Australian Journal of Business and Management Research
New South Wales Research Centre Australia *(NSWRCA)*

Vol.4 No.7 | November-2014 ISSN: 1839 - 0846

SUPPLY CHAIN MANAGEMENT AND CORPORATE SUCCESS IN THE CEMENT INDUSTRY, SOUTH- SOUTH ZONE, NIGERIA

Horsfall, Omona-A Hamilton
Department of Marketing, Faculty of Business Administration,
University of Uyo, Uyo, Akwa Ibom State
omona4sure2006@yahoo.com

ABSTRACT

This study examined supply chain management and corporate success in the cement industry in South-South Zone, Nigeria. The objective of the study is to empirically investigate the impact of supply chain management on corporate success in cement industry. The study operational zed SCM (i.e. independent variable into three dimension; SCM planning; coordination and control variability and corporate success (i.e. dependent variable) as customers' satisfaction, employees' satisfaction and profitability. A sample size of one hundred and eighty (180) were drawn from nine (9) cement companies and thirty six (36) cement dealers across the six state in south-south zone, using a combination of stratified and simple random sampling technique. Data were collected from the respondents with structured questionnaire and data collected were analyzed using both descriptive statistics and inferential statistic (i.e. multiple ordinary lest square regression) with the aid of SPSS 17 at 0.05 level of significance. The result showed that all the cement companies and the dealers in the industry are involved in SCM activities in one way or the other. It was also found that, those with strong and effective SCM capability tend to achieve high rate of corporate success than their competitors. The customers wish to purchase new items or repurchase is an indication of customers' satisfaction due to effective and efficient SCM. Increase productivity, commitment, team work, reduce turnover rate, trust, lower absenteeism to achieve set objective is an indication of employees' satisfaction due to the impact of SCM. The customers' satisfaction results to high demand of their product and increase profitability of the firm. The study found that ,SC control variability outcome is as good as the data system due to the fact that the right information get to the right person at the right time.

Keywords: *Supply Chain Management, Corporate Success*

BACKGROUND OF THE STUDY

Over the years, the nature of competition has changed to the extent that companies no longer compete against other companies on the bases of quality as traditionally practiced in the 80s (Fawcett et al. 2007). However, the new source of business competition lies outside the walls of an organization, and is determined by how effectively companies link their operations with their supply chain partners; suppliers, distributors, wholesalers, retailer and end customers (Petrovic-zarevic et al. 2007). Being able to create business relationship with customers, suppliers and other strategic partners anchored on trust and long term commitment then becomes a crucial competitive parameter (Mattson, 2002). For this, and factors like shorter product life cycle and customers expectation business have had to invest and re-focus greater attention on relationship with customer and suppliers.

According to Kulkani & Sharma (2008) defined supply chain as "a network of the manufacturer's suppliers, distributors and all other who participate in the value creation process". Consequently, an organization supply chain which is also referred to as the logistics network has become a strategic agenda driving decision making at service management level (Simchi-levi et al. 2008).

The aim of every supply chain management is to minimize system-wide costs while satisfying customer service level requirements. Indeed, it is a customer oriented process for integrating business planning, coordinating, controlling and balancing supply and demand across the entire value chain system. Ideally, a typical SCM structure, supplies and customers are brought together in one concurrent business process which spans the entire chain from initial source to the ultimate consumer (Lambert & Cooper, 2000). Additionally, information and communications technology such as e-commerce systems have become the backbone of these integrated supply chain in recent time (Lancioni, 2001). This suggests that every single company depends on other businesses to deliver its products or services to its customers.

Vol.4 No.7 | November-2014 ISSN: 1839 - 0846

Therefore, supply chain need to be designed and managed properly, hence supply chain management. According to Lourenco (2001) "Supply chain management is a series of interconnected activities which are concerned with planning, coordinating and controlling materials, parts and finished products from suppliers to customers". In this study, we intend to contribute to the construct measurement development in terms of supply chain planning coordinating and controlling. However, a medium used in measuring how well or bad supply chain management is doing in terms of customers' satisfaction, employees satisfaction and profitability as corporate success indicators. The success of the organization must reflect level of satisfaction of its customers, employees and the profitability on the owners of business. Hence, the study variables which includes; customers' satisfaction, employees satisfaction and profitability.

The measurement of how successful firms are at achieving this purpose is a very important issue for practitioners and researcher (Verbeeten & Boons, 2009). It is well accepted that, these measurement plays important roles in running an organization. It helps assess achievements and set future strategies to reach a stable long-term growth path and success. Others include developing and translating strategy into desired behaviours and results, communicating these expectations, monitoring progress and providing feedback.

Statement of the Problem

The cement industry over the years, has continued to face growing challenges traceable to pre and immediate post-independence era which witnessed the introduction of development plans and import substitution policy and which had impacted on the cement requirement for development of civil infrastructure of the nation. The challenges were associated with government under-funding, high level of uncertainty allied with bond of importation of Gypsum, production to tight transportation (Makoju, 2010).

Although Federal Government introduction of new policy in 2002 had increased cement plant from four to eight in 2008. As such local production jumped from its thirty years low production of 1.9 metric tones in 2003 to 8.1 metric tones in 2009, an increase of over 300% in six years. Even with this effort, the underlies fears of not being able to meet production level and goals to match high demand of cement consumption in Nigeria due to residential and non-residential construction, thus affecting supply chain management leading to lack of customers' satisfaction, employees' satisfaction and profitability.

Meanwhile, the complexity driven by globalization, high transportation costs, poor infrastructure, weather-related disaster and terrorist threats in the industry has become even more challenging, managing the supply chain, as customers' satisfaction, employees' satisfaction and profitability are floppy.

Also, several research works have been carried out on supply chain management by experts. There exist few research work in Nigeria to empirically cross-validates effects of each three dimensions of supply chain management (i.e., Supply chain planning coordinating and controlling) on the construct of corporate success in cement industry south-south zone, Nigeria in order to guide managerial decision and add to literature, because knowledge is cumulative.

Furthermore, there has been a regular challenged for practitioners in the field of marketing to disclose and deepen their ability to account for marketing scholars' contribution to firms in the area of supply chain management.

Objective of the Study

This study is designed to empirically investigate the impact of supply chain management on corporate success in the cement industry in South-South Zone, Nigeria. However, the specific objectives of the study include:

1. To measure how supply chain planning affects corporate success in cement industry.
2. To identify the impact of supply chain coordination on corporate success in cement industry.
3. To examine how supply chain control variability affects corporate success in cement industry.

Research Questions

The research sought to addresses the following research questions.

1. To what extent does supply chain planning affect customers' satisfaction, employees' satisfaction and profitability?
2. To what extent does supply chain coordinating affect customers' satisfaction, employees' satisfaction and profitability?
3. To what extent does supply chain control variability affect customers' satisfaction, employees' satisfaction and profitability?

Vol.4 No.7 | November-2014 ISSN: 1839 - 0846

Research Hypotheses

The followings are research hypotheses drawn from the research questions to show tentative relationships between the independent and dependent variables.

- Ho_1: There is no significant relationship between customer's satisfaction, supply chain planning, coordination and control variability.
- Ho_2: There is no significant relationship between employees' satisfaction, supply chain planning, coordination and control variability.
- Ho_3: There is no significant relationship between profitability, supply chain .planning, coordination and control variability.

Significance of the Study

It is expected that, the findings and recommendation will benefit potential and practicing managers in the cement industry, academia, government, cement manufacturers association of Nigeria (CMAN) and Stakeholders/society as a whole. For the academia, its assumed that by knowing this extent of impact of supply chain management on corporate success, this will provide the necessary knowledge to develop a framework to better manage the supply chain. Further, it will set out a point of departure for future researchers who are interested in this area for further study.

However, the findings of this work will guide practicing and potential managers to improve their employees' satisfaction, productivity and reduce operating cost. The study will create a more positive corporate image and reaching the customers at the right time for customers' satisfaction. It will give them proper directions to take the right decisions, policies and implementation as regards supply chain management.

