MARKETING INFORMATION SYSTEM AND MANAGEMENT DECISION MAKING IN MANUFACTURING ORGANIZATIONS IN NIGERIA

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ABSTRACT

This study examined marketing information system and management decision making in manufacturing organizations. The aim of the study was to determine the relationship between the components of marketing information system (internal records system, marketing intelligence system marketing research system) and management decision making. All the major variables were reviewed in the literature while the Organizational Information Processing theory (OIPT) propounded Jay Galbraith (1973) provided the basis for the theoretical framework of this study. The study adopted a descriptive survey design where data were collected from managers and marketers of some manufacturing companies in Port Harcourt. The sample of 126 managers and marketers was used for the study. A structured questionnaire was used as the main instrument for data collection. The data collected were analyzed statistically while the formulated hypotheses were tested using the Spearman Rank Order Correlation. The Statistical Package for Social Sciences (SPSS) version 21.0 was used to compute the Spearman Rank Coefficient of Correlation. The findings revealed that internal records system has a positive and significant relationship with management decision making. The study also found a significant relationship between marketing intelligence system and management decision making. A significant relationship was also reported between marketing research system and management decision making. From the above findings, it was concluded that marketing information system significantly enhance management decision making in manufacturing organizations. Based on the findings and conclusion, it was recommended that manufacturing companies in Nigeria especially those that are yet to establish a well functional marketing information system should do so immediately as it would provide adequate and detailed information needed by management for effective decision making.

Keywords:Marketing information system, internal records system, marketing intelligence system, marketing research system, management decision making, strategic decision making, tactical decision making and operational decision making.

INTRODUCTION

In any organization be it private or public organization, management is charged with the responsibility of making decisions that will lead to the growth of the organization. In manufacturing organizations, for instance, management is responsible for making strategic, tactical and operational decisions. However, the quality of decisions made by management at any point in time would affect the performance of the organization. Hence, management needs to make the right decision at all time to ensure that the organization moves forward and achieve its desired objectives. For management to make the right decisions at all time, they need accurate and timely information about the market trends, the changing tastes and preferences of consumers, competitors' strategies as well as government policies that affect business activities. Even when these decisions are made, managers still need to know which part of their effort is making a difference in terms of improving organizational performance. The only way to answer this question accurately is with a marketing information system.
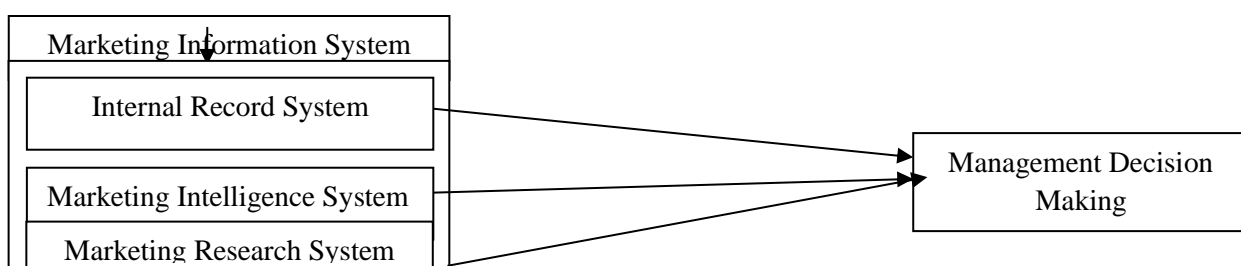
Marketing information system (MIS) is a system consisting of people, equipment and procedures designed to gather, sort, analyze, evaluate and distribute needed, timely and accurate information to

marketing decision makers (Kotler in Kotni, 2011). Marketing information system is seen as an indispensible tool for supplying past, present and projected information relating to organizational marketing operations. The system does not only provide data relating to internal operations of the firm but also gather information on external intelligence and makes them available to management for effective planning and decision making. Management decision making process is very complicated in the sense that it requires thorough analysis before deciding policies, strategies, tactics and procedures. Choosing a course of action among alternatives is a risk which management has to take. To aid this process, management needs accurate information on the past, present and projected information relating to internal operations and external intelligence (Kotler & Armstrong, 2007). A good marketing information system will supply this information in details and makes it available to management on time for effective decision making.Ismail (2011) opined that a well designed marketing information system balances the information users would like to have against what they really need and what is feasible to offer. It provides timely and accurate information about the marketing activities of the company which helps management to make strategic and tactical decisions that will lead to the growth of the organization. Management needs accurate and timely information about the marketing activities of the company from time to time in order to know how well the company is doing against its competitors. This information would also enable management strategize if necessary and make appropriate tactical decisions that will improve the marketing performance of the company.

