are familiar to library staff and managers; they are

SJ Business Research Africa
Vol. 1 No. 1 (2024): January 2024 Issue
https://doi.org/10.51168/sjbusiness.v1i1.33
Original Article

simple to administer, and because a large sample of a given population can be contacted at a relatively low cost.

Validity and Reliability

Validity

Validity deals with the degree of fit between a construct and its indicators (e.g. questionnaire). It refers to how well the conceptual and operational definitions mesh with each other. According to Davis (1996), a measurement scale is valid if it does what it is supposed to do and measures what it is supposed to measure. This study used the content type of validity.

Content validity ensures that the measures include an adequate and representative set of items and the clarity of the definition and concept used. As Kerlinger (2011) notes, "Content validation is guided by the question: is the substance or content of this measure representative of the content of the universe of the property being measured?" A major threat to content validity is ill-defined terms and or concepts. The variable measurements of the study were consistent with prior studies and hence there did not seem to be any threat to content validity.

To find a procedure that creates the critical dimensions of the variable being measured, Davis (1996) suggested the following procedure: i) conduct an exhaustive search of the literature for all possible items to be included in the scale. Enumerate these dimensions and put them in a scaling format similar to the one that the researcher utilizes in the study; ii) solicit expert opinions on the inclusion of items. Find experts in the field and ask for suggestions as to any additions or deletions to the scale; iii) pre-test the scale on a set of respondents similar to the population to be studied. Encourage suggestions and criticisms as to the contents and/or wording of the scale; iv) modify as necessary. Suggestions 2 and 3 should be used to modify the device to ensure Nunnally's (2010) criteria for content validity: the adequacy with which important content has been sampled, and the adequacy with which the content has been cast in the form of test items.

In this study, a pilot study of the questionnaire was conducted to determine whether or not any alterations or rewording of questionnaires was necessary due to any jargon, inconsistencies, or leading questions. The sample of the pilot study involved ten respondents from Coca Coca-Cola Company (not included in the analyzed sample). In addition to testing the actual questionnaire items, the pre-test included in-depth conversations with some of the participants. This was carried out not only to ascertain direct feedback on specific sections or items of the questionnaire but also to serve as an opportunity to give an opinion on the structure and appropriateness of the instrument. The data from the pre-test was also used to facilitate a trial of the codification, programming, and statistical analyses using SPSS version 22.0. As a result of the pilot study, changes were made to the instrument including as mentioned previously, the deletion of some inappropriate questions.

Reliability

Reliability is the extent to which measurements of the particular test are repeatable. In other words, the measuring procedure should yield consistent results on repeated tests (Nunnally, 2010). The more consistent the results given by repeated measurements, the higher the reliability of measurement procedures (Carmines and Zeller, 2009). Nunnally (2010) suggested that there are at least four methods of estimating the reliability coefficient: test-retest method, alternative form, subdivided-test method (referred to as the split-half method), and methods concerning internal consistency. In the test-retest method, the same set of measures is administered at two different times to the same respondent. The scores obtained from the two different times are then correlated. In alternative forms, two equivalent forms of scale are constructed and then administered at two different times to the same respondents. For the third method, the subdivided test or the split-half method, the scale is divided into two sets of items and given to the same respondents. The reliability coefficient is estimated by correlating the score of two halves. According to Osgood et al (2007), "the reliability of an instrument is said to be the degree to which the same score can be reproduced when the same objects are measured repeatedly". In this study, heterogeneity reliability was used.

Content heterogeneity

Content heterogeneity deals with the heterogeneity of the behavior domain sampled. That is, the more homogeneous the items of the scale, the higher the interitem consistency. The internal consistency of the variables was determined by Cronbach's coefficient alpha for each scale (Nunnally, 2010). Coefficient alpha treats both content sampling and content heterogeneity as the sources of variance. Cronbach's alpha is based on the average correlation of items within a test if the items are standardized. If the items are not standardized, it is based on the average covariance among items.

In this study, the Cronbach's alpha was calculated. The results are presented in Table 3.2. The Cronbach's coefficient alpha observed ranged from 0.72 to 0.85, which is well above the acceptance level. This argument is also supported by Sekaran (2000). They stated that in general, reliabilities less than 0.60 are considered to be poor, those in the range of 0.70 are acceptable, and those over 0.80 are good. Thus, the inter-item consistency (content sampling and content homogeneity) of the measures used in this study can be considered to be good.

Table 2: Reliability of Scales

Scales	Number of items	Cronbach's Alpha
Supplier integration	5	0.78
Internal integration	4	0.74

Customer integration	5	0.85
Information Sharing	5	0.81
Budget performance	5	0.77
Profitability	5	0.79
Liquidity	5	0.83
Solvency	4	0.75

Data Gathering Procedure

An introduction letter was obtained from the management to collect data. The researcher reproduced an adequate number of questionnaires above the required sample size (209), to take care of attrition.

During the administration of the research instruments on the selected respondents, the respondents were properly and adequately oriented on the study and why it was being carried out. The respondents were verbally requested to consent to the study. They were also guided on how to fill out the questionnaires and the importance of answering every item of the questionnaire without leaving any part unanswered. The respondents were requested to kindly respond to the questionnaire on time. The researcher retrieved the filled questionnaires within one week. After retrieving them back, they were thoroughly checked to ensure that all items were adequately answered by the respondents.

After retrieving back, the questionnaire and collecting the required data, it was prepared for analysis by using Statistical Package for Social Scientists (SPSS, version 22.0) software. In this process, the data underwent these processes i.e. data editing which involved checking the filled questionnaires for any omissions or mistakes; then data coding which involved giving each item of the questionnaire or variable a code to be used when imputing the data into the computer, and lastly data entry into the computer for analysis.

Data Analysis

After processing (i.e. editing, coding, and entry into the computer) the collected data, the researcher analyzed it. The analysis was conducted in the following manner: The frequency and percentage distribution were used to determine the profile of the respondents; descriptive statistics (mean and standard deviation) were used to determine the magnitude and measure of dispersion of the variables.

Furthermore, the Pearson Correlation Coefficient was used to establish the relationship between the study variables. Pearson correlation was used to measure the strength of the association between the supply chain management system and financial performance. On the other hand, regression analysis was used to determine the level at which the independent variable (supply chain management systems) predicts the variation in the dependent variable (financial performance).

Ethical Considerations

Informed Consent

The researcher made sure that subjects were made aware of the nature of the research project; consent was voluntarily given; and the persons involved had the legal capacity to give consent.

