

E-procurement and Organizational Performance of Oil and Gas Services Companies in Rivers
State Nigeria

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Certification

This is to certify that this research work entitled “E-procurement and Organizational Performance of Oil and Gas Services Companies in Rivers State” was carried out by Chukwudi OKONYE with matriculation number LCU/PG/001195 in the Department of Management and Accounting, Faculty of Environment, Management and Social Sciences, Lead City University, Ibadan, Nigeria.

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Dedication

The research work is dedicated to Almighty God, The Alpha and the Omega

DO NOT COPY. LEAD CITY UNIVERSITY, NIGERIA.

Acknowledgement

It is my desire to acknowledge my citadel of learning, Lead City University, Ibadan, Nigeria for the opportunity to be taught and conduct this research work. I also appreciate Saipem Contracting Nigeria Limited, Desicon Engineering Limited, IGPEs group and host of others for their help rendered during this study.

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Abstract

E-procurement is a collaborative procurement of goods, works and services using electronic methods in every stage for bringing in efficiency and transparency. E-procurement integrates the buyers and suppliers through relevant IT system and automates the purchasing and procurement process of a company. This study identify that some of the problems that can arise as a result of non-electronic procurement process, this could be delay in sourcing, tendering, vendor selection, lack of alternate options, delay payment (mostly through the manual process), ordering and order-delivery time. The purpose of the study was to investigate the relationship between e-procurement and organizational performance of oil and gas services companies in Rivers State. However, a sample of one hundred and forty-nine (149) companies from which one respondent consisting of relationship manager/procurement manager/marketing manager/logistics manager/ITC manager from each of the companies was given questionnaire to provide data for the study. Data were collected through the questionnaire method designed in the Likert 5-point scale of strongly disagree to strongly agree and analyzed using descriptive statistics of mean, standard deviation, variance, frequency distribution, and bar chart. Six hypotheses in the study were tested using Pearson product moment correlation. Furthermore, multiple regression analysis was used to measure the combined effects of all dimensions on each of the measures. These analyses were done with the aid of the Statistical Package for Social Sciences (SPSS) version 22.0. From the analyses it was found that, there is a strong and very strong relationship between e-tendering and market share and profitability respectively. Again, e-payment has moderate relationship with market share and profitability. Also, there is a very strong and strong relationship between e-ordering and market share and profitability respectively. Furthermore, all the results were positive and significant. This study adopts a cross sectional research design because it deals with getting data from target respondents and determining the association between variables. It is recommended that oil and gas services companies should adopt e-procurement as a strategic tool in their quest towards achieving and maintaining organizational performance in terms of market share and profitability

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Appendix**Chapter One****Introduction****1.1 Background to the Study**

The practice of electronic procurement has gained massive popularity over the years in recent times, and so has the research on this emerging area. First reports in the 1990's focused on general descriptions and best practices, more recent studies have dealt with specific and refined application of this approach. Every organization is always measured by its performance and in the oil and gas sector where procurement is a key hub to the performance of every other supply chain component, while the great evolving rate of internet and E-related exchanges proves to be a faster and more reliable way to procure items, hence today's technological business world has turned to an electronic procurement system⁵. In addition to the customer oriented procurement of the internet, e-procurement is practiced through electronic markets and electronic data interchange (EDI). This creates the need for an efficient electronically enabled supply chain and value chain management¹¹

Electronic procurement is a collaborative procurement of goods, works and services using electronic methods in every stage for bringing in efficiency and transparency. E-procurement does not just mean online purchasing decisions alone it involves connecting suppliers/vendors and employees of the organizations into the purchasing network companies that embark on e-procurement buying programs, so that purchasing would be achieved across various department or divisions without removing individual control, reduce rogue buying, get the best price and quality products from wide range of suppliers. For the suppliers, e-procurement is boom because

they can be very proactive in their business proceedings. E-procurement actually integrates the buyers and suppliers through relevant IT system and automates the purchasing and procurement process of a company.

E-procurement according to Croom & Brandon-Jones,³ refers to the use of internet-based information and communication technologies (ICT) to carryout individual or all stages of the procurement process including; sourcing, negotiation, ordering, receipt and post purchase review with continuous advancement in technology and transformation of business dynamics with the oil and gas sector not left out, the world has seen an easy accessibility to reliable electronic support services available worldwide with an equal demand in almost all sectors. E-procurement which is one of the major instruments of procuring is still very new to many firms and businesses around the world and Nigeria in particular and it's now catching up as many firms, managers and practitioners are beginning to realize its importance. The E-business paradigm has created an immense opportunity for firms to consolidate their buying process. E-procurement opened new horizons for managing and operating businesses and it has given the stakeholders continuous options to make appropriate decisions on procurement of engineering/long lead items, utilities/consumables or services.¹⁰

The pride of any firm or organization is its performance level or measure of performance, because the goal is to make sure that there is continuous progress and every index used to achieve the set goal is sustained and continually updated and reviewed to meet stipulated standards. Organizational performances encompass three specific areas of a firm's outcome⁹

- a. Financial performance (profits, return on assets, return on investment, etc.).
- b. Product market performance (sales, market share etc.).

c. Shareholder return (total shareholder return, economic value added, etc.).

The significance of performance is that it's one type of effectiveness indicator, with both advantages and disadvantages. Organizational performance helps to checkmate the growth of the firm and apply other measures to ensure continuous growth or amend the decline in any given area.

Organizations are heterogeneous in their resources and capabilities and how and where they choose to use them¹. At the most basic level, small and large firms are likely to perform in quite different manners. Although linked by competition these firms have very different resources and strategies, this is evident in how firms measure themselves. The success of an organization to a large extent depends on how its actual output or results is measured against its intended output, with its growing trend of ICT and change in dynamics of business and procuring strategies which is constant. The focus of e-procurement is mainly to help organizations cope with the changing procurement process and evolution of internet and internet based tools to procure and carryout various activities.

E-procurement as the linking and integration of inter-organizational business process and systems with the automation of the requisitioning, the approval purchase order management and accounting processes through an internet-based protocol⁸. According to⁶, the purchasing process is within the procurement process and refers to the actual buying of materials and those activities associated with the buying process. Implicit in the above definition is the fact that e-procurement is becoming a global phenomenon and that it deals with purchasing and other related activities through an internet based protocol and has reinstated the efficiency of it in any organization to improve output and minimize cost and maximize profit. The question is how necessary is e-

procurement to an organizations process? And to ensure proper performance the need for this process through relevant strategies has to be considered together with its importance. Due to the procurement as a result of the dynamics in the oil and gas sector particularly in Nigeria and sometimes lack of trust especially regarding issues that deals with internet or electronic vices, the need to study e-procurement and its importance or associated relationship to organizational performance appears imperative.

1.2 Statement of the Problem

This issue of technology advancement negligence by some oil and gas firms is of concern and their failure to understand the importance of information and communication technology tools to the growth and performance of a firm calls for awareness and proper reorientation and to follow the advancement in electronic trend.

A study by ² found that organizations which adopted e-procurement strategies have reduced costs through transactional and process efficiencies and thereby promoting their procurement performance. There is the need to have a robust automated procurement system which is interlinked and this will lead to enhanced competitiveness and lowered costs⁷. However, this is not the case with what is happening in most oil and gas services company in Rivers State as they tend not to embrace the great role and ease which electronic form of procurement brings coupled with the insecurity that most automated process can possess, more so, most managers of oil and gas firms in Nigeria react to problems in Nigeria rather than present such problems beforehand which leads to high costs and risks thereby leading to ineffectiveness in the firm.