The government and its regulatory bodies such as ministry of industry, trade and investment and others will benefit from this study in developing proper regulatory framework. Then, plan developmental policies that will sustain a dynamic nature of the cement industry in Nigeria. The result of this effort will add to the nation GDP.

Further, the findings and recommendations will help cement manufacturers association of Nigeria (CMAN) and the society at large to enjoy corporate social responsibility (i.e. CRS) that will definitely improve upon the well-being of the society as a whole.

REVIEW OF RELATED LITERATURE

Conceptual and Theoretical framework

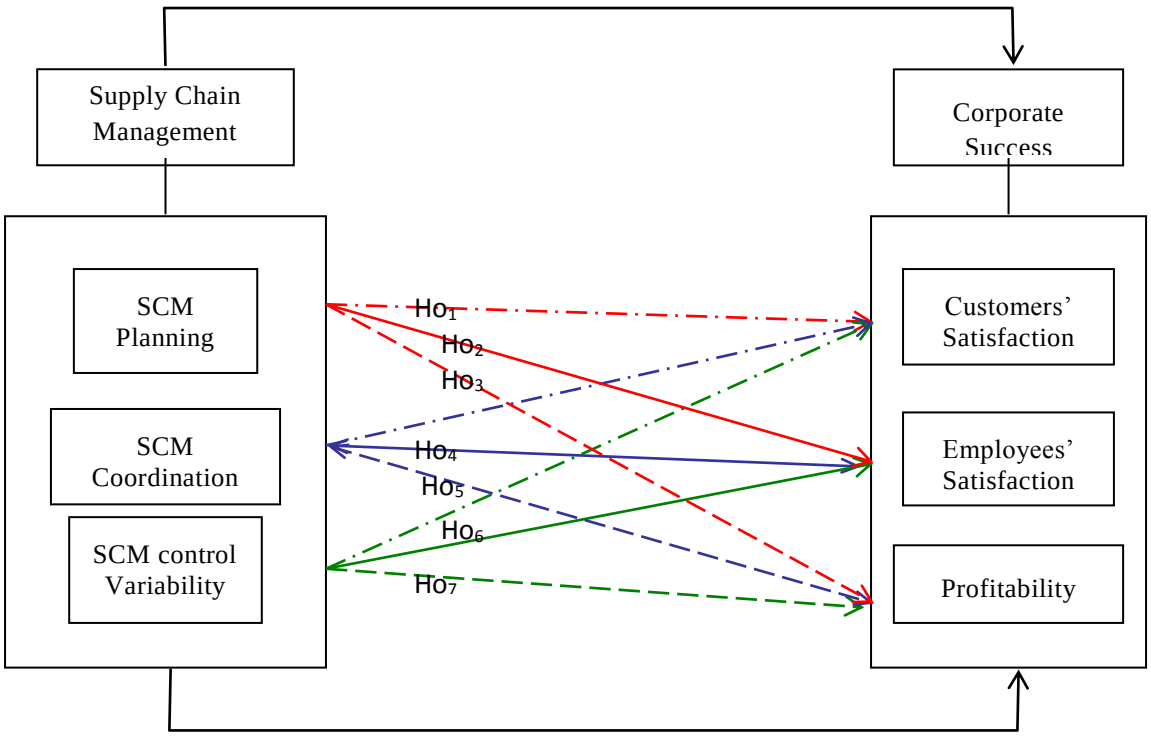


Figure 2.1 A theoretical framework of Supply Chain Management and Corporate Success.
Source: Survey data Conceptualized from the Utilized Literature, (2014)

Vol.4 No.7 | November-2014 ISSN: 1839 - 0846

Drawing on a prodigious body of knowledge in cross-enterprise and interdisciplinary literature, this section presents constructs significant to supply chain management within the conceptual framework depicted in Figure 2.1 above. This framework is grounded on a paradigm of system theory that emphasizes how company brings together various components of a complex supply chain (that is the human capital, information, materials and financial resources, etc.) to form a sub-system which is then part of a larger system of supply chains or network (Ludwig Von Bertalanffy, 1972).The theory argues that for a holistic perspective system theory must be employed to understand the internal and external factors that shape an organization supply chain performance to achieve corporate success. Thus, provides a more coherent support for our view of supply chain management and corporate success in the cement industry in South-south, Nigeria.

As articulated by many researchers, supply chain management is an integrative function (Ellaram & Carr, 1994). Integration could occur, among others in terms of material and information along the supply chain. As information could replace inventory and foster superior performance (Min & Galle, 1999). Furthermore, since it is a well-known fact that satisfying customer need is the central purpose of any business (Doyle, 1994). This framework reflects the notion that customer focus, in terms of satisfying needs and providing timely service, which is a key-driving force of effective supply chain management. Supply Chain Management (SCM) seek improve performance through better use of internal and external capabilities in order to create a seamlessly coordinated supply chain, thus elevating inter-company competition to inter-supply chain competition (Anderson & Katz, 1998).

Therefore, in the context of supply chain management, performance is no longer affected by a single firm. Rather, performance of all members involved contributing to the overall corporate success. In particular, both operational (i.e. non-financial and financial indicators are considered). To further elucidate the development of the framework, the theoretical foundation of the construct is briefly described in the following sub-sections.

Concepts and Ideas of Supply Chain Management

The term "*Supply Chain Management*" (SCM), according to Van der Vorst, (2007) is relatively new. It first appeared in logistics literature in 1982 as an inventory management approach with an emphasis on the supply of raw materials (Oliver & Webber, 1982). By 1990, academics first described SCM from a theoretical standpoint to clarify how it differed from more traditional approaches to managing the flow of materials and the associated flow of information (Cooper, & Ruram, 1993).

The growing interest in SCM, according to Lummus & Vokurka (1999) is attributable to three basic factors, thus, growing specialization or focus on core activities by many firms, intense competition from both local and international sources, and the realization by firms that maximizing performance of one department or function may lead to less than optimal performance for the whole company. Agreeing with this assertion, Cooper *et al.* (1997) in their research concluded that, the concept of SCM arose over the recognition that sub-optimization occurs if each organization in a supply chain attempts to optimize its own results rather than to integrate its goals and activities with other organization to optimize the results of the chain.

Let us now discuss briefly the three construct measurement of supply chain management dimension this study considered. The three measurement construct of supply chain management which is our independent variables are thus; *supply chain planning*; *supply chain coordination*; and *supply chain control*.

Supply Chain Planning

SCP, is a set of approaches utilized to efficiently integrate suppliers, manufactures, warehouse and stores so that merchandise is produced and distributed at the right quantities to the right location at the right time in order to minimize system wide cost while satisfying service level requirement. SCP, is deciding now what is to be done and how to achieve it thereafter. It involve setting goals and objectives and developing work-maps showing how to accomplish them.

Planning is the process of establishing management commitments that will allow the company to efficiently, and effectively respond to the demand forecast. The shift in SCP philosophy is that, its target total optimization of the entire SC rather than individual firm to achieve set objectives. According to Simchi-levi et al.(2007) in their study conclude that a broadened set of SCP help to minimized inter-organizational complexity, uncertainty and need for unifying different interests to achieve corporate objectives.

Since, planning at each stage in the supply chain is not merely a forecast of what is likely to happen, rather it is commitment to what has to happen in order for company objectives to be achieved. The planning process

Vol.4 No.7 | November-2014 ISSN: 1839 - 0846

follows the following steps: procurement planning, production planning, demand planning and distribution planning (Lambert, 2008). The goal of the process is to capture sales opportunities and to reach business target (Jordan et al. 2004), that satisfy the customer at a profit which in turns bring satisfaction of the employees and the owners of business (i.e. profitability).

Supply Chain Coordination

Supply chain coordination is the "*act of managing dependencies between entities and the joint effort of entities working together towards mutually defined goals*" (Malone & Crowston 1994). It a relationship between the company and its suppliers and distributors to improve collaboration across functional activities, process alignment and joint decision making metrics in order to satisfy the customer at a profit and in turn bring employees satisfaction in the organization.