Privacy and Confidentiality

The researcher made sure participants were anonymous and their privacy was adequately observed.

Plagiarism

The researcher made sure that all the work cited in this work that did not directly reflect his views were correctly referenced.

Results

Response Rate

The researcher distributed 209 questionnaires but only 179 were retrieved. This response rate value is above the average response rate in any humanity study.

Demographic Characteristics

The demographic characteristics of the respondents were measured in terms of gender, age, education level, and work experience.

Table 3: Demographic Characteristics

SJ Business Research Africa
Vol. 1 No. 1 (2024): January 2024 Issue
https://doi.org/10.51168/sjbusiness.v1i1.33
Original Article

Gender	Frequency	Percent (%)
Male	102	57.0
Female	77	43.0
Total	**179**	**100.0**
Gender		
30-39 years	89	49.7
20-29 years	35	19.6
40-49 years	29	16.2
Above 50 years	26	14.5
Total	**179**	**100.0**
Education		
Certificate	67	37.4
Diploma	66	36.9
Bachelor Degree	35	19.6
Master Degree	11	6.1
Total	**179**	**100.0**
Work Experience		
1-5 year	104	58.1
Less than 1 year	43	24.0
More than 5 years	32	17.9
Total	**179**	**100.0**

Source: Primary data, (2021)

Table 3 revealed that the majority, 57% of the respondents were male while 43% were female Coca-Cola minance of the male respondents in this study could mean that Coca-Cola employees are more male than female.

Furthermore, the majority, 49.7% of the respondents were within the age group of 30-39 years, while 19.6% of the respondents were within the age group of 20-29 years. Similarly, 16.2% of the respondents were within the age group of 40-49 years while 14.5% of the respondents were above 50 years. The dominance of the respondents within the age group of 30-39 years could be because Coca-Cola Company enjoys employing mature and intelligent people who can work in their finance department and improve their supply chain management systems.

In addition to that, table 3 revealed that the majority, 37.4% of the respondents were certificate holders, while 36.9% were Diploma Holders. Furthermore, respondents who were bachelor's and master's holders were represented by 19.6% and 6.1% respectively. The dominance of the certificate holders in this study could be attributed to the low education level in Somalia which leaves very few people to be employed in white-collar jobs.

Last but not least, the table revealed that the majority, 58.1% of the respondents had work experience of 1-5 years, followed by 24% who had work experience of less than 1 year and 17.9% who had work experience of more than 5 years.

The Various Types of Supply Chain Management Systems Used by Coca-Cola Bottling Company in Namanve

Objective one: the first objective of this study was to find out the various types of supply chain management systems used by Coca-Cola bottling companies in Namanve.

Table 4 gives a summary of the findings.

SJ Business Research Africa
Vol. 1 No. 1 (2024): January 2024 Issue
https://doi.org/10.51168/sjbusiness.v1i1.33
Original Article

Table 4: The Various Types of Supply Chain Management Systems Used by Coca-Cola Bottling Company in Namanve

Supply Chain Management System	Mean	Std. Deviation	Interpretation
Supplier integration			
We select and rely on a small number of highly qualified suppliers.	3.83	0.986	Very Satisfactory
We expect our relationship with key suppliers to last a long time.	2.36	0.602	Poor
We regularly solve our problems jointly with our suppliers.	1.88	0.328	Poor
We consider our suppliers as an extension of our company.	1.38	0.492	Poor
We share sensitive information with our suppliers.	1.32	0.418	Poor
Average mean	**2.15**	**0.565**	**Poor**
Customer Integration			
We anticipate and respond to customers' evolving needs and wants.	3.00	1.431	Satisfactory
We frequently measure and evaluate customer satisfaction.	2.43	3.140	Poor
We emphasize the evaluation of formal and informal customer complaints.	2.31	1.692	Poor
Customer focus is reflected in our business planning.	1.50	0.506	Poor
We frequently interact with customers to set our competitive priorities.	1.42	0.498	Poor
Average mean	**2.13**	**1.453**	**Poor**
Information Sharing			
There are direct computer-to-computer links with key suppliers.	3.29	0.970	Very Satisfactory
Intra-organizational coordination is achieved using electronic links.	2.68	1.074	Satisfactory
We have electronic mailing capabilities with our key suppliers.	2.67	1.162	Satisfactory
We use electronic transfer of purchase orders invoices and/orunds.	2.07	1.091	Poor
Our coordination with suppliers and buyers is achieved using electronic links.	1.86	0.884	Poor
Average mean	**2.51**	**1.036**	**Satisfactory**
Internal Integration			
Our inter-departmental logistic activities are closely coordinated.	3.96	1.037	Very Satisfactory
Our logistics integration is characterized by excellent distribution, transportation, or warehousing.	3.87	0.952	Very Satisfactory
The inbound and outbound distribution of goods with our suppliers is well integrated.	3.85	1.080	Very Satisfactory
Information and materials flow smoothly between our supplier firms and us.	3.43	1.252	Very Satisfactory
Average mean	**3.78**	**1.080**	**Very Satisfactory**
General average mean	**2.64**	**1.034**	**Satisfactory**

Source: Primary data, (2021)

	Mean Range	Response Mode	Interpretation
4	3.26-4.00	Strongly Agree	Very satisfactory
3	2.51-3.25	Agree	Satisfactory
2	1.76-2.50	Disagree	Poor
1	1.00-1.75	Strongly Disagree	Very poor

Source: Primary data, (2021)

The results presented in Table 4 revealed that the supply chain management system was assessed by respondents as satisfactory in Coca-Cola Company (general average mean=2.64, Std=1.034).

Vol. 1 No. 1 (2024): January 2024 Issue
https://doi.org/10.51168/sjbusiness.v1i1.33
Original Article

The study investigated to find out the types of supply chain management systems used by the Coca-Cola Company in Namanve, unfortunately, the study found that supplier and customer integration were poorly practiced by the company. However, information sharing and internal integration were satisfactorily practiced by the company.

To further elaborate on the above findings, table 4 revealed that supplier integration was assessed by respondents as poor with an average mean of 2.15 and a standard deviation of 0.565. This was attributed to the fact that the majority of the respondents disagreed that they expect their relationship with key suppliers to last a long time (mean=2.36, Std=0.602). Furthermore, respondents also disagreed that they regularly solve their problems jointly with their suppliers (mean=1.88, Std=0.328) and consider their suppliers as an extension of their company (mean=1.38, Std=0.492). Similarly, respondents disagreed that they share sensitive information with their suppliers (mean=1.32, Std=0.418).

