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Effect of Management Information Flow and Warehousing Management Activities on Profitability of Cattle Dealers in Selected Cattle Markets in Lagos State, Nigeria

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Abstract

Logistics management is an essential ingredient for organizations in gaining higher profitability. The goal of logistics management was to optimize the number, size, and geographical arrangement of plant and warehouse facilities, select transportation methods, and control distribution costs. There has been shortfall in the supply of cattle and its products due to the considerable spatial separation of production area from consumption area and other ancillary factor. Also, most livestock/cattle supplier in Nigeria do not employed effective logistics management which in turn negatively affect meat/cattle delivery to their customers, inventories, and profit performance. This study examined the effect of management information flow and warehousing management activities on profitability of cattle dealers in selected markets in Nigeria. This study employed descriptive survey design. The target population comprised 4, 248 cattle dealers across the eight approved Abattoir/ markets in Lagos State. A multi-stage sampling technique was adopted to select the sample size of 437. A close-ended well-structured survey questionnaire was adapted, validated and used for collecting data for the study. The Cronbach's alpha coefficients for the constructs were 0.931. The response rate to the 437 copies of the questionnaire administered was 82.7%. Data were analyzed using structural equation model (SEM). Findings revealed that management of information flow had significant positive effect on the profitability of cattle dealers in selected cattle markets in Lagos State (β= 0.269, t=5.450, p-value<0.05). Warehousing management activities had significant positive effect on the profitability of cattle dealers in selected cattle markets in Lagos State β=0.391, t=9.085, p<0.05). The study concluded that logistics management had significant and positive effect on the profitability of cattle dealers in selected markets in Lagos State. It was recommended that internal structure and systems that allow free and timely flow of information between cattle dealers and primary producers/cattle farmers should be put in place. Further, there should provision adequate linkage between the different players involved in the meat production/ processing value chain. Also, a strategic approach to logistics management through embracing modern technology and employee training is recommended.

Keywords: Profitability; Management information flow; Warehousing management; Partial least structural equation modeling (PLS-SEM).
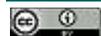
1. Introduction

The fact that cattle is mostly produced in northern Nigeria and mostly consumed in the south has led to a situation in which there is a multiplicity of intermediaries and stakeholders in the marketing chain (National Livestock Project Division, 1992). The challenge posed by this has been increased transaction costs and thus, upward trending final retail price of cattle and its products. The effect of the activities of these intermediaries and stakeholders is capable of making cattle and its products inaccessible to the poor who feed mostly on diets deficient in animal proteins (Mafimisebi, 2011). There is every reason to worry about this situation in Nigeria because the level of animal protein consumption is rated very low compared with recommended levels (Mafimisebi, 2011). More worrisome is the fact that the country is said to be in a critical and deteriorating national meat supply position in which beef alone accounts for about 70% of total national meat supply (Omoruyi *et al.*, 2000). The domestic production and documented importation of cattle are, together, not enough to meet more than 60% of the actual demand (National Livestock Project Division, 1992).

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A logistical system is made up of a large number of stakeholders. They include the suppliers, manufacturers, wholesalers or distributors and retailers who have to be managed strategically in order to deliver final products in the right quantities at the desired time and quality at the right place and at a reasonable cost to the final consumers.

According to Wallenburg and Weber (2005), logistics plays key role in supporting organizations as they strive for more efficient management systems as in the business practices, the inefficient logistics system together with the inefficient internal management would disable the organization to respond to the needs of customers with the lowest price at the shortest feasible time frame including the quality level which does not meet customer expectation and would lead the organizations to the competitive disadvantage situation against their rivals. With a broad range of manufacturers and distributors for the customers to choose from, they can choose to purchase the products from the manufacturers and distributors who capable to offer products which match their specified quality at the lowest prices and be delivered on time (Adobor and Mcmullen, 2007). Logistics plays a very important role in organizations.

Companies and retail organizations today are increasingly recognizing the role and importance of logistics. Ojadi (2001) submitted that no organization can operate efficiently without some elements of supply chain and logistics management; both of which are needed to tie-up loose-ends in productive activities. Logistics and distribution system is employed by manufacturers and service providers to ensure an economic placement of their products and services at the reach of the target consumers. Logistics and distribution functions put the right product in the right place at the right time to meet demand requirements. For any organizations to survive in global market the firms must minimize cost, improve quality, fast response to consumers' demands, and manage inventories. These competitive advantages of cost minimization improve quality, fast response to consumers' demands can be achieved through implementation of effective logistics management (Mohammed and Muhammad, 2007; Ogbeide, 2015).

Several studies have examined the role of management of information flow on profitability of cattle dealers but most of these studies did not consider the relationship between management of information flow on profitability of cattle dealers in selected markets in Lagos State. Absence of market information, inability to share and utilize such information in production, processing and marketing of livestock/cattle business have cause mismanagement of inventory in the livestock industry in Nigeria Ogbeide (2015) this marketing information gap may cause over-stocking or over ordering and poor inventory system, which in turn tie down capital, investment opportunities and profit of the organization.

