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Marketing Information System and Business Success of Oil and Gas Downstream Sector in South-South, Nigeria

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Abstract: This study empirically tested the relationship between marketing information system (MKIS) and business success of oil and gas downstream sector in South-South, Nigeria. The aim was to investigate the relationship between marketing information system (marketing decision support system and marketing research system as dimensions) and business success (return-on-assets and return-on-sales as measures) of oil and gas downstream sector in South-South, Nigeria. Cross-sectional survey research design was employed as the research design. The population of this study comprised top level managers of oil and gas downstream firms in South-South, Nigeria and 9 oil and gas firms were studied. A total of 295 were sampled and copies of questionnaire were distributed to the participants. Descriptive statistics, Pearson Product Moment Correlation Coefficient was used to test the hypotheses. The results indicated a significant relationship between dimensions of marketing information system (MKIS) and measures of business success of oil and gas downstream sector in South-South, Nigeria. Based on the findings, the study concluded that the dimensions of marketing information system significantly relates with the measures of business success of oil and gas downstream sector in South-South, Nigeria. We therefore, recommended that the marketing information system units should be adequately maintained to ensure the free flow of information and adequate use of marketing information system in decision making in Strategic and Tactical Planning.

Keywords: Marketing Information System, Business Success, Oil and Gas Downstream.

INTRODUCTION

The oil and gas downstream sector is regarded as an important bride and bed of revenues realization in the Nigerian economy. Virtually all sectors in one way or the other can do without oil and gas products as energy-generated source. As a key sector of the economy, it forms the bedrock for Nigerian economic development, growth and eradication of poverty. Given on the speedy expansion of the industry, it provides ninety-five percent (95%) of the Nigerian foreign exchange earnings and sixty five percent (65%) of national budget revenues from 2009–2018 (Ikechukwuet al., 2018).Most business organizations

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in the sector find it grim in constantly achieving targeted goals due to the open market competition and globalisation that characterized the industry. Nigeria's oil and gas industry plays a crucial role in the growth, development and survival of the Nigerian economy. Marketing research helps organization in gathering relevant information during decision process and stored in the firm's database for future use; marketing intelligence will help organization to intelligently monitoring the competitors trend in the marketplace and market space etc. These activities should only be engaged in when there is a decision-need to direct them- whether it is monitoring sales, to identify a need for tactical change in say, price discounting, or a fundamental need to decide what market or market segment to serve or what the competitors are doing right.

Marketing information system harnesses data from a set of method and procedures designed by management of organization in looking at critical information needs like: information on market trend and sizes, information on the changing need of customers taste, information from competitors (what the competitors are doing within and outside the business environment) and the information on government policies and laws that affect business operations. These information is basic in identifying, measuring, forecasting and analyzing various market segments as regard to any economic state be it boom, recession or inflation/deflation (Ezekiel et al., 2013). Kotler and Keller (2012) stated that, marketing information system consist of people and procedure for assessing informational need, developing information and helping decisions maker to use the information gathered to generate and validate actionable customers, competitor business moves and market insight. Marketing information system they say, began and end with information. Activities such as marketing research, marketing intelligence work, use of internal accounting data, marketing decision support system and so on are necessary in order to acquire data and begin the process of transforming the data into useful information for the organization.

Management of oil and gas downstream sectorsneed the necessary knowledge, experience and skills to be able to perform effectively marketing activities. Each enterprise's ability to survive depends mainly on an ability to respond quickly to external influences, but also from art to adapt to new environmental conditions (Daneshjo, 2016). All this places extremely high demands on marketing managers. There is no doubt that an effective use of information contributes significantly to the success of enterprises. The quality of decision-making depends primarily on quality of information and an ability to process them. Some external circumstances force businesses into new technologies to be more intelligent that the data and information in their daily activities is collected and processed, mined and certain strategic information important for their future decision-making. In terms of inner life of a company its purpose is to improve the dissemination and sharing of internal corporate information.