A good marketing information system would not also provide accurate and timely information needed by management to make tactical and strategic decisions, but would also provide several options that will aid management decision making process. Such information will lead to better decision making especially in this era of fast changing consumer preference (Harmon, 2003). It will also help the firm adjust its products and services to the changing needs and tastes of the customers, thereby increasing the overall performance of the organization. Without a sound MIS any marketing effort to improve firm performance will not yield the desired result rather it will result in wasted time and resources. It is believed that a sound marketing information system will provide accurate and timely information needed by managers to make tactical and strategic decisions that will improve the overall performance of their firms. Although there are theoretical works that support this claim (Huda & Yonsei, 2009; Ismail, 2011; Freihat, 2012; Ezekiel, et al, 2013); however, empirical studies that examine the relationship between marketing information system and management decision making in manufacturing organizations in Nigeria are limited. To fill this gap in literature, the paperexamines the relationship between marketing information system and management decision making in manufacturing organizations in Nigeria. In order to achieve this broad objective, the following hypotheses were proposed:

Ho$_1$: There is no positive and significant relationship between internal record system and management decision making in manufacturing organizations.

Ho$_2$: There is no positive and significant relationship between marketing intelligence system and management decision making in manufacturing organizations.

Ho$_3$: There is no positive and significant relationship between marketing research system and management decision making in manufacturing organizations.

The proposed hypotheses are reflected in the conceptual framework of the study.

Fig.1 Conceptual Framework

Review of Related Literature
Concept of Marketing Information System

A marketing information system is a continuing and interacting structure of people, equipment and procedures to gather, sort, analyze, evaluate, and distribute pertinent, timely and accurate information for use by marketing decision makers to improve their marketing planning, implementation, and control (Kotler, in Kotni, 2011). Boone and Kurtz, in Ismail (2011) defined marketing information system as a planned computer-based system designed to provide managers with continuous flow of information relevant to their specific decisions and areas of responsibility.Freihat (2012) stated that marketing information system (MIS) consists of people, facilities, and integrated procedures that used to provide management with accurate and regulated information about the environment-related marketing, which helps decision makers to hunt opportunities and build strategies and marketing plans. MIS systems are designed to be comprehensive and flexible in nature and to integrate with each other functionally. They are formal, forward looking and essential to the organization's ability to create competitive advantage (Kotni, 2011). It is intended to bring together disparate items of data into a coherent body of information (Kotni, 2011).

A good marketing information system balances the information users would like to have against what they really need and what is feasible to offer (Ismail, 2011). Brunda (2014) states that marketing manager needs information on the company activities compared in different times, compared to competition, plan and marketing strategy. According to him, this information will be provided based on a) analysis of the sales, b) analysis of the market share, the whole market or a sector where the company operates, c) analysis of the sales, costs and profit, d) analysis of the marketing policy, e) analysis of the target group, f) analysis of the marketing mix (policy of product, prices, distribution, marketing communication) and last but not least g) analysis of marketing activities. The marketing information system increases the number of options available to decision maker and support every element of marketing strategy; it affects marketing interfaces with customers, suppliers, and other partners (Harmon, in Ismail, 2011). Marketing information system plays an important role in raising the efficiency of economic performance to the companies in highly competitive markets, through providing the necessary information for the various administrative levels (Freihat, 2012). The MIS enables managers to share information and work together virtually. The MIS can enable manufacturers to collaborate with customers on new product designs, changed needs of the customers and customer requirements (Kotni, 2011).