1.1. Objectives of the Study
1. To examine the effect of management of information flow on profitability of cattle dealers in selected markets in Lagos State.
2. To determine the effect of warehousing management activities on profitability of cattle dealers in selected markets in Lagos State.

1.2. Hypotheses
H_{01}: Management of information flow has no significant effect on the profitability of cattle dealers in selected cattle markets in Lagos State.

H_{02}: Warehousing management activities has no significant effect on the profitability of cattle dealers in selected cattle markets in Lagos State.

2. Literature Review
2.1. Management of Information Flow
The management of information is one of the most vital features of communication. This is because communication direction can reveal important information about organizations such as the centralized or decentralized nature of decision making process (Anderson and Level, 1980). According to Simpson (1959) and Anderson and Level (1980) that management of information flow in organizations can take place in two dimensions: vertical and horizontal. Instructions move down, information moves up. Vertical information flow can be divided in downward and upward directions in the information flow ladder and can be described as follows: Downward is considered as the communication which flows from one level of organization to a lower level of the same organization (Simpson, 1959). Downward information flow is mainly used by managers in order to assign goals, provide instructions, inform about the ongoing organizations' procedures and policies and offer feedback on employee's performance. Since employees are considered as the backbone of every organization performance in term of financial and operational performance, so they should be involved in organizations' issues, information flow and the decision making process (Anderson and Level, 1980; Stock and Lambert, 2001).

The direction of information in organizations is one of the most important features of communication. The above mentioned feature is an interesting subject to study because communication direction can reveal important information about organizations such as the centralized or decentralized nature of decision making process (Anderson and Level, 1980). Communication in organizations can take place in two dimensions: vertical and horizontal. Instructions move down, information moves up. Vertical communication, itself, can be divided in downward and upward directions in the communication ladder and can be described as follows: Downward is considered as the communication which flows from one level of organization to a lower level of the same organization (Simpson, 1959). Downward communication is mainly used by managers in order to assign goals, provide instructions, inform about the ongoing organizations' procedures and policies and offer feedback on employee's performance.

2.2. Warehousing Management Activities

The warehouse is a point in the logistics system where a firm stores or holds raw materials, semi-finished goods, or finished goods for varying periods of time' (Coyle *et al.*, 2003). According to Stock and Lambert (2001) there are three basic functions of warehouse: movement, storage and information transfer. Movement is necessary to store a product properly. Movement can be divided into three activities: one is receiving inbound goods from transportation carriers and performing quality and quantity checks. Two is transferring goods from the receiving docks and moving them to specific storage locations throughout the warehouse; and three shipping the goods outbound to customers by some forms of transportation.

Storage is the second function of warehousing. It can be performed in two different ways: one, temporary storage means that storing a product which is necessary for inventory replenishment. Two, semi-permanent storage is used for inventory in excess of immediate needs. It is the safety or buffer stock. The last function of warehouse is the information transfer. When the product is moved and stored, this function occurs at the same time. It is important for the management to have timely and accurate information in order to administer the warehouse activity. The information can cover a lot of things like inventory levels, throughput levels, and data of the customer, facility space utilization and also about the personnel (Lambert, 2008).

In the current business world, warehouse management as perceived by the industry today is not just managing within the boundaries of a warehouse; it is much wider and goes beyond the physical boundaries. Inventory management, inventory planning, cost management, IT applications & communication technology to be used are all related to warehouse management (Bartezzaghi, 2003). The management of a warehouse is the main function of a warehouse management system. These systems keep record of the storage capacity, i.e., the specification of the existing storage bins (location management); and the stored units (inventory management). In addition to this, it should also include several control functions to optimize the storage activities. Warehouse functions play an important role in the success of a company. There is need to critically pay attention to warehousing needs particularly on costs caused by the activity that occurs in the process of warehousing (Chow *et al.*, 2006).

The changing demand market requirements on firm's warehouses have affected warehouse operations tremendously (Chen and Wu, 2005; Selen, 2002). In these circumstances warehouse managers have to react constantly to market changes because customers have been gaining more power to influence the market structure (Chen and Wu, 2005). Characteristics of a demand-driven organization are high product variety, small order sizes, and reliable short response times throughout the supply chain (Chen and Wu, 2005). According to Selen (2002), Internet caused a reconfiguration of the demand chain concept with a shift away from supply chains towards demand chains. Other terms are shifting away from Material Requirements Planning (MRP) to Just-in-Time (JIT) (Benton and Shin, 1998).

2.3. Profitability

Profitability is the ability for an organization to make profit from its activities. Agha (2014), defines profitability as the ability of a company to earn profit. Profit is determined by deducting expenses from the revenue incurred in generating that revenue. Profitability is therefore measured by incomes and expenses. Income is the revenues generated from activities of a business enterprise. The higher the profit figure the better it seen as the business is earning more money on capital invested. For a manufacturing firm, revenues are generated from sales of products produced. Expenses are the costs of the resources used up and consumed in the manufacturing process together with other selling and administrative expenses. Drucker (1999), asserts that for a business enterprise to continue running, it must make profits. However, a business cannot shut down its doors simply because it has made a loss in a single financial year but when the firm makes losses continuously in consecutive years this jeopardizes the viability of that business (Dunn, 2009).

