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Effect of Supply Chain Integration on Competitive Capability of Mobile Phone Distributors in Rwanda: A Case of Akagera Business Group

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Abstract:

*Currently, companies are embarking on utilizing avenues that could help them improve on their competitive capability. This study investigated the effect of supply chain integration on competitive capability of Samsung mobile phones distributors in Rwanda. This study adopted a descriptive research design. A total of 55 employees of Akagera Business Group formed the target population of this study. Since the population was small sampling was not necessary. The entire population therefore constituted the sample size. Questionnaire was used for data collection. Descriptive statistics was achieved through descriptive analysis to generate frequencies and percentage of various variables. Inferential statistics was done through Pearson correlation analysis to determine if there existed any relationship between the variables. Statistical package for social science (SPSS) was used as the appropriate tool for data analysis. Results were presented in tables, pie chart and graphs. The study concluded that internal integration (.524^{**}, $p < 0.001$), supplier integration (.742^{**}, $p < 0.001$) and customer integration (.419^{**}, $p < 0.001$) significantly and positively correlated with competitive capability*

1. Introduction

1.1. Background of the Study

Business environment have nowadays become more competitive than ever. The competitive environment requires industries to develop and organize networks of activities within supply chain that are responsible for procurement, production and delivery of products globally. Various aspects of Supply Chain integration (SCI) has been perceived as a remedy for the growing completion in the business world. Stock et al., 2000 defines Supply chain integration as the extent to which all the activities within a company, suppliers, and customers are collaborated. It involves effective communication across all supply chain functions (Frohlich and Westbrook, 2001). Managers within supply chain have the task of designing what kind of integration their company should focus on and what action should be taken (Haozhe, 2007). The level of supply chain integration would boost competitive capabilities and hence enhance better performance for the company Mentzer *et al.*, (2001).

An effective collaboration between customer and manufacturer provides the companies the benefit of obtaining critical information regarding customers demand, taste and preference in the market. The manufacturers then use the gathered information to put in the market products that meets consumers need in a shorter time. Integration with customer therefore has the potential to reduce time spent by the manufactures to companies to respond to the demands of consumers (Flynn, 2004). Global competitions and the growth of customers' expectations have seen the manufacturers focusing more attention on the speed of production, trust, and flexibility. In an attempt to exploit and better such capabilities, a large number of companies are employing integrated supply chain strategy (Calantone and Zhao, 2002). Integrated supply chain enables the organizations and companies to collaborate with each other and manage their internal and external organizational functions. The main purpose of integrated supply chain is to enhance a reliable flow of products, services, and money in the market and to respond to the demands of customers with the least amount of expenses and at a high speed (Flynn, 2004).

Every manufacturing company strives to capture and maintain a big share in every market that is within its operation. Competitive capabilities such as Innovation, on-time delivery, high-quality products, and lower expenses can be achieved through an efficient supply chain. Competitive capabilities enable a given company to outshine the competitors in various market floors resulting to better performance compared to other companies (Ragatz et al., 1997).

Globally technology and globalization of entrepreneurship is rapid changing stiffening competition for market shares. Companies and organizations business strategies are currently not enough to maximize profit. Linking internal processes to external suppliers and customers is currently being viewed as a way of increasing and maintaining market share by many industries. Currently new products are being introduced into the market by day, and making predictions of market conditions is becoming a challenge for most

companies. In order to remain relevant in the market and to keep pace with the rapid changes, companies need to integrate supply chain strategies to be able to cope with the growing competition and to maintaining or improving their market share (Jafarnejad, 2006).

According to Jafarnejad (2006) there are three forms of integration within supply chain namely; internal, supplier, and customer integration. Internal integration is defined as a process of inter-functional interaction, collaboration, coordination, communication and cooperation that bring functional areas together to better the operations of an organization (Flynn et al., 2010). Supplier integration refers to the process of interaction and collaboration between an organization and its suppliers to ensure an effective flow of supplies (Zhao et al., 2011). Customer integration is to the process of interaction and collaboration between an organization and its customers to ensure an effective flow of products and services to customers (Zhao et al., 2011).

Like in other developing countries, industries, firms and organizations in African countries has embraced the aspect of supply chain integration as an approach of enhancing competitive capabilities. Studies conducted in Uganda on impact of supply chain integration on competitive capability showed that the level of SCI influences the complete capability of manufacturing industries (Mugume and Rita, 2008).

Samsung is among the companies that are distributing cell phones in Rwanda. Its competitors include LG from Asia and Nokia. Currently Nokia has a bigger market share in Rwanda especially in the mobile phone segment as compared to the other distributors. Samsung is currently operating in more than 30 African countries including Rwanda's neighbors Burundi, Uganda, and Tanzania. It has East Africa regional offices in Kenya, Nairobi (RDB, 2016).