The above results imply that Coca-Cola Company does not have a good relationship with its suppliers. This is because they do not solve their problems jointly with their suppliers; neither do they share sensitive information with their suppliers. This can lead to poor performance of the company if there is no good relationship with suppliers. This is because, in every company, suppliers are the backbone to any success, hence without a good relationship; the company is bound to fail.

Supplier integration, therefore, would help in providing vital help to the company in terms of information sharing, coordination, trust, shared technology, integrated processes, long-term contracts, assisting suppliers to improve production processes, fostering quality improvements, investing in supplier's assets, including suppliers in new product development, improving supplier's overall capabilities, risk, and reward sharing, and shared gains from development efforts. As such, integration will result in improved decision-making, enhanced knowledge sharing, aligned capabilities, built learning routines, and increased performance of supply chain partners. Trust enhances the degree of commitment between the two parties, reduces transactional costs, improves cooperation, enhances the satisfaction of the two parties, decreases formal contracts, and reduces conflicts.

The study findings in Table 4 revealed that customer integration was assessed by respondents as poor with an average mean of 2.13 and a standard deviation of 1.453. The poor customer integration at Coca Cola Company could have been attributed to the fact that majority of the respondents of the respondents disagreed that they frequently measure and evaluate customer satisfaction (mean=2.43, Std=3.140), and emphasize the evaluation of formal and informal customer complaints (mean=2.31, Std=1.692). Similarly, respondents disagreed that the company's customer focus is reflected in its business planning (mean=1.50, Std=0.506). Furthermore, respondents disagreed that they frequently interact with customers to set competitive priorities (mean=1.42, Std=0.498).

The above findings could imply that Coca-Cola Company does not take its customers seriously. This is because they do not focus on their customers by evaluating to find out their level of satisfaction, and complaints. The company also is seen not to interact with customers. This implies that if there is market competition for customers, Coca-Cola will likely lose because they do not value its customers as much as it should have.

Unfortunately, the fundamental aspect of customer relationships is the focus on key customers to understand their needs and requirements and to satisfy them. Customer integration can be practiced through integrated problem-solving initiatives, direct customer contacts, managing customer complaints, increasing customer satisfaction, and establishing long-range relations with customers. In other words, customer integration is expected to yield different benefits to organizations. Such benefits include the ability to differentiate products from competitors, increased market share and retention of profitable customers, improved customer loyalty, quickly resolving potential problems, shared knowledge and expertise concerning new technologies, deep understanding of customer needs, and rapid responses to customers.

The findings in Table 4 revealed that information sharing was assessed by respondents as satisfactory with an average mean of 2.51, and a standard deviation of 1.036. The above findings were attributed to the fact that the majority of the respondents strongly agreed that they have a direct computer-to-computer link with key suppliers (mean=3.29, Std=0.970) and that they achieve intra-organizational coordination using electronic links (mean=2.68, Std=1.074). The company also indicated that they have electronic mailing capabilities with their key suppliers (mean=2.67, Std=1.162). Unfortunately, the company does not use the electronic transfer of purchase orders invoices, and/or funds (mean=2.07, Std=1.091).

The above findings imply that Coca-Cola Company is doing its level best to share information with suppliers through emails and electronic measures. However, the electronic measures are limited to a greater extent. This could be because of their lack of technology capability to handle the security issues that come about with using the internet infrastructure.

Information sharing means distributing useful information for systems, people, or organizational units. To enhance the results of information sharing, organizations should answer four main questions: First, we ask what to share, then whom to share it with, then how to share, and finally when to share. The quality of answers will help to avoid redundancy, reduce sharing costs, and improve responses. The term 'Information Sharing' can also be referred to as 'Knowledge Sharing' or 'Information Integration'. There exists a myriad of information in a supply chain, such as logistics, business, strategic, tactical, and many more.

We all know that the main principle of SCM is the sharing of information within supply chains. By sharing information with members of the supply chain, an

Vol. 1 No. 1 (2024): January 2024 Issue
https://doi.org/10.51168/sjbusiness.v1i1.33
Original Article

organization can respond more quickly to the customer's changing needs.

Furthermore, the findings presented in Table 4 revealed that internal integration was assessed by respondents as very satisfactory with an average mean of 3.78 and a standard deviation of 1.080. The very satisfactory internal integration at Coca-Cola was attributed to closely coordinated inter-departmental logistic activities in the company (mean=3.96, Std=1.037) and having logistics integration which is characterized by excellent distribution, transportation, and warehousing (mean=3.87, Std=0.952). Furthermore, the company has well-integrated inbound and outbound distribution of goods with suppliers (mean=3.85, Std=1.080). This has made information and materials flow smoothly between the company and supplier firms (mean=3.43, Std=1.252). Internal integration is an essential practice that should be implemented before moving to achieve external integration. Internal integration deals with integrating and linking information among different organizational departments, creating easy access to inventory information, developing an easily accessed integrated database that encompasses main operational data, integrating production processes using advanced information systems, and linking production and marketing departments using computerized planning systems.

In general, Coca-Cola Company does not have good customer and supplier integration; however, it does share its information and has a good internal integration where there is good inter-departmental communication. Unfortunately, Coca-Cola Company has left very vital aspects that could steer its financial performance to a greater level. Their negligence of customers by not focusing on their needs, complaints, and level of satisfaction if taken advantage of by a potential competitor could cause a huge blow to the company. Not only that, the company does not have a very good relationship with its suppliers, rather it keeps its suppliers outside the box without having any good communication and feedback with them.

Discussion

The Various Types of Supply Chain Management Systems Used by Coca-Cola Bottling Company in Namanve

This study was to find out the various types of supply chain management systems used by Coca-Cola bottling companies in Namanve. The study found that the types of supply chain management systems used by Coca-Cola were satisfactory (general average mean=2.64, Std=1.034). The study further found that supplier and customer integration were poorly practiced by the company. However, information sharing and internal integration were satisfactorily practiced by the company.

To further elaborate the above findings, the study found that supplier integration was assessed by respondents as poor with an average mean of 2.15 and standard deviation of 0.565. This was attributed to the fact that Coca-Cola Company does not have a good relationship with its suppliers. This is because they do not solve their problems jointly with their suppliers; neither do they share sensitive information with their suppliers. This therefore means that Coca-Cola Company does not maintain a long-term relationship with its suppliers.

According to Li et al. (2012), supplier integration is characterized by various aspects and activities such as information sharing, coordination, trust, shared technology, integrated processes, long-term contracts, assisting suppliers to improve production processes, fostering quality improvements, investing in supplier's assets, including suppliers in new product development, improving supplier's overall capabilities, risk and reward sharing, and shared gains from development efforts. Unfortunately, Coca-Cola company does not take advantage of this integration, instead, they terminate suppliers immediately after a contract has been accomplished.

