Supply Chain Integration and Marketing Success of Agricultural Producers in South-East Nigeria

Ifekanandu Chukwudi Christian[1], Kingsley Uyiosa Asemota[2], Lawrence Tochukwu Obalum[3], Ihuoma Chukwudi Ifekanandu[4]

[1]University of Nigeria Business School, Enugu Campus, Enugu, Nigeria.
[2]Department of Business Administration, Edo State Polytechnic, Benin City, Edo, Nigeria
[3]Commercial Banking Division, Access Bank Plc.
[4]National Open University of Nigeria.

ABSTRACT: This study examined the relationship between supply chain integration and marketing success of agriculture producers in Nigeria. The study adopted a positivist research philosophy and the correlational research design. The population of this study is made up of all the agricultural producers in South-East Nigeria. The exact population of agricultural producers in the South-East Geopolitical Zone is unknown, hence the Cochran's formula was used to arrive at a sample size of 384 agricultural producers. The 384 agricultural producers were drawn from the five (5) states in the South-East Geopolitical Zone. A structured questionnaire was used to obtain data from the respondents. The data collected were analyzed statistically while the Pearson Product Moment Correlation (r) was used to test the hypotheses. The Pearson Correlation Coefficient (r) was computed using SPSS 23.0 version. The findings revealed that internal integration has significant relationship with sales growth of agricultural producers. The study also found a significant relationship between internal integration and market share growth of agricultural producers. A significant relationship was reported between supplier integration and sales growth of agricultural producers. The study also confirmed a significant relationship between supplier integration and market share growth of agricultural producers. The study equally found a significant relationship between customer integration and sales growth of agricultural producers. The study also discovered a significant relationship between customer integration and market share growth of agricultural producers. Based on these findings, it was concluded that supply chain integration is a significant predictor of marketing success of agricultural producers in South-East Nigeria. In line with the findings and conclusion, it was recommended that agricultural producers and marketers should embrace supply chain integration as it would enable them achieve marketing success.

KEYWORDS: Supply chain integration, internal integration, supplier integration, customer integration, marketing success, sales growth, market share growth.

INTRODUCTION

The increasing rate of unemployment in Nigeria has challenged many individuals including young graduates to go into agricultural production. This agricultural production took the form of crop production, fish farming, animal husbandry or livestock farming. These individuals who engaged in agricultural production are known as agricultural producers. Agricultural producers play a crucial role in the Nigerian economy. They feed the nation, create job opportunities and reduce the level of poverty in the country. Considering the important role played by agricultural producers in the economy, the Federal Government has embarked on various programmes aimed at promoting and encouraging agricultural activities in the country. The agricultural programmes initiated by the Federal Government have motivated many individuals who could not find white collar jobs to go into agricultural production. As the number of agricultural producers increased across the country, the level of competition increased in the same direction as every agricultural producer is now finding ways to increase their sales and achieve marketing success. In order for agricultural producers to achieve marketing success, they need to adopt supply chain integration strategy.

Supply chain integration is the collaboration among industrialists and other supply chain partners in order to develop an effective and efficient movement of materials, resources, parts, and information to produce products and services that are valuable to the

Supply Chain Integration and Marketing Success of Agricultural Producers in South-East Nigeria

customer quickly and at low cost (Flynn et al, in Pakurar et al, 2019). Qi et al in Pakurar et al (2019) defined supply chain integration as cooperation plans and activities between suppliers, manufacturers, warehouses distributors, and retailers that aim to develop products by transforming raw materials into finished goods for customers. Supply chain is a link that connects independent organizations together for creating value in products or services to satisfy the customer's needs (Omoruyi & Dhurup, 2012). An increase in level of supply chain integration will provide rapid access to required source of information, more sensitivity toward the needs of customers and enabling faster response time creating a competitive edge among competitors (Sezen, in Krishnapriya & Baral, 2014). The aim of supply chain integration is to provide maximum value to customers using high speed and low cost with respect to flows of information and materials (Flynn e al in Khan & Wisner, 2019).

Supply chain has become a source of competitive advantage within organizations especially for its role it plays in creating customer value and business growth (Martinsen & Bjorklund in Omoruyi & Dhurup, 2012). As a management activity, supply chain has the propensity to improve operational, market and financial performance of an organization (Narasimhan & Talluri, in Omoruyi & Dhurup, 2012). Integration with supply chain partners also enhances the service quality of the organization (Lee & Padmanabhan in Khan & Wisner, 2019). Omoruyi and Dhurup (2012) stated that a careful integration of supply chain and supply chain flexibility can improve firm performance, create value, and generate capital into a business. Supply chain integration can cause inventory reduction, improved delivery service, and shorter product development cycles (Stanley et al in Makhdoom et al, 2016).

Supply chain integration can help agricultural producers to achieve marketing success. According to Flynn et al (2010), a company that implements supply chain integration can attract more customers to the firm, increase sales and market share. A successful integration of supply chain mechanism can improve a firm's marketing performance by reducing costs, increasing efficiency and providing better service to customers (Martinsen & Bjorklund, in Omoruyi & Dhurup, 2016). When an agricultural producer is able to reduce cost of production, increase operational efficiency and provide better services to customers, he or she will attract more customers to the business, increase sales and achieve marketing success (Omoruyi & Dhurup, 2012). It is against this background that this study examines the relationship between supply chain integration and market success of agricultural producers in South-East Nigeria.