Plethora of studies has been carried out in the area of marketing information system and business success. Obasan et al. (2012) studied the effect of aggressive marketing and product performance in Nigeria. Kayode (2010) investigated on the nature, role and impact of marketing research as a tool for increased profitability in business enterprise in Nigeria. Sultan (2012) examined the role of marketing information system in marketing decision-making in Jordanian shareholding medicines production companies using internal records, marketing research, marketing intelligence and decision-making as measures. Thus, this research investigated the relationship between marketing information system and business success of oil and gas downstream sector in South-South Nigeria.

Statement of the Problem

Achieving targeted operational flexibility and profitability has been a major challenge for oil and gas downstream firms in South-South States of Nigeria. Information technology incapability has placed considerable pressure on achieving targeted business success (operational flexibility and profitability) of oil and gas downstream firms in South-South States of Nigeria. The challenges facing oil and gas

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downstream firms in Nigeria include, Covid-19 pandemic, recent Ukraine and Russia crises which has affected gas market, IT incapability and rigidity in organisational culture to curtail the dynamic nature for which the oil and gas industry is noted for. The inability to explore these aforementioned challenges among Nigerian oil and gas downstream firms has left the industry in a lost market share, profitability and operational flexibility situation.

However, considering the problem of reduction in profitability and operational flexibility in the oil and gas downstream sectors have recorded a decline in market share, profitability and operational flexibility due to poor IT strategic response to challenges of regulatory uncertainty and policy instability that characterized the oil and gas downstream sectors in Nigeria. Marketing decisions has affected oil and gas downstream sector by many internal and external environmental variables due to the fact that most of them lack the information pre-requisite to make wise decisions that will affect the delivery of quality services to the customers and by extension improve business success. This means that, marketing decision maker needs a great deal of information related to these variables, to predict their directions and their expected effects on the internal activities of the organization and the market, in order to make the rational marketing decisions in an improbable marketing environment. Hence, the research examines the relationship between marketing information systems and business success of oil and gas downstream sector in South-South Nigeria.

Aim and Objectives of the Study

The aim of this study was to empirically determine the relationship between marketing information system and business success of oil and gas downstream sectors in South-South, Nigeria. The general objectives are to:

i. investigate the extent of relationship between marketing decision support system and business success of oil and gas downstream sectors in South-South, Nigeria.

ii. examine the extent of relationship between marketing research system and business success of oil and gas downstream sectors in South-South, Nigeria.

LITERATUREREVIEW:

Theoretical framework: Theoretically, this study was anchored on Dynamic Capabilities Theory (DCT) which was developed by Teece et al. (1997). The DCT explains how firms gain sustainable competitive advantage, and survive in competitive and turbulent business environments in several ways. The DCT framework works on three fundamental presumptions: the capacity to sense and shape opportunities, to seize opportunities, and to maintain competitiveness through reconfiguring the enterprise's assets (Teece, 2007). The DCT framework advances can help scholars to understand the foundations of long-run enterprise success while helping managers delineate relevant strategic considerations and the priorities they must adopt to enhance enterprise performance and escape the zero profit tendency associated with operating in markets open to global competition (Teece, 2007). The framework integrates the strategy and innovation literature and highlights the most important capabilities that the management needs in a dynamic business environment in order to sustain superior long run corporate performance (Teece, 2007). Dynamic capabilities include the sensing, seizing and transforming abilities that are needed to upgrade the ordinary capabilities of an enterprise and direct them through developing and coordinating the firm's resources to address and shape changes in the marketplace or in the business environment (Teece, 2018).