Lee (2012) proposes supply chain coordination as a vehicle to redesign decision rights, workflow, and resources between chain members leverage better performance such as higher profit margins, improved customers level and faster response time to achieve success in business. As such, the traditional success indicator's measures based on the individual performance may be irrelevant to the maximization of supply chain profit in a coordinated manner. This in turn bring satisfaction to the customers, employees and the owners of business.

Supply Chain Control Variability

Supply chain management can be a tremendous asset for companies because it can reduce costs, improve customers' and employees' satisfaction, increase profit margin and offer a better return on investments. However, supply chain control is the ability to monitor progress and take any necessary corrective action. Therefore, SC control variability is a deliberate control effort put in place by the company to get the needed information regarding its raw materials, parts, work-in-progress and finished inventory to them in order to avoid delay in meeting customer demand. As such companies utilizes Information Technology (IT) to manage and control the activities within the SC partners (Wu et al., 2006).

As defined by Chopra and Meindl (2010), the use of IT in SC is to provide at the right time, to the right person, the right information. Firms can reduce the risk caused by the bullwhip effect by using IT which allows sharing information in a more accurate way with the various partners along the supply chain. Information Technology also permits to connect database between various department within an organization. There are. Various existing ways where information systems are involved in the improvement of information sharing and management such as MRP (Materials Requirement Planning),ERP (Enterprise Resource Planning), CPFR (Collaborative Planning, Forecasting and Replenishment) as a tool of control variability. The ERP system solution gain a dominant position on the market. It has the advantage to automate business processes, to have real time access to information and allow improving SCM in order to satisfy the customers.

According to Hilletofth (2010), SCM information system can be use in three approaches in order to control the SC process. The first one is organizational approach which encompass intra-organizational system that manage and control activities inside companies and inter- organizational that synchronies functions between companies. The second is data management and third is process management.

Concept of Corporate Success

The fundamental purpose of every business organization is to consistently out-perform the competitors and deliver sustained, superior returns to the owners while satisfying customers, employees and other stakeholders in the business environment. Success is the accomplishment of a given task or corporate responsibility measured against present known standards of accuracy, completeness, cost and speed.

However, this study considered corporate success has how well or bad supply chain management is doing in terms of customers' satisfaction, employees satisfaction and owners of the business which is profitability. Hence, the three dimensions used in measuring corporate success in this study which is also our dependent variables are thus; customers' satisfaction, employees' satisfaction and profitability. We can now discuss briefly the success indicators variables.

Customers' Satisfaction

Customer's satisfaction is an outcome felt by those that have experience a company's performance that have fulfilled their expectations. It can be described as an increasing clients' wish to purchase new items or repurchase. Satisfied clients buy more frequently and in larger quantities as well as purchase other goods and use other services offered by the company. Besides, consistently offering goods and service, which satisfy

Vol.4 No.7 | November-2014 ISSN: 1839 - 0846

clients, company financial performance proves as failure-related cost reduces. The more clients, the higher profit a company gains which is an indication of success in business – hence, corporate success.

The customer satisfaction measure is based on the percentage of customers when surveyed, were satisfied with company's product and would highly recommend these product to friends, family or colleagues. Apart from being extremely important in its own right, we believe that this measure indicates how customer experience will affect future profitability. The clear message is that the more attention a company pays to researching its customer base in order to identify customer needs, the more rewarding the exchange transaction in the supply chain will be for that company (Carson et al. 1998).

Employees' Satisfaction

Employees' satisfaction is another key indicator of corporate success. Because, they are the vital key to the success of an organization and a productive workplace. Developing a work environment that rewards employees for their hard work is imperative in attracting and retaining quality employees. If workers know they are appreciated, they are much more likely to go the extra mile when needed.

Therefore, employees' satisfaction generally can be defined as "an individual's opinion about their occupation" (Spears et al. 2001). Employees are the indispensable part of the business. They are the face that greets your customers. Do everything within your power to make sure that face is a smiling one. The proper communication between manager and employees is the first and best way to keep performance and satisfaction high and boast a low turnover rate,

However, research concerning communication between manager and employees has shown how to create a workplace where the employees are productive. Once production consistently grow in a steady rate and with less defect of products, its shows that employees are satisfy. If company can achieve all the above employees satisfaction indicators, its means the success of the firm – hence, the corporate success because efficient productivity increase revenue base of the company.

Profitability

Profit is usually defined as the residual of revenue in excess of costs of production or simply revenue minus costs. Moro et al. (2012) indicated that a firm is capable of making profit when its earnings from the sales of goods are greater than the cost of producing the good. Total profit of the firm (TX) is the difference between its total sales revenue (TSR) and its cost of production (TX) [TX = TR – TC].

Profit maximization is thus, the noticeable difference between the total revenue accruable from the sale of all outputs and the expenditure upon all inputs (Anderson & quandt, 1930). The implication is that profit maximization maximizes the naira income of the firm, since a firm has been considered as an economic institution; profit is regarded as a genuine way of measuring corporate success.

RESEARCH METHODOLOGY

The research design used for this study was a cross-sectional survey. The design was appropriate for this study, because, it involves studies which are done at one or more zones in a given period. It is a research design in which information is gathered from a sample of people or organizations often by use of questionnaire (Baridam, 2001).

The study benefited from two main data sources; primary and secondary. The primary source included the direct administration of well structured questionnaire to respondents. While the secondary sources include previously or generating data, test books, journals, newspapers, magazines, bulletins, periodicals, and internet.

However, the sample size of 180 respondents was used for the study. The unit of analysis for this study include supply chain managers, procurement officers production workers, regional managers and IT officers selected from nine (9) Cement companies and six (6) cement dealers each from the six (6) State of South-South Zone, Nigeria, making the sample focus to be thirty-six (36) in numbers. These nine (9) cement companies and 36 cement dealers were chosen because, their presence are noticeably visible in the south-south zone, Nigeria.

Therefore, sample was taken from them using a combination of stratified and simple random sampling technique. At the first stage, the respondents were stratified by gender (sex), age and marital status. In the second stage, the respondents were grouped by sex (i.e. male and female groups). Also, the age of the respondents were grouped into four pairs (i.e. those in the age bracket of 21 – 30, 31 – 40, 41 – 50 and 51 and

Vol.4 No.7 | November-2014 ISSN: 1839 - 0846

above). Further, grouped educational qualification, work experience and designations. At stage three, five (5) respondents were randomly selected from each of the nine (9) cement companies and thirty six (36) cement dealers, thus amounting to a total of 225 respondents selected for the study. Therefore, 225 questionnaire were distributed and 207 were retrieved and 18 not retrieved. And 27 questionnaire were discarded because, it is not completely filled while, one hundred and eighty (180) copies were useful for the study. The implication of this, is that all further analysis made in this study was based on the one hundred and eighty (180) valid sets of questionnaire. The stratified and simple random sampling method was adopted because it gives room for equal representation of subjects. Also, to reduce sampling error as well as providing a basis by which an acceptable conclusion could be made on the study without prejudice and controversy.

The data collected were analyzed by the use of descriptive and inferential techniques. The descriptive describe the number of responses and various categories of respondents in our survey. On the other hand, the numerical approach of the descriptive statistics used are mean, standard deviation, percentage, frequency and range. The inferential statistic was used to analyze a representative sample from the target population of the study. As such, multivariate analysis by means of multiple regression was applied and (SPSS) software was adopted for the entire data analysis. The multiple regression model is given as:

$$\beta 0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + e$$

where, Y= dependent variable
X_1, X_2 and X_3 = Independent variables
β_0 = constant
β_1, β_2 and β_3 = coefficient of the independent variables

Decision Rule: Reject Ho if the P-value is ≤ 0.05 otherwise do not reject

Limitations of the Study
The research scope should have covered the entire cement companies and dealers in Nigeria to give adequate ground for generalization of the research findings, but due to limited time frame, the research was limited to cement companies and cement dealers in South-South zone, Nigeria.