STATEMENT OF PROBLEM

Most of the agricultural producers in Nigeria are struggling to achieve marketing success. The increase in the number of agriculturists in Nigeria has made it more challenging for the players in this all important sector to achieve marketing success. Every agricultural producer is strategizing to achieve marketing success in the midst of intense competition. However, despite the efforts made by some agricultural producers to achieve marketing success, their sales and market share are still very low despite the efforts made by these individuals to move their goods from the rural to the urban areas. A large amount of agricultural produce especially those perishable goods got spoil in their warehouse due to lack of inability to successfully market their produces. This has resulted to a financial lost to these farmers. Some fish farmers have continued to incur additional cost of sustaining the lives of their fishes in their respective fish ponds due to their inability to market their produce and achieve marketing success. The inability of agricultural producers to achieve marketing success could be attributed to lack of implementation of supply chain integration. It is believed that integrating suppliers, customers and the various departments into the supply chain process can help agricultural producers to achieve marketing success. However, there is no empirical evidence that justify this claim within the Nigerian context as empirical studies that examined the relationship between supply chain integration and marketing success of agricultural producers in Nigeria are limited and too insignificant to reckon with. This has created a vacuum in literature which this study intends to fill and contribute to the existing literature on the subject matter.

CONCEPTUAL FRAMEWORK

The conceptual framework of supply chain integration and marketing success of agricultural producers is shown in figure 1 below:

Supply Chain Integration and Marketing Success of Agricultural Producers in South-East Nigeria
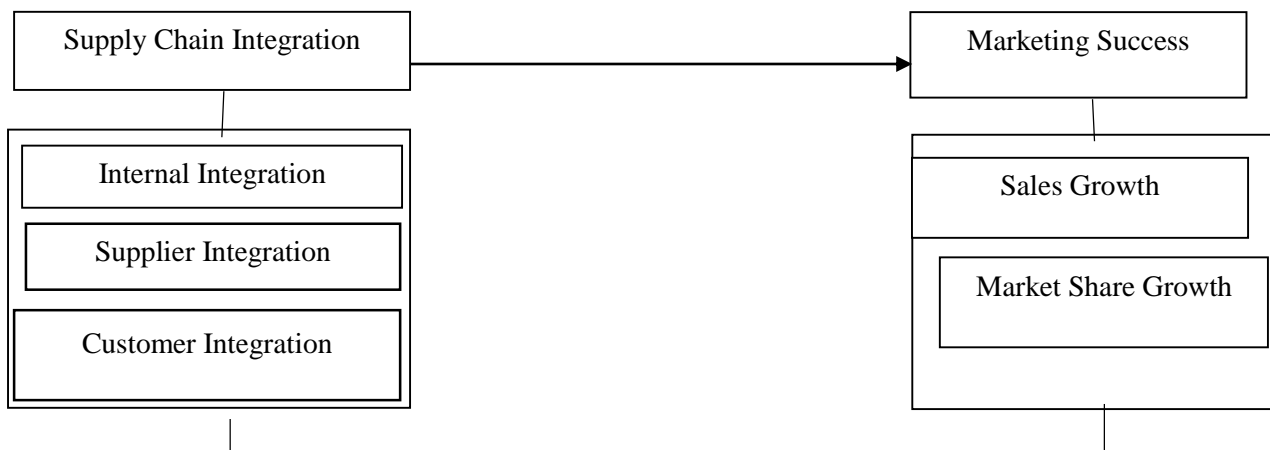
```
┌─────────────────────────┐                    ┌─────────────────────────┐
│ Supply Chain Integration│ ─────────────────▶ │   Marketing Success     │
└─────────────────────────┘                    └─────────────────────────┘
 ┌───────────────────────┐                      ┌───────────────────────┐
 │  Internal Integration │                      │     Sales Growth      │
 └───────────────────────┘                      └───────────────────────┘
 ┌───────────────────────┐                       ┌──────────────────────┐
 │  Supplier Integration │                       │  Market Share Growth │
 └───────────────────────┘                       └──────────────────────┘
 ┌───────────────────────┐
 │  Customer Integration │
 └───────────────────────┘
```

Fig 1: Conceptual framework of supply chain integration and marketing success of agricultural producers

AIM AND OBJECTIVES OF THE STUDY

The aim of this study is to explore the relationship between supply chain integration and marketing success of agricultural producers in South-East Nigeria. The objectives of the study are to:

1. ascertain the relationship between internal integration and sales growth of agricultural producers in South-East Nigeria;
2. explore the relationship between internal integration and market share growth of agricultural producers in South-East Nigeria;
3. ascertain the relationship between supplier integration and sales growth of agricultural producers in South-East Nigeria;
4. determine the relationship between supplier integration and market share growth of agricultural producers in South-East Nigeria;
5. explore the relationship between customer integration and sales growth of agricultural producers in South-East Nigeria;
6. Ascertain the relationship between customer integration and market share growth of agricultural producers in South-East Nigeria.

RESEARCH QUESTIONS

Attempts were made to answer the following research questions:

1. What is the relationship between internal integration and sales growth of agricultural producers in South-East Nigeria?
2. To what extent does internal integration relate to market share growth of agricultural producers in South-East Nigeria?
3. How does supplier integration contribute to sales growth of agricultural producers in South-East Nigeria?
4. To what extent does supplier integration relate to market share growth of agricultural producers in South-East Nigeria?
5. What relationship exists between customer integration and sales growth of agricultural producers in South-East Nigeria?
6. To what extent does customer integration relate to market share growth of agricultural producers in South-East Nigeria?

RESEARCH HYPOTHESES

The following hypotheses were formulated in this study:

Ho_1: There is no significant relationship between internal integration and sales growth of agricultural producers in South-East Nigeria.

Ho_2: There is no significant relationship between internal integration and market share growth of agricultural producers in South-East Nigeria.