The amount of profit can be a good measure of performance of a company. So profit is used as a measure of financial performance of a company as well as a promise for the company to remain a going concern in the world of business (Agha, 2014). According to Wanguu and Kipkirui (2015) profitability reflects the final outcome of business operations thus a well designed and implemented logistic management is expected to contribute positively to the creation of a firm's value and profitability. Waweru and Kalani (2009), added that a business that is highly profitable has the ability to reward its owners with a large return on the investment. The profitability position of the manufacturing firms was analyzed using return on assets (ROA). Return on assets indicates how profitable a business is relative to its assets and gives how well the business is able to use its assets to generate earnings calculated. Nyabwanga *et al.* (2003), asserted that return on assets must be positive and the standard figure for return on assets is 10% - 12%. The higher the ROA the better because the business is earning more money on the capital invested.

Profitability is a factor centering on the two theories of Static Trade-off Theory and Pecking Order Theory on the capital structure. The trade-off theory says that firms seek debt levels that balance the tax advantages of additional debt against the costs of possible financial distress. The tradeoff theory predicts moderate borrowing by tax-paying firms. The pecking order theory says that the firm will borrow, rather than issuing equity, when internal cash flow is not sufficient to fund capital expenditures. Thus the amount of debt will reflect the firm's cumulative need for external funds (Myers, 2001).

2.4. Theoretical Review

This study adopted Resource Based View theory and Resource Dependency theory. The Resource Based View theory deal with firm resources in terms of management information flow and warehousing management activities

(Independent variables) while Resource Dependency theory deals with organization performance (Dependent variable) achieve through firm resources employed.

2.5. Resource Based View

The resource-based view (RBV) is an economic tool used to determine the strategic resources available to a firm. The resource-based view was initiated in the mid-1980s by Wernerfelt (1984), Rumelt (1984). The assumption of RBV is that there are differences in firm resources endowments. With this various firm resources endowment, firms can achieve competitive advantage over its competitors. Barney (1991) and Wong and Karia (2010) also contended that valuable resources and rare resources could yield a competitive advantage and enhance firm performance. To maintain such a competitive advantage over other firms, the resources have to be difficult and costly to emulate and be substituted (Barney, 1991). RBV explains that a firm's sustainable competitive advantage is reached by virtue of unique resources which these resources have the characteristics of being rare, valuable, inimitable, non-tradable, non-substitutable as well as firm specific (Makodok, 2001). These researchers argue that a firm may reach a sustainable competitive advantage through unique resources which it holds, and these resources cannot be easily bought, transferred, copied and simultaneously they add value to a firm while being rare. It also highlights the fact that all resources of a firm may not contribute to a firm's sustainable competitive advantage. Varying performance between firms is a result of heterogeneity of assets and RBV is focused on the factors that cause these differences to prevail.

This study is concerned with logistics management and profitability as "meeting the organization's present needs without compromising the ability of future generations to meet their own needs," rather than the sustainability of competitive advantage. However, the two are not unrelated. The RBV suggests that competitive advantage may be sustained when the firm's resources are inimitable and non-substitutable (Barney, 1991). This points to the importance of ensuring that a firm's inimitable and non-substitutable resources are nurtured, maintained, and renewed over time. Researchers might also use the RBV to highlight the notion that sustainability initiatives may be useful to firms insofar as they can provide competitive advantage (Rechenthin, 2004). From an RBV perspective, sustainability initiatives that reside at the intersection of social/environmental concerns and market opportunities may stand the greatest chance of success. The RBV uses firms' internal characteristics to explain firms' heterogeneity in strategy and performance. A firm is an organized, unique set of factors known as resources and capabilities, and RBV theory cites two related sources of advantages: resources and capabilities. Resources are a firm's accumulated assets, including anything the firm can use to create, produce, and/or offer its products to a market. Resources are eligible for legal protection (as such, firms can exercise property rights over them) (Amit and Shoemaker, 1993); can operate independently of firm members (Cameron, 2005); and intervene as factors in the production process to convert input into output that satisfies needs (Grant, 1991). In Barney's view, the resources of a firm include both tangible and intangible assets, for instance, machines, management skills, organizational processes and routines, and information and knowledge (Barney, 2001).

The Resource Based View has also been criticized by the researchers. The Resource Based View's lack of clarity regarding its core premise and its lack of any clear boundary impedes fruitful debate. Given the theory's lack of specificity, one can invoke the definition-based or hypothesis-based logic any time. Again, it was argue that resources are but one potential source of competitive heterogeneity. Competitive heterogeneity can obtain for reasons other than sticky resources (or capabilities) (Hoopes *et al.*, 2003). Competitive heterogeneity refers to enduring and systematic performance differences among close competitors.