RESULTS
Data Presentation and Analysis

Presentation and analysis of responses of questionnaire administration and collection.

Table 1: **Questionnaire distribution, administration and collection of Frequency**

Questionnaire	***Frequency***	***Percentage***
Number Distributed	225	100
Number Retrieved	207	92
Number not retrieved	18	8
Number Discarded	27	12
Useful Questionnaire for the Study	**180**	**80%**

Source: Survey Data (2014).

Table 1 above indicate that 225 questionnaire were distributed. Two hundred and seven (207) were retrieved from the respondents representing ninety-two percent (92%) of the distributed questionnaire. Eighteen (18) copies representing eight percent (8%) were not retrieved. Twenty seven (27) copies out of retrieved questionnaire representing twelve percent (12%) were discarded, because it is not completely filled; while one hundred and eighty copies representing eighty (80%) of the retrieved questionnaire were useful for the study.

The implication of this is that all further analysis made in this study was based on the one hundred and eighty (180) valid set of questionnaire.

Australian Journal of Business and Management Research
New South Wales Research Centre Australia *(NSWRCA)*
Vol.4 No.7 | November-2014 ISSN: 1839 - 0846

Sample Characteristics

Demographic profile of the Respondents presented in Tabular form

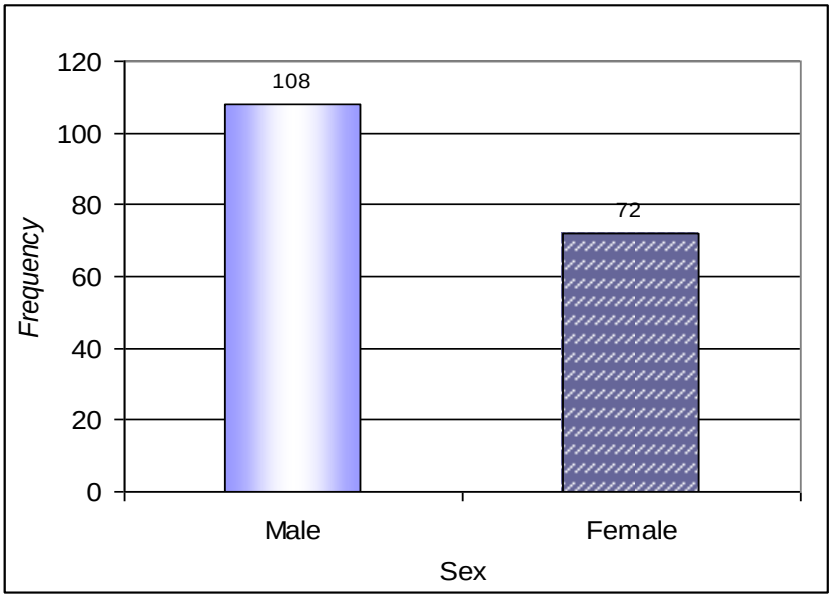
S/No	Demographic Variables	No.	%
1.	**Gender**		
	Male	108	60
	Female	72	40
	Total	180	100
2.	**Age Brackets**		
	21 – 30 years	2	1.1
	31 – 40 years	30-	16.7
	41 – 50 years	58	32.2
	51 and above	90	50
	Total :=	180	100
3.	**Marital Status**		
	Married	80	44.4
	Single	42	23.3
	Widow	20	11.1
	Widower	6	3.3
	Divorced	32	17.8
	Total :=	180	100
4.	**Educational Attainment/Qualifications**		
	S.S.C.E	36	20
	H.N.D/B.Sc.	72	40
	MBA/M.Sc	36	20
	Ph.D and above	35	20
	Total :=	180	100
5.	**Work Experience**		
	1 – 10 years	108	60
	11 – 20 years	72	40
	Total :=	180	100
6.	**Designation**		
	Supply Chain managers	56	31.1
	General workers	44	24.4
	Procurement Officers	30	16.7
	Regional Managers	22	12.2
	IT Officers	28	15.6
	Total :=	180	100

Vol.4 No.7 | November-2014 ISSN: 1839 - 0846

Graphical illustration of Respondents Demography

Sample characteristics of the respondents (as tabulated above) are presented in bar charts as depicted below:

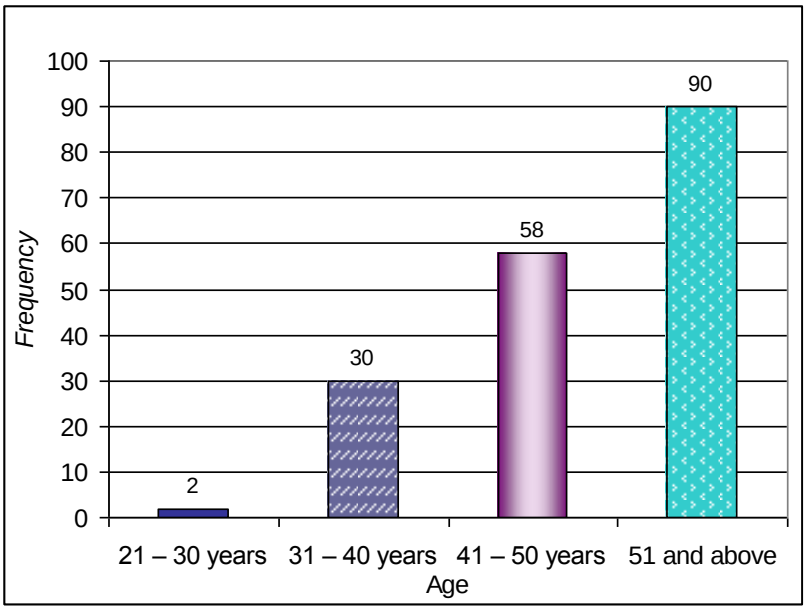
Bar Chart 1 **Respondents' Gender**



Source: Survey Data (2014).

The information on sex indicates that the study comprises 108 (60%) male and 72 (40%) female. This shows that majority of the respondents were male as shown in the bar chart 1 above

Bar Chart 2 **Respondents' Age**

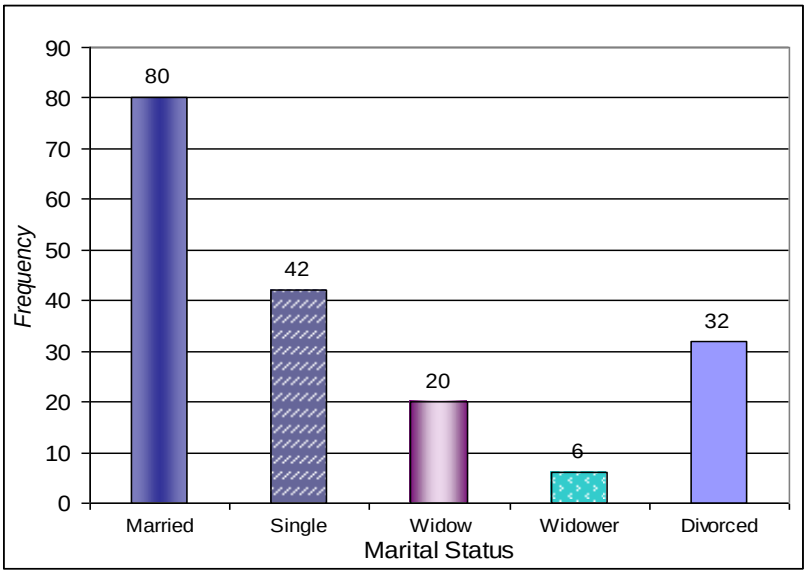


Source: Survey Data (2014).

The information on age brackets shows that two (2) respondents fall under the age bracket between 21 – 30 years representing 1.1%. Thirty (30) fall under between 31 – 40 years at (16.7%), while, fifty-eight (58) respondents are between 41 – 50 years representing 32.2%. Ninety (90) are between 51 and above which represent 50% as presented in the bar chart 2 above.