Ho_3: There is no significant relationship between supplier integration and sales growth of agricultural producers in South-East Nigeria.

Ho_4: There is no significant relationship between supplier integration and market share growth of agricultural producers in South-East Nigeria.

Ho_5: There is no significant relationship between customer integration and sales growth of agricultural producers in South-East Nigeria.

Ho_6: There is no significant relationship between customer integration and market share growth of agricultural producers in South-East Nigeria.

Supply Chain Integration and Marketing Success of Agricultural Producers in South-East Nigeria

REVIEW OF RELATED LITERATURE

Concept of Supply Chain Integration

Supply chain integration is the collaboration among the upstream suppliers, midstream organization and downstream (distributors, retailers) (Lee in Erakpotobo, 2018). Zhao et al in Khan and Wisner (2019) described supply chain integration as the extent to which the firm integrates with its other supply chain partners to achieve efficient and effective flows of information, products, decisions, money and information with high value, high speed, and low cost. Integrative relationship is considered as a vital source of competitive advantage that may provide numerous benefits to firm either in a form of economic or non-economic value, close relationship of focal firm with its supply chain partners is difficult to achieve and execute (Dunne, in Saleh & Roslin, 2015). An increase in level of supply chain integration will provide rapid access to required source of information, more sensitivity toward the needs of customers and enabling faster response time creating a competitive edge among competitors (Sezen, in Krishnapriya & Baral, 2014). Based on the forgoing belief, integration can therefore be characterized by cooperation, collaboration, information sharing, trust, partnerships, shared technology, and a fundamental shift away from managing individual functional processes, to managing integrated chains of processes (Pagell, in Erakpotobo, 2018). Lee in Krishnapriya and Baral (2014) suggested that well-integrated SCs create value for the shareholders by decreasing costs and increasing market share. Zhao et al (2008) stated that firms are working at integrating their supply chains nowadays to achieve flexibility and speed. Integration with supply chain partners also enhances the service quality of the organization.

DIMENSIONS OF SUPPLY CHAIN INTEGRATION

The dimensions of supply chain integration considered in this study are internal integration, supplier integration and customer integration.

Internal Integration

Internal integration means forming a long-term plan linking processes and practices into organized and synchronized processes to meet customer needs and preferences and transact efficiently with suppliers (Kotcharin et al, 2012). Flynn et al in Pakurar, et al (2019) described internal integration as the efficient collaboration between the manufacturer and suppliers that is achieved through processes, activities, and strategies in order to satisfy customer needs. Pakurar, et al (2019) stated that internal integration is the coordination between departments and functions, creating an integrated system in order to satisfy the expectations and needs of customers, as well as boost performance. The aim of internal integration is to smooth the movement of resources, money, product, and information to satisfy customers quickly and at low cost (Flynn et al, 2010). Internal integration is regarded as supply chain activities that are carried out by several functions within the firms (Flynn et al, in Saleh & Roslin, 2015). Flynn et al in Khan and Wisner (2019) stated that internal integration breaks down functional barriers which are expected to increase firm performance and agility.

Supplier Integration

Supplier integration is an organizational process of buying firms and suppliers sharing and applying operational, financial, and strategic knowledge in order to generate mutual benefits (Kim, in Pakurar et al, 2019). The aim of supplier integration is to exceed a single organization's limits so as to coordinate processes easily (Pakurar, et al, 2019). The most relevant areas of supplier integration are information sharing between the company and its suppliers' production plans, quality, and design, and direct quality improvement programs (Lotfi et al, 2013). Supplier integration seeks to achieve a smooth, efficient flow of materials within the supplier network, and prevent potential obstacles in the process of procurement and production (Danese in Pakurar, et al, 2019). The sharing of information with suppliers creates greater confidence while reducing dysfunctional conflicts between buyers and suppliers and allowing for effective communication (De Souza & Brito, 2012). Danese (2013) stated that with supply chain and supplier integration, buyers and suppliers can exchange knowledge and information and develop the relationships that are required to manage materials and the flow of information collaboratively and improve procurement and production. The management and development of the relationship is considered a strategic part of the supplier integration process. De Souza and Brito (2012) argued that the benefit of constructing long-term relationships with suppliers is that it reduces the cost of the transaction through trust and reputation building.

Customer Integration

Customer integration is the organizational practices of identifying, explaining, and using customers to produce specific products according to their needs and in doing so maximize their expectations and satisfaction (Kim, in Pakurar, et al, 2019). Lotfi et al (2013) defined customer integration as the involvement and inclusion of customers' opinions in the production process, by making the relationship between the customer and the manufacturer much easier. Customer is the only individual who can make a

Supply Chain Integration and Marketing Success of Agricultural Producers in South-East Nigeria

decision and have the ability to evaluate a product (Narasimhan et al, 2010). The customer has potential purchasing power, and as such is a decision maker from a marketing point of view (Lau et al, 2010). Moreover, information sharing on the basis of interactions between the customers and the organization enhances customer integration. Additionally, the relationships between customers and an organization enable the organization to raise its level of competence (Lau, Yam & Tang, in Pakurar, et al, 2019). Lau et al in Pakurár, et al (2019) stated that the feedback obtained by organizations from their customers provides them with all the information associated with operations such as inventory. Ataseven and Nair (2017) found that customer integration has a positive relation with financial performance.