Some problems that can arise as a result of non-electronic procurement process could be delay in sourcing, tendering, vendor selection, lack of alternate options, delayed payment(mostly through the manual process), ordering and order-delivery time. There is need for innovative procurement

strategies (e-procurement is the hub). In the oil and gas industry, in a survey of integrated companies in the US, it stated that project procurement process in the oil and gas industry is capital-intensive, as 90-95 percent of project costs are paid to contractors and suppliers to ensure project success⁴

This study investigates the nexus between e-procurement and organizational performance of oil and gas services companies in Rivers State. The researcher hopes that the study would contribute greatly in remedying some of the e-procurement challenges experienced in the oil and gas services companies in Rivers State.

1.3 Research Questions

In line with specific objectives, the following research questions were developed for the study:

1. What is the relationship between e-tendering and Market Share of oil and gas services companies in Rivers State Nigeria?
2. What is the relationship between e-tendering and Profitability of oil and gas services companies in Rivers State Nigeria?
3. What is the relationship between e-payment and Market Share of oil and gas services companies in Rivers State Nigeria?
4. What is the relationship between e-payment and Profitability of oil and gas services companies in Rivers State Nigeria?
5. What is the relationship between e-ordering and Market Share of oil and gas services companies in Rivers State Nigeria?
6. What is the relationship between e-ordering and Profitability of oil and gas services companies in Rivers State Nigeria?

1.4 Objective of the Study

The objective of the study is to investigate the associated relationship between e-procurement and organizational performance of oil and gas servicing firms in Rivers State. Specifically the study has the following sub-objectives:

1. To examine the relationship between e-tendering and Market Share of oil and gas services companies in Rivers State Nigeria.
2. To examine the relationship between e-tendering and Profitability of oil and gas services companies in Rivers State Nigeria.
3. To determine the relationship between e-payment and Market Share of oil and gas services companies in Rivers State Nigeria.
4. To determine the relationship between e-payment and Profitability of oil and gas services companies in Rivers State Nigeria.
5. To ascertain the relationship between e-ordering and Market share of oil and gas services companies in Rivers State Nigeria.
6. To ascertain the relationship between e-ordering and Profitability of oil and gas services companies in Rivers State Nigeria.

1.5 Hypotheses

Ho₁: There is no significant relationship between e-tendering and market share of oil and gas services companies in Rivers State Nigeria?

Ho₂: There is no significant relationship between e-tendering and profitability of oil and gas services companies in Rivers State Nigeria?

Ho₃: There is no significant relationship between e-payment and market share of oil and gas services companies in Rivers State Nigeria?

Ho₄: There is no significant relationship between e-payment and profitability of oil and gas services companies in Rivers State Nigeria?

Ho₅: There is no significant relationship between e-ordering and market share of oil and gas services companies in Rivers State Nigeria?

Ho₆: There is no significant relationship between e-ordering and profitability of oil and gas services companies in Rivers State Nigeria?

1.6 Scope of the Study

In order to describe the focus of this research and be distinctive, the scope is stated in regard to content scope, geographic scope and unit of analysis.

Content Scope: Here the content scope of this study is restricted to literature on e-procurement and organizational performance. More detailed discussions made on the dimensions of e-procurement and the measures or attributes of organizational performance.

Geographical Scope: The geographical scope of this study is Port Harcourt. This study is restricted to oil and gas servicing firms in Port Harcourt.

1.7 Significance of the Study

As described in the background of the study e-procurement and organizational performance are both greatly reliable in procurement and supply chain strategies which will result to an immense

benefit to different stakeholders in the oil and gas industry and also public sector, this study will assist the following stakeholders in this ways:

Investors: It will assist both individual and corporate entities that have interest in investing into the oil and gas industry to be abased with technological trend as it regards the first demand in online transactions and procurement from strategies of tendering, bid evaluation and vendor selection to ensure profitability and gain a favorable market share they would do this by understanding the empirical relationship between e-procurement and organizational performance as a management principle in achieving a set objective.

Public Sector: This study would be beneficial to the public sector, because most organizations in this sector use e-procurement for contracts to achieve profits such as increased efficiency and cost savings (faster and cheaper) in government procurement and improved transparency (to reduce corruption) in procurement services. E-procurement projects are often part of the country's large e-government effort to better serve its citizens and businesses in digital economy.

Oil and gas Industry: This study would be of great importance to those in this industry, as they would have an improved knowledge of the E-Systems and ways of procuring needed items or meet certain demand in time and accessing the right quality too thereby eliminating any chance of corruption, price inflation and vendor preference and this would indeed increase profit and increase market share.

Vendors: E-procurement is the business to business purchase and sale of supplies and services over the internet. An important part of many B2B sites typically. E-procurement websites allow qualified and registered vendors to look for buyers and other registered users to look for both buyers and sellers of goods and services depending on the approach buyers and sellers may

specify prices or invite bids transactions can be initiated or completed. Ongoing purchases may qualify customers for volume discounts or special offers.

Managers: It will assist managers in oil and gas firms in knowing what e-procurement entails and how to apply them for better performance at every point of need with respect to their knowledge of what affects various stakeholders (organizational, people and character).

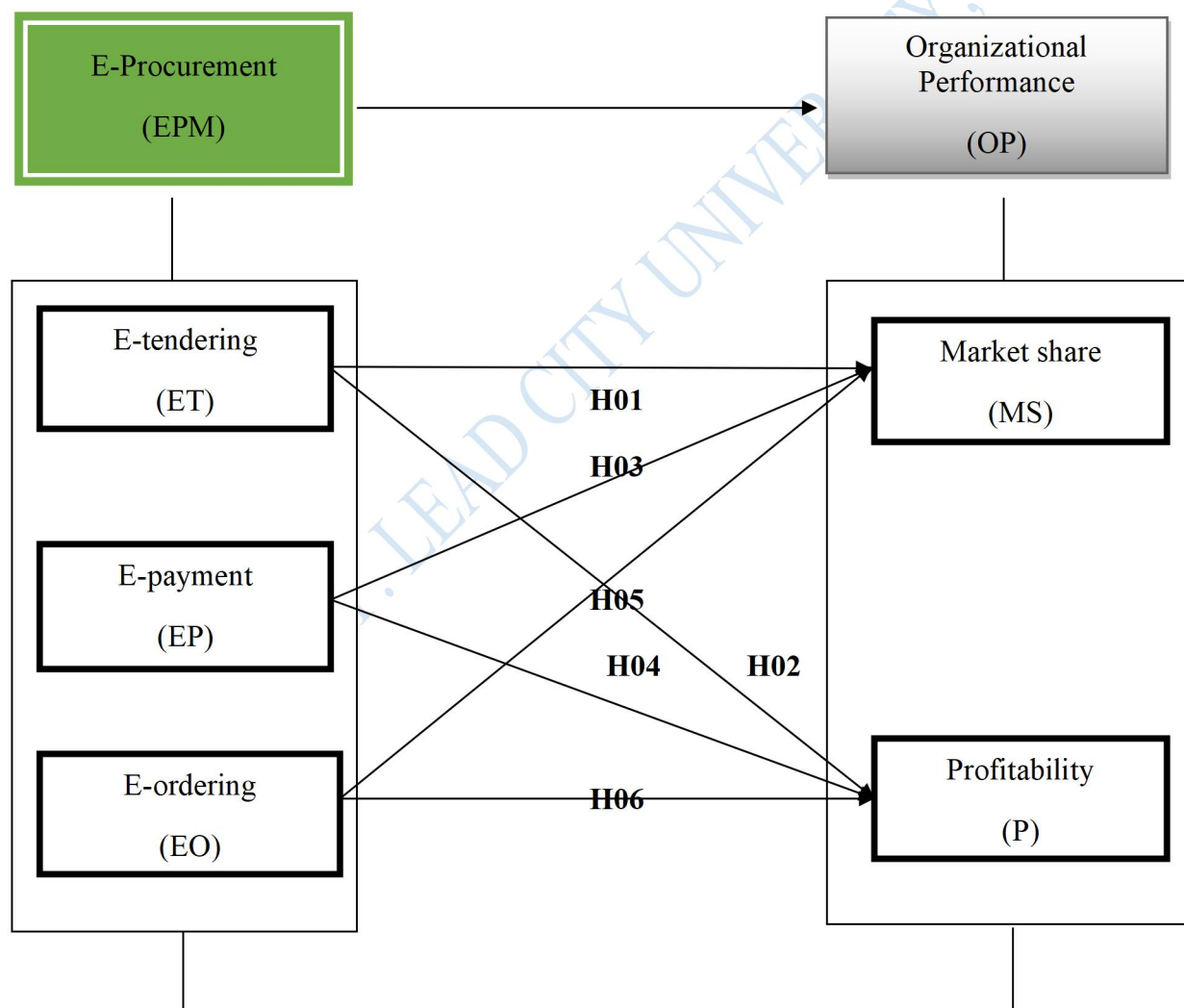
Academicians/Researchers: Increasingly, academics are positing the view that user perception of e-procurement appears to play a significant role in influencing levels of compliance. In this regard further insights in this issue are of great importance to scholars in supply chain management and procurement generally.