Marketing information systems are empowering tools that allow successful firms to drive their market performance by maintaining customer focus and outmaneuvering competitors (Boykin, 2016). Thus, useful marketing information systems traffic in useful information - the kind of information that drives enhanced sales performance (Boykin, 2016). To make a position in the global market it becomes necessary for every organization to concentrate on its sales aspects, and it is important to take proper steps to keep up the performance in order to be in the competition, which can be done through appropriate planning and strategizing sales, timely execution of initiatives regarding sales, simultaneously ensuring both front-line sales people and decision-makers have visibility in performance (Pendharkar and Pandey, 2011).

Components of Marketing Information System
Marketing information system has been classified into three (3) dimensions in literature, namely, internal record system, marketing intelligence system and marketing research system. These three (3) dimensions of marketing information system are discussed below:
Internal Records System
Internal record is a component of marketing information that supplies results data (Kotler & Keller, in Ezekiel, Eze and Anyadighibe, 2013). Freihat (2012) stated that internal records is the data collected in the form of database about the daily operations of the companies that produce goods, and

includes the necessary data records to obtain information regarding the scale of activity and the current performance in sales, cost, inventory and cash flow.... etc.Kotni (2011) posits that internal records that are of immediate value to marketing decisions are: orders received, stockholdings and sales invoices. These are but a few of the internal records that can be used by marketing managers, but even this small set of records is capable of generating a great deal of information (Kotni, 2011). Many companies build extensive internal data base, electronic collections of consumers and market information obtained from data source within the company network (Ismail, 2011). Internal data bases usually can be accessed more quickly and cheaply than other information sources (Pride and Ferrell, in Ismail, 2011). Kotni (2011) listed the various types of internal record system to include:

a) Sales record

b) Order to remittance cycle

c) Complaints from customers

d) Receivables and payables

e) Inventory

f) Marketing intelligence system.

Marketing managers rely on internal reports such as orders, sales, prices, inventory level, receivables, payables and so on (Kotni, 2011). According to Kotler and Armstrong in Ismail (2011), marketing managers can readily access and work with information in the data base to identify marketing opportunities and problems, plan programs, and evaluate performance. It gives details about past trends which in turn helps marketing manager to know the possiblefuture implications (Kotni, 2011).

Marketing Intelligence System

Marketing intelligence is a component of marketing information system that supplies happenings data to organizations (Ezekiel, Eze and Anyadighibe, 2013). Itis the means by which management can keep in contact with new knowledge of competitors emerging conditions (Freihat, 2012). The AMA in Kotni (2011) defines marketing intelligence as "a set of procedures and sources used by managers to obtain everyday information about developments in the marketing environment. It is the process of acquiring, formatting and maintaining key information about customers and prospective customers (leads source article, in Ezekiel, Eze and Anyadighibe, 2013). A marketing intelligence system is a set of procedures and data sources used by marketing managers to sift information from the economic and business environment that they can use in their decision making (FAO, in Ismail, 2011). This scanning of the economic and business environment can be undertaken in a variety of ways, including unfocused scanning, semi-focused scanning, informal search and formal search (Agnilar, in Kotni, 2011).

Marketing intelligence (MI) systems increasingly provide the data that drivers both strategic and tactical decision for enterprise (Ismail, 2011). Ezekiel, Eze and Anyadighibe (2013) posit that marketing intelligence is gathered through talking to customers, monitoring social groups, e-mailing list, Facebooks, Youtubes, twitters, etc. According to them, information gathered from these sources can assist companies to make vital marketing decisions and improve their performance.Many businesses have already invested heavily to aggregate data from diverse system and applications in order to create a whole-enterprise view to fully reflect the daily state of business, as well as support more effective, informed decisions (Jazdtech, in Ismail, 2011). Kotler and Keller, in Ezekiel, Eze and Anyadighibe (2013) identify five (5) steps to improve the quality of marketing intelligence activities which include:

1. Train and motivate the sales force to spot and report new development.
2. Motivate distributors, retailers and other intermediaries to pass along important intelligence.
3. Step up a customer advisory panel.
4. Purchase information from outside suppliers.
5. Use online customer feedback systems to collect competitive intelligence.