According to Un et al. (2010), collaboration with suppliers offers only limited new knowledge, because these often act in the same market as the firm. The information of the supplier and the buyer might therefore be the same, or at least similar. Nevertheless, the supplier's knowledge is something that can be very important for the firm. As the supplier has another set of skills, this might be a resource for the firm to use. Un et al. (2010) also state that even if the knowledge of the suppliers is limited, it is easier to access this knowledge than the knowledge of other actors in the supply chain. The supplier also supports innovations more than other actors, due to the combination of common goals and complementary capabilities between the supplier and the firm.

A study by Wynstra and Weggeman (2011), states that integrating suppliers leads to lower risk, as the risk is shared between the two firms (supplier and buyer), the firm can move faster into new markets, and also gain new resources. Hagedoorn (2013) states that if information and knowledge are shared to a higher extent between firms, the quality of the product will be higher than if the information and knowledge exchange were to be poor. Lau et al. (2010) conclude in their research that suppliers might not want to expose their knowledge and resources and thus not be willing to share all valuable information. By only delivering the required information, the innovation process might be disturbed, which will probably lead to less innovative products and lower performance (Lau et al., 2010). This is a fairly short-term thinking by the supplier, as his success increases with the success of the buying firm (Un et al., 2010).

The study findings further revealed that customer integration was poor (average mean=2.13, Std=Standard Deviation=1.453). The findings could imply that Coca-Cola Company does not take its customers seriously. This is because they do not focus on their customers by evaluating to find out their level of satisfaction, and complaints.

Tan et al. (2012) suggest that customer relationship is an important element of SCM practices; it involves the downstream element of SCM. In their study, customer-

relations practices include the following: evaluating customer complaints, following up with customers for feedback, enhancing customer support, predicting key factors affecting customer relationships, predicting customers' future expectations, interacting with customers to set standards, and measuring customer satisfaction. Furthermore, the result of their survey suggests that firms that have strong customer relationships are confident in their ability to evaluate customer complaints and provide support to their customers.

Vickery et al. (2003) emphasize the importance of establishing a close customer relationship as a major practice of supply chain integration to enable organizations to respond faster to customers. As the demand for customized products and personalized services increases, so does the need to have close relationships with customers (Wines, 1996). Furthermore, Tu et al. (2004) hypothesize that close customer contact will lead to higher levels of mass customization capabilities. This suggests that close and continuous interaction with customers is essential for organizations to develop highly customized products.

In other words, customer relationship comprises the entire array of practices that are employed to manage customer complaints, build long-term relationships with customers, and improve customer satisfaction (Claycomb et al. 2013). Tan et al. (2014) consider customer relationship management as an important component of SCM practices. As pointed out by Day (2012), committed relationships are the most sustainable advantage because of their inherent barriers to competition. The growth of mass customization and personalized service is leading to an era in which relationship management with customers is becoming crucial for corporate survival (Wines, 2011). Good relationships with supply chain members, including customers, are needed for the successful implementation of SCM programs. Close customer relationship allows an organization to differentiate its product from competitors, sustain customer loyalty, and dramatically extend the value it provides to its customers (Magretta, 2012).

Information and knowledge from customers is highly valuable for a firm's ability to innovate. However, the problem is that compared to knowledge from suppliers, it is much harder to get (Griffin and Hauser 2013). Interacting with customers could improve the understanding of the wants and needs in the market, and firms can avoid major losses, both in time and money.

However, it is unfortunate that Coca-Cola Company is taking their customers seriously. This implies that if there is market competition for customers, the Coca-Cola Company would likely lose because they do not value their customers as much as they should have.

Furthermore, the findings revealed that information sharing was satisfactory (average mean =2.51, Std= Standard Deviation=1.036). The findings imply that Coca-Cola Company is doing its level best to share information with suppliers through emails and electronic measures. This implies that the advancements in information technology have greatly contributed to the evolution of sharing information throughout the supply chain. According to Stein and Sweat (1998), regular exchanges of information enable supply chain parties to perform as a single body. This signifies that shared information has different kinds related to inventory, resources, products, demands, delays, and planning information. It may also include information about quality, logistics, customer and general market information, and design information. Singh (2013) argues that to yield the best results, shared information has to be adequate, accurate, credible, and timely. This is because information sharing affects performance in terms of improved customer responsiveness, decreased costs, enhanced service levels, and reduced levels of complexity.

Mohr and Spekman (2014) suggest that information sharing and being knowledgeable about each other's business help partners maintain their relationship for a longer time. Thus, it will reduce uncertainties in the market if supply chain members have more information and knowledge about other members (Yu et al., 2001). Furthermore, Frazier et al. (1988) suggest that organizations should share and exchange information with their suppliers regarding production plans, core products, process designs, schedules, and product development to create synergies between the organization and its suppliers. This synergy will increase the ability of supply chains to react effectively to sudden changes and uncertainties in the market (Lee, 2000).

Many researchers have suggested that the key to the seamless supply chain is making available undistorted and up-to-date marketing data at every node within the supply chain (Towill 2015; Balsmeier and Voisin 2014). By taking the data available and sharing it with other parties within the supply chain, information can be used as a source of competitive advantage. Lalonde (2012) considers the sharing of information as one of five building blocks that characterize a solid supply chain relationship. According to Stein and Sweat (2014), supply chain partners who exchange information regularly can work as a single entity. Together, they can understand the needs of the end customer better and hence can respond to market change quickly.

Sharing Information among supply chain members may bring several benefits to industries. Among these benefits, Lee et al. (2007) demonstrate the potential advantages of information sharing for manufacturers in two ways, either expected cost reduction or inventory reduction. According to Zhao et al. (2012), if information sharing is used efficiently, the manufacturers can reduce inventory costs by 5 to 35 percent when the service level is maintained or increased by the retailers.

When additional information becomes available within a supply chain, partners may benefit from this improved visibility to alter existing plans or formulate future operations. For instance, sharing demand information enables each of the supply chain members to make accurate predictions based on real demand (Li et al. 2012).

Furthermore, the findings revealed that internal integration was satisfactory (average mean=3.78, Standard Deviation=1.080). This was attributed to the fact

that the company has closely coordinated inter-departmental logistic activities and has logistics integration which is characterized by excellent distribution, transportation, and warehousing.