Marketing Information System (MKIS)

The marketing concept does not focus on one aspect of marketing, but recognizes the roles of non-marketers in the marketing process such as customers, vendors, or external agencies who regulate

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marketing. Information is just a group of data which were subjected to gathering, interpretation, analyzing, processing and organizing in a specialized way, and that's in the aim of reaching out a target (McLeado & Schell, 2001). Marketing information system is a continuing and interacting structure of people or group of people, tools and procedures designed to gather, sort, analyze, evaluate and distribute pertinent, timely and accurate information for use by marketing decision makers to improve their marketing planning, execution and control (Kotler & Armstrong, 2008) for achieving firm's goals and objectives. Marketing information system is that which provides information in the form of standardized reports and displays for the managers. Marketing information system is a broad class of information systems designed to provide information needed for effective decision making by managers of marketing. Marketing information system is a tool for managing marketing information, marketing research, modeling marketing transactions, decision making in marketing, planning marketing strategies and tactics, marketing budgeting, analyzing different courses of marketing action, and reporting and control (Li, 1995; Higby & Farah, 1991).

Oil and gas downstream sector should design the marketing information system in a manner that reconciles what marketing executives would like to have and what they actually needed and what is economically feasible to offer with the information being exactly connected to the substantial decisions which the managers of marketing managers have to take decisions concerning services, the place, the prices, and promotional aspects of marketing performance (Kotler & Armstrong, 2008). Marketing information system is a continuing and interacting structure of people or group of people, tools and procedures designed to gather, sort, analyze, evaluate and distribute pertinent, timely and accurate information for use by marketing decision makers to improve their marketing planning, execution and control (Kotler & Armstrong, 2008) for achieving firm's goals and objectives. Marketing information system is that which provides information in the form of standardized reports and displays for the managers. Marketing information system is a broad class of information systems designed to provide information needed for effective decision making by managers of marketing. Marketing information system is a tool for managing marketing information, marketing research, modeling marketing transactions, decision making in marketing, planning marketing strategies and tactics, marketing budgeting, analyzing different courses of marketing action, and reporting and control (Li, 1995;Higby& Farah, 1991).

Marketing Decision Support System

The idea of designing systems and models to assist marketers' decision making dates back to over forty years. In (1966), Kotler introduced the concept of a Marketing Nerve Centre," providing marketing managers with \computer programs which will enhance their power to make decisions." Little (1979b) introduced the concept of marketing decision support systems. He defined a marketing decision support system (MDSS) as a coordinated collection of data, systems, tools and techniques with supporting software and hardware by which an organization gathers and interprets relevant information from business and environment and turns it into an environment for marketing action". Little's (1979b) concept of an MDSS goes much further than a marketing information system. Important elements are models, statistics, and optimization, and the emphasis is on response analysis; for example, how sales respond to promotions.

Marketing decision support systems are interactive, computer-based systems that aid users in judgment and choice activities. They provide data storage and retrieval but enhance the traditional information access and retrieval functions with support for model building and model-based reasoning. They support framing, modeling, and problem solving. Marketing decision support systems are typically used for strategic and tactical decisions faced by upper-level management decisions with a reasonably low

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frequency and high potential consequences in which the time taken for thinking through and modeling the problem pays of generously in the long run (Zagonari & Rossi, 2013).Decision support systems can aid human cognitive deficiencies by integrating various sources of information, providing intelligent access to relevant knowledge, and aiding the process of structuring decisions. They can also support choice among well-defined alternatives and build on formal approaches, such as the methods of engineering economics, operations research, statistics, and decision theory in addition to employing artificial intelligence.

Marketing Research System

Businesses operate in situation of uncertainty; such uncertainties include time and space, inability to aggregate purchasing units, preferences and freedom of want in the producing sector (Anyanwu, 2016) as cited in Daniel et al. (2021). He sees research as "the finding or searching out something that can aid management in the solution of problems. In his opinion, research can be either simple or complex depending on the researcher's capability in terms of educational background, purpose of the research, its significance, experience, the funds and time available for research. He noted further that research is a systematic inquiry aimed at • providing information to solve managerial problems. It is necessary at this juncture, to look at the various definitions by various authors. Kotler (1988) as cited in Ibekwe (2018) defines marketing research as the systematic design, collection, analysis and reporting of data and findings relevant to a specific marketing problem facing a company.