ABG originated from Akagera Motors which was founded by the Gorajia brothers in 1977. With the addition of more business ventures to the business portfolio, Akagera Motors was transformed to Akagera Business Group in 2008. Since then the company have directly and indirectly contributed to the growth of Rwandan economic. According to ABG (2015), Akagera Electronics was established in 2010 and is currently the exclusive representative of Samsung brand in Rwanda.

1.2. Problem Statement

The rapid growth and development of SCM has been a critical aspect of management that has resulted to changes in the business sphere. It is a drive for operational change and growth of organizations to match the growing competition and globalization. A study by Zailani and Rajagopal (2005) concluded that SCM integration is positively related to competitive capability and performance of a company. In this regard creating capabilities to gain and retain competitive advantage has become a major undertaking for managers in most organizations globally.

Rosenzweig et al. (2003) investigated the impact of integration strategies on competitive capability of manufacturing company and reported that manufacturers with high level integration have better conditions of product quality, delivery reliability, process flexibility, and cost leadership.

Kim (2009) investigated the impact of the level of integration on company's competitive capability. His study measured supply chain integration basing on internal integration, integration with suppliers and integration with customers. The study found that supply chain integration leads to competitive capabilities of companies under study and these capabilities influenced the company's performance. Similarly, a study by Oghazi (2009) found that supply chain integration influences competitive capabilities positively. It is therefore evident that by engaging SCI companies would gain competitive capability and hence better performance. A midst the increasing competition and complexity in the business world implementing supply chain integration is should be seen as an approach for remaining competitive.

Currently competition among mobile phone manufacturers and distributors become so stiff that each company is putting most of its money to develop new features and mobile phone models that would catch the attention of the masses and which would make them crave for more mobile phones. New models are continuously being introduced into the Rwandan market raising demand and hence competition among the distributors. With the current competition, it is only worth for distributors to assess their stand as far as competitiveness is concerned. Although a number of studies have found a positive relationship between supply chain integration on competitive capability (Baharanchi, 2009, Fasika et al., 2014 and Oghazi, 2009), there is currently no evidence of the extent to which mobile phone distributors in Rwanda integrate supply chain for enhanced competitiveness. This study aimed at determining the effect of supply chain integration on competitive capability of mobile phone distributors in Rwanda

1.3. Objectives of the Study

The study was guided by the following specific objectives:

- i. To establish the effect of internal integration on competitive capability of Mobile Phone distributors in Rwanda
- ii. To determine the effect of supplier integration on competitive capability of Mobile phone distributors in Rwanda
- iii. To examine the effect of customer integration on competitive capability of Mobile phone distributors in Rwanda
- iv. To determine the relationship between supply chain integration and competitive capability of Mobile phone distributors in Rwanda

2. Literature Review

2.1. Supply Chain Integration (SCI)

Global market today equates having an integrated supply chain as being competitively advantaged. Industries and organizations have the task therefore of identifying those factors that plays effective role in an integrated supply chain. An effective management of

supply chain involves the integration of internal processes in the organization, all suppliers, and external customers. Morash and Smith (1998) view an integrated supply chain as an interactive and cooperative process among companies and industries in the supply chain. They argue that integrated supply chain has the sole purpose of achieve outcomes which are acceptable for all parties involved in the chain. According to Flynn (2004) integrated supply chain aids in enhancing smooth and continuous flow of products, services, and money in the market and meeting with the customers' demands at the lowest possible price ensuring timeliness of the delivery.

Properly integrated supply chain has been proved to reduce business, creates value for the organizations and industries, supply chain parties, and other business attachments and beneficiaries Lee (2000). Integrated supply chain is inevitable for companies intending to develop a competitive advantage. According to Du (2007) the success or failure of a company relies greatly on the extent to which the company invests in information technology. He continues to argue that companies can realize reduction of cost and quality of products and reduce costs through improved supply chain strategies.

Flynn et al., (2010) view supply Chain Integration (SCI) as the collaboration between a company and its supply chain partners. In this study, consideration was made to the internal integration, customer integration and supplier integration.

2.2. Conceptual Framework

This study considered internal integration, customer integration and supplier integration upon some researches as aspects of supply chain integration. A conceptual framework for the study has been developed based on literature review with three independent variables (Internal Integration, Supplier Integration and Customer Integration) and one dependent variable (competitive capability). Indicators for competitive capability in this study were customer service, flexibility and product innovation. The arrow in the conceptual framework shows the flow of effect between the independent and dependent variables.