1.8 Limitation to the Study

This study is domiciled in the oil and gas industry in Rivers State. Thus, restricting the study area to this industry and geographic area constrains the generalizability of its finding. In other words, the findings are unique and applicable only within this industry and may not reflect what is obtainable in other industries. Again, the study developed and considered only E-tendering, E-payment and E-ordering as dimensions of E-procurement. This is seen as a limitation because there may be several other dimension that are left out, which further studies can investigate. Also, the sample elements were only managers who may naturally want to embellish the image of their firms, as humans are prone to behave differently once they are aware of the intent of a researcher thereby providing spurious data that may not represent reality, more so, instrumentation might pose another constraint to the study; because the questionnaire was designed by the researcher based on his understanding, which may not be obtainable in the industry.

In addition, the covid 19 pandemic slowed down physical contacts with the respondents especially the organizations whose offices were around Port Harcourt. Finally, the findings of the study were only limited to two hundred and ninety three (293) selected oil and gas services firms in Rivers State and did not explore the views of the other organizations, so it may reflect some partial view.

1.9 Operationalization of Research Variables



Source: The dimensions:, N.R,Cheguu &, Y.Kibet *Effect of e-procurement practices on organizational performance in public hospitals in Kenya*. **International journal of procurement and supply chain management**, 2 (3), 2017,16-32.

1.10 Operational Definition of Terms

E-procurement: This is referred to as the business to business requisitioning, ordering and purchasing of goods and services electronically or over the internet.

Organizational Performance: is defined as the actual output of a company measured against its intended output.

E-tendering: An internet based process wherein the complete tendering process from advertising to receiving and submitting tender-related information is done online.

Market Share: This is the percentage of a market that has being controlled by a particular firm.

Profitability: This is referred to as the degree to which a business or activity yields profit or financial gain.

E-payment: This is defined as a way of paying for goods or services electronically, instead of using cash or a cheque in person or by mail.

E-ordering: Electronic ordering is referred to as a method of collecting orders from customers through internet. On the other hand, is a way of placing orders via the internet by using more structured order system such as EDI

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Chapter Two

Review of Related Literature

2.0 Preamble

The previous chapter introduced the concept and nature of e-procurement and organizational performance. This chapter gives a plethora analysis of views, arguments, theoretical posit from authors, scholars, researchers and different school of thoughts. These views are based on underlying theories, concept, dimensions of e-procurement and measure of organizational performance respectively. This is closely followed by the relationship that exists between both variables. We believe that to effectively achieve organizational goal in the oil and gas serving firms especially their procurement activity, the staff and management must endeavor to incorporate the use of electronic procurement to achieve performance.

Again, this chapter will cover areas such as the concept of e-procurement, dimensions of e-procurement, which includes, e-tendering, e-payment, e-ordering, e-signature and concepts of organizational performance

2.1 Conceptual issues

2.1.1 E-procurement

E-procurement is the business to business purchase and sale of supplies and services over the internet. First, let us understand what procurement is: According to the chartered institute of

procurement and supply (CIPS), they defined procurement as buying goods and services that enables an organization to operate in a profitable and ethical manner. It is seen also as an application that supports requisition to payment and the electronic catalogue that lists suppliers' items and prices over the internet.

E-procurement solutions are developed to address one of the three primary areas of procurement operations such as indirect procurement, direct procurement and sourcing¹. Other organizations adopt it to enhance flexibility some practices adopted in e-procurement would include e-tendering, e-ordering, e-payment, e-auctions, e-catalogues, and e-invoicing⁶⁶.

E-notice, e-signatures are part and parcel of e-procurement. Every organization have a reason for going into business or a reason for establishment and goals such as cost reduction and profit maximization would always be part and parcel of every organizational process and the various means to achieve this would play a great role to enhance its performance. E-procurement is a strategy organization must seek to apply/adopt to meet needs of the various stakeholders involved who is involved in one way or another because acting a novice to the importance of (ICT) in procurement using the e-procurement system and process implementation would be devastating in the long run as it gives every organization a right for flexibility, ease and options.

E-procurement leads to improved performance. It facilitates electronic documentation of the bidding process, enhances accountability and transparency thereby improving general performance⁴⁸. Adoption of e-procurement may lead to improved supplier and customer relations and enhance achievement of strategic goals leading to enhanced organizational performance⁴⁴. The introduction of e-procurement has completely transformed the buying process due to elimination of errors and lost time resulting from retyping of data and exchange of paper²³.

E-procurement systems have attracted massive attention in the past few years which the sharp advancement in e-procurement has raised intense debate³⁶. It is therefore evident that the use of internet in e-procurement is more beneficial as opposed to earlier inter-organizational manual tools and process, while e-procurement involves changes in traditional procurement initiative success is dependent on the intensity of training advanced to the staff. End- users acknowledge the importance of e- procurement upon understanding its functionalities.

It is clear that employees are greatly involved in the utilization of e- procurement and training, skills possessed and competencies may have an impact on the adoption and implementation of e-procurement in the organization. The human element is of great importance in the business environment since organization objectives for instances e- procurement cannot be attained in its absence. E- Procurement is viewed as value added application of e- commerce solution that facilitates, integrates and streamlines the procurement process. From initial stages, contracting and payments⁴².

The identification of some gains of e-procurement as transaction cost and buying price reduction, process shortening, improvement of information exchange and control. While some additions from overview in my research also shows that e-procurement lowers administrative costs, straightening supplier relations, reducing purchase cycle time, user compliance³⁷.