According to the new marketing research definition, approved marketing research is seen as a process of defining a marketing problem and opportunity, systematically collecting and analyzing information and recommending actions to improve organization marketing activities. The American Marketing Association (AMA) in Ibekwe (2018) defined marketing research as "the systematic gathering, recording and analyzing of data about problems relating to the marketing of goods and services." A formalized process of supplying information to be used in marketing decision; these decisions may involve the future (planning) present environments (problem solving) control of performance, or-a combination of these. From the above definition from AMA marketing is seen as the function which links consumer and public to the market, through information. 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, it's a planned and managed activity on a scientific basis to ensure efficiency in dealing with those problems and opportunities.

Business Success

It is no doubt that the aim of establishing a business is to make profit, achieve success and ensure that it exist continually. Hence, a business that is successful is one which produces an acceptable return on the assets used. It is that which is put in place to keep the business running normally without relying on the owner to be there on daily basis (Changing minds, 2012). Regarding this, the success of any business is utmost to the owners and also, the joy of the owner being complete is as a result of the success of the business. According to Lucky and Minai (2011), success cannot be ruled out when it relates to business since the business is usually assessed to measure the amount of success achieved. Business success is the measure of progress of an organisation, which is an analysis of the performance of the institution compared to the objectives (Otley, 1999).

The literal meaning of success is the mood or function of operation quality. Therefore, business success is a structure that refers to how organisations operate most of the functions (Tabe et al., 2013). Neely and Adams, (2002) expressed business success as "the explaining of the quality effectiveness and past efforts efficiency". Thus, business success can be defined as the capability of an entity to produce results in a dimension determined a priori, in relation to a target (Laitinen, 2002). According to Robbins and Coulter,

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(2017) the common measures for business success is organisational productivity and organisational effectiveness. It is described as the range to which the company is able to meet the needs of owners and stakeholders for survival (Griffin, 2003). Kaplan & Norton, (2005) claimed that business success is determined by an enterprise's ability to use its resources to foresee its future. Meanwhile, according to Ruey-Gwo & Chieh-Ling (2007) business success can be defined in a simple method as the results of the operations performed by members of the company.

Return-On-Assets

Eugene and Michael, (2011b) defined return as the total gain or loss experienced on an investment over a given period and risk as the variability of returns associated with a given asset. Return was defined by (Tarasi et al., 2011) as the change in worth of an investment which includes capital appreciation plus the cash yield. Return on Asset is used to measure the company capability to create profits using total owned assets by a company in the future, higher ROA of a company performance will lead to more effective company. So that it can be seen as a positive sign for any investors to invest their stock in the company that will has effects on the increased company stock in capital market (Sofyan, 2001).

Micah et al. (2012) noted that return on Asset (ROA) is measured as Profit before Tax/Average Total Assets. ROA is a measure of profitability that takes into consideration the assets necessary to produce income. Return on Assets expresses the net income earned by a company as a percentage of the total assets available for use by that company. ROA suggests that companies with higher amounts of assets should be able to earn higher levels of income. ROA measures management's ability to earn a return on the firm's resources (assets). The income amount used in this computation is income before the deduction of interest expense, since interest is the return to creditors for the resources that they provide to the firm.

Return-On-Sales

Return-on-sales (ROS) is a ratio used to evaluate a company's operational efficiency. This measure provides insight into how much profit is being produced per dollar of sales. An increasing ROS indicates that a company is growing more efficiently in terms of sales, while a decreasing ROS could signal impending financial troubles. ROS is very closely related to a firm's operating profit margin (Adam, 2020). As sale results in increase in the income and assets of the entity, assets must be debited whereas income must be credited. A sale also results in the reduction of inventory, however the accounting for inventory is kept separate from sale accounting as will be further discussed in the inventory accounting section (Farris et al., 2010).Return-on-sales is the result of an investment in relation to sales. ROS can be a realized return that has occurred and expected return that has not happened but is expected to occur in the future.