2.6. Resource Dependency Theory

The RDT is developed by the American business theorist Jeffrey Pfeffer and the American organizational theorist Gerald R. Salancik in the year of 1978 at the Stanford University (Pfeffer and Salancik, 1978). The purpose of the RD is presenting a guide on how to design and manage organizations that are externally constrained (Pfeffer, 1978).

Resource Dependency Theory (RDT) explains the role of dependence between firm in terms of resources (Fawcett *et al.*, 2011). RDT focuses on how firms become dependent on each other in order to achieve required resources like raw materials (Pfeffer, 1978). In inter-firm relationships, asymmetric interdependence is vital to alleviate environmental uncertainties (Ketchen and Hult, 2007). When firms in the same line of supply chain collaborate, they usually become more dependent upon each other (Lei and Slocum, 2005). Hence, firms that depend high on other supply chain partners will have less power in the supply chain relationship between the firms (Ireland and Webb, 2007). On the other hand, in collaborative supply chains, resource dependencies are identified as the causes of unintentional and grave consequences, which can ruin collaborative parties (Crook and Combs, 2007).

The basic assumption of RDT is ensuring organizational survival by minimizing any situation of uncertainty and dependency and characterizes an organization as an open system, dependent on contingencies in the external environment (Pfeffer and Salancik, 1978). However, managers are able to reduce the environ-mental uncertainty and dependency by several actions, where the concept of power is the central stage. Based on the notion that supply market is inherently unstable, literature claims that RDT provides a framework on how organizational actions can reduce uncertainty resulting in a more stable supply market (Handfield, 1993).

Most of the propositions and hypotheses of the RDT are based on the research of Pfeffer and Salancik (1978). However, some scholar have doubts about the usefulness of the RDT Casciaro and Piskorski (2005). Authors claim that the RDT is not a useful theory in order to serve as foundation for testable empirical research and they suggest a reformulation of the theory (Casciaro and Piskorski, 2005). Their criticism include that there exists several

ambiguities in the resource dependency model, especially with regard to constrained absorption (Casciaro and Piskorski, 2005). Noticing that the organizational motivation to manage external dependency does not necessarily correspond with its ability to do so and refer to the issue that perceptions are often confounded with predictions within the RDT Casciaro and Piskorski (2005). They try to solve this issue by extending the concept of interdependency, developed by Pfeffer and Salancik (1978), and distinguish two separate variables influencing interdependency, namely the distinction between power imbalance and mutual dependence (Casciaro and Piskorski, 2005). Power imbalance should serve as an obstacle to constrained absorption and would stand in contrast to the original theory (Casciaro and Piskorski, 2005).

The application RDT from the supply chain collaboration perspective is that resource dependencies can be used to form social attributes between collaborative partners rather than being employed to exploit other partners (Ireland and Webb, 2007), this theory can be used to support the employment of supply chain collaboration through sharing of resources in order to develop social capital between collaborating firms (Peterson *et al.*, 2008). The RDT can be applied to back an argument that resource sharing between supply chain partners firms can form social capital between partner firms that is inter-firm trust and commitment between the firms.

3. Methodology
3.1. Population and Sample
The population in this study involves all 4248 cattle dealers across the eight approved Abattoir/markets in Lagos State. The sample involves 437 cattle dealers out of the 4248 cattle dealers across the eight approved Abattoir/markets in Lagos State obtained using the Yamane (1967) statistical formula for sample size determination. A multi-stage sampling technique was adopted to obtain the sample from the population; the first stage employed the stratified sampling method. This involved grouping the cattle dealers according to their locations. There are eight abattoirs in Lagos State, namely: Achakpo (Ajeromi Ifelodun) Abattoir, Somolu/Bariga Abattoir, Ikorodu Abattoir, Badagry Area Offfice Abbatoir, Epe Area Office Abattoir, Matori Abattoir, Itire Abattoir, and Goshen Abattoir. The second stage used the simple random sampling method to pick the respondents from each Abattoir and lastly the third stage involved the use of proportional sampling technique.

3.2. Reliability and Validity
The instrument is used as a tool for primary data collection. The questionnaire consists of 4 sections such as Section 1 collects demographical data of the respondents, Section 2 collects the of management information flow data, Section 3 collects warehousing management activities data, and section 4 collects the profitability of cattle dealers data. The questionnaire is developed based on a review of related studies and is subject to a content validity test as well as reliability test. The questionnaire of 23 questions has Average Variance Extracted (AVE) of greater than 0.50, which is acceptable based on Fornell and Larcker (1981) which indicate that the construct validity of the measure variables are evidenced.

After that the questionnaire was try-out with 43 (10% of the sample size) cattle dealers in Agege Local Government area of Lagos State which are not part of the target sample of the study. The reliability test have Cronbach Alpha coefficient $\alpha = 0.931$. As the coefficient Cronbach Alpha of all constructs exceed the 0.70 level recommended by Nunnally and Bernstein (1994).