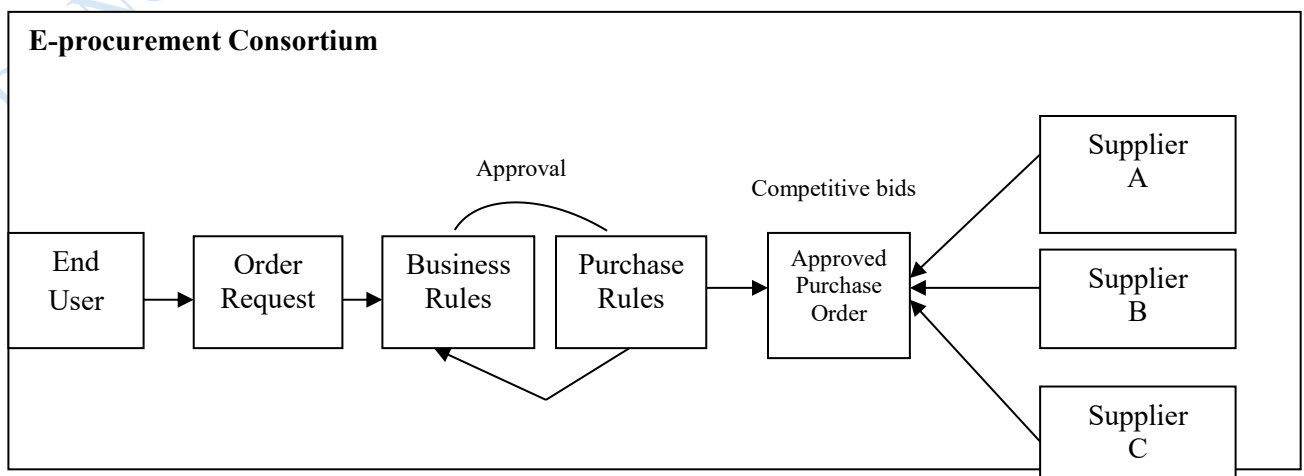


Figure 2.1 Source: (Lysons & Gillingham, 2003)

In a very distinctive explanation e-procurement is an advancement that ensures swift organizational performance if implemented and its neglect would take us back to traditional means which has, more disadvantages because of fraud, delays etc. while e-procurement brings procurement to you.

2.2 Dimensions of E-procurement

E-procurement has many dimensions and they include: E-tendering, E-payment, E-ordering, E-signatures etc. another research conducted by groups of E-procurement into vendor selection, -tendering, E-payment, E-catalogues and vendor management. It is in this comparison between the various extracts that the dimensions for this study was drawn. Therefore, e-tendering, e-payment and e-ordering would constitute the dimensions of the study and are critical and pivotal knowledge to this investigation^{14, 16}.

2.2.1 E-Tendering

E-tendering is basically an expression used to describe the dissemination and receipt of tender information, indication of interest in tendering, receipt of tender documents, submission of tender sum and final selection of successful tender for contracts via the internet⁹. In this study e-tendering is taken to include e-notices, e-selection, e-mailing, and e-awarding to request for information (RFI) and response for prices (RFP) to suppliers and receiving back their feedback¹⁸.

The arrival and introduction of the internet into the business arena has acted as a channel for radical changes in the operations and nature of the tendering function in an organization. The argument that

(ICT) have totally altered organizational and government way of running their business²⁴. Most organization and government also spend good proportion of their money in tendering various products and offering services. To cut on the total costs spent on the tendering process, information technologies have been adopted in the form of e-tendering. Although opportunity for its improvement seem to flourish, the adoption of the electronic technologies by both private and public sector organizations remain guarded⁴³. Adopting an efficient public e-tendering system improves the performance of procuring entity in organizations and institutions. E-tendering is viewed as ways of addressing many requirements in organizations and public sector at large. E-tendering solution is also viewed as ways of addressing many requirements in the oil and gas sector. It is evident that the more e-tendering activities are supported through internet technology, the easier it will be for the e-tendering to be developed and implemented.

What we are made to understand is that e-tendering is an internet based process wherein the complete tendering process; from advertising to receiving and submitting tender-related information are done online. This enables firms to be more efficient as paper-based transactions are reduced or eliminated, facilitating for a more speedy exchange of information while tendering itself being the manual way is the process of choosing the best or cheapest company or individual to supply goods and services by asking several of them to make offers for supplying the goods or rendering the service. In essence oil and gas servicing firms especially in Port Harcourt are advised to key into the electronic way of tendering as it helps company have more sources and variety of options to pick from reliable sources at the very best price thereby saving cost in the long run which is a plus for any organization, there would always be challenges despite having it too in the manual process but the electronic system allows for less error and proper documentation which can always be referenced upon at a click away.

Some benefits of e-tendering that could enhance organizational performance are:

1. Reduced costs, some unwanted costs (credit control) would be totally cut out in the organization and thereby saving expenses and certain transaction and logistics cost on tenders.
2. Improved process efficiency
3. Enhance transparency and accountability in the procurement function.
4. It would contribute to reduce tendering cycle times.
5. It would enhance compliance to legal procedures and regulations especially for the public sector.

Cost of goods and service is one of the most practically hard and politically sensitive areas for any organization is it public, private or humanitarian⁴⁰. As such, it is very critical for managers to make considerable decisions in regards to the cost of goods and services purchased. Having known that tendering is a key and critical part amongst oil and gas servicing firms in Port Harcourt. The need to avoid situations that could cost the firm more harm than good is necessary bearing all the various function in mind, yes technology can fail, but it's mostly as a result of human failure, but with proper enlightenment and the rate of tenders and vendors involved in the oil and gas sector the relationship between e-tendering and how the organization would perform cannot be underestimated

Technological environment for Electronic Tendering

Three categories have used to categorize electronic tendering systems namely hardware which entails the use of basic hardware facilities like computer systems, that manages the clients' computers on the networks and managing information transfer as the other two include software and internet facilities⁶². Advancing in competitive advantage through enhancing the work processes and enhancing information effectively are the main focus of competitive advantage. However, it is inhibited by people much more than the technology itself through hurdles like inadequate skilled workers, transparency inhibition etc. We can also have people still holding on to the traditional process because of having a bad mindset on ICT adoption and ignoring the benefits that come along with ICT. Transparency has also been issue highly affecting ICT adoption as discussed earlier, poor communication has also hindered ICT adoption. Also, we have poor information exchange gotten from development of standards that results to poor information exchange an issue widely affecting all industries. That can be traced to company problems.

2.2.2 E-payment

E-payment is defined as the systems or a form of financial commitment that involves the buyer and seller facilitate their transactions via the use of electronic communications²⁰. E-payment is a monetary transaction between the buyer and the seller by the use of electronic platform to perform transactions including mobile payments, internet payments, e-cards, pc banking and e-cash in the supply chain

The e-cash enables payment over the internet in much more transparent and efficient manner; therefore, there is security and audit trail. According to Jupiter matrix research survey consumers would prefer to use e-payment systems which are more convenient to them, such as e-cash, e-

chequing. Only 50% of consumers outside the US use credit cards for online purchase^{13,38}. The “banking on the internet report”, Australia has a strong platform for e-payment growth with 37.7% of the population willing to engage in online payment. In Europe (especially UK) and other countries of the developed world like Canada, New Zealand, and in some of the Asian developing countries like China, Thailand, Japan and Singapore smart cards based electronic payment systems is popular. Most of the developing countries like India rely much more on electronic-payment systems⁷⁰.

Electronic payment has been a revered topic of discussion amongst numerous scholars in field of management and ICT for the past two decades, which has seen numerous perspectives of e-payments, pitched on different contexts.

Subsequently, with the introduction of e-payment systems, the world payment system turned out to align with the current trend of cashless transactions among individuals, organizations, businesses and government⁵³. However, as a result the world’s payment system is gradually changing from coins and paper based money to electronic forms that provide more convenient, fast and secured process of making payments among individual and organizations⁵⁸. E-payment as a component of e-procurement, from an economic stand point enhances efficiency through transaction cost saving and reduced direct procurement costs¹⁸.