Hansen and Mowen (2005) argues return-on-sales is an increase in sales from year to year or from time to time. Companies that have high sales growth rates will require more investment in the various elements of assets, either fixed assets or asset lancer, by knowing how big the sales return, the company can predict how much profit you will get. According to Sofy (2001), return-on-sales illustrates the presentation outpost's company growth from year to year via the sales of product or assets. Return-on-sales is "a tool to measure the relationship between the volumes of merchandise sold by the amount of inventory on hand during the period".

Marketing Information System and Business Success

A good marketing information system balances the information users would like to have against what they really need and what is feasible to offer. To James (1998) marketing information system defined as "a structured, interacting complex of persons, machines and procedures designed to generate an orderly flow

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of pertinent information collected from both intra and extra-firm sources for use as the bases for decision making. Boone and Kurtz (2007) defined marketing information system as a planned computer-based system designed to provide marketing managers with continuous flow of information relevant to their specific decisions and areas of responsibility.

Rahul et al. (2013) examined the role of Marketing Information System (MKIS) for organizational culture and its effectiveness. This study investigated that the success factors of marketing information systems depends largely on organizational, technical, managerial and technical cultures/environments of a company. The study conducted on Pakistani SMEs sector for investigation the influence of marketing information system model on results in terms of performance and found that information system achieve better performance in accounts department. The benefits have been harvested in terms of time, effective decision making and support that impact the competitive advantages due to effective marketing information system management (Al-Janabi & Mhaibes, 2019). The information plays significant important role in effective decision making for planning through utilization of communication among stakeholders of firms.

Marketing Decision Support System and Business Success

Marketing decision support systems are gaining momentum in various research domains, including business, engineering, the military, and medicine because of its importance on business effectiveness. Marketing decision support systems can aid human cognitive deficiencies by integrating various sources of information, providing intelligent access to relevant knowledge (gathered from the environment) and aiding the process of structuring decisions to attain marketing effectiveness. They can also support choice among well-defined alternatives and build on formal approaches, such as the methods of marketing and decision theory optimized by firms.

A marketing decision support system also incorporates individual sub-systems, whose coordinated action results in exchanges of opinions between the organizations and customers in the decision support system, as well as the marketing environment in order to achieved marketing effectiveness. Bucklin et al. (1998) presented a hopeful view on the impact of decision support systems in marketing. The authors argued that a growing proportion of marketing decisions could not only be supported but might also be automated given technological world. They foresaw that close to full marketing automation would ultimately take place for many decisions about existing products in stable markets. Decision support systems (DSS) can be defined as being "information systems designed to support decisions- taking in the organization" (Jessup & Valacich, 2003). The key feature of the decision support systems can be explained as follows: decision support systems increase interaction between the manager and computer systems, and thus there won't be a need for the manger to deal with decision support systems directly (Sultan, 2005). Consequently, the following hypotheses were formulated:

H_{o1}: There is no significant relationship between marketing decision support system and return-on-assets of oil and gas downstream sectors in South-South, Nigeria.

H_{o2}: There is no significant relationship between marketing decision support system and return-on-sales of oil and gas downstream sectors in South-South, Nigeria.

Marketing Research System and Business Success

Marketing research system is a planned activity developed on scientific basis that deals with the problems and opportunities in front of a firm (Freihat, 2012). Marketing research generally involves special studies focusing on consumer activities using mail surveys (McLead & Rogers, 1988). Marketing research is very helpful in getting information related to consumer behaviour and market size Apart from collecting data,

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marketing research system also helps in product development stages. It helps in screen product ideas before serious product development work starts. It helps in determining whether the product is compatible with company objectives of profit, sales growth rate, diversification plan and overall company image. Marketing research system consists of collecting both qualitative and quantitative data relating to the market processes. Data is then analyzed and interpreted to solve marketing issues concerning the company's products and services (Alhadid et al., 2015).