According to Vanichchinchai and Igel (2009), internal integration is an essential practice that should be implemented before moving to achieve external integration. This is because internal integration deals with integrating and linking information among different organizational departments, creating easy access to inventory information, developing an easily accessed integrated database that encompasses main operational data, integrating production processes using advanced information systems, and linking production and marketing departments using computerized planning systems.

Barratt (2013) stresses that there are not just gains in adopting internal integration: There could be a development of one large organizational silo. To avoid a great silo, Barratt says stress should be applied to simultaneously link inner collaboration with external collaboration: "Internal integration must be aligned with the drivers and constraints of the rest of the supply chain. The predominantly mentioned positive impact of internal integration is the alignment of inner processes; other positive impacts have been scarcely mentioned (Chen et al.2009). Nevertheless, Lambert and Cooper (2011) stress that a company's success comes down to how successfully management can integrate the intricate network of business relationships in the company. But there is another side of the coin; Parker et al. (2012) stress that needed integration mechanisms in internal integration may give rise to costs that are not outweighed by the benefits of implementing them. Fully integrating may become too costly. Johnson and Filippini (2013) take it one step further, questioning the very impact of internal integration on-time performance.

When talking about internal integration, it is usual to talk about supply-related functions that should be internally integrated, such as purchasing, manufacturing, and logistics. According to Barratt (2013), there is also a need to include marketing and R&D activities (NPD). According to Barratt, internal integration can be enabled through internal collaboration as collaboration can overcome functional myopia. However, Lambert and Cooper (2011) report that improvement in efficiency of internal supply chain activities such as purchasing, manufacturing, and logistics, has been sought by organizations for many years. Some authors would suggest that very few organizations have achieved internal integration of their activities. For example, Barratt states: "There are few if any organizations that have achieved complete internal integration, i.e. purchasing-manufacturing-logistics-marketing. Kahn and Mentzer classify such early forms of integration as predominantly based on interaction, in the sense that functional departments hold meetings and attempt to share more information" (p.35).

Collaboration efforts, such as common vision or shared resources, are said to be missing in such meetings. Bowersox et al. (2010) are of similar opinion stating that there have been efforts to integrate internal functionality by many firms, but that there is much evidence to strongly indicate that there are significant gaps: "Managers often report more success in coordinating with customers than with their own manufacturing, logistical, and marketing operations. The capabilities that support internal integration are cross-functional unification, standardization, simplification, compliance, and structural adaptation." Therefore, according to Bowersox et al (2010), identification, quantification, and organizational learning of the capabilities that support internal integration have no significance.

In general, Coca-Cola Company has left very vital aspects that could steer its financial performance to a greater level. Their negligence of customers by not focusing on their needs, complaints, and level of satisfaction if taken advantage of by a potential competitor could cause a huge blow to the company. Not only that, the company does not have a very good relationship with its suppliers, rather it keeps its suppliers outside the box without having any good communication and feedback with them.

Conclusion

The study found that the supply chain management system was satisfactory in the Coca-Cola company (general average mean=2.64, Std=1.034). In conclusion, therefore, as regards supply chain management systems, Coca-Cola Company does not have good customer and supplier integration; however, it does share its information and has good internal integration where there are good inter-departmental communications. Unfortunately, Coca-Cola Company has left very vital aspects that could steer its financial performance to a greater level. Their negligence of customers by not focusing on their needs, complaints, and level of satisfaction if taken advantage of by a potential competitor could cause a huge blow to the company.

Recommendation

There is a need for Coca-Cola Company to improve its relationship with suppliers. This can be achieved by sharing information with suppliers and regularly solving problems jointly with suppliers where needed. This will help in building a good relationship which will guarantee company performance both financially and structurally.

There is a need for Coca-Cola Company to handle their customers properly. This can be achieved by attending to them promptly and responding to their complaints professionally and satisfactorily.

Acknowledgment

My sincere gratitude is due to the Almighty God for the gift of life that he gave me. I would like to acknowledge and extend my sincere and hearty gratitude to my supportive supervisors for the critical reviews, expert advice, and regular availability in which this work has been attainable. I acknowledge the authors whose works have been cited in this study. I acknowledge with gratitude

the contributions and cooperation made by the respondents from the Coca-Cola company for their willingness to provide the necessary information when I visited their offices during the research process. Without their cooperation, this study would have been impossible to accomplish. Finally, I also thank my beloved parents for mentoring me.

List of Abbreviations

SCM	Supply Chain Management
JIT	Just-In-Time
SC	Supply Chain
CLM	Council of Logistics Management
ANP	Analytical Network Process
R&D	Research and Development
NPD	New Product Development
CFI	Cross-Functional Integration
IT	Information Technology
QR	Quick Response
ROA	Return on Assets
ROS	Return on Sales
EBITDA	Earnings Before Interest, Taxes, Depreciation and Amortization
ROI	Return on Investment
KCL	Kasapreko Company Limited

Source of funding
The study was not funded.

Conflict of interest
The author had no conflict of interest.

Author Biography
Grace Kobusingye, Master's Student of Business Administration at the School of Graduate Studies, Team University.