Concept of Marketing Success

Marketing success is a marketing term which has been defined in similar ways by marketing scholars. According to Passikoff (2006), marketing success is the degree to which an organization is able to dominate the market, increase sales and market share and sustain its competitive advantage over its rivals in the same industry. Bullinger et al (2016) defined marketing success as the extent to which a company is able to satisfy its target customers better than its competitors, increase customer loyalty and retention, increase its sales turnover and market share and sustain its competitive advantage over their rivals. Marketing success is a pre-requisite for achieving business growth and survival. It brings about increase profit margin which organization needs to expand their business operations, acquire more assets and survive in a high competitive industry (Hunt & Arnett, 2006). It is impossible for business to survive without achieving marketing success. In fact, marketing success is the pillar that holds an organization. If the organization is unable to satisfy its customers, increase sales and market share and sustain its customer base and competitiveness (market success indices), such organization will run out of liquidity and will find it difficult to make profit and sustain in its industry. To avoid this situation, companies need to do everything within their power to increase their sales and market share since it will help to achieve market success (Bertuzzi, 2015).

MEASURES OF MARKETING SUCCESS

There are different ways in which companies measure their marketing success. However, in this study, marketing success is measured using sales growth and market share.

Sales Growth

According to Kotler and Armstrong (2004), sales growth is the amount by which the average sales volume of a company's products or services has grown, typically from year to year. A company's sales growth can be expressed in financial terms or in unit /quantity of products sold at a given period of time (Cross, 2012). Increasing sales is one of the primary objectives of companies. Every company wants to increase its sales in order to remain in business. Cross (2012) stated that sales growth is a crucial competitive factor because it demonstrates to investors that the company is doing well as against its competitors. When investors look at the financial statement of a company, they try to concentrate more on the sales figure to know whether the company's sales is growing consistently from year to year (Gronroos, 2000). This is why most marketing scholars used sales growth to measure the marketing success of firms.

MARKET SHARE GROWTH

Market share is the percentage or proportion of the total available market or market segment that is being serviced by a company. It is determined by dividing a brand's sales volume by the total category sales volume (Kotler & Armstrong, 2004). Reibstein et al (2006) defined market share can be defined as the portion of a market captured by a company. It represents the percentage of the market that is served by a company at a specific period of time (Antonova, 2014). Market share growth is one of the most important criteria used to measure marketing success (Misumi & Peterson, 2005). The main advantage of using market share as a measure of marketing success is that it is less dependent upon macro-environmental variables such as the state of the economy or changes in tax policy (Kotler & Armstrong, 2004). However, increasing market share may be dangerous for makers of fungible hazardous products, particularly products sold into the Nigerian market, where they may be subject to market share liability. The firm's performance in relation to competitors can be measured by the proportion of the market that the firm is able to capture (Misumi & Peterson, 2005).

THEORETICAL FRAMEWORK

This study was anchored on the social network theory which views social relationships in terms of nodes and ties (Sandolkar, 2015). Sandolkar (2015) explained that nodes are the individual actors within the network, and ties are the relationships between the actors. Based on this notion, Sandolkar (2015) described social network theory as the study of how people, organizations or groups interact with others inside their network. Social network theory focuses on the role of social relationships in transmitting

information, channeling personal or media influence, and enabling attitudinal or behavioural change (Liu et al, 2017). Since the 1960s, social network theory has significantly expanded the horizon of media effects research, with increasing application of network analytic methods and empirical context (Liu et al, 2017). Within an organizational context, the social network theory describes an organization as a network which connects the various activities and departments together to achieve a common goal. The social network theory is very relevant in explaining supply chain integration. According to Croom in Erakpotobo (2018), social network theory can be used to provide a basis for the conceptual analysis of reciprocity in co-operative relationships. The theory explains that companies can integrate their supplier and customer and even the internal departments like the way a network connect with all parts and function to provide a sound result. The theory emphasized that suppliers, customers, internal departments of an organization, the various units, processes and activities formed the network with which an organization can operates in order to achieve the desired efficiency and marketing success.

EMPIRICAL REVIEW

Previous studies have been conducted on supply chain integration and marketing success of business firms. For instance, Wright (2016) empirically examined the relationship between supply chain integration and firm performance in Romania. The data for the study were collected from 202 companies in Romania. The data collected were analyzed statistically using the logistic regression. The logistic regression results indicated that industry efficiencies determine company performance and that firms that are in industry segments with high operational efficiency are more likely to achieve top performance, regardless of supply chain integration or product type.

Khan and Wisner (2009) examined the interrelationships among supply chain integration, learning, agility and organizational performance. The researchers adopted the survey research design where data were collected from 257 publicly owned companies in Pakistan with the aid of a structured questionnaire. The data collected for the study were analyzed using structural equation model. The study showed that supply chain integration had a significant impact on external and internal learning. The study also found an insignificant relationship between supply chain integration and firm performance. The study equally reported that internal learning has a insignificant impact on supply chain agility, but a significant direct impact on firm performance, while external learning had an insignificant impact on firm performance both directly and indirectly.

Omoruyi and Dhurup (2016) examined the influence of supply chain network, flexibility and integration on SMEs business performance in the Southern Gauteng region. The researchers adopted the quantitative research approach and the survey research design where data were collected from 401 SMEs owners/managers. The data collected were analyzed using SPSS 22.0, while AMOS 22.0 was used to perform confirmatory factor analysis. The researchers used structural equation modeling (SEM) to assess the proposed model fit and to test the statistically significant relationship of the hypothesis. The findings revealed that supply chain network, flexibility and integration positively influence SMEs business performance.

Muntaka et al (2017) examined supply chain integration and flexibility as determinants of business performance. The researchers used company integration with suppliers, cross functional integration within a company and company integration with customers as their dimensions of supply chain integration while adaptability, alignment and agility were used as the dimensions of supply chain flexibility. The researchers adopted a cross-sectional approach and used a structured questionnaire to collect from 255 employees some registered companies in the Kumasi Metropolis. The data collected were analyzed with the help of Pearson's correlation and structural equation modeling (SEM). The results revealed that supply chain integration and supply chain flexibility exhibit significant correlation with firm performance. The study also revealed that supply chain integration and supply chain flexibility have high correlation with financial performance' followed by 'logistic performance' and then 'operational performance.