The second function of marketing information system consists of marketing research system that provides supportive information based on collection and analysis of data from external market while considering the external factors related to the market and customers. This section of the system focuses on collection and analysis of data to be used in strategic marketing planning. The market research depends upon six diverse stages including identification, formulation, hypothesis testing, and development of research plan based on data collection and analysis for strategic marketing planning and the sixth stage related to results and reports (Kotler et al., 2017). The firms that lack with marketing research may not be able to produce appropriate information required for decision making to compete the competitors, to share information with suppliers; utilization of technology, participation in export market and various other problems arises with respect to management and marketing problems. Consequently, the following hypotheses were formulated:

H_{03}: There is no significant relationship between marketing research system and return-on-assets of oil and gas downstream sectors in South-South, Nigeria.

H_{04}: There is no significant relationship between marketing research system and return-on-sales of oil and gas downstream sectors in South-South, Nigeria.

MATERIALS AND METHODS

This section of the study provides detailed explanation on research design, population and techniques used. It entails overall plans of the study. Therefore, this study adopts the explanatory research approach. The population of this study comprises oil and gas downstream firms in Akwa Ibom, Bayelsa, Cross Rivers, Edo, Delta and Rivers States. According to ministry of petroleum and Natural Resources, there are nine (9) major oil and gas downstream sectors in South-South, Nigeria. They include; Mobil Producing Nigeria Unlimited (MOPNU), Total Petroleum Nigeria Limited (TPNL), Texaco Overseas Petroleum Company of Nigeria Limited (TOPCN), Eroton Ltd (EL), Conoil Nig Plc, Forte Oil Plc, MRS Nig Plc., Oando Plc. and NNPC (mega) stations of the six south-south states of Nigeria. This is premised on information obtained from the Ministry of Petroleum and Natural Resources in Nigeria. Information gathered from the human resources departments of each of the firms revealed that there are 1127 top level managers which refers to as accessible population of the firms. Summary of the accessible population are represented below:

Table 1: Number of Accessible Population

S/N	Name of firms	RS	BS	CRS	AIS	DS	ES	Total	Sample Size
1	Conoil	29	28	26	24	20	26	153	40
2	Eroton	18	11	12	14	9	13	77	20
3	Forte	28	21	19	32	26	28	154	40
4	Mobil	32	24	27	25	28	19	155	41
5	MRS	32	21	19	30	28	24	154	40
6	NNPC Mega	1	1	1	1	1	1	6	2
7	Oando	31	22	20	29	25	26	153	40

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8	Texaco	28	15	18	22	15	22	120	31
9	Total	32	26	24	26	27	20	155	41
	TOTAL							**1127**	**295**

Source: Research Desk, (2022) as adapted from Nigerian Midstream and Downstream Petroleum Regulatory Authority (NMDPRA)

The researcher employed Taro Yemane formula to determine the sample size and 295 was gotten and share proportionately among the firms.

The questionnaire was subjected to a validity and reliability test analysis. For the validity tests, the instruments were tested for discriminant validity (average variance extracted: AVE) based on 0.50 threshold. On the other hand, Reliability measures consistency and stability of instrument over time. In order to determine the consistency and stability of instrument, this study ensured a test-retest technique was implemented using the Cronbach Alpha Reliability co-efficient.

Table 2 Properties of the MKIS and BS Instruments.

Constructs/indicators	Standardized loading(λ)	λ^2	AVE	CR	α
Marketing Decision Support System			**0.70**	**0.92**	**0.809**
MDSS1	0.877	0.771			
MDSS2	0.777	0.604			
MDSS3	0.697	0.486			
MDSS4	0.898	0.805			
MDSS5	0.923	0.852			
Marketing Research System			**0.77**	**0.94**	**0.786**
MRS1	0.797	0.635			
MRS2	0.882	0.776			
MRS3	0.855	0.731			
MRS4	0.916	0.839			
MRS5	0.928	0.861			
Return-on-assets			**0.87**	**0.97**	**0.911**
ROA1	0.934	0.872			
ROA2	0.983	0.966			
ROA3	0.927	0.859			
ROA4	0.909	0.826			
ROA5	0.914	0.835			
Return-on-sales			**0.76**	**0.94**	**0.905**
ROS1	0.811	0.658			
ROS2	0.915	0.837			
ROS3	0.857	0.734			
ROS4	0.921	0.848			
ROS5	0.859	0.738			