For organizations that engage in e-payment systems there is less error and proper accountability and ease in transactions, organizations can make payments from the comfort of their territory and have adequate records in place, while the world is evolving it is advised that every organization tap into the (ICT) based form of payment to enhance performance and achieve goals thereby minimizing unforeseen errors. Today, many users make payments electronically rather than in

person. Hundreds of electronic payment systems have been developed to provide secure Internet transactions. Electronic payment systems are generally classified into four categories: credit card and debit cards; electronic cash; micropayment systems; and session-level protocols for secure communications. E-payment as we may understand involves integration of internet and related ICTs into the commercial institution or organization and has two faces. One is the integration of supply chain so that production and delivery becomes a seamless process. The other is the creation of new commercial transaction models based on open systems of communication between clients, and partners. Where the integration of the supply chain provides increased efficiency and significant cost advantages through waste minimization, the development of new products and services are facilitated by new ways of conducting commercial transactions based on internet working between institutions, organizations and individuals⁷². In today's world, many people across the globe make payments electronically rather than in person or cash. E-electronics can be defined as electronic payment that form of financial exchange that takes place between the buyer and seller facilitated by means of electronic communication¹⁹. According to (Cobb, 2004), the value of electronic payment goes way beyond the immediate convenience and safety of cards to a greater sphere of contributing to overall economic development. "More than two thirds of all non-cash transactions payments in the United States are made electronically, with the biggest increase in electronic payments occurring between 2003 and 2006 according to a US central bank. The central bank's non-cash payments study found that about 19 billion more electronic payments were made in 2006 than 2003". Undoubtedly, the last three decades have witnessed major advancement in payment technologies.

There are several payment markets that can be identified each using specific forms of money. "The business-to-consumer (B2C) payment is used in commercial activities where the merchant is paid

directly by the consumer for goods and services⁶⁰. This type of payment is also called retail payment. The direct payment between two persons is called person-to-person (P2P). Administration-to-consumer (A2C) payment addresses the payment of taxes toward the government. Finally, the payment intervening between companies buying and those offering products and services is referred to as Business-to-Business (B2B)⁶⁰.

The history of e-payment can be traced back to 1918 the time when currency was first moved in United States (U.S) by the Federal Reserve Bank with aid of telegraph. However, that technology has not been widely used in US until the time when their Automated Clearing House (ACH) was incorporated in 1972. Since from that time, the electronic currency became widespread. This enabled U.S commercial banks and its central treasury with an alternative to cheque payment¹. Credit card industry can also be traced to 1914 when department stores, oil companies, western Union and hotels start issuing cards to their customers to enable them to pay for goods and services. After about 40 years of credit card evolution, there have been increasing numbers of credit cards usage as they have become more acceptable by people as a medium of payment especially in transportation. Initially, credit cards were all paper-based payments, until in the 1990s when such cards were transformed to electronic completely. Due to the increasing number of credit cards usage, the industry has grown rapidly which lead to the introduction of a debit card too. Debit and credit cards are now used in transactions payments for all types of purchases and or services rendered all over the world⁴⁷.

E-Payment can be seen as "the transfer of an electronic value of payment from a payer to a payee through an e-payment tool⁵. In another perspective⁽⁵⁴⁾ viewed e-payment system as any form of fund transfer via the internet⁸. Electronic payment system refers to an electronic means of making payments for goods and services procured online or in supermarkets and shopping malls². Another

definition suggests that e-payment systems are payments made in electronic commerce environment in the form of money exchange through electronic means ³⁴.

E-payment systems are important mechanisms used by individual and organizations as a secured and convenient way of making payments over the internet and at the same time a gateway to technological advancement in the field of world economy⁶⁷. In addition, it has also become the major facilitating engine in e-commerce through which electronic business success relied upon. Electronic payment system had also brought about efficiency, fraud reduction and innovativeness in the world payment system⁵⁵.

Furthermore, e-payment system tends to bring many electronic modes of payments through which financial institutions offer different e-payment opportunities and services to their customers such as the credit cards, debit cards, on-line banking and mobile banking⁵⁸. As a result, the adoption of e-payment technology is ever increasing in today's business environment⁽⁶⁾ and public sector establishments³¹. However, despite all these benefits associated with e-payment, adequate ICT know-how among users and fear of security breach remain the most concern of individuals, organizations and experts in the field of information system. E-cash enables payment over the internet in much more transparent and efficient manner; therefore there is security and audit trail. According to Jupiter Media Matrix Research Survey, consumers would prefer to use e-payment systems which are more convenient to them, such as e-cash, mobile payment, internet payment, debit cards and e-chequing. Only 50 % of consumers outside the US use credit cards for online purchase³⁸. According to the "Banking on the Internet Report", Australia has a strong platform for e-payment growth, with 37.7 per cent of the population willing to engage in online payment. In Europe (especially in UK) and other countries of developed world like Canada, New Zealand, and in some of the Asian Developing Countries like China, Thailand, Japan and

Singapore, smart cards based electronic payment system is popular. Most of the developing countries like India rely much more on electronic funds transfer and smart cards based electronic payment system⁷⁰.

The identification of four general areas or categories of benefit involved with e-payment. The first category concerns benefits arising from the reduction of external and internal communication expenses, the speed-up of businesses processes and reduction of administrative tasks^{44,45}. The second category relates to revenues that can be generated, either from current business or from new initiatives. The third category relates to tangible benefits, such as reduced costs and more flexible working practices and the final category relates to intangible benefits, such as enhanced competitive positioning and improved customer relationships. From the business perspective, with less time spent during each transaction, more transaction can be achieved on the same day. As for the consumer, they will save time during their transaction. Because of this, e-payment has replaced the traditional payment method where a single transaction could cost both parties a lot of valuable time. With few clicks, a transaction or an order can be placed and completed via the internet with ease. For instance, a banking transaction can be completed through the Internet within a few minutes compared to the traditional banking. E-payment can be approached in different ways depending on the specific commercial transaction process that might be carried out through the internet. Thus, several internet usage profiles or approaches are possible. A bank or company must determine which profile or combination of profiles best suits its particular commerce context and strategy⁴⁵. E-payment has got strategic values which include: deflationary and other macro-economic value. Electronic markets affect the consumer purchase process in two ways⁵⁴. The first involves the digitization of market mechanisms, reducing Customers' search costs in terms of money, time, and effort

needed to gather information on price, quality, and product features. The second involves the digitization of information products and their distribution. The cost structure of these products is increasing returns and minimal reproduction costs. Digitization also eliminates the need for sellers to maintain an inventory that must be physically shipped to the consumer. A digitized market can be especially efficient when electronic payment methods will become more widely used⁵⁴. As labor and capital resources are released as a result of ecommerce and channeled into the production of other goods and services, their overall supply would go up, thereby exerting a downward pressure on prices