References
1) AAdebayo, I. Toyin, (2012). Supply Chain Management (SCM) Practices in Nigeria Today: Impact on SCM Performance European', *Journal of Business and Social Sciences*, 1(6):107-115.
2) Arawati, A. (2011). Supply chain management, product quality, and business performance. *International Conference on Sociality and Economic Development 10*, 98-102.
3) Arawati, A., (2011). Supply chain management, product quality, and business performance, *International Conference on Sociality and Economic Development*, 10: 98-102.
4) Ayman, B. A., Bader, Y. O., & Noor, O. A. (2014).The Impact of Supply Chain Management Practices on Supply Chain Performance in Jordan: The Moderating Effect of Competitive Intensity. *International Business Research;* Vol. 7, No. 3.
5) Balsmeier, P.W., & Voisin, W. (2014). Supply chain management: a time-based strategy. *Industrial Management*, 38(5):24–7.
6) Barratt, M. (2013). Understanding the meaning of collaboration in the supply chain. Supply Chain Management: *an International Journal*, Vol.9, nr.1, pp 30-42
7) Boulding, W., Staelin, R., Ehret, M., & Johnston, W. (2005). A CRM Roadmap: What We Know, Potential Pitfalls, and Where to Go. *Journal of Marketing*, *69*(4), 155–167.
8) Bowersox, D., J., Closs, D., J., Bixby Cooper, M. (2010). *Supply Chain Logistics Management*. 2nd Ed – international edition), Singapore: McGraw-Hill/Irwin (a business unit of The McGraw-Hill Companies, Inc).
9) Burgess, K., Singh, P. J., & Koroglu, R., (2013). Supply chain management: a structured literature review and implications for future research, *International Journal of Operations & Production Management*, 26: 703-729.
10) Burt, D.N., Dobler, D.W., & Starling, S.L. (2003). *World Class Supply Management: The Key to Supply Chain Management*, 7th Edition, McGraw-Hill Irwin, New York.
11) Capon, N., Farley, J.U.,& Hoenig, S. (2009). Determinants of financial performance: a meta-analysis, *Management Science*, Vol. 30, No. 10, 1143–1159.
12) Carmines, E. G., & Zeller, R. A. (2009). *Reliability and validity assessment*. Beverley Hill, CA: Sage Publications.
13) Chen, H., Daugherty, P.J., Roath, A.S. (2009).Defining and operationalizing supply chain process integration. *Journal of Business Logistics*, pp 63-86.
14) Childhouse, P., & Towill, D.R. (2012). Simplified material flow holds the key to supply chain integration. OMEGA, 31(1):17–27.
15) Christopher, M. (2013). *Logistics and supply chain management.* Great Britain: Financial Time Prentice Hall, 2nd ed.
16) Claycomb, C., Droge, C., & Germain, R. (2013). The effect of just-in-time with customers on organizational design and performance. *International Journal of Logistics Management*, (1):37–58.
17) Cohen, W. M., Nelson, R. R. & Walsh, J. P. (2012). Links and Impacts: The Influence of Public Research on Industrial R&D", *Management Science*, Vol. 48, No. 1, pp. 1-23.
18) Cook, L., & Heiser, D. (2011). The moderating effect of supply chain role on the relationship between supply chain practices and performance: An empirical analysis. *International Journal of Physical Distribution*

& Logistics Management, *41*(2), 104–134.

19) Croom S, Romano, P., & Giannakis M. (2010). Supply chain management: an analytical Framework for critical literature review, *European Journal of Purchasing and Supply Management*, 6 (1):67–83.
20) D'Avanzo, R., Von Lewinski, H., & Van Wassenhove, L.N. (2013). The link between supply chain and financial performance, *Supply Chain Management Review*, Vol. 7, No. 6, 40–47.
21) Davis, D. (1996). *Business research for decision making* (4th ed.). California: Wadsworth Publishing Company.
22) Day, G.S. (2012). Managing market relationships. *Journal of the Academy of Marketing Science*; 28(1):24–30.
23) Dehning, B., Richardson, V.J., & Zmud, R.W. (2011). The financial performance effects of IT-based supply chain management systems in manufacturing firms, *Journal of Operations Management*, Vol. 25, No. 4, 806–824.
24) Development: A Multiple-Case Study. *The Journal of Product Innovation Management*, *25*(2), 180–201.
25) Dyer, J. H., Cho, D. S., & Chu, W. (1998). Strategic supplier segmentation: the next "best practice" in supply chain management. *California Management Review*, *40*(2), 57–77.
26) Echtelt, F., Wynstra, F., Weele, A., & Duysters, G. (2008). Managing Supplier
27) Ellram, L.M. and Cooper. M.C (2010). Supply chain management, partnerships, and the shipper third party relationship', *The International Journal of Logistic Management*, 1(2): 1-10.
28) Fawcett, S.E., Magnan, G.M. (2012). *The rhetoric and reality of supply chain integration*. International journal of physical distribution and logistics management. Vol.32, no.5, pp 339-361.
29) Füller, J. & Matzler, M. (2012). Virtual product experience and customer participation – A chance for customer-centered, really new products, *Technovation*, Vol. 27, No. 6-7, pp. 378-387.
30) Gotzamani, K., Longinidis, P., Vouzas, F. (2010). The logistics services outsourcing dilemma: quality management and financial performance perspectives, *Supply Chain Management: An International Journal*, Vol.15, No.6, 438–453.
31) Greer, B.M., & Theuri, P. (2012). Linking supply chain management superiority to multifaceted firm financial performance, *Journal of Supply Chain Management*, Vol. 48, No. 3, 97–106.
32) Griffin, A., & Hauser, J.R. (2013). The Voice of the Customer, *Marketing Science*, Vol. 12, No. 1, pp. 1-27.
33) Gruner, K. E. & Homburg, C. (2010). Does Customer Interaction Enhance New Product Success?, *Journal of Business Research*, Vol. 49, No. 1, pp. 1-14.
34) Gunasekaran, A., Patel, C., & Tirtiroglu, C. (2011). Performance measurement and metrics in a supply chain environment, *International Journal of Operations and Production Management*, Vol. 21, No. 1, 71–87.
35) Hagedoorn, J. (2013). Understanding the Rationale of Strategic Technology Partnering: Interorganizational Modes of Cooperation and Sectorial Differences", *Strategic Management Journal*, Vol. 14, No. 5, pp. 371-385.
36) Halldórsson, A., Larson, P.D., & Poist, R.F. (2013). Supply Chain Management: a comparison of Scandinavian and American perspectives. *International Journal of Physical Distribution & Logistics Management*. Vol. 38, No.2, pp 126-142.
37) Handfield, R. B. and Nichols, E. L. (2011) *Introduction to supply chain management.* New Jersey: Prentice Hall, Inc.
38) Hansen, G.S., & Wernerfelt, B. (2012). Determinants of firm performance: the relative importance of economic and organizational factors, *Strategic Management Journal*, Vol. 10, No. 5, 399–411.
39) Harland, C.M., R.C. Lamming, H. W., Phillips, W.E., Caldwell, N.D., Johnsen, T.E., Knight, L.A., & Zheng, J. (2012). Supply management: is it a discipline? *International Journal of Operations & Production Management*, 26: 730 -753.
40) Henderson, A.D., Raynor, M.E., & Ahmed, M. (2012). How long must a firm be great to rule out chance? Benchmarking sustained superior performance without being fooled by randomness, *Strategic Management Journal*, Vol. 33, No. 4, 387–406.
41) Jabbour, A. B. L., Filho, A. G. A., Viana, A. B. N., & Jabbour, C. J. C. (2011). Measuring supply chain management practices. *Measuring Business Excellence*, *15*(2), 18–31.
42) Jauhari, V. (2014). Institutional Context for IT Use in the Automotive Industry: A Case Study on the Market Leader in India's Passenger Vehicle Sector, Technological Innovation Across Nations: Applied Studies of Coevolutionary Development; 65.
43) Johnson, W.H.A., & Filippini, R. (2013). *Research Report: Internal vs. External Collaboration: What Works.* Summarized report. Industrial Research Institute. pp. 15-17.
44) Kerlinger, F. N. (2011). *The foundation of behavioral research*. New York: Holt, Rinehart, and Winston, Inc.