Confirmation on the outcomes from the factor analysis as shown in Table 2 presented the standardized factor loading values of all instruments were above the value of 0.50. Additionally, composite reliability (CR) and average variance extracted (AVE) were computed using the standardized factor loadings. The AVE values were above 0.50, which was acceptable. It is also expected that CR is higher than AVE outputs. Also the calculated AVE and composite reliability as well as SPSS output of Cronbach Alphas for

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the twenty (20) statement items demonstrated a high level of reliability on the constructs of MKIS and BS. All items loadings were above 0.70.

The data analyses were done using Pearson Product Moment Correlation Coefficient for testing the hypotheses.

Data Analyses and Presentation

Table 3: Marketing Decision Support System and Business Success measures

		Marketing Decision Support System	Return-On-Assets	Return-On-Sales
Marketing Decision Support System	Pearson Correlation	1	.894**	.904**
	Sig. (2-tailed)		.000	.000
	N	243	243	243
Return-On-Assets	Pearson Correlation	.894**	1	.960**
	Sig. (2-tailed)	.000		.000
	N	243	243	243
Return-On-Sales	Pearson Correlation	.904**	.960**	1
	Sig. (2-tailed)	.000	.000	
	N	243	243	243

Source: SPSS output, 2022

Evidence on the relationship between marketing decision support system and measures of business success such as return-on-assets and return-on-sales are observed to be significant at a Pv< 0.05 in the two hypotheses. The result shows that marketing decision support system has a strong significant relationship and positively correlates with return-on-assets at a r = 0.894 and a Pv = 0.000. This result revealed that an increase in marketing decision support system at 0.894 will cause a rise on return-on-assets vice versa. Marketing decision support system also strongly and positively correlates with return-on-sales at a r = 0.904 and a Pv = 0.000.This result revealed that an increase in marketing decision support system at 0.904 will cause a rise on return-on-sales vice versa. The result presents marketing decision support system as having significant and positive impact on the two measures of business success and as such contributing significantly towards the oil and gas downstream industry ability to maintain and keep its competitiveness, the firm's level of business' operation and the degree to which they are committed and have strong success presence. Therefore, we rejected the two null hypotheses because, the Pv (0.000) <0.05 level of significance.

Table 4: Marketing Research System and Business Success measures

		Marketing Research System	Return-On-Assets	Return-On-Sales
Marketing Research System	Pearson Correlation	1	.901**	.912**
	Sig. (2-tailed)		.000	.000
	N	243	243	243
Return-On-Assets	Pearson Correlation	.901**	1	.960**
	Sig. (2-tailed)	.000		.000
	N	243	243	243
Return-On-Sales	Pearson Correlation	.912**	.960**	1
	Sig. (2-tailed)	.000	.000	
	N	243	243	243

Source: SPSS output, 2022

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Evidence on the relationship between marketing research system and measures of business success such as return-on-assets and return-on-sales are observed to be significant at a Pv< 0.05 in the two hypotheses. The result shows that marketing research system has a strong significant relationship and positively correlates with return-on-assets at a r = 0.901 and a Pv = 0.000. This result revealed that an increase in marketing research system at 0.901 will cause a rise on return-on-assets vice versa. Marketing research system also strongly and positively correlates with return-on-sales at a r = 0.912 and a Pv = 0.000. This result revealed that an increase in marketing research system at 0.912 will cause a rise on return-on-sales vice versa. The result presents marketing research system as having significant and positive impact on the two measures of business success and as such contributing significantly towards the oil and gas downstream industry ability to maintain and keep its competitiveness, the firm's level of business' operation and the degree to which they are committed and have strong success presence. Therefore, we rejected the two null hypotheses because, the Pv (0.000) <0.05 level of significance.