Vol.4 No.7 | November-2014 ISSN: 1839 - 0846

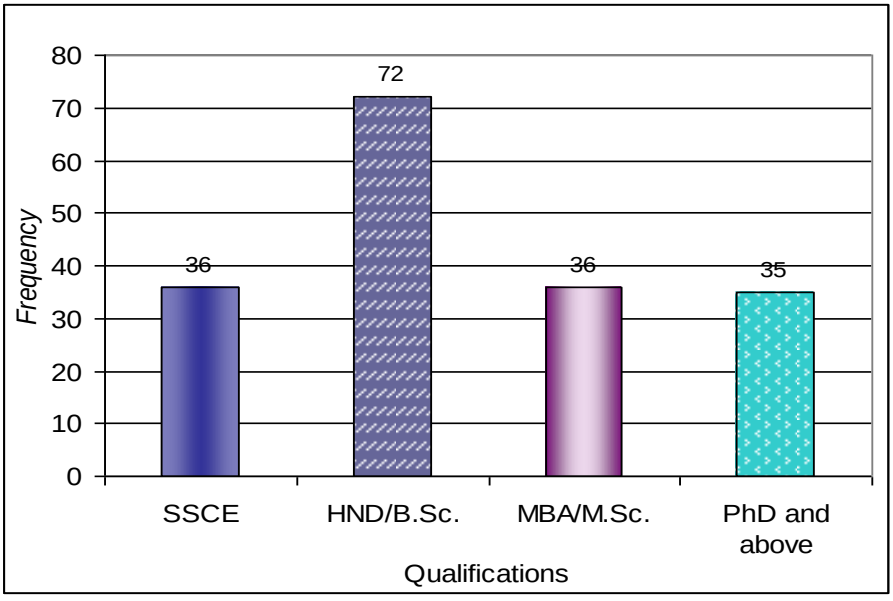
Bar Chart 3 **Respondents' Marital Status**



Source: Survey Data (2014).

The data on marital status which revels that respondents that are married are eighty (80) representing 44.4%, while singles are forty-two (42) at 23.3%. The widows are twenty (20 respondents representing 11.1%, and widower are six (6) at 3.3% and divorced are thirty-two representing 17.8%. This result shows that majority of respondents were married as seen in bar chart 3 above.

Bar Chart 4 **Respondents' Educational Qualifications**

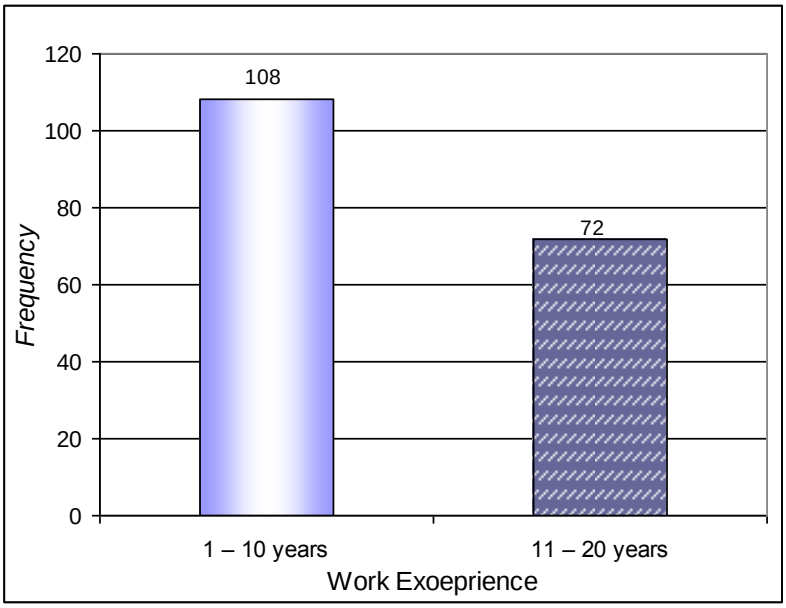


Source: Survey Data (2014).

The information on educational qualification which shows the following frequency with a corresponding percentage thus: SSCE 36 representing 20%, HND/B.Sc. 72 representing 40%, MBA/M.Sc. 36 representing 20% and PhD and above has 36 representing 20% also. This indicates that the majority of respondents were HND/B.Sc. holders. This is represented in the bar chart 4 above.

Vol.4 No.7 | November-2014 ISSN: 1839 - 0846

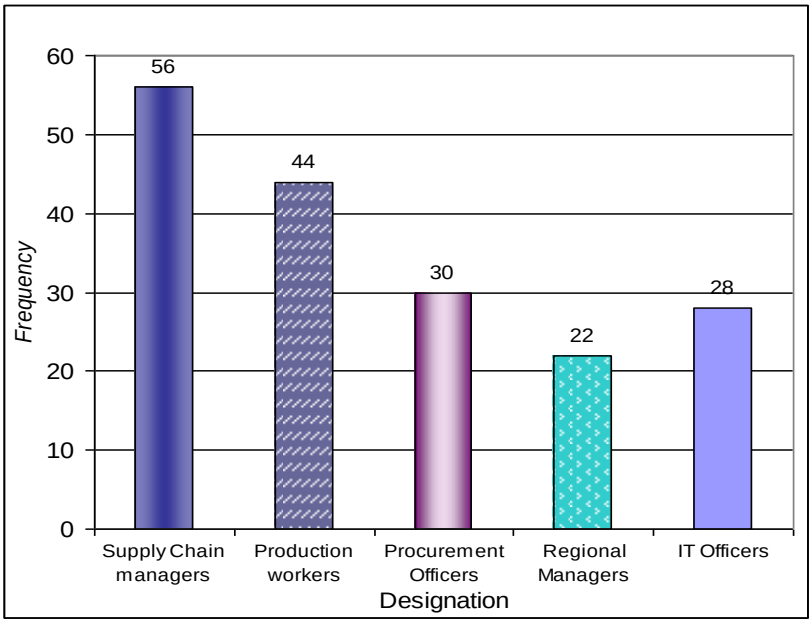
Bar Chart 5 **Respondents' Work Experience**



Source: Survey Data (2014).

The data on work experience shows the following data, 1 – 10 years has 108 respondents representing 60%, while 11 – 20 years has 72 representing 40%. This shows that the majority falls within the ranges of 1 – 10 years as presented above in bar chart 5.

Bar Chart 6 **Respondents' Designation**



Source: Survey Data (2014).

The information above shows the following data on designation: Supply chain managers are 56 respondents, representing 31.1%; Production workers are 44 respondents representing 24.4%; Procurement officers are 30 respondents, representing 16.7%; Regional managers are 22 respondents representing 12.2%; and Informational technology Officers are 28 representing 15.6%. The implication is that, all the respondents are involved in supply chain activities in one way or the other.

Vol.4 No.7 | November-2014 ISSN: 1839 - 0846

Analysis of Relevant Research Questions

Computed Data from Research questionnaire (See Appendix III)

Analysis of Hypotheses:

Three hypotheses formulated for the study were tested using multiple ordinary least square regression (OLS) with statistical software (SPSS 17) at 0.05 level of significance.

Hypothesis 1

Ho: There is no significant relationship between customer's satisfaction, supply chain planning, supply chain coordination and supply chain control.

Ha: There is a significant relationship between customer's satisfaction, supply chain planning, supply chain coordination and supply chain control.

Below is the output result of hypothesis 1 using OLS at 0.05 significance level.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.999[a]	.999	.994	.37034

a. Predictors: (Constant), Contrl, Planning, Coord

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	37.553	6.301		5.960	.106	-42.513	117.618
	Planning	.000	.070	.000	-.003	.998	-.884	.884
	Coord	-.661	.074	-.792	-8.975	.071	-1.597	.275
	Contrl	1.062	.055	1.486	19.173	.033	.358	1.767

a. Dependent Variable: Cust_sat

Equation 4.1

Cust.Sat = 37.553 + 0.000Planning – 0.661Coord + 1.062Control

(5.960) (-0.003) (-8.975) (19.173)

F = 229.612 (P = 0.048) (*see* Appendix 3)

Interpretation of Result

The multiple regression result shows that there is a positive relationship between customers' satisfaction, supply chain planning and supply chain control. Whereas there is an unempirical negative relationship between supply chain coordination and customer's satisfaction (eqn. 4.1). This implies that good supply chain planning and control will positively influence customers' satisfaction. The adjusted coefficient of determination value (R^2) of 0.994 which is the percentage of the total variation of the dependent variable that is explained by the independent variables indicates that 99.4% of the variation in customer's satisfaction is accounted for by the explanatory variables (supply chain planning, supply chain coordination and supply chain control), this is a very good fit.