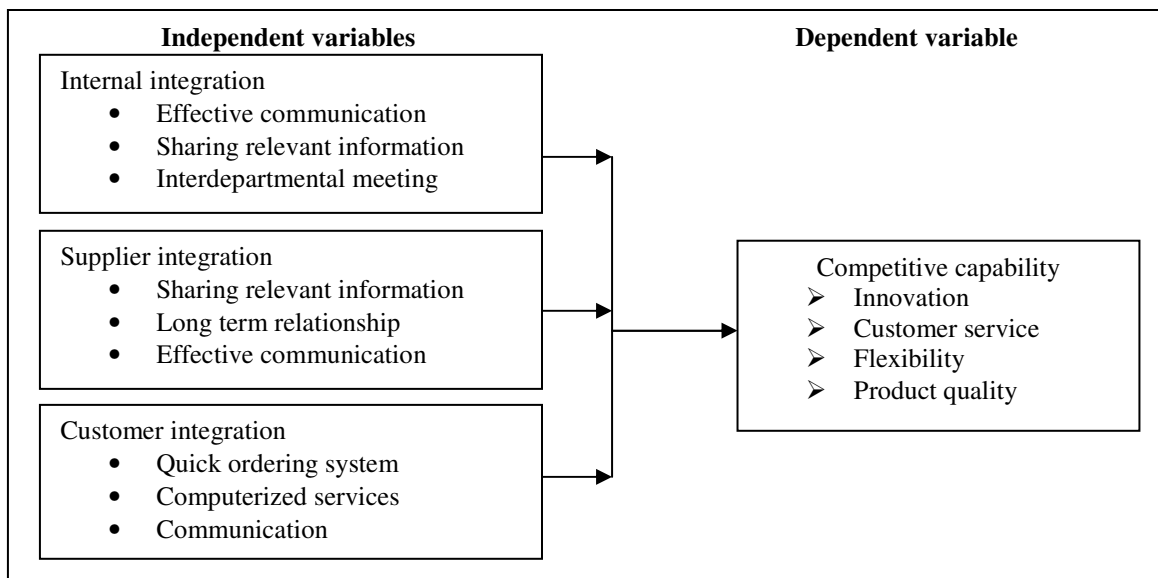


Figure 1: Conceptual framework

2.2.1. Customer Integration (CI)

Customer integration refers to the process of establishing cooperation with customers in attempt to access technological, marketing, production and inventory information from them (Lau et al., 2010). Companies then make use of this information obtained to produce products that meet consumers' needs hence creating satisfaction among the customers (Flynn et al., 2010). The process of interaction and collaboration between a company and its customers to facilitate an effective flow of products and services to users depicts customer integration (Zhao et al., 2011).

The end result of effective and properly done customer integration is a relationship with customers and a clearer knowledge of customers' taste and preference (Swink et al., 2007). Customer integration is achieved by seeking and engaging customers' opinions in generating products that will target them. It includes multiple strategies that are geared toward establishing effective collaboration with the consumers (Swink et al., 2007).

2.2.2. Supplier Integration (SI)

Regarding supplier integration aspect of supply chain integration, some researchers have found a positive association between supplier integration and competitive capability of a business (Handfield et al., 2009). Other researchers however, have reported no significant association between supplier integration and competitive capability (Stank et al. 2001) or supplier integration.

Vijayarathy (2010) view supplier integration as regards developing a relationship between the company and its suppliers. He argues that this aspect of supply chain provides a platform for the suppliers to provide vital information to the company as well as taking part in making decisions that would better the flow of supply to the company. Ensuring effective collaboration and interactions have a major significance in successful companies and industries since suppliers are more updated on materials supplied compared to the industry (Jammerneegg and Reiner, 2007).

According to Swink et al., (2007) supplier integration involves obtaining operational, technical and financial information from the suppliers. Both the company and the suppliers can share relevant information pertaining to production plans, demand forecasts and levels of inventory. Such sharing of vital information leads to enhanced production requirements (Handfield et al., 2009).

2.2.3. Internal Integration (II)

This aspect of supply chain integration refers to integration within all internal departments from incoming material to distribution. It involves integration across departments and functions under the control of the company in order to fulfill customers' needs. This implies that great consideration should be given to the processes within functional departments, such as production, procurement, logistics, inventory, marketing, sales and distribution (Boon-itt, 2011).