Mose (2013) examined the impact of supply chain integration strategies on performance of pork processing industry in Rwanda. The study employed a quantitative research design and used a structured questionnaire to obtain data from 52 employees of German butchery in Kigali. The data collected was analyzed using SPSS. The results indicated that there was a positive and significant correlation between internal integration, supplier integration, customer integration and performance of the firm.

Owino (2015) examined the effect of supply chain integration on organizational performance of commercial banks in Kenya. The study adopted a cross sectional research design. The researcher used a structured questionnaire to collect data from employees in 42 commercial banks currently operating in Kenya. The data collected was analyzed using the Statistical Package for Social Sciences (SPSS) software and presented using tables and figures. Regression analysis was used to find out the relationship between the demographics and use of integration in the supply chain by the banks, supply chain integration and organizational performance. The study found out that reverse logistics, knowledge management, top management support, information technology adoption, customer orientation and customer service affect performance of commercial banks.

Supply Chain Integration and Marketing Success of Agricultural Producers in South-East Nigeria

GAP IN LITERATURE REVIEWED

From the studies reviewed, two major gaps were noted. First, it was observed that most of the studies conducted on supply chain integration relate the concept and its dimensions to financial and operational performance of business firms while empirical studies that relate supply chain integration and its dimensions (internal integration, supplier integration and customer integration) to marketing success (sales growth and market share growth) are limited and too insignificant to reckon with. Secondly, it was noted that most of the studies on supply chain integration focused on the banking, oil and gas and textile industry while empirical studies that examined the relationship between supply chain integration and marketing success in the agricultural sector in South-East Nigeria are lacking. This has created a gap in literature which this study intends to fill and contribute to the existing literature on the subject matter.

METHODOLOGY

The positivist research philosophy and correlational research design were adopted in this study. The population of this study is made up of all the agricultural producers in South-East Nigeria. The South-East Geopolitical Zone is made up of five states namely; Abia, Imo, Ebonyi, Anambra and Enugu State. The exact population of agricultural producers in this geopolitical zone is unknown as there are no available statistics to show the exact number of crop farmers, fishers, poultry and livestock farmers in the zone. Therefore, the Cochran's formula was applied to arrive at a sample size of 384 agricultural producers. A structured questionnaire was used to obtain data from the respondents. The questionnaire was structured using the modified four (4) point Likert scale-type which range from Strongly Agree, Agree, Disagree to Strongly Disagree. The face and content analysis was used to validate the research instrument (questionnaire) while Cronbach Alpha method was used to determine the reliability of the instrument. A total of 384 copies of the questionnaire was administered to the respondents (agricultural producers) across the five states in the South-East Geopolitical Zone with the aid of five (5) trained research assistants. Out of the 384 questionnaires administered to the respondents, 304 copies were collected. After editing of the questionnaire collected, it was observed that 35 copies were wrongly filled while the remaining 269 completed copies were used for analysis. The data were analyzed and the hypotheses were tested using Pearson Product Moment Correlation Coefficient (r). This was done with the aid of the SPSS version 23.0.

RESULTS AND DISCUSSION

The data collected on supply chain integration (internal integration, supplier integration and customer integration) were correlated with those data obtained on marketing success (sales growth and market share growth) using the SPSS software program. The results of the correlation analysis are presented in the tables below:

Table 1: Result of correlation analysis between internal integration and sales growth of agricultural producers

			Internal Integration	Sales Growth
Pearson (r)	Internal Integration	Correlation Coefficient	1.000	.563*
		Sig. (2 tailed)	.	.001
		N	269	269
	Sales Growth	Correlation Coefficient	.563*	1.000
		Sig. (2 tailed)	.001	.
		N	269	269

**Correlation is significant at 0.01 levels (2 tailed)

*Correlation is significant at 0.05 levels (2 tailed)

Source: SPSS-generated Output

Table 1 shows the result of correlation analysis carried out between internal integration and sales growth of agricultural producers in South-East Nigeria. The result indicates that internal integration is positively correlated to sales growth (r = .563*) and the symbol * signifies that this correlation is significant at 0.05 level. Based on this result, the null hypothesis (Ho$_1$) is rejected and the alternate hypothesis is accepted. This implies that there is significant relationship between internal integration and sales growth of agricultural producers in South-East Nigeria.

Supply Chain Integration and Marketing Success of Agricultural Producers in South-East Nigeria

Table 2: Result of correlation analysis between internal integration and market share growth of agricultural producers

			Internal Integration	Market Share Growth
Pearson (r)	Internal Integration	Correlation Coefficient Sig. (2 tailed) N	1.000 . 269	.577* .001 269
	Market Share Growth	Correlation Coefficient Sig. (2 tailed) N	.577* .001 269	1.000 . 269

**Correlation is significant at 0.01 levels (2 tailed)
*Correlation is significant at 0.05 levels (2 tailed)
Source: SPSS-generated Output

Table 2 contains the result of correlation analysis between internal integration and market share growth of agricultural producers in South-East Nigeria. The result indicates a positive correlation between internal integration and market share growth of agricultural producers (r = .577*) and this correlation is significant at 0.05 level as indicated by the symbol *. Consequently, the null hypothesis (Ho$_2$) is rejected and the alternate hypothesis is accepted. This means that there is significant relationship between internal integration and market share growth of agricultural producers in South-East Nigeria.