The f-calculated value of 229.612 with a probability value of 0.048 which is less than the significance level of 0.05, means that, there exist an overall linear relationship between the dependent variable and the explanatory variables taken together. Hence, the null hypothesis (Ho) is rejected and concludes with 95% confidence that there is a significant relationship between customer's satisfaction, supply chain planning, supply chain coordination and supply chain control.

Vol.4 No.7 | November-2014 ISSN: 1839 - 0846

Hypothesis 2

H_o: There is no significant relationship between employee's satisfaction, supply chain planning, supply chain coordination and supply chain control.

H_a: There is a significant relationship between employee's satisfaction, supply chain planning, supply chain coordination and supply chain control.

The multiple regression output result of hypothesis 2 at 0.05 significance level is displayed below:

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	1.000[a]	.999	.997	.15920

a. Predictors: (Constant), Contrl, Planning, Coord

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-7.360	2.709		-2.717	.225	-41.778	27.058
	Planning	1.003	.030	1.310	33.537	.019	.623	1.383
	Coord	.667	.032	1.316	21.069	.030	.265	1.070
	Control	-.603	.024	-1.391	-25.329	.025	-.906	-.301

a. Dependent Variable: Empl_sat

Equation 4.2

Empl_Sat = -7.360 + 1.003Planning + 0.667Coord – 0.603Control
(-2.717) (33.537) (21.069) (-25.329)

F = 458.053 (P = 0.034) (see appendix 3)

Interpretation of Result

The multiple regression result for hypothesis two (2) shows a positive relationship between employee's satisfaction, all the independent variable except supply chain control (equ 4.2). This implies that good supply chain planning and coordination will positively influence employees' satisfaction. Also, the regression result reveals that the coefficient of determination (R^2) value is 0.999. This is a clear indication that about 99.9% of the total systematic variation in the dependent variable (employee's satisfaction) has been explained by the explanatory variables (supply chain planning, supply chain coordination and supply chain control) taken together, It remains strong after adjusting for degree of freedom to 99.7% (Adjusted R-square). This reveals high goodness of fit of the model.

The f-calculated value of 458.053 with a probability value of 0.034 which is less than the significance level of 0.05, means that there exist an overall linear relationship between the dependent variable and the explanatory variables taken together. Hence, the null hypothesis (Ho) is rejected and concludes with 95% confidence that there is a significant relationship between employee's satisfaction, supply chain planning, supply chain coordination and supply chain control.

Hypothesis 3

H_o: There is no significant relationship between profitability, supply chain planning, supply chain coordination and supply chain control.

H_a: There is a significant relationship between profitability, supply chain planning, supply chain coordination and supply chain control.

Vol.4 No.7 | November-2014 ISSN: 1839 - 0846

Below is the output result of hypothesis 3 using OLS at 0.05 significance level:

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.999[a]	.998	.994	.22553

a. Predictors: (Constant), Contrl, Planning, Coord

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-31.657	3.837		-8.250	.077	-80.415	17.101
	Planning	.989	.042	1.326	23.352	.027	.451	1.527
	Coord	.842	.045	1.705	18.766	.034	.272	1.412
	Control	-.381	.034	-.900	-11.277	.056	-.809	.048

a. Dependent Variable: Profit

Equation 4.3

Profit = -31.657 + 0.989Planning + 0.842Coord – 0.381Control
(-8.250) (23.352) (18.766) (-11.277)

F = 216.509 (P = 0.050) (see appendix 3)

Interpretation of Result

The multiple regression result shows that positive relationships exist between Organizational profitability, supply chain planning and supply chain coordination. Whereas there is an unempirical negative relationship between organizational profitability and supply chain control.(equ 4.3). This implies that good supply chain planning and coordination will positively influence Organizational profitability. The adjusted coefficient of determination value (R^2) of 0.994 which is the percentage of the total variation of the dependent variable that is explained by the independent variables indicates that 99.4% of the variation in Organizational profitability is accounted for by the explanatory variables (supply chain planning, supply chain coordination and supply chain control), this is a very good fit.

The f-calculated value of 216.509 with a probability value of 0.050 which is equal to the significance level of 0.05, means that there exist an overall linear relationship between the dependent variable and the explanatory variables taken together. Hence, the null hypothesis (Ho) is rejected and concludes with 95% confidence that there is a significant relationship between profitability, supply chain planning, supply chain coordination and supply chain control.

Findings of the Study

The analysis of our study both primary and secondary data as shown the following findings:

- The study found that, all the cement companies and the dealers in the industry are involved in supply chain management activities in one way or the other.
- The shift in SC planning philosophy focus on total optimization of the entire SC rather than individual companies in order to satisfy its customers.
- It was found that, increase customers wish to purchase new items or repurchase is an indication of their satisfactions.
- The study shows that customers' satisfaction result to high demand of their product and increase profitability.
- It was also found that, increase productivity, commitment, team work, reduce turnover rate, trust, lower absenteeism is an indication of employees' satisfaction.
- The study found that a broadened set of planning help to minimized inter-organizational complexity, uncertainty and unify different interest to achieve corporate objectives.

Vol.4 No.7 | November-2014 ISSN: 1839 - 0846

- The study found that, supply chain control variability outcome is as good as the data system. According to Chopra and Meindl (2010), the use of information technology (IT) is sc is to provide at the right time, to the right person, the right information.
- The study shows that effective and efficient supply chain management capability tends to impact on corporate success with the key SCM principles (i.e. planning, coordination and control variability) as summed up by Lourenco, 2001).
- The study found that effective control depends on right information and data management within SC.
- It was found that managing dependencies between entities improve collaboration in the system.

Discussion of Findings

Generally, in our previous sections, primary and secondary data were utilized. The primary data involved the test of the formulated hypotheses, where interpretations of results were made also. However, our analysis of the primary and secondary data revels that, there is positive relationships between supply chain management variables and corporate success measures in the cement industry.

Therefore, we found that all the cement companies and the dealers in the industry are involved in supply chain management activities in one way or the other. It was also found that, those with efficient and effective supply chain management capability tend to achieve high rate of corporate success than their competitors operating in the cement industry, South-South zone, Nigeria. It was found that, increase customers' wish to purchase new items or re-purchase is an indication of their satisfaction. The study shows that, customer's satisfaction result to high demand of their products, thus, increasing profitability of the firm.

The study revealed that, control variability outcome is as good as the data system. According to Chopra and Meindl (2010), the use of Information Technology (IT) in SC is to provide at the right time, to the right person, the right information. The study found, that, increase productivity, commitment, team work; reduce turn over rate, trust, lower absenteeism as an indication of employees' satisfaction due to impact of supply chain planning and coordination. It was found that effective control variability, depend on right information and data management, as well as managing dependencies between entities to improve collaboration in the system.

However, the first hypothesis state that there is no significant relationship between customers' satisfaction, sc planning, coordination and control variability using multiple ordinary least square regression (OLS) with statistical software (SPSS 17) at 0.05 level of significance. It shows that there is a positive relationship between customers' satisfaction, supply chain planning and control variability. Whereas there is an unempirical negative relationship between supply chain coordination and customers' satisfaction. This implies that effective supply chain planning and control variability positively influence customers' satisfaction. However, the f-calculated value of 229.612 with a p-value of 0.048 is less than the significance level of 0.05. Hence, reject HO, and accept the alternative.