Marketing Research System

Marketing research is a proactive search for information to solve a perceived marketing problem (Ismail, 2011). It is the process of collecting and analyzing of data for the purposes of identifying and resolving problems related to companies marketing services and marketing opportunities (Freihat, 2012). The American Marketing Association in Ismail (2011) defines marketing research as a function that links the consumer, customer, and public to the marketer through information- information used to identify and define marketing opportunities and problems; generate, refine, and evaluate marketing actions; monitor marketing performance; and improve understanding of marketing as a process. Marketing research offers special information on request when marketing executive encounters typical marketing problems, demanding unique information for solving those problems (Freihat, 2012). Freihat further stated that marketing research is a planned and managed activity on a scientific basis to ensure efficiency in dealing with those problems and opportunities. Kotni (2011) posits that marketing research may be conducted by the employees of the organization or companies can hire the services of marketing research firm.

Concept of Management Decision Making

Decision making is a crucial concept in the field of management. It involves selecting a course of action from among alternatives to achieve a specific objective or solve specific problem (Donald in Ismail, 2011). Fremount, et, al, in Ismail (2011) define decision-making as a conscious and human process, involving both individual and social phenomenon based upon factual and value premises, which concludes with a choice of one behavioural activity from among one or more alternatives with the intention of moving toward some desired state of affairs.Decision making is one of the key functions of management in any organization. Management team is charged with the responsibility of making decisions to solve problems in the organization. Chand (2016) observes that decision making in any organization is an ongoing process of analyzing problems or situations, identifying alternatives, making choices, and implement the chosen actions. In some cases, the decision making process is short, while other cases, the process could last for weeks or months (Rao, 2007). Rao however, outlines six (6) processes which management has to follow when making decisions. They include:

    i.   Define the problem
    ii.   Identify the factors responsible for the problem.
    iii. Develop potential solutions to the problem
    iv. Analyze the solutions (alternatives)
    v.   Select a course of action (decision).
    vi. Implement the decision.

Every manager wants to make the right decision that will lead to the growth of the organization. To do so, managers at all levels need to have adequate and timely information concerning the areas of decision. Schmidt & Wilhelm (2000) posit that the quality of management decision- depends on the availability of accurate and timely information. Obviously managers operate in an environment where this information is not easily made available. For instance, managers may not have access to accurate and timely information. So they make decision for the organization based on the information and time available (Basnet, 2015).Time pressure often makes managers to make the wrong decision. According to Blenko, Mankins & Rogers (2010), some managers often lack the time to do thorough analysis before arriving at a decision. They only consider the first stage of the decision making process and comes up with a solution. Schmidt & Wilhelm (2000) posit that effective decision making requires a thorough analysis of the situation or problem. They further stated that a quick decision may not help to solve the problem permanently. Schmidt & Wilhelm however, advice managers to think thoroughly and analyzed the alternative solutions adequately before making a decision.

Marketing Information System and Management Decision Making

A number of empirical studies have been conducted on marketing information systems and management decision making. For instance, Ismail (2011) empirically examined the role of marketing

information system on decision making in Royal Jordanian Air Lines (RJA). The researcher utilized questionnaires in obtaining data from specialized experts. The correlation analysis was used to test the relationship between the study variables.The findings indicated positive relationships between the level of utilizing and adopting "decision support system & marketing intelligence" and the success of an organizational decisionmaking. Ismail (2011) also reported that (internal records system, marketing intelligence system and marketing research system) supply adequate information required for making effective decision that will enhance the sales performance of firms.

Freihat (2012) empirically examined the role of marketing information system in marketing decision-making in Jordanian shareholding medicines production companies. Her study aimed at revealing the relationship between the major components of marketing information system (internal record, marketing intelligence, marketing research system), and decision-making in Jordanian shareholding medicines production companies.The researcher adopted two types of data: primary and secondary data. A structured questionnaire was used to obtain data from 56 marketing managers and marketing information system staff. The results of their study revealed that there is a statistically significant relation between each of the following marketing information system components: (internal records, marketing research, and marketing intelligence) and decision-making. The researcher also reported that marketing information system components provide information needed by marketing managers to plan and make effective decision for better sales performance.