Table 3: Result of correlation analysis between supplier integration and sales growth of agricultural producers

			Supplier Integration	Sales Growth
Pearson (r)	Supplier Integration	Correlation Coefficient Sig. (2 tailed) N	1.000 . 269	.692* .002 269
	Sales Growth	Correlation Coefficient Sig. (2 tailed) N	.692* .002 269	1.000 . 269

**Correlation is significant at 0.01 levels (2 tailed)
*Correlation is significant at 0.05 levels (2 tailed)
Source: SPSS-generated Output

Table 3 contains the result of correlation analysis between supplier integration and sales growth of agricultural producers in South-East Nigeria. The result shows that supplier integration is positively correlated to sales growth (r = 692.*) and this correlation is significant at 0.05 level as indicated by the symbol *. As a result of this, the null hypothesis (Ho$_3$) is rejected and the alternate hypothesis is accepted. This means that there is significant relationship between supplier integration and sales growth of agricultural producers in South-East Nigeria.

Table 4: Result of correlation analysis between supplier integration and market share growth of agricultural producers

			Supplier Integration	Market Share Growth
Pearson (r)	Supplier Integration	Correlation Coefficient Sig. (2 tailed) N	1.000 . 269	.614* .001 269
	Market Share Growth	Correlation Coefficient Sig. (2 tailed) N	.614* .001 269	1.000 . 269

**Correlation is significant at 0.01 levels (2 tailed)
*Correlation is significant at 0.05 levels (2 tailed)
Source: SPSS-generated Output

Table 4 contains the result of correlation analysis carried out between supplier integration and market share growth of agricultural producers in South-East Nigeria. The result shows that supplier integration has a positive correlation with market share growth (r = .614*) and the symbol * signifies that this correlation is significant at 0.05 level. Based on this result, the null hypothesis (Ho$_4$) is

Supply Chain Integration and Marketing Success of Agricultural Producers in South-East Nigeria

rejected and the alternate hypothesis is accepted. This means that there is significant relationship between supplier integration and market share growth of agricultural producers in South-East Nigeria.

Table 5: Result of correlation analysis between customer integration and sales growth of agricultural producers

			Customer Integration	Sales Growth
Pearson (r)	Customer Integration	Correlation Coefficient	1.000	.720*
		Sig. (2 tailed)	.	.003
		N	269	269
	Sales Growth	Correlation Coefficient	.620*	1.000
		Sig. (2 tailed)	.003	.
		N	269	269

**Correlation is significant at 0.01 levels (2 tailed)
*Correlation is significant at 0.05 levels (2 tailed)
Source: SPSS-generated Output

Table 5 presents the result of correlation analysis performed between customer integration and sales growth of agricultural producers in South-East Nigeria. The result shows a positive correlation between customer integration and sales growth of agricultural producers (r = .720*) and this correlation is significant at 0.05 level as indicated by the symbol *. As a result of this, the null hypothesis (Ho$_5$) is rejected and the alternate hypothesis is accepted. This implies that there is significant relationship between customer integration and sales growth of agricultural producers in South-East Nigeria.

Table 6: Result of correlation analysis between customer integration and market share growth of agricultural producers

			Customer Integration	Market Share Growth
Pearson (r)	Customer Integration	Correlation Coefficient	1.000	.668*
		Sig. (2 tailed)	.	.003
		N	269	269
	Market Share Growth	Correlation Coefficient	.668*	1.000
		Sig. (2 tailed)	.003	.
		N	269	269

**Correlation is significant at 0.01 levels (2 tailed)
*Correlation is significant at 0.05 levels (2 tailed)
Source: SPSS-generated Output

Table 6 shows the result of correlation analysis carried out between customer integration and market share growth of agricultural producers in South-East Nigeria. The result indicates that customer integration has a positive correlation with market share growth of agricultural producers (r = .668*) and the symbol * indicates that this correlation is significant at 0.05 level. Based on this result, the null hypothesis (Ho$_6$) is rejected and the alternate hypothesis is accepted. This implies that there is significant relationship between customer integration and market share growth of agricultural producers in South-East Nigeria.

DISCUSSION OF FINDINGS

This study found a significant relationship between internal integration and sales growth of agricultural producers in South-East Nigeria. This finding was derived from the result of the correlation analysis carried out on two variables in the first hypothesis. The result revealed that internal integration is positively correlated to sales growth (r = .563*) and this correlation is significant at 0.05 level. Based on this result, the null hypothesis (Ho$_1$) was rejected and the alternate hypothesis was accepted. This implies that there is significant relationship between internal integration and sales growth of agricultural producers in South-East Nigeria. This finding is in line with the research conducted by Mose (2013) which reported that internal integration has a significant positive relationship with sales performance. This finding is contrary to the research conducted by Tse et al (2016) which reported that internal integration had no significant relationship with sales performance.

This study also reported a significant relationship between internal integration and market share growth of agricultural producers in South-East Nigeria. This finding was obtained from the result of the correlation analysis carried out on the two variables in the second hypothesis. The result revealed that internal integration has a positive correlation with market share growth of agricultural

producers (r = .577*) and this correlation is significant at 0.05 level. Consequently, the null hypothesis (Ho₂) was rejected and the alternate hypothesis was accepted. This means that there is significant relationship between internal integration and market share growth of agricultural producers in South-East Nigeria. This finding is consistent with the research conducted by Frohlich and Westbrook (2001) which revealed that internal integration significantly enhance market share growth of firms. Li et al (2009) also supported this finding when they stated that internal integration practices have the potentials of increasing the market share of business firms.