Secondly, it was hypothesized that, there is no significant relationship between employees' satisfaction, supply chain planning, coordination and control variability. It shows a positive relationship except supply chain control. This implies that effective supply chain planning and coordination have positive influence on employees' satisfaction. As such increase productivity, commit, team work, reduce turn over rate, trust, lower absenteeism is an indicators of their satisfaction. However, Ho_2 is rejected and Ha accept as f-calculated value 458.053 with a p-value of 0.034 is less than the significance 0.05, means there exist an overall linear relationship between the dependent variable and the explanatory variables taken together.

Thirdly, hypothesis state that, there is no significant relationship between profitability, supply chain planning, coordinating and control variability. It was revealed that positive relationship exist between profitability, supply chain planning, coordination. Whereas there is an unempirical negative relationship between profitability and supply chain control variability. This implies that effective and efficient supply chain planning and coordination have positive influence on profitability in the cement industry, South-South zone, Nigeria. Because, customers' satisfaction result to high demand of their product and increase profitability. However, f-calculated value of 216.509 with a probability value of 0.050 which is equal to the significance level of 0.05, means that overall linear relationship exist between the dependent and the explanatory variable taken together.

Implications of the Findings

The findings of the study have a significant bearing for the practicing and potentials managers in the cement industry. The dimensions and their constituent items of the study variables offer a significant insight into the key area of supply chain management (i.e. planning, coordinating and control variability) activities impacting

Vol.4 No.7 | November-2014 ISSN: 1839 - 0846

customers' satisfaction, employees' satisfaction and profitability as a corporate success indicators. This implies that, an organization would attain success when her customers, employees are satisfied and in turn profit are maximized, hence, corporate success. Also, it creates room for potential improvements in this regards.

Conclusions

The results of this study showed that customers' wish to purchase new items or repurchase is an indication of their satisfaction due to effective and efficient supply chain management. Therefore, customers' satisfaction results to high demand of their product which in turn increases profitability of the firm in the cement industry.

However, increase productivity, commitment, team work, reduce turnover rate, trust, lower absenteeism to achieve set objective is also an indication of employees' satisfaction due to the impact of supply chain management. This implies that, the quantitative analysis shows a satisfactory proof of the relationships between key supply chain management principles (i.e. planning, coordination and control variability) impact on corporate success as summed up by (Lourenco, 2001). It explained that those with strong and effective SCM capability tend to achieve high rate of corporate success than their competitors.

Recommendations

Based on our analysis and findings, the following recommendations are made:

1] Organizational collaboration need to be encouraged among the cement companies and the dealers in the south-south, Nigeria for effective and efficient supply chain management.
2] Management should engage more into partnership with its suppliers and distributors to improve collaboration across functional activities, process alignment and joint decision making to achieve total optimization of the entire supply chain rather than individual companies. Because, partnership is more than working for each other, but working with each other to improve the performance of each and create a win-win situation between partners.
3] The study recommend Shift from classical planning and control thinking to integrated planning philosophy for advance quality service in the cement industry.
4] The study recommend that, firms should jointly plan for demand and distribution, production and procurement as a system to optimize overall corporate success in the cement industry.
5] The study recommends investment on information technology (IT) infrastructure as to capture sales opportunities and achieve corporate goals.
6] Advancement in the area of IT usage should be encouraged for effective planning, tracking and estimation of real time based on the real time data within the supply chain system.

REFERENCES

1. Anderson, M. G. and Gerbing D. W. (1982) some methods for respecifying measurement models to obtain undimensional construct measurement. *Journal of Marketing Research*, 19, 453 – 460.
2. Anderson, M. G., Katz, P. B (1998) Strategic sourcing, International Journal of Logistics management 9 (1), 1 – 13.
3. Anderson and Quandt (1930) Modern Mathematical Economics. McGraw- Hall Irwin
4. Baridam, D. M. (2001) *Research Methods in Administrative Sciences*. CSS Press, 50A Hospital Road, Port Harcourt.
5. Carson, D. Gilmore, A. and Maclaran, P. (1998) Customer or Profit Focus: an alternative Perspective. Journal of Marketing Practice: Applied Marketing Science 4 (1),26-39
6. Chopra, S., Meindl, P. (2010). Supply Chain Management: Strategy, Planning and Operations, Pearson, Upper Saddle Rivers, N J
7. Cooper, M. C. and Ellram, L. M (1993) Characteristics of SCM and the implications of purchasing and logistics strategy. The international journal of logistics management.
8. Cooper, M. C., Lambert, D. M. and Pagh, J. D. (1997) Supply chain management: More than a new name for logistics. International Journal of Logistics Management, 8, 1, 1 – 13.
9. Doyle, P. (1994) *Marketing management and strategy*, Prentice Hall, London.
10. Ellram, L. M, Carr, A. S. (1994) Strategic purchasing: a history and review of the literature, *International Journal of Physical Distribution and Materials management*, 30 (2), 10 – 18.
11. Fawcett, S. E. Ellram, L. M. and Ogeden, J. A (2007) Supply chain management: From Vision to implementation. Upper saddle rivers, New Jersery, Pearson practice-Hall.
12. Hilletofth (2010). Supply Chain Management, Chalmers Repro service,,Goteborg Sweden, P.47
13. Jordan, M., Harrison, D.K. and Williams, E. A (2004) Information Systems development within Supply Chain Management. International Journal of Information Management Vol. 24, Issues 5, p. 375- 385

Vol.4 No.7 | November-2014 ISSN: 1839 - 0846

14. Kulkani, S. and Sharma, A. (2008) Supply chain management. Creating linkages for faster business Turnaround. Tata Mchraw-Hill Publishing Company limits, 7 West Patel Nagar, New Delhi.
15. Lambert, D. M (2008) "Supply chain management: Supply Chain Managenent: Processes, Partnerships ,Performance (Florida, USA: Supply Chain Institute) Management at the North Dakota State University College of Business
16. Lancioni, R. A., Smith, M. F. and Oliva, T. A. (2000). The sole of the internet in supply chain management. Industrial Marketing Management, 29,45-46
17. Lee, H.L. (2012), a New Introduction to Supply Chains Management: Definitions and Theories Perspective. International Business Research Vol. 5, No.1
18. Lourenco ,H. (2001) Supply Chain Management: an opportunity for metaheiunstics UPF Economics and Business
19. Lugwig Von Bertalanffy (1972) A Pioneer of General Systems Theory- Richard Jung. University of Alberta Center for System Research, Canada. CSR Working Paper No. 89
20. Lummus, R. R. and Vokurda, R. J. (1999) Defining supply management: a historical perspective and practical guidelines. Industrial management and Data Systems, 99 (1), 11 – 17.
21. Makoju, J. O. (2010), Cement industry in Nigeria: The journey so far. A paper presented at the 2nd Abitem international Conference, Ikeja, Lagos, Nigeria, 5 – 8, April.
22. Malone, T. W. and Crowston (1994) Toward the Inter- organizational Product Information Supply Chain Evidence from the Retail and Consumer Goods Industries
23. Mattson, S. A (2002) Logistik I forreorjningske-djor.lund, studentlitteratur
24. Min, H. and Gallem, W. P (1999) Electronic commerce usage in business to business purchasing. International Journal of Operation and Production management 19 (9), 909 – 921.
25. Moro, V. R. (2012) Inflation Risk Management in Project Finance Investments. International Journal of Finance and Accounting, Vol.1,No.6 pp. 198- 207
26. Oliver, R. K. and Webber, M. D. (1982) Supply chain management: logistics catches up with strategy, outlook cut. Christopher, M. C. (1992) Logistics, The strategic issue: London, Chapman and Hall.
27. Petrovic-Lazarevic, S. Sohal, A. and Baihaqi, I (2007) Supply chain management practice and supply chain performance in the Australian Manufacturing Industry. Australia, Monash University.
28. Simchi-Levi, D. Kaminsky, P. and Simchi-levi, E. (2008) Designing and Managing the Supply Chain: Concepts, Strategic and Case studies. 3rd ed. McGraw-Hill, Irwin. I.
29. Spekman, R. E., Spear, J. and Kamauff (2002) Supply chain competency: Learning as a Component. *International Journal of Supply Chain Management*, 7 [17, 41 – 65].
30. Van der Vorst, (2004) Supply chain management: Theory and practice. International Journal of Physical Distribution and Logistics management, Vol. 32, No. 6, pp. 409 – 420.
31. Verbeeten, F., and Boons, A.(2009),Strategic Priorities, Performance measures on performance: an empirical analysis in Dutch firms ,European Management Journal,27,113-128
32. Wu, F., Yeniyurt, S., Kim,D., and Cavulsgil, S. T (2006) The impact of information Technology on Supply Chain Capabilities and Firm performance: A resource based view, Industrial Marketing Management 35,pp.493 - 504