Discussion of Findings

Positive significant relationship between marketing decision support system and business success

Hypothesis one (H_{01}) aimed at examine the significant relationship between marketing decision support system and return-on-assets of oil and gas downstream sector in South-South, Nigeria. Our analysis revealed a positive and strong significant relationship between the variable (R=0.894). The probability value (0.000) was less than the level of significance of 0.05 (95%), therefore, Ho_1 was rejected, that there was a significant relationship between marketing decision support system and return-on-assets of oil and gas downstream sector in South-South, Nigeria. Hypothesis two (H_{02}) also revealed same positive and strong relationship between marketing decision support system and return-on-sales of oil and gas downstream sector in South-South, Nigeria. Our analysis revealed a positive and strong significant relationship between the variable (R=0.904). The probability value (0.000) was less than the level of significance of 0.05 (95%), therefore, Ho_2 was rejected, that there was a significant relationship between marketing decision support system and return-on-sales of oil and gas downstream sector in South-South, Nigeria.

The findings corroborate the position of previous scholars such as Ningrong & Seung, (2015).Ismail (2011), found that there was a significant relationship between MDSS and decision making in the Royal Jordanian Airlines (RJA). The empirical study findings confirmed positive relationships between the level of utilizing and adopting ―decision support system and the success of an organizational decision making, and provide the organization with a competitive advantage as it allows the organization to solve problems.

Positive significant relationship between marketing research system and business success

Hypothesis three (H_{03}) aimed at examine the significant relationship between marketing research system and return-on-assets of oil and gas downstream sector in South-South, Nigeria. Our analysis revealed a positive and strong significant relationship between the variable (R=0.901). The probability value (0.000) was less than the level of significance of 0.05 (95%), therefore, Ho_3 was rejected, that there was a significant relationship between marketing research system and return-on-assets of oil and gas downstream sector in South-South, Nigeria. Hypothesis four(H_{04}) also revealed same positive and strong relationship between marketing research system and return-on-sales of oil and gas downstream sector in South-South, Nigeria. Our analysis revealed a positive and strong significant relationship between the variable (R=0.912). The probability value (0.000) was less than the level of significance of 0.05 (95%), therefore, Ho_4 was rejected, that there was a significant relationship between marketing research system and return-on-sales of oil and gas downstream sector in South-South, Nigeria.

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The findings corroborate the position of previous scholars such as Ningrong & Seung, (2015). Ismail (2011), found that there was a significant relationship between MRS and decision making in the Royal Jordanian Airlines (RJA). Obasan et al. (2012) findings revealed that marketing strategies has a significant on product performance with reference to Nigerian industries as most, if not all organizations adopt marketing strategies that affect customers patronage as well as the development of dynamic marketing strategies that reflect current state of customer preference.

Conclusions

The findings on the dimensions of marketing information system (marketing decision support system and marketing research system) contribute significantly positive towards achieving business success (return-on-assets and return-on-sales) of oil and gas downstream sector in South-South, Nigeria.

a. The study concludes that a *"strong and positive significant relationship"* exists between marketing decision support system and business success (return-on-assets and return-on-sales) of oil and gas downstream sector in South-South, Nigeria.

b. The study concludes that a *"strong and positive significant relationship"* exists between marketing research system and business success (return-on-assets and return-on-sales) of oil and gas downstream sector in South-South, Nigeria.

Recommendations

Based on the findings of the study, we put forward the following recommendations:

a. It is recommended also that the marketing information system units should be adequately maintained to ensure the free flow of information and adequate use of marketing information system in decision making in Strategic and Tactical Planning.

b. Oil and gas downstream firms should establish a unit for managing specialized information quality, which work on building up proper foundations to manage information quality in industrial facilities according to their needs and requirements.

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