3.3. Data Collection
Research sample were collected from Achakpo (Ajeromi Ifelodun) Abattoir, Somolu/Bariga Abattoir, Ikorodu Abattoir, Badagry Area Offfice Abbatoir, Epe Area Office Abattoir, Matori Abattoir, Itire Abattoir, and Goshen Abattoir. The researchers distributed and collected back the questionnaire from the sample with 82.7% response rate greater than 72% response rate recommended as representative and adequate for drawing conclusions on the study objectives by Fowler (1984) Confidentiality and anonymity was assured. These measures were taken as previous studies have shown that low response rates are experienced when questionnaires are mailed to respondents.

3.4. Variables Used in the Study
Variables used include:

3.4.1. Latent Exogenous Variables
3.4.1.1. Management Information Flow Components
V_1 - Dealers frequently communicates with their suppliers
V_2 - There is good information sharing with other dealers in the market
V_3 - Information sharing assists improve dealer's operations
V_4 - Inter-dealers communication is effective in the markets
V_5 - Modern technology is employed in information sharing among dealers in the markets
V_6 - The Company carries out frequent advertising

3.4.2. Latent endogenous variables
3.4.2.1. Warehousing Management Activities Components
V_7 - There are enough warehouses for storage of cattle

V_8 - Shutting down of the cattle market does not affect cattle supply

V_9 - Most warehousing activities of cattle are automated

V_{10} - Warehousing activities of cattle have improved dealer operations

V_{11} - Dispatching of cattle orders is done properly in warehouses

3.4.2.2. Profitability of Cattle Dealers components

V_{12} - The growth of sales

V_{13} - Growth in return on investment

V_{14} - Profit margin on sales

V_{15} - Growth in return on investment

V_{16} - Growth in sales revenue

V_{17} - Reduction in cost of production

4. Data Analysis and Discussions

A statistical package is used in data analysis. The tool is used in order to conduct analysis with the set reliability according to the research objectives and hypotheses related with the relationships between the factors which are important determinants of profitability of cattle dealers and constructed an structural equation modeling of factors which are important for cattle dealers profitability according to a study by Hair *et al.* (2010).

1. Confirmatory factor analysis (CFA) is aimed at understanding relationships among variables according to the theories and related literature.
2. Test for construct reliability and average variance extracted (AVE)
3. Estimate the partial least square structural equation model (PLS-SEM)

Table-1.

Chi-squares and degree of freedom	$\chi 2$/df (2.00-5.00)
$\chi 2$ (insignificant p-value)	p-value >0.05
Goodness of Fit Index (GFI)	GFI>0.95
Adjusted Goodness of Fit Index (AGFI)	AGFI>0.95
Comparative Fit Index	CFI>0.95
Root Mean Square Residual(RMR)	RMR<0.07
Root mean square error of approximation (RMSEA)	RMSEA<0.07

5. Result of Research

The results of this study are shown below:

5.1. Confirmatory Factor Analysis (CFA)

The results of the confirmatory factor analysis (CFA) result showed that factors loading for each variable is greater than 0.50 Hair *et al.* (2010) and the correlations among factors are smaller than 0.80, indicating a low level of multicollinearity (Stephen, 2009).

5.2. The Construct Reliability Test and Average Variance Extracted (AVE)

The results of construct reliability (CR) and the value of average variance extracted (AVE) of each variable are greater than the requirements such as CR>0.70 and AVE>0.5 (Fornell and Larcker, 1981; Hair *et al.*, 2010) as shown in the following table.

Table-2.

Variables	CR	AVE
Management Information Flow	0.80	0.66
Warehousing Management Activities	0.78	0.64
Profitability of Cattle Dealers	0.82	0.61

5.3. Partial Least Square Structural Equation Model (PLS-SEM)

Test results of the partial least square structural equation model (PLS-SEM) showing the effects of determinants of profitability of cattle dealers showed that a majority of the values indicate a high level of consistency of the model. That is, the empirical results support the Structural Equation Model as shown in the following table.

Table-3.

Statistics	$\chi 2$	Df	$\chi 2$/df	RMR	GFI	AGFI	CFI	RMSEA
Model	16.51	11	1.50	0.01	0.965	0.986	0.981	0.039
Good Fit (Hair, 2010, 762)	<2-5	<.07	>.95	>.95	>.95	<0.07		

5.4. Hypothesis Testing

These parameters show that the proposed PLS-SEM is deemed as fit and it can provide good basic for testing the hypothesized paths. The tests for factors influencing the profitability of cattle dealers show that the management information flow has a positive and significant effect on profitability of cattle dealers; p-value<0.05, t-value=5.450 and Path Coefficients β= 0.269, the hypothesis testing is rejected (see Appendix). Similarly, the results revealed that warehousing management activities has a positive and significant effect on the profitability of cattle dealers; p-value<0.05, t-value=9.085 and Path Coefficients β=0.391, the hypothesis testing is rejected (see Appendix).