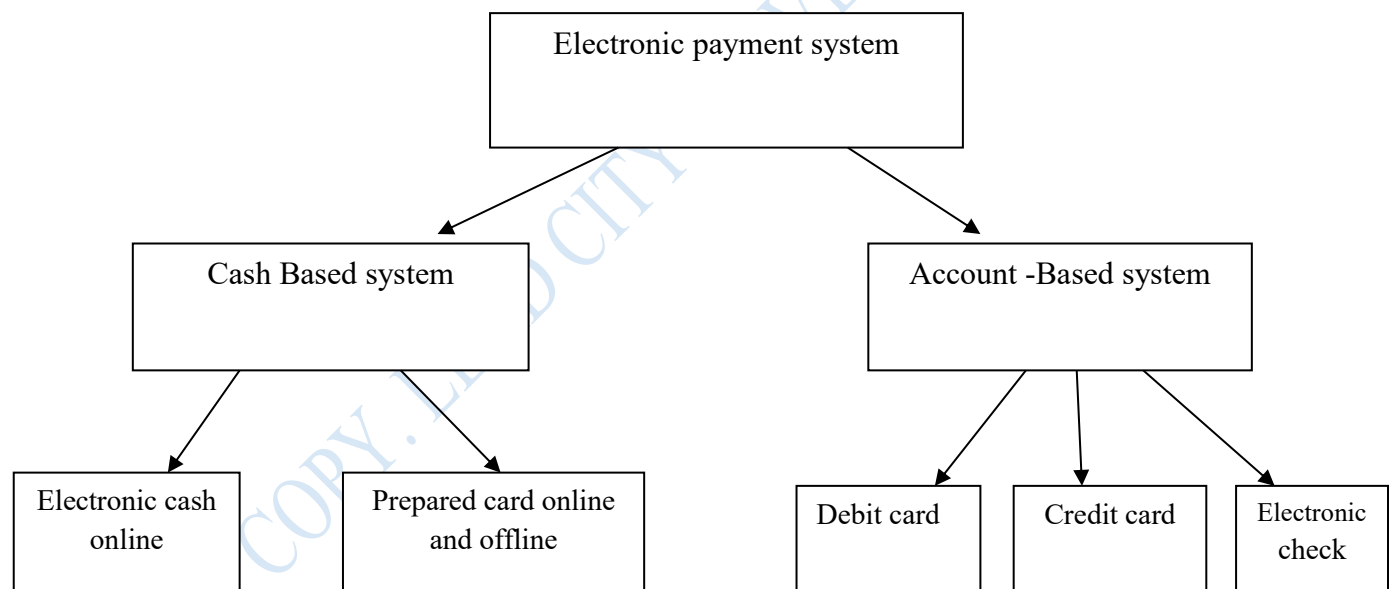


Figure 2.2 Categorization of electronic payment systems.

Source:, K., Kaur & A. Pathak, *E-payment system on e-commerce in India*.
International Journal of Engineering Research and Applications, 5(2),2015 79-87

Types of Electronic –Payment Systems

1. **WIRE TRANSFERS:** Also, bank transfer or credit transfer is a method of electronic funds transfer from one Person or entity to another. A wire transfer can be made from one bank account to another bank account or through a transfer of cash at a cash office.
2. **AUTOMATED CLEARING HOUSE (ACH):** is an electronic funds-transfer system that facilitates payments in the U.S. The Ach is run by the National Automated Clearing House Association),
3. **ITEM PROCESSING (I.P):** The item-processing, encodes, proves, and balances the teller and departmental work Before receipt by operations for batch processing.
4. **CARD SERVICES(** Pos, credit, debit and prepaid),
5. **MOBILE PAYMENTS** (Also referred to as mobile money, mobile money transfer, and mobile wallet) generally refer to payment services operated under financial regulation and performed from or via a mobile device.
6. **REMOTE DEPOSIT CAPTURE(RDC)**Is a system that allows a customer to scan checks *remotely* and transmit the check images to a bank for *deposit*, usually via an encrypted Internet connection. When the bank receives a check image from the customer, it posts the *deposit* to the customer's).

7. **AUTOMATED TELLER MACHINES** (Is an electronic telecommunications device that enables customers of financial institutions to perform financial transactions, such as cash withdrawals, deposits, transfer funds, or obtaining account information, at any time and without the need for direct interaction with bank staff).

The following systems of payment when duly applied would help oil and gas firms in their transaction process thereby cutting down the rigorous traditional process of payment and help in making the system swift with detailed records and prompt payment.

Benefits of e-payment systems such as

- Reduced risk of lost and theft
- Convenience and speed
- Time saving
- Expenses control, low commissions
- User friendly etc.

Can all help improve the organizations performance bearing in mind that there are no organizations that isn't profit oriented hence sales and need to satisfy customers and carryout monetary transaction must occur and if the system is still practicing the usual cash at hand and counting process then lots of time and energy would be lost while calling for theft practices in directing or fraud, however electronic payment has made things easier as it would enhance the effectiveness of the organization by keeping accurate record , proper database management of all vendors and shareholders plus customers, would also help the organization place a check on its spending and notification of each transaction is seen immediately. Yes we agree that there are some flaws or

Disadvantages such as:

- Identity theft
- The need for internet access or network failure
- Restrictions maybe transaction limit
- Risk of getting hacked
- And sometimes loss of login details which could delay an immediate transaction

However, in all these it is still a more secure way as these cases occur one out of every fifty. But as noted, there is a huge relationship that could enhance an organizations performance when this electronic payment system is applied especially in the oil and gas firms who deal with numerous vendors and carryout transactions always.

2.2.3 E-ordering

E-ordering as “the formal electronic request of goods and services including all processes from identification of a need to purchase of products, to the payment for these purchase, including post contract/payment activities such as contract management, supplier management and development⁵⁰.

While organizational errors and wrong order placement and placement of commodities or services not needed keeps affecting shareholders, employee, vendors etc. all because of cost incurred in this process it is however pertinent to adopt the e-ordering system which allows room for proper sourcing, product identification and confirmation before placing of orders as this would minimize costs in certain ways and enhance speedily performance of the process.

E-ordering is driven by automated procurement process, integrating the functional processes and purchase management⁶⁸. The emergence of web-based e-procurement, e-requisition, e-

cataloguing, e-authorization, e-receipt and e-inspection is expected to reduce the order fulfillment cycle time, lower inventory levels, reduce the administrative cost of procurement and enhance the order fulfillment and performance of suppliers⁶⁹.

Traditionally let's not forget that ordering process between various parties was organized through mail, phone, fax and electronic data interchange (EDI) and more recently internet. E-ordering has evolved into the use of electronic technologies to streamline and enable the ordering activities of an organization³⁰. The benefit of e-ordering has contributed great savings in bottom line procurement costs of many companies worldwide and hence technology use is a significant tactic in most company's e-business strategies. It is claimed that company engaging in e-ordering can cut procurement cost by 8 to 15%⁴³.

While some scholars have stressed on the importance of e-ordering there is need to also note that without proper end user training or education the e-ordering process would seem meaningless to the organization, as proper orientation and constant (ICT) education is key to successful performance of the coordinating process.

2.3 Organizational Performance

Many researchers and organization have recognized the essence of performance with stipulated measures and tactics. Today it has become necessary for every organization to have full level of its employee commitment in order to have outstanding performance on long term basis. Organizational performance can be measured through three basic outcomes which are financial performance, product market performance and return to shareholders⁶⁰.

The micro orientation on way to job attitude and performance relationship is somewhat puzzling, the interest of the employee attitudes hand much of its motivation in the 1960's when

organizational scientist purposed that the organizational performance is a result of the employee experience and commitment. Integrity has been explained as the best of human state; the better the humans are committed to their tasks will lead to their better performances that result in better results¹⁷. Organizational performance encompasses three specific areas of firm outcomes: Financial performance (profits, return on assets, return on investment etc.). Product market performance (sales market share etc.) shareholders return (total shareholder return, economic value added, etc.)

In the current economic and financial crisis knowing the factors that generate success and the ways in which it can be measured has a critical importance. Performance indicators are designed to provide information on the quality of processes performed within an organization offering support to achieve the objectives on time and within a predetermined budget. No business scenario can guarantee economic stability and the ability to control organizational performance during a financial crisis became more difficult. An organization in difficulty must be able to identify those measures that enable it respond effectively to new problems to adapt as quickly as possible to changes in the business environment.

Although the concept of organizational performance is very common in the academic literature, its definition is difficult because of its many meanings for this reason there is not a universally accepted definition of this concept.

In the 50's organizational performance was defined as the extent to which organizations viewed as a social system fulfilled their objectives²⁶. Performance this time was focused on world, people and organizational structure.

Later in the 60's and 70's, organizations have begun to explore new ways to evaluate their performance. So performance was defined as the ability to exploit its environment for accessing and using the limited resources⁷³.