Internal integration has been defined as a process of collaboration and cooperation interaction which makes segments work together coherently (Hulland, 1999). In an organization (Flynn, 2004), the information system links all the segments, therefore all the parts can get well-timed and exact information from other parts and then they will gain a high level of integrity. Vickery (2003) is of the view that there should be integral communications between parts according to business processes and also there should be strong relations that support collaboration and cooperation in all of the parts. Internal integration shows the extent to which a company can build all its functions and practices into a collaborative and organized manner to meet customers' needs (Lau et al., 2010). Therefore, the functions and departments within a company operate as one integrated and coordinated system working together to meet customers' need and improve competitive capability as well as performance.

2.3. Competitive Capabilities

Doing business profitably today calls for businesses to come up with new forms of competitive superiority and this has currently become the main concern for management (Boon-itt, 2011). With the current ever changing business environment and unpredictable changes in various spheres of business companies cannot afford to overlook their competitive advantage over their competitors. In strategic management the term competitive capabilities and competitive superiorities (Antonio et al., 2009) are used interchangeably. According to the existing literature a number of indicators for competitive capabilities have been use; product innovations, company ability evaluation representative for innovation (Lee, 2000), low price, quality of product, delivery, flexibility, and customer service (Bustinza et al., 2010). Antonio et al., (2009) view capabilities as activities that a company can do better than its competitors. In this study, customer service, flexibility and product innovation were considered as competitive capabilities.

3. Research Methodology

3.1. Research Design

Kothari (1997) define research design as a systematic plan followed by a research with an aim of solving a research problem. It is a controlled way in a research of obtaining and analyzing data (Kerlinger, 1999). This study adopted a descriptive research design. According to Creswell (2008) this approach has an advantage of enabling the researcher to acquire a lot of information cheaply in terms of time and financial resources.

3.2. Target Population

Target population has been defined by Mugenda and Mugenda (2003) as the specific population which the researcher may want to generalize in the study. It is a set of people households that are being investigated (Ngechu, 2004). A total of 55 employees of Akagera Business Group who are within the supply chain formed the target population for this study. These constituted of managers, non-managers and supportive staffs.

3.3. Sample Size

The study population for this study is small in size (55), therefore the entire population was treated as the 'sample' in order to achieve accuracy and reliability of data.

3.4. Sampling Procedure

Sampling is the selection of samples of study participants from the population such that the samples are representative of the entire population under study (Griffiths, 2009). This study used total population sampling method. Total population sampling is a type of purposive sampling technique where the researcher examines the entire population that have a particular set of characteristics. This method is also referred to as census sampling (Levy and Lemeshow, 1999).

3.5. Data Collection Instrument

This study used questionnaires as the instrument for primary data collection. Questionnaire is a set of questions arranged in particular order as per study objectives. The questions can be administered as soft copy or hard copy to the respondents. This instrument is less costly and participants can easily be reached even through email (Kothari, 1999) hence it was the appropriate choice for this study. The questionnaire was divided into sections representing the study objectives.

3.5.1. Reliability

Reliability is the degree to which the research instrument can be depended upon to produce consistent results after repeated trials under similar conditions (Mugenda and Mugenda, 2003). Cronbach's alpha reliability coefficient was used to test for reliability. This coefficient ranges between 0 and 1 and the closer Cronbach's alpha coefficient will be to 1.0 the greater the internal consistency of the items in the scale (Carmines and Zeller 1997). A pilot study was conducted in MIDCOM which is the leading distributor and supplier of Nokia mobile phones in Rwanda, to enhance the reliability of the instrument. A test-retest criterion was used in this study. The questionnaire was sent twice to the respondents from MIDCOM within a time lapse of two weeks. The purpose of pre-testing the instrument was to ensure items in the instrument were stated clearly and have the same meaning to all respondents. A Cronbach's alpha coefficient of 0.76 was generated through SPSS. Kothari (2006) argued that reliability of instrument is attained when the alpha coefficient is above 0.60 and is considered very high as it approaches 1. Since the alpha coefficient of this study was 0.721 reliability of the instrument was concluded.

3.5.2. Validity

The study instrument is considered valid if it measures what it was intended to measure (Nachmias & Nachmias, 1996). To ensure validity, the questionnaire was presented to the supervisor for review. Recommendations made were incorporated in the final questionnaire.

3.6. Data Analysis and Presentation

The data collected was reviewed for completeness and accuracy upon completion of the data collection process. Thereafter, the data was sorted and coded, then entered into the Statistical Package for Social Sciences (SPSS) for analysis. Descriptive statistical analysis was employed in order to enable the researcher to summarize, organize, evaluate and interpret the numeric information. Frequencies and percentages were used to show the extent to which supply chain integration has affected competitive capability of Mobile Phone distributors in Rwanda. Correlation analysis was used to explain the relationship between supply integration and competitive capability. A p-value less than 0.05 lead to conclusion that there is a statistically significant relationship between supply integration and competitive capability, while p value greater than 0.05 indicated no significant relationship between the variables under study. Tables, pie chart and graphs were used in presenting the results.