6. Discussion

The finding of hypotheses revealed that management of information flow has significant effect on the profitability of cattle dealers in selected cattle markets in Lagos State. Several studies are consistence with the result of this study that management of information flow has significant effect on the profitability of cattle dealers in selected cattle markets in Lagos State. The findings magnifies the relevance of both the resource based view and systems theory in performance of supply chain and the ultimate performance of the entire organization. The study finding is consistent with those of Lee and Whang (2000) where in their study established that sharing order status can improve the firm profitability, quality of customer service, reduce payment cycles and reduce labor cost. On the other hand, information sharing on forecast demand of products that have high demand variability is significant in assist reduce stock out and over-stocking related costs whereas sharing information on market knowledge can help improve advertisement. While sharing information, it is important to consider the level of benefit to the users and timeliness; delayed transmission.

The finding of hypotheses also revealed that warehousing management activities has significant effect on the profitability of cattle dealers in selected cattle markets in Lagos State. The findings agree with those in Stock and Lambert (2001) which discovered that a successful warehousing management requires a cross-functional integration in the firm by coordinating activities of the key business processes. The links of business processes and demand management processes have direct effects on the levels of decision making, such as operations and financial planning, supplier risk, business profit and customer services management. The findings also agree with those in a study conducted by Hilletofth and Ericsson (2007) who found out that arrangement of demand creation and demand fulfillment processes within the internal activities of a particular firm and across firms within the chain, thus discovering the interactions between market and logistics management aiming at obtaining competitive advantages and consumer satisfaction.

7. Conclusion and Recommendations

This study classifies factors which have direct and indirect influences on the profitability of cattle dealers. Such factors include profitability of cattle dealers and warehousing management activities. The findings of the study have some valuable implications for practitioners and organizations alike. The study helped cattle dealers and manufacturing firms to better understand the underlying logistics factors influencing performance of their firms/businesses and they maybe better placed to deal with hurdles that impede successful logistics management. Efficient and effective logistics will provide base for manufacturing firm growth, increased productivity, reduced cost of production, improved distribution, quality products, and increase customer satisfaction. It recommended that internal structure and systems that allow free and timely flow of information between cattle dealers and primary producers/cattle farmers should be put in place. Further, there should provision adequate linkage between the different players involved in the meat production/ processing value chain. This will allow real time flow of information between the cattle dealers and primary producers/cattle farmers. Also, cattle dealers should improve housing (adequate storage facilities) and handling of cattle. Stress resulting from improper handling, temperature, humidity, light, sound, and even confinement most times decreases meat quality at the time of slaughter. These affect the market value such that meat or meat cuts quality is lower and this translates into lower price and lower revenue to the cattle dealers.

References

Adobor, H. and Mcmullen, R. (2007). Supplier diversity and supply chain management. *A Strategy Approach, Horizon,* 50(3): 219-29.

Agha, H. (2014). Impact of working capital management on profitability. *European Scientific Journal,* 10(1): 374-81.

Amit, R. and Shoemaker, P. J. H. (1993). Strategic assets and organizational rent. *Strategic Management Journal,* 14(1): 33-46.

Anderson, J. and Level, D. A. (1980). The Impact of certain types of downwards communication on job performance. *Journal of Business Communication,* 12(4): 51-59.

Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management,* 17(1): 99–120.

Barney, J. B. (2001). Is the resource-based theory a useful perspective for strategic management research? *Academy of Management Review,* 26(1): 41-56.

Bartezzaghi, S. (2003). *Internet supporting procurement process integrated manufacturing system.* USA: Oxford University: New York.

Benton, W. C. and Shin, H. (1998). Manufacturing, planning and control: The evolution of MRP and JIP integration. *European Journal of operational Research,* 10(3): 411-40.

Cameron, S. (2005). *Econometrics.* McGraw-Hill Education: New York.

Casciaro, T. and Piskorski, M. J. (2005). Power imbalance, mutual dependence, and constraint absorption: A closer look at resource dependence theory. *Administrative Science Quarterly,* 50(2): 167-99.

Chen and Wu (2005). An association-based clustering approach to order batching considering customer demand patterns. *The International Journal of Management Science,* 33(4): 333-43.

Chow, H. K. H., Lee, W. B. and Lau, K. C. (2006). Design of a RFD case-based resource management system of warehouse operations. Expert systems for warehouse operations. *Expert Systems With Applications,* 20(5): 561-76.

Coyle, J. J., Bardi, E. J. and Langley, C. J. J. (2003). *The management of Business Logistic: A supply chain perspective.* 7th edn: South Western: Mason.

Crook, T. R. and Combs, J. G. (2007). Sources and consequences of bargaining power in supply chains. *Journal of Operations Management,* 25(2): 546 – 55.

Drucker, P. (1999). *Management challenges to the 21st century.* Harper: New York.

Dunn, M. (2009). Why you need a credit policy. Available: http:///www.entrepreneur.com

Fawcett, S. E., Waller, M. A. and Bowersox, D. J. (2011). Cinderella in the suite. Conducting influential research to advance the logistics and supply chain disciplines. *Journal of Business Logistics,* 32(2): 115–21.