45) Koufteros, X., Vonderembse, M. & Jayaram, J. (2015). Internal and External Integration for Product Development: The Contingency Effects of Uncertainty, Equivocality, and Platform Strategy", *Decision Sciences*, Vol. 36, No. 1, pp. 97-132.
46) Lalonde, B.J. (2012). Building a supply chain relationship. *Supply Chain Management Review*; 2(2):7–8.
47) Lambert, D.M., & Cooper, M.C. (2011). Supply chain management is more than a new name for logistics. *The International Journal of Logistics Management*.
48) Lau, A. K. W., Tang, E. & Yam, R. C. M. (2010). Effects of Supplier and Customer Integration on Product Innovation and Performance: Empirical Evidence in Hong Kong Manufacturers, *Journal of Product Innovation Management*, Vol. 27, No. 5, pp. 761-777.
49) Li Suhong, Bhanu Ragu-Nathan, T.S. Ragu-Nathan, S. Subba Rao, (2012). The impact of supply chain management practices on competitive advantage and organizational performance, *Omega 34, International Journal of Management Science*, 34: 107124.
50) Lilien, G. L., Morrison, P. D., Searls, K., Sonnack, M. & Von Hippel, E. (2012) "Performance Assessment of the Lead User Idea-Generation Process for New Product development", *Management Science*, Vol. 48, No. 8, pp. 1042-1059.
51) Loay, S. (2011). An Exploratory Study of the Relationship between Supply Chain Management Systems and Technical Efficiency of Jordanian Manufacturing Companies. *International Journal of Business and Management*. Vol. 6, No. 12.
52) Magretta, J. (1998). The power of virtual integration: an interview with Dell computers' Michael Dell. *Harvard Business Review*, *76*(2), 72–84.
53) Magretta, J. (2012). The power of virtual integration: an interview with Dell computers' Michael Dell. *Harvard Business Review*; 76(2):72–84.
54) Marshall C.C., Bly S. (2013). Sharing encountered information: digital libraries get a social life, in The 4th ACM/IEEE-CS joint conference on Digital Libraries, IEEE, Tuscon, AZ., p. 218-227.
55) Mensah, C., Diyuoh, D., & Oppong, D. (2014). Assessment of supply chain management practices and their effects on the performance of Kasapreko Company Limited in Ghana. *European journal of logistics purchasing and supply chain management.* vol.2, no. 1, pp.1-16.
56) Mentzer, J.T., & Min, S. (2013). The nature of inter-firm partnering in supply chain management. *Journal of Retailing*; 76(4):549–68.
57) Mentzer, J.T., DeWitt, W., Keebler, J.S., Min, S., Nix, N.W., Smith, C.D., & Zacharia, Z.G (2011). Defining Supply Chain Management. *Journal of Business Logistics*, Vol.22, No. 2, pp1-25.
58) Min S., Roath A.S., Daugherty P.J., Genchev S.E., Chen H., Arndt A.D., Richey R.G. (2013). Supply chain collaboration: what's happening? *International Journal of Logistics Management*, 16: 237-256.
59) Mohaoumd, U.O. (2014). An interview with the CEO of a Coca-Cola company in Mogadishu.
60) Monczka, R., Trent, R., & Handfield, R. (2015). *Purchasing and Supply Chain Management*, 2nd Edition, South Western, Cincinnati.
61) Monczka, R.M., Petersen, K.J., Handfield, R.B., & Ragatz, G.L. (2015). Success factors in strategic supplier alliances: the buying company perspective. *Decision Science*, 29(3): 5553–77.
62) Mourtzis, D. (2011). Internet-based collaboration in the manufacturing supply chain, *CIRP Journal of Manufacturing Science and Technology*, Vol (3): 33-45.
63) Nabi, I., & Luthria, M. (2012). *Building Competitive Firms – Incentives and Capabilities*. Washington D.C: The International Bank for Reconstruction and Development/ THE WORLD BANK.
64) Narasimhan, R. & Kim, S. W. (2012). Effect of Supply Chain Integration on the Relationship between Diversification and Performance: Evidence from Japanese and Korean Firms", *Journal of Operations Management*, Vol. 20, No. 3, pp. 303-323.
65) Nonaka, I. (2014). A Dynamic Theory of Organizational Knowledge Creation, *Organization Science*, Vol. 5, No. 1, pp. 14-37.
66) Nunnally, J. C. (2010). *Introduction to psychological measurement*. New York: McGraw Hill.
67) Osgood, C. E., Suci, G. J., & Tanebaum, P. H. (2007). *The measurement of meaning.*Illinois: University of Illinois Press.
68) Pandey V., Garg S., Shankar R., (2010). Impact of information sharing on the competitive strength of Indian manufacturing enterprises: An empirical study, *Business Process Management Journal*; 16: 226-243.
69) Parker, D.B., Zsidisin, G.A., Ragatz, G.L. (2012). Timing and Extent of Supplier Integration in New Product Development: a Contingency Approach. *Journal of Supply Chain Management*; 44; 1; ABI/INFORM Global, pp.71-83.
70) Ragatz, G. L., Handfield, R. B., & Petersen, K. J. (2012). Benefits associated with supplier integration into new product development under