The years 80's and 90s were marked by the realization that the identification of organizational objectives is more complex than initially considered, managers began to understand that an organization is successful if it accomplishes its goals (effectiveness) using minimum of resources (efficiency). Thus, organizational theories that followed supported the idea of an organization that achieves its performance objectives based on the constraints imposed by the limited resources⁴². In this context, profit became one of the many indicators of performance. They provided set of definitions to illustrate the concept of organizational performance. Performance is a set of financial and non-financial indicators which offer information on the degree of achievement of objectives and results³⁹.

- Performance is dynamic, requiring judgment and interpretation
- Performance may be illustrated by using a causal model that describes how current actions may affect future results.
- Performance may be understood differently depending on the person involved in the assessment of the organizational performance (e.g., performance can be understood differently from a person within the organization compared to an outsider).
- To define the concept of performances necessary, to know its elements, characteristics to each area of responsibility.
- To report an organizations performance level, it is important to be able to quantify the results. Continuous performance is the focus of any organization because only through performance organizations are able to grow and progress. Thus organizational performance

is one of the most important variables in the management research and arguably the most important indicator of the organizational performance.

2.4 Measures of organizational performance

As organization go into business for an objective which could either be financial or non-financial in nature. Gavrea²⁵ posit that organizations have an important role in our daily lives and therefore, successful organizations represent a key ingredient for developing nations therefore stating that those organizations are determined by its performance³². The way to measure organizational performance with key indices such as financial performance, product market performance, shareholder return and subsets of these include profitability sales, return on assets, market share, total shareholder return service quantity etc⁶⁰.

The description some of the organizational performance measures as in terms of service quality, operational efficiency, number of complaints. Therefore, this study will consider market share and profitability share as measures for organizational performance¹⁴.

2.4.1 Market Share

Market share is one of the indicators of organizational performance. Market share is the percentage of the entire available market that a firm serves²¹. Further, market share expresses the firms revenue made from the market²¹ the market share as the sales of the company relative to other competitors in the market. Market share represents the percentage of a market's total sales that is earned by a particular company over a stipulated time period is of the view that market

share is the comparison of a company's total sales in relation to the total industry sales, usually in a particular country or region over a specific period.

Companies use market share to ascertain the performance of the organization and struggles involved. Market share is calculated by taking the company's sales over the period and dividing it by the industry sales over the same period market share = $\frac{\text{firm's Sales}}{\text{Total Industry Sales}}$

Market share is used to give an idea of the size of the company in relation to its market and its competitors²¹. Market share usually expresses competitive position of a company in the market. It is also generally accepted that an increase in market share can be equated with success whereas decrease in market share is a sign of unfavorable actions by the firms which could be an indication of failure. Firms that enhance their market shares aim at enhancing and adhering greater scales in its operation and improve profitability. Due to this, managers always desire to expand and sustain their market share with introduction of e-procurement to enhance their purchase and transaction system. Therefore, every firm who intends to be successful must be encouraged to increase market share. Market share helps managers to evaluate both basic and optional demands in the market place.

Posits that market share enables marketing managers of firms to access both the overall market growth or decline and. Customers selection among other competitors, by this implication loss in market share can mean serious challenge that requires strategic implication. To grow market share organizations need to adopt strategies or innovations. This is supported⁵⁹ therefore ability of organizations to adopt relevant technology such as e-procurement would bring about a resolution and change in traditional way of doing things thereby increasing market share because of its swift and easy access to information and products³³.

2.4.2 Profitability

Profitability has been given considerable importance in the finance and accounting literature. Profitability is one of the most important objectives of financial management since one goal of financial management is to maximize the owner's wealth, and Profitability is very important determinant of performance in business that is not profitable that cannot survive. Conversely; a business that is highly profitable has the ability to reward its owners with high return on their investment hence, the ultimate goal of a business entry is to earn profit in order to make sure the sustainability of the business entry is to earn profit in order to make sure the sustainability of the business in parceling market conditions. Profitability as the ability of a business to make profit, whereas is interprets the terms profit in relation to other elements⁵⁶.

It is necessary to examine the determinants of Profitability to understand how company finance their operations a financial benefit is realized when the amount of revenue gained from business activity exceeds the expenses costs and taxes needed to sustain the activity. Profitability analysis classified measures and assess the performance of the company in terms of the profit it earns either in relation to the shareholders investment or capital employed in the business or in relation to sales, profit (or loss). Given that organization invest in order to make return, the profit earned by a business can be used to measure the success of that investments. Profitability is the organization ability to generate its inability to generate income is a loss further assets that if the income generated is greater than the input cost, that is simply Profitability but if the income are less than the input costs, it reflects poor performance⁶⁵.

In modern literature two school of competing models of firms Profitability are provided, such as structure-conduct performance (SCP) and firms effects model (FEM)⁴. in the SCP model, the market structure determines firm's behavior and Profitability whereas in the effects model, market structure is the results of the distribution of firms and firms profit. Profitability is the

ability from its use. Profitability is a way to compare and contrast bearing other indices in minds the rate to which a company is performing however, the term Profitability is most synonymous to the term “efficiency”. Profitability is an index of efficiency and management guide to greater efficiency through Profitability is an important yardstick for measuring the efficiency of the organization, the extents of Profitability cannot be taken as final proof of efficiency sometimes the terms profit and Profitability are used interchangeably but in real sense, there is a difference²⁹. Profit is an absolute term, where the profitability is a relative concept however; they are closely related and mutually interdependent having distinct roles in business. The identified profit or profitability as the case maybe as a measure of performance under the financial classification therefore⁶⁰. The explained that there is need for profit and every organization has to be profitable to be financially successful in the long run through short term decisions may reduce or eliminate profits, in the long run a company must earn profit in order to meet the need of the following constituencies first the shareholders expect a return on their investment commensurate with alternative investment opportunities the rust involved and a growth in the value of their shareholding secondary the employees lastly the community whom expects the company to the social responsible⁵².

2.2 Theoretical Framework

These studies draw its strength from, institutional theory, diffusion of innovations theory and principal agency theory

2.2.1 Institutional Theory

The institutional theory is the traditional approach that is used to examine elements of public procurement⁽⁵¹⁾identified three pillars of institutions as regulatory, normative and cultural

cognitive. The regulatory pillar emphasizes the use of rules, laws and sanctions as an enforcement mechanism with expedience as the basis for compliance⁵², institutions are composed of cultural cognitive and regulative elements that together with associated activities and resources give meaning to life. The author explained the three pillars of institutions as regulatory, normative and cultural cognitive. The regulatory pillar emphasizes the use of rules, laws and sanctions as an enforcement mechanism with expedience as the basis for compliance.

The normative pillar refers to norms (how things should be done) and values (the preferred or desirable), social obligation being the basis of compliance. The cultural-cognitive pillar rests on shared understanding (common beliefs, symbols, shared understanding) in Nigeria and Rivers, State in particular procurement is guided by the public procurement act 2007 and Rivers State public procurement law, 2008 respectively. Regulations and guidelines which from time to time is issued by the public procurement authority only and which must comply with to the letter by all the private entities and providers.

2.2.2 Principal Agent Theory

The principal agent theory as advocated by³⁵ explains that procurement managers in private sector play a relationship role but his findings are based on the buyer/supplier relationship and the need the buyer, as the principal, to minimize the risks posed by the agent the another agreed that procurement managers including all the civil servants concerned with public procurement managers take on the principal agency theory holds that sabotage is likely to occur when I hire is some disagreement between policy makers and the bureaucracy. The democratic perspective focuses on responsiveness to citizens and their representatives⁴⁵. In relation to the study, the drive for legitimacy ensures that the actions of an organized are desirable, proper or appropriate within

the environmentally and socially constructed systems of norms, values, benefit and definitions. In other words, organization benefit from perception of credibility, persistence, and meaningfulness theory increasing the possibility of survival.