Fornell, C. G. and Larcker, D. F. (1981). Evaluating Structural equation models with unobservable variables and measurement error. *Journal of Marketing Research,* 18(1): 39-50.

Fowler, F. J. J. (1984). *Survey research methods.* Sage: Thousand Oaks, CA.

Grant, R. M. (1991). The resource-based theory of competitive advantage. *California Management Review,* 33(3): 3-23.

Hair, J. F. J., Black, W. C., Babin, B. J. and Anderson, R. E. (2010). *Multivariate data analysis.* 7th edn: Prentice-Hall: Upper Saddle River, NJ.

Handfield, R. S. (1993). The Role of materials management in developing time-based competition. *International Journal of Purchasing and Material Management,* 29(4): 2-10.

Hilletofth, P. and Ericsson, D. (2007). Demand chain management: Next generation of logistics management. *Conradi Research Review,* 4(2): 1-17.

Hoopes, D. G., Madsen, T. L. and Walker, G. (2003). Guest editors' introduction to the special issue: Why is there a resource-based view? TowardH a theory of competitive heterogeneity. *Strategic Management Journal,* 24(10): 889-902.

Ireland, R. D. and Webb, J. W. (2007). Amulti-theoretic perspective on trust and power in strategic supply Chains. *Journal of Operations Management,* 25(2): 482–97.

Ketchen, J. D. J. and Hult, G. T. M. (2007). Bridging organization theory and supply chain management. The case of best value supply Chains. *Journal of Operations Management,* 25(2): 573–80.

Lambert, D. M. (2008). *Supply chain management; process, partnerships, performance.* Supply Chain Management Institute: : Sarasota FL.

Lee, H. L. and Whang, S. (2000). Information sharing in supply Chain. *International Journal of Technology Management,* 2(3/4): 373-87.

Lei, D. and Slocum, J. J. W. (2005). Strategic and organizational requirements for competitive logistics in marketing. *Journal Industrial Marketing Management,* 30(2): 183–98.

Mafimisebi, T. E. (2011). *Spatial price equilibrium and fish market integration in Nigeria: pricing contacts of spatially separated markets.* LAP Lambert publishing company: Germany.

Makodok, R. (2001). Towards Synthesis of the resource-based and dynamic capability view of rent creation. *Strategic Management Journal,* 22(5): 387-401.

Mohammed, A. K. and Muhammad, I. R. (2007). Fatal polythene bag rumen impaction in cattle at Shika-zaria, Nigeria. *Research Journal of Animal Sciences,* 1(1): 6-8.

Myers, S. C. (2001). Capital structure. *The Journal of Economic Perspectives,* 15(2): 81-102.

National Livestock Project Division (1992). *NLPD survey in Kaduna Nigeria,* 58: 175-77.

Nunnally, J. C. and Bernstein, I. H. (1994). *Psychometric theory.* 3rd edn: McGraw-Hill, inc: New York.

Nyabwanga, R. N., Ojera, P., Otieno, S. and Nyakundi, F. N. (2003). An empirical analysis of liquidity, solvency and financial health of small and medium size enterprises in kisi municipality, Kenya. *European Journal of Business and Mnagement,* 5(8): 1-15.

Ogbeide, O. A. (2015). Meat industry development in Nigeria: Implications of the consumers' Perspective. *Mayfair Journal of Agribusiness Management,* 1(1): 59-75.

Ojadi, F. (2001). Logistics management in Nigeria: Some survey results. *LBS Management Review,* 6(2): 55-63.

Omoruyi, S. A., Orhue, U., Akerobo, A. A. and Aghimien, C. I. (2000). *Prescribed agricultural science for secondary schools.* Idodo umeh publishers ltd: Benin city.

Peterson, K., Handfield, R., Lawson, B. and Cousin, P. (2008). Buyer dependency and relational capital formation: The mediating effects of socialization process and supplier integration. *Journal of Supply Chain Management,* 44(4): 53-65.

Pfeffer, J. (1978). *The external control of organizations: A resource dependence perspective.* Harper and Ro: New York.

Pfeffer, J. and Salancik, G. R. (1978). *The external control of organizations: A resource dependence perspective.* Haper and Row: New York.

Rechenthin, D. (2004). Project safety as a sustainable competitive advantage. *Journal of Safety Research,* 35(3): 297-308.

Rumelt, R. P. (1984). *Toward a strategic theory of the firm, in r. Lamb (eds), competitive strategic management.* Prentice Hall: Englewood Cliffs.

Selen, W. (2002). Operations in today's demand chain management framework. *Journal of Operations Management,* 20(4): 667-73.

Simpson, R. L. (1959). Vertical and horizontal communication in formal organizations. *Administrative Science Quarterly,* 4(2): 188-96.

Stephen, J. P. (2009). *Applied multivariate statistics for Social Sciences.* Taylor and Francis: New York, N.Y.:

Stock, J. R. and Lambert, D. M. (2001). *Strategic logistics management.* 4th edn: McGraw Hill: New York.