4. Research Findings and Discussion

4.1. Demographic Characteristic

The study determined the gender, age and education level of the respondents. The findings revealed that male participants constituted 56% of the sample size while female were 24%. This indicated that both genders were fairly represented in the company.

Characteristics	Frequency	Percentage
Gender		
Male	31	56
Female	24	44
Total	55	100
Age		
< 30 years	16	29
31-50 years	32	58
>50 years	7	13
Total	55	100
Education level		
Secondary level	16	29
University level	39	71
Total	55	100

Table 1: Demographic Characteristic of respondents

Table 1 indicates that majority of the respondents (58%) aged between 31 and 50 years, 29% aged below 30 years while 13% aged above 50 years. Majority (70%) of respondent had attained University education while 30% had secondary education. This finding indicate that majority of the respondents had adequate knowledge that is required to enhance company competitive capability through supply chain integration.

4.2. Distribution of Responses Regarding Internal Integration

Statement	Strongly agree	Agree	Undecided	Disagree
Integration with internal functions can affect company's competitive capability	46(84%)	9(16%)		
There are effective communications between different Departments	30(55%)	22(40%)	3(5%)	
Different but related production sections have transparent information about the inventory status of each other	17(31%)	18(33%)		20(36%)
Different departments in your company collaborate with the company development programme (s)	30(55%)	19(35%)	6(10%)	
Different departments in your company share technical information with each other quickly if required	24(44%)	18(33%)		13(23%)
There are periodic interdepartmental meetings among internal functions	24(44%)	24(44%)		7(12%)
Information system links all the segments of the company	10(18%)	31(57%)	10(18%)	4(7%)
Information is shared to all departments in time	26(47%)	25(46%)	4(7%)	

Table 2: Distribution of responses regarding internal integration

Table 2 indicates that the majority (84%) of the respondents strongly agreed with the statement that integration with internal functions can affect company's competitive capability, while 16% just agreed. Further, regarding having effective communications between different departments, 55% of the respondents strongly agreed with the statement, 40% just agreed while 5% were undecided. Thirty-one percent of the study respondents strongly agreed with that different but related production sections have transparent information about the inventory status of each other, 33% just agreed while 36% disagreed with the statement. While 55% of the respondents strongly agreed that different departments in the company collaborate with the company's development programmes, 35% just agreed while 10% were undecided. Majority (44%) strongly agreed with the statement that different departments in the company share technical information with each other quickly if required, 33% just agreed while 23% stated that they were undecided. Equal percentage of respondents stated that they strongly agreed (44%) and just agree (44%) with the statement that they had periodic interdepartmental meetings among internal functions. However, 12% disagreed with the statement. A fair percentage (18%) of the respondents strongly agreed with the statement that information system links all the segments of the company, 57% just agreed, 18% were undecided while 7% disagreed with the statement. Forty-seven percent strongly agreed with a statement that information was to all departments in time, 46% just agreed while 7% were undecided

Lee (2001) found that integration with internal functions and proper coordination of activities increase employee understands of the goals and activities among different functional units, which improves mutual trust and commitment to the organization hence enhancing competitive capability. According to Vickery et al., (2003) effective communication and timely channeling of information to the departments that need them within the organization, builds reliability and trust among the departments which in turn ensure timely delivery of products and services. This has a role in ensuring that the organizations remain competitive and profitable

		Competitive capability	Internal integration
Internal integration	Pearson Correlation	.524**	1
	Sig. (2-tailed)	.000	
	N	55	55

** . Correlation is significant at the 0.01 level (2-tailed).

Table 3: Correlation between Internal integration and Competitive capability

Table 3 indicates that internal integration (.524**, $p < 0.001$) significantly and positively correlated with competitive capability. This implies that improving the extent to which the company engages internal integration has a significant potential to improve the company's competitive capability. These findings are in contrast with Seyed et al., (2012) who indicated no relationship between internal integration and competitive capability. However, Kim (2009) found that internal integration positively correlated with competitive capabilities of Japanese companies. These findings are in agreement with this study.