Vol.4 No.7 | November-2014 ISSN: 1839 - 0846

APPENDIX II

CEMENT COMPANIES IN SOUTH-SOUTH, NIGERIA

1. United Cement Company of Nig. (Unicem)
   Spring Road, Diamond Hill, Calabar,
   Cross Rivers State
2. Dangote Cement
   Federal Ocean Terminal, Onne, Eleme
   Port Harcourt Rivers State
3. West African Portland Cement Plc Or Lafarge
   Cement Wapco Nigeria Plc.
   (A Brand of Elephant Cement)
   Okumagba Avenue, Warri South delta State
4. Ava Cement Limited
   Ikpeshi Egbigere Igaria-Auchi Road, Akoko
   Edo Local Government Area, Edo State
5. Atlas Cement (Lafarge Wapco Nig.)
   Atlas Road, Onne Eleme
   Rivers State
6. Ibeto Cement
   Ibeto Road, Port Harcourt
7. Bua Cement
   Terminal B, Onne Eleme
   Rivers State
8. Eagle Cement (Eastern Bulkcem Co. Ltd. (EBC)
   Water Front at Rumuolumeni near Port Harcourt
   Rivers State
9. Rock Cement
   Cement HSE Akpajo Junction
   Port Harcourt, Rivers State

Source: www.Vconnect.com, (2014)

LIST OF SELECTED CEMENT DEALERS IN SOUTH-SOUTH, NIGERIA

S/No	Names and Address of Dealers
1.	Elephant Cement Depot Sapele, Delta
2.	Bamido Global Service Company Illah Road, Asaba, Delta State
3.	Vieteze Ventures Irri, Isoko South, Delta State
4.	Clarion Integrated Service Limited Warri, Delta State
5.	Imoniyame Holding Limited Company Ughelli North, Delta State
6.	Chuks Building Enterprise Anwai Road, Asaba, Delta State
7.	Divie James Cement Company Bening City, Edo State
8.	Sammi Cement Depot Benin City, Edo State
9.	Floridek Limited Benin city Edo State
10.	Nice Cement Depot Benin Road, Benin City, Edo State
11.	Sibide and Son Nigeria Limited G.R.A., Benin City, Edo State
12.	Philosa Cement Deport Benin City, Edo State

Vol.4 No.7 | November-2014 ISSN: 1839 - 0846

S/No	Names and Address of Dealers
13.	Dangote Cement Deport Kpansia, Yenagoa, Bayelsa State
14.	Ebimopamotei Nigeria Limited Yenagoa, Bayelsa State
15.	Joshcopet Nigeria Company Foropa Town Silga Southern Ijaw, Bayelsa State
16.	Blessing Appah D and Sons Company Limited Kolokuma/Opkuma, Bayelsa State
17.	Natige and Son Nigeria Limited Ekeremu, Bayelsa State
18.	JD Light Resources Limited Kpansia, Yenagoa, Bayelsa State
19.	Jolus Nigeria Ltd. Haarstrup Jetty, Rumuolumeni Port Harcourt, Rivers State
20.	Dangote Cement Depot Isokari sTreet Behind Pepsi, Hospital Road, Ahoada, Rivers State
21.	Rabbi Holding Nigeria Limited New Haven, Oyigbo, Rivers State
22.	Horatop Nigeria Limited Brigade, Port Harcourt Rivers State
23.	A Chukson International Company Ltd. Onne, Port Harcourt, Rivers State
24.	Jogopa Nigeria Limited Oyigbo, Rivers State
25.	JIokens Incorporated Calabar South, Calabar, Cross Rivers State
26.	Cascas International Company Calabar, Cross Rivers State
27.	Felimar Investment Nigeria Ltd. Calabar South, Calabar, Cross Rivers State
28.	Bonak global Services Calabar, Cross Rivers State
29.	Bonak Global Services Calabar, Cross Rivers State
30.	Afcon General Investment Calabar South, Calabar, Cross Rivers State
31.	God's Way Brothers Company Uyo, Akwa Ibom State
32.	Kerbimjo Nigeria Limited Uyo, Akwa Ibom State
33.	Dangote Cement Distributor De[pot Akpan Andem Market Uyo, Akwa Ibom State
34.	Unigboson Resources Enterprises Anunwa Uyo, Akwa Ibom State
35.	Charles Ethel Nigeria Enterprises Ifa Okot Uyo, Akwa Ibom State
36.	Ucheson Investment Nigeria Limited Mdiaobong Uyo, Akwa Ibom State

Source: www.Vconnect.com 2014

Australian Journal of Business and Management Research
New South Wales Research Centre Australia *(NSWRCA)*
Vol.4 No.7 | November-2014
ISSN: 1839 - 0846

APPENDIX III

Computed Data from Research Questionnaire

PLANNING					
SA	A	W. SA	W. A	Total W.	W.Mean
101	79	404	237	641	**64.1**
178	2	712	6	718	**71.8**
98	82	392	246	638	**63.8**
158	22	632	66	698	**69.8**
170	10	680	30	710	**71**
COORDINATION					
SA	A	W. SA	W. A	Total W.	W.Mean
162	18	648	54	702	**70.2**
84	96	336	288	624	**62.4**
140	40	560	120	680	**68**
27	153	108	459	567	**56.7**
160	20	640	60	700	**70**
CONTROL					
SA	A	W. SA	W. A	Total W.	W.Mean
172	8	688	24	712	**71.2**
168	12	672	36	708	**70.8**
113	67	452	201	653	**65.3**
14	166	56	498	554	**55.4**
170	10	680	30	710	**71**

CUSTOMER'S SATISFACTION					
SA	A	W. SA	W. A	Total W.	W.Mean
130	50	520	150	670	67
174	6	696	18	714	71.4
77	103	308	309	617	61.7
50	130	200	390	590	59
127	53	508	159	667	66.7
EMPLOYEE'S SATISFACTION					
SA	A	W. SA	W. A	Total W.	W.Mean
67	113	268	339	607	60.7
96	84	384	252	636	63.6
87	93	348	279	627	62.7
130	50	520	150	670	67
137	43	548	129	677	67.7
PROFITABILITY					
SA	A	W. SA	W. A	Total W.	W.Mean
99	81	396	243	639	63.9
109	71	436	213	649	64.9
97	83	388	249	637	63.7
101	79	404	237	641	64.1
165	15	660	45	705	70.5

Vol.4 No.7 | November-2014 ISSN: 1839 - 0846

ANOVA Table for Hypothesis 1

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	94.475	3	31.492	**229.612**	**.048**[a]
	Residual	.137	1	.137		
	Total	94.612	4			

a. Predictors: (Constant), Contrl, Planning, Coord

b. Dependent Variable: Cust_sat

ANOVA Table for Hypothesis 2

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	34.827	3	11.609	458.053	.034[a]
	Residual	.025	1	.025		
	Total	34.852	4			

a. Predictors: (Constant), Contrl, Planning, Coord

b. Dependent Variable: Empl_sat

ANOVA Table for Hypothesis 3

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	33.037	3	11.012	216.509	.050[a]
	Residual	.051	1	.051		
	Total	33.088	4			

a. Predictors: (Constant), Contrl, Planning, Coord

b. Dependent Variable: Profit