Wallenburg, C. M. and Weber, J. (2005). Structural equation modeling as a basis for theory development within logistics and supply chain management research. Available: http://www.springerlink.com/content/n3m60u77vl711518/

Wanguu, K. C. and Kipkirui, S. E. (2015). The effect of working capital management on the profitability of cement manufacturing companies in Kenya. *IOSR Journal of Economics and Finance,* 6(6): 53-61.

Waweru, N. M. and Kalani, V. M. (2009). Commercial banking crisis in kenya: Causes and remedies. *African Journal of Accounting, Economics, Finance and Banking Research,* 4(4): 12-33.

Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal,* 5(2): 171-80.

Wong, C. Y. and Karia, N. (2010). Explaining the competitive advantage of logistics service providers: A resource-based view approach. *International Journal of Production Economics,* 128(1): 51–67.

Yamane, T. (1967). *Statistics: An introductory analysis.* 2nd edn: Harper and Row: New York.

Appendix

	Original Sample	Sample Mean	Standard Deviation	Standard Error	Path Coefficient	T Statistics	P Values
Management Information Flow -> Profitability	0.269	0.274	0.049	0.049	0.269	5.45	0.000
Warehouse Management Activities -> Profitability	0.391	0.394	0.043	0.043	0.391	9.085	0.00

Figure-1. Path coefficient for Management Information Flow, Warehouse Management Activities and Profitability
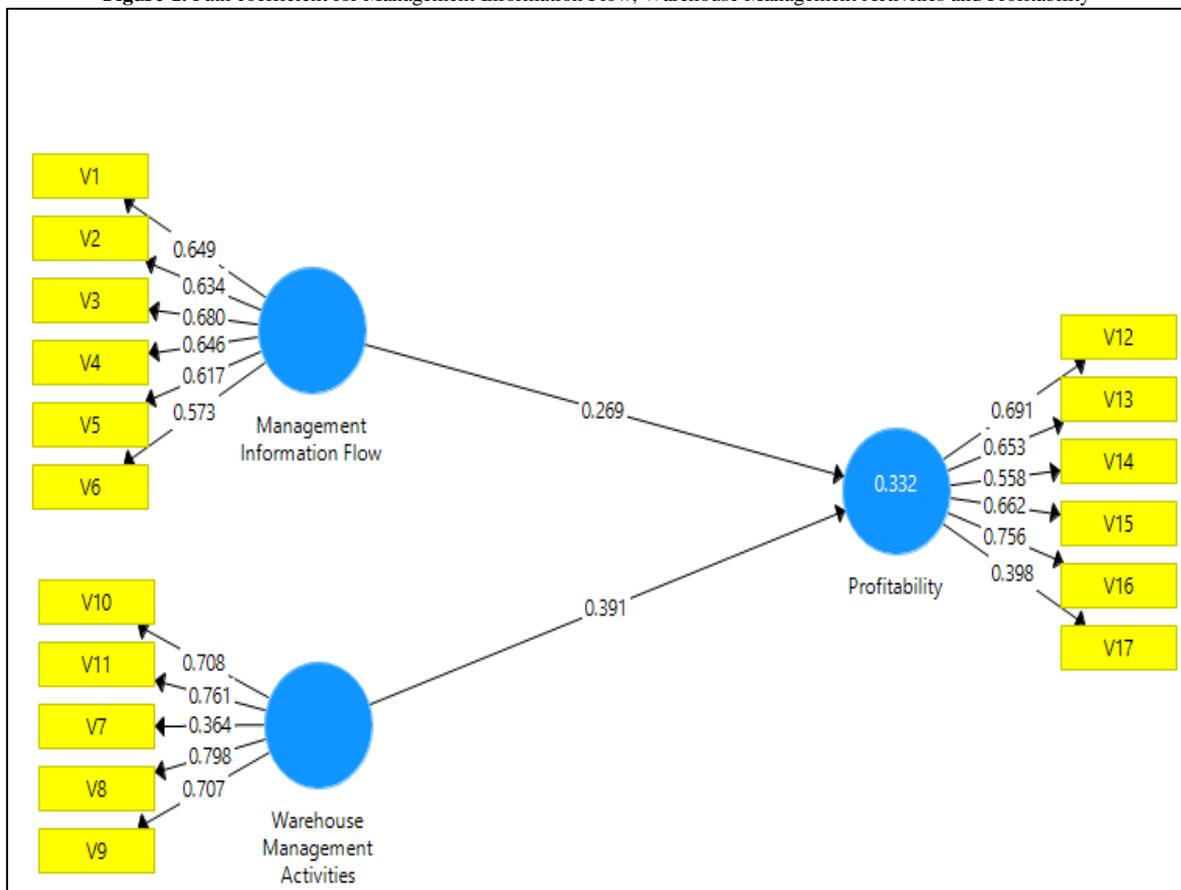
**Figure-2.** T-statistics for the relationship between Management Information Flow, Warehouse Management Activities and Profitability