4.3. Integration with Supplier

Statement	Strongly Agree	Agree	Disagree
Integration with suppliers can affect company's competitive capability	29(53%)	20(36%)	6 (11%)
The Company have long-term relationships with your suppliers	16 (29%)	32 (58)	7 (13%)
The Company have effective communications with your suppliers on new product development	47 (86%)	6(11%)	2 (3%)
The Company and its supplier have transparent information about each other's inventory status	20(36%)	17 (31%)	18 (33%)
The Company and its suppliers provide each other with each other's production plan.	11 (20%)	44(80%)	
The Company collaborate with its supplier's development programme(s)	9 (16%)	30(55%)	16 (29%)
The Company and its suppliers are aware of each other medium-term and long-terms policies and strategies	7 (12%)	13(24%)	35(64%)
The Company and its suppliers share technical information with each other if required	47 (85%)	8 (15%)	
Company's suppliers provide your company with vital information	51(93%)	4(7%)	
Company's suppliers take part in making decisions that would better the flow of supply to the company	21 (38%)		34(62%)
The Company and its supplier share relevant information on production plans and demand forecasts	52(96%)	3 (4%)	

Table 4: Distribution of responses regarding integration with supplier

Table 4 indicates that 53% of the respondents strongly agreed with the statement that integration with suppliers can affect company's competitive capability 36% just agreed while 11% disagreed with the statement. Regarding the company having a long-term relationship with its suppliers 29% strongly agree, 58% just agreed while 13% disagreed. Majority (86%) strongly agreed with the statement that the company had long-term relationships with suppliers, 11% just agreed while 3% disagreed with the statement. Twenty percent of the respondents strongly agreed that the company and its suppliers provide each other with each other's production plan, while 80% just agreed. A fair percentage (16%) strongly agreed on the company having collaboration with its supplier's development programme, 55% just agreed while 29% disagreed. Majority (64%) of the respondents disagreed with the statement that the company and its suppliers are aware of each other medium-term and long-terms policies and strategies, 24% just agreed while 12% strongly agreed. While 85% of the respondents strongly agreed with the statement that the company and its suppliers shared technical information with each other if required, 15% just agreed. Majority (93%) of the respondents strongly agreed with the statement that the company's suppliers provided the company with vital information while 7% just agreed. Sixty-two percent of the study participants disagreed with the statement that the company's suppliers took part in making decisions that would better the flow of supply to the company while 38% strongly agreed. Majority (96%) of the study respondents strongly agreed with the statement that the company shared relevant information pertaining to production plans and demand forecasts with its supplier, 4% just agreed.

		Competitive capability	Integration with suppliers
Integration with suppliers	Pearson Correlation	.742**	1
	Sig. (2-tailed)	.000	
	N	55	55

** . Correlation is significant at the 0.01 level (2-tailed).

Table 5: Correlation between Internal with supplier and Competitive capability

Table 5 indicates that supplier integration (.742** $p < 0.001$) significantly and positively correlated with competitive capability. This implies that improving the level of supplier integration would result in to and increased competitive capability. A study conducted by Kim (2009) found a positively correlation between supplier integration and competitive capabilities. Findings of this study disagree with the results of Swink's (2007) who found integration with suppliers having no relationship with competitive capabilities.

4.4. Integration with Customers

Statement	Strongly agree	Agree	Undecided	Disagree
Integration with customers can affect company’s competitive capability	48(87%)	7(13%)		
You have effective communication with your customers on new product development	23(42%)	12(22%)	7(13%)	13(23%)
There is effective linkage with customer through information networks	20(36%)	12(22%)	1(2%)	22(40%)
You have computerized services for ease of customer ordering	5(9%)	13(24%)	15(27%)	22(40%)
You have effective communication with major customers	37(67%)	18(33%)		
You have established quick ordering systems with your major customers	24(43%)	17(31%)	6(11%)	8(15%)
You share available inventory with the major customers		32(58%)	13(24%)	10(18%)
You have long-term relationships with your customers	7(13%)	19(35%)	29(52%)	

Table 6: Distribution of responses regarding integration with customers

Table 6 indicates that 87% of the respondents strongly agreed with the statement that integration with customers can affect company’s competitive capability, while 13% just agreed. Forty-two percent of the study participants strongly agreed with the statement that the company had effective communication with its customers on new product development, 22% just agreed, 13% were undecided while 23% disagreed with the statement. Thirty-six percent of respondents strongly agreed with the statement that the company had effective linkage with its customer through information networks, 22% just agreed, 2% were undecided while 40% disagreed. Majority (40%) disagreed with the statement that the company had computerized services for ease of customer ordering, 27% were undecided, 24% just agreed while 9% strongly agreed with the statement. Majority (67%) of the study participants strongly agreed with the statement that the company had effective communication with its major customers while 33% just agreed. Forty-three percent of the study participants strongly agreed with the statement that the company had established quick ordering systems with its major customers, 31% just agreed, 11% were undecided while 15% disagreed with the statement. Majority (58%) agreed with the statement that the company shared the available inventory with its major customers, 24% were undecided while 18% disagreed with the statement. A fair percentage (13%) strongly agreed with the statement that the company had long-term relationship with its customer 35% just agreed while 52% were undecided.