This study equally found a significant relationship between supplier integration and sales growth of agricultural producers in South-East Nigeria. This finding was deduced from the result of the correlation analysis carried out on the two variables in the third hypothesis. The result showed that supplier integration is positively correlated to sales growth (r = 692.*) and this correlation is significant at 0.05 level. As a result of this, the null hypothesis (Ho₃) was rejected and the alternate hypothesis was accepted. This means that there is significant relationship between supplier integration and sales growth of agricultural producers in South-East Nigeria. This finding is in line with De Souza and Brito (2012)'s argument that the benefit of constructing long-term relationships with suppliers is that it reduces the cost of the transaction through trust and reputation building which consequently increase the sales volume of the firm. Danese (2013) also agreed with this finding when they stated that supplier integration strategy can help a company to establish a good relationship with their suppliers and increase its sales volume annually.

This study revealed a significant relationship between supplier integration and market share growth of agricultural producers in South-East Nigeria. This finding was deduced from the result of the correlation analysis carried out on the two variables in the fourth hypothesis. The result revealed that supplier integration has a positive correlation with market share growth (r = .614*) and this correlation is significant at 0.05 level. Based on this result, the null hypothesis (Ho₄) was rejected and the alternate hypothesis was accepted. This means that there is significant relationship between supplier integration and market share growth of agricultural producers. This finding is supported by Danese in Pakurar et al (2019) when he stated that supplier integration ensures a smooth, efficient flow of materials within the supplier network, and prevent potential obstacles in the process of procurement and production. Danese explains that when a company implements supplier integration, the problem of shortage of production materials will be prevented and the company will be able to satisfy its customers better than its competitors and increase its market share.

This study also found a significant relationship between customer integration and sales growth of agricultural producers in South-East Nigeria. This finding was derived from the result of the correlation analysis carried out on the two variables in the fifth hypothesis. The result showed a positive correlation between customer integration and sales growth of agricultural producers (r = 720*) and this correlation is significant at 0.05 level. As a result of this, the null hypothesis (Ho₅) was rejected and the alternate hypothesis was accepted. This implies that there is significant relationship between customer integration and sales growth of agricultural producers in South-East Nigeria. This finding is supported by Lotfi et al (2013) who noted that the integration of customers' opinions in the production process would enable companies develop a product that will be accepted in the market and this will result to increase sales and profit margin for the company. Lau et al in Pakurar et al (2019) also supported this finding when they stated that the relationships between customers and an organization enable the organization to raise its level of competence and increase its sales volume.

Finally, it was reported that a significant relationship between customer integration and market share growth of agricultural producers in South-East Nigeria. This finding was derived from the result of the correlation analysis carried out on the two variables in the sixth hypothesis. The result revealed that customer integration has a positive correlation with market share growth of agricultural producers (r = .668*) and this correlation is significant at 0.05 level. Based on this result, the null hypothesis (Ho₆) was rejected and the alternate hypothesis was accepted. This implies that there is significant relationship between customer integration and market share growth of agricultural producers in South-East Nigeria. This finding is in line with Narasimhan et al (2010)'s postulation that customer integration enables a company to adjust its products to meet customers' needs and the resultant effect of this is customer satisfaction, increase sales and market share. Pakurar et al (2019) also agreed with this finding when they stated that a company that is able to successfully integrate customers' opinion in the production process will begin to experience massive increase in its market share.

CONCLUSION

From the foregoing analysis, it is obvious that supply chain integration has the potentials of achieving marketing success of agricultural produces in South-East Nigeria. The empirical result of this study has proven beyond reasonable doubt that internal integration has significant relationship with sales growth of agricultural producers. The study also found a significant relationship between internal integration and market share growth of agricultural producers. A significant relationship was reported between

Supply Chain Integration and Marketing Success of Agricultural Producers in South-East Nigeria

supplier integration and sales growth of agricultural producers. The study also confirmed a significant relationship between supplier integration and market share growth of agricultural producers. The study equally found a significant relationship between customer integration and sales growth of agricultural producers. The study also reported that customer integration and sales growth of agricultural producers. Based on these findings, it was concluded that supply chain integration significantly enhance marketing success of agricultural producers in South-East Nigeria.

RECOMMENDATIONS

The following recommendations are provided based on the findings:

1. Agricultural producers and marketers in Nigeria should adopt supply chain integration as it would enhance the marketing success of their produces.
2. Agricultural producers and marketers in Nigeria especially those who are into crop production, fish farming and poultry farming should adopt internal integration in their supply chain management as it would enhance sales growth and increase their market share.
3. Agricultural marketers in Nigeria should adopt supplier integration into their supply chain management by establishing a good relationship with their suppliers and listening to their opinions on issues that concern both parties as this would not only ensure smooth efficient flow of materials within the supplier network, and prevent potential obstacles in the process of procurement and production but would also facilitate sales growth and market share.
4. Agricultural producers and marketers in Nigeria should integrate customers' opinions into their production and marketing process as it would enable them adjust their products to meet customers' needs and increase customer satisfaction, sales and market share.
5. Agricultural producers and marketers in Nigeria should coordinate all the processes and practices in the supply chain together to function properly as this would enable them satisfy their customers better than their competitors and increase their market share.
6. Finally, it is recommended that agricultural producers and marketers in Nigeria should build a strong relationship with their customers and suppliers as it would enhance marketing success.