Kotni (2011) carried out a study on internal mechanism of marketing information systems. The author studied the three components of marketing information systems (internal records system, marketing intelligence system and marketing research system) and showcased how they can help to improve the sales performance of firms. The result of his study showed that internal records system, marketing intelligence system and marketing research system provide adequate information needed by marketing managers to formulate effective strategies that will enhance the performance of their firm.

Ezekiel, Eze and Anyadighibe (2013) examined marketing information system as a contributory factor in the performance of selected transport companies in Calabar metropolis. Their study focused on the effect of internal record, marketing intelligence, marketing research system on the performance of selected public road transport companies in Calabar. The study adopted exploratory and survey research designs. The researchers employed questionnaires as their instrument for data collection while the Ordinary Least Square (OLS) method was used for data analysis. The results revealed that internal record, marketing intelligence, marketing research are contributory factors to the performance of public road transport companies in Calabar.

Bouhouili (2016) empirically investigated the impact of marketing information systems quality in improving the commercial performance of organizations in Morocco. He adopted a descriptive survey where questionnaire was used for data collection. The researcher distributed 172 questionnaires to marketing managers of Agri-food companies in the Souss Massa Draa. The data collected data were analyzed using the structural model correlation. The result of their study showed that the quality ofthe MIS positively influences the performance of thecompany. The study also reported that MIS behavioral approachplays also mediate role in this direction.

Maeoff & Sberana (2009) empirically examined the role of marketing information systems in making marketing decision. In their study, they opened up MIS into three elements namely internal control system, marketing intelligence and marketing research system and relate each of them to marketing decision making. After analyzing the data collected from marketing managers in some companies in Algeria, Maeoff & Sberana reported that the key elements of marketing information system (internal control system, marketing intelligence and marketing research system) are significantly related to marketing decision making in business organizations.

Hashem (2007) investigated the role of marketing information systems in marketing performance improvement in shareholding companies in Jordan. The researcher employed a survey design where data were collected from the field using questionnaires. He administered 200 questionnaires to marketing managers in shareholding companies in Jordan and analyzed the data collected using the Pearson correlation. The result revealed that all the dimensions of marketing information system (internal control system, marketing intelligence and marketing research system) are positively and significantly related to the marketing performance (sales volume, sales turnover and market share) of shareholding companies in Jordan.

Theoretical Framework

The theoretical framework of analysis adopted in this study is the organizational information processing theory (OIPT) which was developed by Jay Galbraith in 1973. This theory is based on the idea that organizations need quality information to cope with environmental uncertain and improve their decision making (Premkumar, Ramamurthy & Saunder, in Wikipedia, 2016). The theory specifies three crucial concepts, namely, information processing needs, information processing capacity, and the matching the two concepts to obtain better performance in the face of environmental uncertainty. According to Premkumar et al (2010), environmental uncertainty arises as a result of dynamic nature of the business environment occasioned by globalization and technological advancement as well as the changing needs and preferences of consumers. Consequently, organizations need to establish a structural mechanism and implement information processing capability to cope with the uncertainty in the environment and respond to the changing needs, tastes and preferences of consumers.

The organizational information processing theory (OIPT) echoed on the need for organizations to redesign their business processes and establish an integrated information system that would enhance information flow and reduce uncertainty within the organization's units (Galbraith, 1974). The theory also emphasized the need for organizations to create steady information flow between the firms to address the uncertainties in the supply chain (Wikipedia, 2016). The organizational information processing theory (OIPT) has been applied in the study of organizational behaviour. For instance, Roggers, Miller & Judge (1999) applied the information processing theory to study organizational behaviour and develop a model to show how effective and ineffective management strategies are developed. In their study, they revealed how organizations gather market information and which of those information are important for managerial decision making.

The organizational information processing theory (OIPT) is very useful in explaining the need for organizations to establish a good and sound marketing information system (MIS) that will supply accurate market information to managers for effective decision making. The theory tends to explain how quality marketing information can help managers to make the right decision that will lead to the growth of the organization. This theory suggests that companies should design a marketing information system that would provide accurate and timely information needed by management for effective decision making. Without a well-designed MIS, management will find it difficult to obtain accurate and timely market information. The consequence of this is poor decision making. Hence, this study relies on the suggestion of OIPT and applies the theory within the context of marketing.