conditions of technology uncertainty, *Journal of Business Research*, Vol. 55, No. 5, pp. 389-400.
71) Razavi M.N., & Iverson L., (2015). A grounded theory of information sharing behavior in a personal learning space, in, ACM, p. 459-468.
72) Robinson, M., & Kalakota R. (2012). *E-Business Road-map for Success.* Wokingham: Addison-Wesley.
73) Rushton, A., Croucher, P., & Baker, P. (2011). *The Handbook of Logistics and Distribution Management, 3rd Ed*. Glasgow by Bell & Bain: Kogan Page Limited/The Chartered Institute of Logistics and Transport (UK).
74) Sahay, B. S. (2003). Understanding trust in supply chain relationships. *Industrial Management & Data Systems*, *103*(8), 553–563.
75) Sahay, B. S., & Mohan, R. (2003) Supply chain management practices in Indian industry. *International Journal of Physical Distribution and Logistics Management 33*(7), 583-606.
76) Sakka, O., & Botta-Genoulaz, V. (2009). A model of Factors Influencing the Supply Chain Performance. *Proceedings of CIE 2009*, 913–918.
77) Sekaran, U. (2000). *Research methods for business: A skill building approach.* (Third ed.). New York: John Wiley and Sons.
78) Shang, K., & Marlow, P.B. (2012). Logistics capability and performance in Taiwan's major manufacturing firms, *Transportation Research Part E*, Vol. 41, No. 3, 217–234.
79) Shang, K., Marlow, P.B. (2011). Logistics capability and performance in Taiwan's major manufacturing firms, *Transportation Research Part E*, Vol. 41, No. 3, 217–234.
80) Sheth, J., Sisodia, R., & Sharma, A. (2000). The Antecedents and Consequences of Customer-Centric Marketing. *Journal of the Academy of Marketing Science*, *28*(1), 55–66.
81) Singh, R. K. (2013). Prioritizing the factors for a coordinated supply chain using the analytic hierarchy process (AHP). *Measuring Business Excellence*, *17*(1), 80–98.
82) Sousa, R. (2003). Linking quality management to manufacturing strategy: an empirical investigation of customer focus practices. *Journal of Operations Management*, *21*(1), 1–18.
83) Stein, T., & Sweat, J. (2014). Killer supply chains. Information week; 708(9):36–46.
84) Stock, G.N., Greis, N.P., & Kasarda, J.D. (2010). Enterprise logistics and supply chain structure: the role of fit', *Journal of Operations Management*, 18 (5):531–47.
85) Stock, J., & Boyer, S. (2009). Developing a consensus definition of supply chain management: a qualitative study. *International Journal of Physical Distribution & Logistics Management*, *39*(8), 690–711.
86) Suhong, L., Bhanu, R., & Ragu, N. S., Subba, R. (2014). The impact of supply chain management practices on competitive advantage and organizational performance.
87) Sun S., & Yen J. (2011). Information supply chain: A unified framework for information-sharing, *Intelligence and Security Informatics*; 422-428.
88) Szulanski, G. (2012). Exploring Internal Stickiness: Impediments to the Transfer of Best Practice within the Firm", *Strategic Management Journal*, Vol. 17, Special Issue: Knowledge and the Firm, pp. 27-43.
89) Tan, K.C Lyman, S.B., & Wisner, J.D. (2012). Supply chain management: a strategic perspective', *International Journal of Operations and Production Management.* 22(6): 614-31.
90) Tan, K.C., & Kannan, V.R., Handfield, R.B. (2014). Supply chain management: supplier performance and firm performance. *International Journal of Purchasing and Materials Management;* 34(3):2–9.
91) Tobin, J., Brainard, W. (2008). Pitfalls in financial model building, *American Economic Review*, Vol. 58, No. 2, 99–122.
92) Tompkins, J, & Ang, D. (2013). What are your greatest challenges related to supply chain performance measurement? *IIE Solutions;* 31(6): 66.
93) Towill, D.R. (2015). The seamless chain—the predator's strategic advantage. *International Journal of Technology Management*; 13 (1):37–56.
94) Töyli, J., Häkkinen, L., Naula, T., Ojala, L. (2008). Logistics and financial performance: an analysis of 424 Finnish small and medium-sized enterprises. *International Journal of Physical Distribution & Logistics Management*, Vol. 38, No. 1, 57–80.
95) Tsung, F. (2013). Impact of information sharing on statistical quality control, Systems, Man and Cybernetics, Part A: Systems and Humans, IEEE Transactions on, 30: 211-216.
96) Un, C. A., Cuervo-Cazurra, A., & Asakawa, K. (2010). R&D Collaborations and Product Innovation, *Journal of Product Innovation Management*, Vol. 27, No. 5, pp. 673-689.
97) Vickery, S.K., Jayaram, J., Droge, C., & Calantone, R. (2010). The effects of an integrative supply chain strategy on customer service and financial performance: an analysis of direct versus indirect relationships, *Journal of Operations Management*, Vol. 21, No.5, 523–539.
98) Von Hippel, E. (2015). Democratizing innovation: The evolving phenomenon of user innovation", *Journal für Betriebswirtschaft,* Vol. 55, No. 1, pp. 63-78.

99) Wagner, S.M., Grosse-Ruyken, P.T., & Erhun, F. (2012). The link between supply chain fit and financial performance, *Journal of Operations Management*, Vol. 30, No. 4, 340–353.
100) Wasti, S., & Jeffrey, L. (1999). Collaborating with Suppliers in Product Development: A U.S. and Japan Comparative Study. *IEEE Transactions on Engineering Management*, *46*(2), 245–257.
101) Williams, S. (2006). Managing and developing suppliers: can SCM be adopted by SMES? *International Journal of Production Research*, *44*(18–19), 3831–3846.
102) Wines, L. (2011). High-order strategy for manufacturing. *The Journal of Business Strategy*; 17(4):32 –3.
103) Wisner, J., & Tan, K. (2000). Supply chain management and its impact on purchasing. *Journal of Supply Chain Management*, *36*(4), 33–42.
104) Wynstra, F., Van Weele, A., & Weggemann, M. (2011). Managing Supplier Involvement in Product Development: Three Critical Issues, *European Management Journal*, Vol. 19, No. 2, pp. 157-168.
105) Yang T.M., & Maxwell, T.A., (2011). Information-sharing in public organizations: A literature review of interpersonal, intra-organizational and inter-organizational success factors, Government Information Quarterly, 28: 164-175.
106) Yu Z., Yan H., & Cheng T.C.E. (2011). Benefits of information sharing with supply chain partnerships, Industrial Management & Data Systems, 101: 114-121.
107) Yu, W., Jacobs, M.A., Salisbury, W.D., Enns, H. (2013). The effects of supply chain integration on customer satisfaction and financial performance: an organizational learning perspective, *International Journal of Production Economics*, Vol. 146, No. 1, 346–358.
108) Zha X., & Ding, N. (2014). Study on information sharing in supply chain, p. 787-789.
109) Zhao, X., Xie, J., & Zhang, W. (2012). The impact of information sharing and order-coordination on supply chain performance. *Supply Chain Management: An International Journal*, *7*(1), 24–40.

Publisher details:

SJC PUBLISHERS COMPANY LIMITED

SJC Publishers Company Limited
TODAY AND TOMORROW

Category: Non-Government & Non-profit Organisation
Contact: +256775434261(WhatsApp)
Email: admin@sjpublisher.org, info@sjpublisher.org or studentsjournal2020@gmail.com
Website: https://sjpublisher.org
Location: Wisdom Centre Annex, P.O. BOX. 113407 Wakiso, Uganda, East Africa.