		Competitive capability	Integration with customers
Integration with customers	Pearson Correlation	.419**	1
	Sig. (2-tailed)	.001	
	N	55	55

** . Correlation is significant at the 0.01 level (2-tailed).

Table 7: Correlation between Integration with customers and Competitive capability

Table 7 indicates that customer integration (.419**, p<0.001) significantly and positively correlated with competitive capability. This implies that if the company can embark on customer integration with it can enhance its competitive capability. Although the study conducted by Rosenzweig et al., (2003) indicated a significant relationship between customer integration and competitive capability which agrees with this study, Swink’s (2007) found no relationship between customer integration and competitive capabilities.

4.5. Perceived Effect of Supply Chain Integration on Competitive Capability

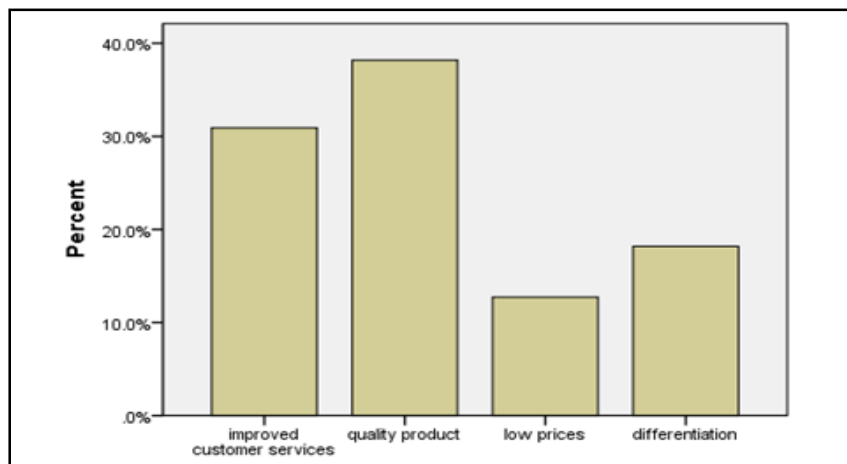


Figure 2: Perceived effect of SCI on competitive capability

Figure 2 indicated that majority (38%) of the respondents considered supply chain integration to have led to distribution of quality products, 31% felt that embracing supply chain integration has enabled the company to improve on services offered to customers, 12% were of the opinion that by engaging supply chain integration the company has resulted to lowering prices of the products while 18% of the respondents considered supply chain integration to have led to differentiation of products and services offered by the company. This implies that engaging supply chain integration has led to improved customer service, improved quality product, reducing product prices and product differentiation in Akagera Business Group. These findings are aligned to findings of Rosenzweig et al., (2003) that indicated that supply chain integration leads to improvement of product quality, and quality customer service. This aligned with findings of the current study.

5. Summary, Conclusions and Recommendations

5.1. Summary

Globally, companies are currently embarking on utilizing avenues that could help them improve on their competitive capability for maximum profit. This study was conducted to investigate the effect of supply chain integration on competitive capability of Samsung mobile phones distributors in Rwanda. This study adopted a descriptive research design that included collection of primary data using questionnaires. A total of 55 employees of Akagera Business Group formed the target population of this study. Since the population was small sampling was considered unnecessary for this study. The entire population therefore constituted the sample size of the study. Descriptive statistics was achieved through descriptive analysis to generate frequencies and percentage of various variables. Inferential statistics was done through Pearson correlation analysis to determine if there existed any relationship between the variables. Statistical package for social science (SPSS) was used as the appropriate tool for data analysis. The summary of the findings was done in line with the study objectives.

5.2.1. To Establish the Effect of Internal Integration on Competitive Capability of Mobile Phone Distributors in Rwanda

The findings revealed that integration with internal functions could affect company's competitive capability, as was indicated by majority (84%) of the respondents. This was supported by the significant relationship between internal integration and competitive capability established by the study. Further, Akagera Business Group was found to have effective communications between different departments. Additionally, the study found out that only a fair percentage of employees in ABG felt that different but related production sections did not have transparent information about the inventory status of each other. Different departments in ABG were found to collaborate with the company development programmes. The study also found that different departments in the company under study shared technical information with each other quickly if required. Also there were periodic interdepartmental meetings among internal functions.