METHODOLOGY

The design of this study is a descriptive survey where data were collected from a group of sample that represents the population of the study.The population of this study consisted of all managers and marketers of the registered manufacturing companies in Nigeria. A sample of 140 managers/marketers was used in this study. In selecting the sample from the population, the simple random sampling technique was adopted. The main instrument used for data collection was a questionnaire which was structured on a four (4) points Likert type scale (Strongly Agree, Agree, Disagree and Strongly Disagree). The questionnaire sought information on marketing information

system (internal records system,marketing intelligence system, marketing research system) and management decision making. The instrument was validated by some marketing experts, while its reliability was determined using the test-retest method. One hundred and forty(140) questionnaires was administered to the respondents and 126 copies were retrieved and used for analysis. The data collected were analyzed using descriptive statistics while the hypotheses were tested using the Spearman Rank Order Correlation (rho). A computer software program called "Statistical Package for Social Sciences" (SPSS) window 21.0 version was used to correlate the data on the independent variables against the dependent variable.

Empirical Results and Discussion
Results

The data collected on the study variables were correlated with the aid of the SPSS version 21.0. The correlation analysis focused on the components of marketing information system (internal records system, marketing intelligence system, and marketing research system) and management decision making. The results of the correlation analysis are presented in the tables and the findings are discussed in relation to previous studies.

Table 1: Relationship between internal records system and management decision making

			Internal Records System	Management Decision Making
Spearman (rho)	Internal Records System	Correlation Coefficient Sig. (2 tailed) N	1.000 . 126	.753* .001 126
	Management Decision Making	Correlation Coefficient Sig. (2 tailed) N	.753* .001 126	1.000 . 126

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

Table 1 presents the result of the correlation analysis carried out on internal record system and management decision making. The result shows that internal records system is positively correlated to management decision making (rho = .753*) and the symbol * indicates that this correlation is significant at 0.05 level. Consequently, the null hypothesis is rejected and the alternate hypothesis is accepted. This means that there is positive and significant relationship between internal record system and management decision making in manufacturing organizations.

Table 2: Relationship between marketing intelligence system and management decision making

			Marketing Intelligence System	Management Decision Making
Spearman (rho)	Marketing Intelligence System	Correlation Coefficient Sig. (2 tailed) N	1.000 . 126	.914* .002 126
	Management Decision Making	Correlation Coefficient Sig. (2 tailed) N	.914* .002 126	1.000 . 126

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

Table 2shows the result of the relationship analysis carried out on marketing intelligence system and management decision making. The result indicates that marketing intelligence system has a positive relationship with management decision making (rho = .914*) and the symbol * indicates that this relationship is significant at 0.05 level. As a result of this, the null hypothesis is rejected and the alternate hypothesis is accepted. This implies that there is positive and significant relationship between marketing intelligence system and management decision making in manufacturing organizations.

Table 3: Relationship between marketing research system and management decision making

			Marketing Research System	Management Decision Making
Spearman (rho)	Marketing Research System	Correlation Coefficient Sig. (2 tailed) N	1.000 . 126	.823* .003 126
	Management Decision Making	Correlation Coefficient Sig. (2 tailed) N	.823* .003 126	1.000 . 126

**Correlation is significant at 0.01 levels (2 tailed)
*Correlation is significant at 0.05 levels (2 tailed)

Source: SPSS-generated Output

Table 3 presents the result of the relationship analysis carried out on between marketing research system and management decision making in manufacturing companies. The result indicates that between marketing research system has a positive relationship with management decision making (rho = .823*) and the symbol * shows that this relationship is significant at 0.05 level. Hence, the null hypothesis is rejected and the alternate hypothesis is accepted. This means that we then accept that there is positive and significant relationship between marketing research system and management decision making in manufacturing organizations.