REFERENCES

1) Ataseven, C. & Nair, A. (2013). Assessment of supply chain integration and performance relationships: A meta-analytic investigation of the literature. *International Journal of Production and Economics*, *18*(5), 252–265.
2) Bertuzzi, T. (2015). *The sales development playbook: Build repeatable pipeline and accelerate growth with inside sales*. Prentice Hall.
3) Bullinger, H., Nagele, R., Rueger, M. & Fischer, D. (2016). Business model innovation: From technology market to market success. Portland International Conference on Management of Engineering and Technology.
4) Cross, D. (2012). How to determine sales turnover from financial statements. Retrieved from: http://www.accountingtool.com/
5) Danese, P. (2013). Supplier integration and company performance: A configurationally view. *Omega*, *41,* 1029–1041.
6) De Souza M. P.L. & Brito, L.A.L. (2011). Supply chain management measurement and its influence on operational performance. *Journal of Operational Supply Chain Management*, *4,* 56–70.
7) Erakpotobo, V.O. (2018). Supply chain integration and organizational performance in the upstream oil and gas firms in Nigeria. *Accounting & Taxation Review*, *2* (1), 233-244.
8) Flynn, B.B., Huo, B. & Zhao, X. (2010). The impact of supply chain integration on performance: A contingency and configuration approach. *Journal of Operational Management*, *28*, 58-71.
9) Gronroos, C. (2000). *Service management and marketing: A customer relationship management approach*. New York: John Wiley & Sons, Ltd.
10) Hunt, S.D. & Arnett, D.B. (2006). Does marketing success leads to market success? *Journal of Business Research*, *59* (7), 820-828.
11) Khan, H. & Wisner, J. D. (2019). Supply chain integration, learning, and agility: Effects on performance. *Journal of Operations and Supply Chain Management, 12*(1), 14-23.
12) Kotcharin, S., Eldridge, S. & Freeman, J. (2012). Investigating the relationships between internal integration and external integration and their impact on combinative competitive capabilities. In Proceedings of the 17th International Working Seminar on Production Economics, Innsbruck, Austria, 20–24 February 2012.
13) Kotler, P. & Armstrong, G. (2004): *Principles of Marketing*, Upper Saddle River, New Jersey: Pearson Education.

14) Krishnapriya V. & Baral, R. (2014). Supply chain integration: A competency based perspective. *International Journal of Managing Value and Supply Chains*, 5(3), 45-60.

15) Lau, A.K.,Yam, R.C. & Tang, E.P.(2010). Supply chain integration and product modularity: An empirical study of product performance for selected Hong Kong manufacturing industries. *International Journal of Operational Production Management*, 30, 20–56.

16) Liu, W., Sidhu, A., Beacom, A.M. & Valentea, T. (2017). *Social network theory. The International Encyclopedia of Media Effect*s. New York: Wiley Publications

17) Lotfi, Z., Mukhtar, M., Sahran, S. & Zadeh, A.T. (2013). Information sharing in supply chain management. *Procedia Technology*, *11*, 298–304.

18) Makhdoom, H.R., Anjum, A., Kashif, M.T.& Riaz, W. (2016). Supply chain integration and operational performance: Moderating role of organizational culture. *International Journal of Academic Research in Business and Social Sciences 6* (12), 647-657

19) Misumi, J. & Peterson, M.F. (2005). The performance maintenance theory of leadership: Review of a Japanese research program. *Administrative Science Quarterly*, *30,* 198 - 223.

20) Mose, E.M. (2015). Impact of supply chain integration strategies on performance of Pork processing industry in Rwanda. (Case of German Butchery in Kigali).MBA Thesis, Jomo Kenyatta University of Agriculture and Technology.

21) Muntaka, A.S., Haruna, A. & Mensah, H.K. (2017). Supply chain integration and flexibility and its impact on business performance. *International Journal of Business and Management*, 12 (4), 130-143.

22) Narasimhan, R., Narayanan, S. & Srinivasan, R. (2010). Explicating the mediating role of integrative supply management practices in strategic outsourcing: A case study analysis. *International Journal of Production Resources*, *48*, 379-404.

23) Omoruyi, O. & Dhurup, M. (2016). The influence of supply chain networks, flexibility and integration on the performance of small and medium enterprises in the Southern Gauteng, South Africa. *International Journal of Business and Management Studies*, *8* (2), 121-137.

24) Owino, D.E. (2005). Supply chain integration and organizational performance of commercial banks in Kenya. MBA Thesis, University of Nairobi, Kenya.

25) Passikoff, R. (2006). Predicting market success: New ways to measure customer loyalty and engage consumers with your brand hardcover. https://www.amazon.com/Predicting-Market-Success-Customer-Consumers/dp/047004022X.

26) Pakurar, M., Haddad, H., János Nagy, J., Popp, J & Oláh, J. (2019). The impact of supply chain integration and internal control on financial performance in the Jordanian Banking Sector. *Sustainability,* 11, 2-20.

27) Reibstein, D.J., Bendle, N.T., Farris, P.W. & Pfeifer, P.E. (2006). *Marketing metrics: 50 metrics every executive should master*. London: Pearson Education

28) Saleha, Z.M. & Roslinb, R.M. (2015). Supply chain integration strategy: A conceptual model of supply chain relational capital enabler in the Malaysian food processing industry. *Procedia Social and Behavioral Sciences*, *172* (2), 585 – 590

29) Sandolkar, R. (2015). Social network theory. https://www.slideshare.net/ruchika155/social-network-theory-48375365

30) Santos, J. B. & Brito, A. L. (2012). Towards a subjective measurement model for firm performance*. Brazilian Administrative Review, 9* (2), 352 - 371.

31) Tse, Y., Zhang, M., Akhtar, P. & MacBryde, J. (2016). Embracing supply chain agility: An investigation in the electronics industry. *International Journal of Supply Chain Management, 21*(1), 140-156.

32) Wright, R. (2016). Supply chain integration and performance: Evidence from Romania. *Journal of Economics and Business*, *19* (1), 11-30.