5.2.2. To Determine the Effect of Supplier Integration on Competitive Capability of Mobile Phone Distributors in Rwanda

The study showed that supplier integration (.742^{**}, $p < 0.001$) and competitive capability were significantly and positively correlated. The study findings also showed that integration with suppliers can affect company's competitive capability as indicated by majority of the respondents. The company was also found to have a long-term relationship and effective communications with its suppliers. The company and its suppliers were found to provide each other with each other's production plan. Additionally, the study revealed that the company and its suppliers were not aware of each other medium-term and long-terms policies and strategies, as was indicated by majority of the study participants. The finding also showed that the company's suppliers provided the company with vital information. Also it was found that the company's suppliers did not take part in making decisions that would better the flow of supply to the company. However, the company shared relevant information pertaining to production plans and demand forecasts with its supplier.

5.2.3. To Examine the Effect of Customer Integration on Competitive Capability of Mobile Phone Distributors in Rwanda

The findings revealed that customer integration (.524^{**}, $p < 0.001$) significantly and positively correlated with competitive capability. The study further showed that integration with customers could affect company's competitive capability as indicated by majority (87%) of the respondents. Also the study found that the company had effective communication with its customers on new product development. Whereas ABG Company was found to have effective linkage with its customer through information networks, by most of the respondents who either agreed or strongly disagreed with the statement provided, 40% of respondents felt that there was no linkage with customers. Majority (40%) disagreed with the statement that the company had computerized services for ease of customer ordering, 27% were undecided, 24% just agreed while 9% strongly agreed with the statement. Majority (67%) of the study participants strongly agreed with the statement that the company had effective communication with its major customers while 33% just agreed. Forty-three percent of the study participants strongly agreed with the statement that the company had established quick ordering systems with its major customers, 31% just agreed, 11% were undecided while 15% disagreed with the statement. Majority (58%) agreed with the statement that the company shared the available inventory with its major customers, 24% were undecided while 18% disagreed with the statement. A fair percentage (13%) strongly agreed with the statement that the company had long-term relationship with its customer 35% just agreed while 52% were undecided.

5.2.4. To Determine the Relationship between Supply Chain Integration and Competitive Capability of Mobile Phone Distributors in Rwanda

Correlation analysis of the collected data showed that internal integration (.524^{**}, $p < 0.001$), supplier integration (.742^{**} $p < 0.001$) and customer integration (.419^{**}, $p < 0.001$) significantly and positively correlated with competitive capability

5.3. Conclusion

The study conclusion which were derived from the summary of findings were made basing on the study objectives

5.3.1. To Establish the Effect of Internal Integration on Competitive Capability of Mobile Phone Distributors in Rwanda

The study concluded that integration with internal functions was a strategy that was considered to have an effect on Akagera Business Group competitive capability. Also the company has effective communications between different departments. Different but related production sections have transparent information about the inventory status of each other. However, the transparency is not felt by all the employees. Different departments in ABG shares technical information with each other quickly if required. The study also concluded that there were periodic interdepartmental meetings among internal functions.

5.3.2. To Determine the Relationship between Supply Chain Integration and Competitive Capability of Mobile Phone Distributors in Rwanda

The study concluded that internal integration (.524^{**}, $p < 0.001$), supplier integration (.742^{**} $p < 0.001$) and customer integration (.419^{**}, $p < 0.001$) significantly and positively correlated with competitive capability. Embracing supply chain integration would therefore improve the competitive capability of Akagera Business Group and any other company

5.3.3. To Examine the Effect of Customer Integration on Competitive Capability of Mobile Phone Distributors in Rwanda

The study concluded that integration with customers can affect company's competitive capability. Also the study concluded that the company had effective communication with its customers on new product development. Additionally, the study concluded that the company did not have effective linkage with its customer through information networks. Further the company does not have computerized services for ease of customer ordering. It was also concluded that the company have effective communication with its major customers. Also the study concluded that the company has established quick ordering systems with its major customers. Further the study concluded that the company did not know the state of its relationship with its customer.

5.4. Recommendation

Akagera Business Group management should ensure that different but related production sections have transparent information about the inventory status of each other to enhance smooth operations for better performance. With the revealed evidence that internal integration, supplier integration and customer integration have significant correlation with competitive capability, Akagera Business Group and any other company wishing to remain competitive should embracing supply chain integration. Further, Akagera business Group should streamline its linkage policies so as to enhance productive linkage with its customer in order to improve on their level of integration with its customers. Further the company should endeavor to have computerized services for ease of customer ordering which would help increase performance.

While this study makes significant contribution to the existing literature of supply chain integration and competitive capability, it recommends further studies that will not just be confined to the complete capability of companies but also on the factors affecting supply chain integration practices such as organizational culture, environmental factors, and social economic factors among others.

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