Discussion of Findings
This study found a positive and significant relationship between internal records system and management decision making. This finding was derived from the result of the relationship analysis carried out on internal records system and management decision making. The result indicated that internal records system is positively and significantly related to strategic decision making (.753* p value < 0.05) (See table 1). As a result of this, the first hypothesis which was stated in null form was rejected and the alternate hypothesis was accepted. This means that there is positive and significant relationship between internal records system and management decision making in manufacturing companies. This finding is in line with the discovery of Freihat (2012) who found a significant positive relationship between internal records system and management decision making.Kotni (2011) also supported this finding when he noted that internal records ssystem provide adequate information needed by marketing managers to make effective decisions that will enhance the performance of their firm.

This study also found a significant positive relationship between marketing intelligence system and management decision making in manufacturing organizations. This finding was derived from the result of the correlation analysis carried out on marketing intelligence system and management decision making with the aid of SPSS program. The result revealed that marketing intelligence system has a positive relationship with strategic decision making and this relationship is significant at 95% confidence level (See table 2). As a result of this, the second hypothesis which was stated in null

form was rejected and the alternate hypothesis was accepted. This implies that we then accepted that there is positive and significant relationship between marketing intelligence system and management decision making in manufacturing organizations. This finding is consistent with Ezekiel et al (2013) point of view when they reported that marketing intelligence system of a company provides reliable information which assists management in making effective strategic decisions that will improve the overall marketing performance of their organization.Bouhouili (2016) also agreed with this finding when he stated that marketing intelligence system supplies adequate information on the day-to-day happenings in business and this information assist management in making effective strategic decisions that will improve the performance of their organization.

Finally, it was discovered that significant relationship exists between marketing research system and management decision making. This finding was derived from the result of the SPSS relationship analysis carried out on marketing research system and strategic decision making. The result revealed that marketing research system is positively related to strategic decision making and this relationship is significant at 95% confidence level (See table 3). As a result of this, the third hypothesis which was stated in null form was rejected and the alternate hypothesis was accepted. This means that we then accepted that there is positive and significant relationship between marketing research system and strategic decision making in manufacturing organizations. This finding is supported by Bouhouili (2016), Freihat (2012) and Ismail (2011) as their studies found a positive and significant relationship between marketing research system and strategic decision making in corporate organizations.

CONCLUSION AND RECOMMENDATIONS

Given the empirical results of this study, it was established beyond reasonable doubt that marketing information system provides adequate information needed by management for effective decision making. The study revealed that internal records system supplies past and accurate information on sales, orders received, daily receivables (cash inflow) and payables (cash outflow), inventory as well as customers complaint which assist management in making effective decisions that will improve the overall marketing performance of their organization. The study also confirmed the relationship between marketing intelligence system and management decision making, meaning that marketing intelligence system provides reliable information on the day-to-day happenings in business, new development and knowledge, the changing tastes and preferences, innovative activities of competitors as well as new ways of serving customers better. With this information, management is able to make effective strategic, tactical and operational decisions that will improve the overall marketing performance of their organization. This study established that fact that marketing research system has a positive and significant relationship with management decision making, meaning that marketing research system provides adequate information on market opportunities which assists management in making effective strategic, tactical and operational decisions that will help to solve marketing problems. Based on these findings and conclusions, the following recommendations are provided:

1. That, manufacturing companies operating without a marketing information system should set-up one to provide information on the daily marketing activities of their organization as well as the changing tastes and preference of consumers as such information would enable management make effective strategic decisions that will enhance the growth of the organization.
2. That, manufacturing companies with a marketing information system that is not functioning should employ the services of professional and trained marketers with vast experience to work on their MIS to make it functional.
3. That, manufacturing companies with a weak marketing information system should redesign their marketing information system to make it more efficient as it would provide adequate and detailed information needed by management for effective decision making.
4. That, top management of manufacturing organizations should ensure that their marketing information system is functioning properly and if possible carry out a periodically check on the
5.

system to identify areas that need attention. This would help to ensure proper maintenance of the system.

6. That, investors who may wish to establish a manufacturing company in Nigeria should set-up a functional marketing information system as it would provide adequate information on the marketing activities of their company as well as the market trends which will assist management in making effective strategic, tactical and operational decisions that will improve the overall marketing performance of their organization.

7. That, small and medium sized manufacturing companies without a marketing information system should set-up one to provide information on the daily happenings in their line of business as this information would enable managers make effective decisions that will enhance the growth of the businesses.

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