2.2.3 Diffusion of Innovation Theory

The diffusion of innovation theory was proposed, on how and what rate new ideas and technology spread through cultures operating at the individual and firm level based on diffusion of innovations theory at the firm level³⁴. Innovativeness is related to such independent variables as individual (leader) characteristics, internal organizational structural characteristics, and external characteristics of the organization. Individual characteristics describe the leader attitude toward change. Internal characteristics of organizational structure include observations according to Rogers, centralization is the degree to which power and control in a system are concentrated in the hands of a relatively few individuals; complexity is the degree to which an organizations members possess a relatively high level of knowledge and expertise; formalization is the degree to which an organization emphasizes its members following rules and procedures; interconnectedness is the degree to which the units in a social system are linked by interpersonal networks; organizational slack “the degree to which uncommitted resources are available to an organization; size is the number of employees of the organization”.

External characteristics of an organization refer to system openness in relation to the study, the ability of an organization to adopt relevant technology lies on the type of activity that requires the use of new technology. The use of e-procurement in this case depends upon the need to reform the key stages of the procurement process.⁸ the internal characteristics of organizations

structure, centralization, complexity, Formalization, interconnectedness, organizational slack and the number of employee. This relationship demands that a system to be put in place should meet the requirements of the organization characteristic or operation of the procurement process considered as an internal characteristic that deals with tendering payment and ordering and this the adapted technology most considered for the performance of this task would be E-tendering, E-payment, and E-ordering. Since technological adoption involves change in the performance of the institution, the dependent variable in this study will be organizational performance.

2.3 Review of Previous Empirical Works

There has been an apparent paucity of empirical literature concerning e-procurement and performance. The research that conducted on electronic procurement and service organizations in Uganda. The study adopted a descriptive survey design with quantitative and qualitative approaches; it established e-procurement has a significance relationship with performance of services organizations. This conclusion came because it has been embarrassed in all spheres of life to an extent that almost everything revolves around the use of information technology. This research mainly focused on service organizations in Uganda not in any other country⁶⁴.

¹¹ conducted a study on e-procurement in the health sector in Turkey, the researchers adopted the survey research design, and its purpose was to examine how effective e-procurement in pharmacies can be in improving the health sector performance in turkey. The study later established that with little time and financial investment, serving considerable time and money can be ensured by using the proposed advice given to pharmacies working in hospitals. The study concluded that the general picture for e-procurement in growing nations can be seen by academics and practitioners with e-procurement adoption by pharmacies located in Turkey.

⁵¹ conducted a study on e-procurement in Bovet country government. The purpose was to establish the relative importance of e-procurement. The researchers used a cross sectional survey design, however they established that e-procurement is the preferred procurement method with 76% of the respondents upholding while the remaining option for the manual way. The researcher also establishes that organizational culture, environment and technology greatly influence e-procurement system adoption. The study recommended that the country governments should commit more resources in equipping staff with regard to adoption of ICT. The study however was not based on pharmaceutical firms in Nairobi.

³³ conducted a study on the relationship between e-procurement performance and practices among state corporations in Kenya. Using a descriptive research design, it was established from the study that state corporation have adopted various e-procurement practices that had a significant impact on their procurement. The researcher recommended that the national government should address the various challenges that are faced by state corporations.

⁸Argued that organizations find it difficult to learn lessons from problems and seldom question the underlying basis of their own problems.⁶⁰ further support this notion that public sector organizations often lack innovation and resistant to change they tend to emphasize conformity and defend status quo instead of focusing on creativity, improvement and change. This is evident when implementing innovative information technology such as e-procurement systems. As the implementation of e-procurement initiatives in the public sector demands exchange of information within and among users and suppliers, the procurement organization must have capacity to exercise organizational learning and share the lessons learnt. However, despite many examples of public e-procurement failures in the popular business press ⁶¹ organizations do not document and share the lessons learnt pertaining to the failed e-government implementations

because organizations are interested to publicize only success⁽⁶⁹⁾ and are apparently silent on failure, making it difficult to researchers to obtain data⁵⁷.

United Nations conducted a study on e-procurement towards transparency and efficiency in public service delivery. The study adopted a survey research design and thereby revealing that e-tendering enabled federal government save over six million dollars by outsourcing the manual duplication and distribution documents. The study showed that implementation of e-procurement itself is not a guarantee for success in the procurement operations. For this system to succeed there is need for regulations and policies if the system is to succeed. The study also noted that a number of e-procurement programs fail because of poor technology and lack of leadership. Other factors that lead to such failures include lack of awareness, resistance to change, poor coordination of functions and ineffective implementation of programs.

The study on e-procurement and procurement performance in the public sector in Italy, using a cross sectional research design. The findings of this study revealed that e-procurement facilitates documentations of the bidding process which in turn enhances transparency and accountability especially in public procurement. The research further revealed that e-procurement is associated with improved efficiency and enhanced procurement operations⁷⁰.

¹²Agued in their study to analyze the impact of strategic sourcing and e-procurement on performances found out that, strategic sourcing have significant impact on several aspect of a firm's performance. The hypothesized conceptual framework adopted for the study was strategic sourcing and e-procurement as major variables for firm's performance. The theory of dynamic capability was empirically examined and it was concluded that e-procurement provides firms with competitive advantage by purchasing with minimized transaction cost and transparency.

²⁷ conducted a study on the impact of e-procurement on procurement practices and performance. The study was motivated by the fact that; there was a gap in analyzing e-procurement where previous literature had limited studies to internet based procurement only. The findings of the study showed that e-procurement is not widely used and at least 30% of multinational firms surveyed had implemented a basic e-procurement system. The study concluded that procurement managers should seriously consider adopting electronic buying to continuously improve their information gathering, supplier contact, contracting intelligence and analysis practices. Previous studies have also linked up supply chain processes integration with operational agility, lower costs, superior quality, service design and enhanced profitability. The studies revealed significant relationship between firm size and e-procurement applicability²².

2.3.1 E-tendering and Organizational Performance

The study on the advantages of organization which uses e-procurement. The purpose of the study was to establish the role of e-procurement in an organization and was done using a cross sectional research design therefore the study was able to discuss on the reduction in staff as an important way of producing competitive advantage through reduced cost with e-procurement practices, organizational competitive advantage benefits in the market. Additionally,⁽²²⁾ has also captured on communication efficiency in the procurement process.

E-tendering and performance for public corporations in Rwanda revenue authority. The research adopted a descriptive research design where the population of interest was employees of Rwanda revenue authority. A multivariate regression model was applied to determine the relative importance of e-tendering with respect to performance. It was established that e-tendering allows

selection of a suitable contractor at a time appropriate to the circumstances and hence enhances the performance of organizations⁵⁰.

³³e-procurement and procurement performance amongst state cooperation's in Kenya, the purpose of the study was to access the effect of e-procurement on procurement performance using a descriptive survey research design. The study found out that among the e-procurement variables under consideration, e-tendering has the least effect on the procurement performance. In contrast⁴¹ study on e-procurement and public sector performance of rail corporations, using a survey research design established that e-tendering had positive and significant correlation with the supply chain performance. Therefore, owing to these differing results, the current study also considered e-procurement and performance. In addition³³ recommended further studies be carried out to retest the factor leading in different public entities. Adopting an efficient public e-tendering system improves the performance of the procuring entity and also at the national level. It assists the policy makers to have an insightful understanding of how various policy goals interact and the impact they have on the overall performance of the e-tendering system⁴⁵. It also enables the parliament and government to improve the quality of decisions made and to adopt constructive long-term actions that will be more effective in developing the e-tendering system, and create stronger incentives to improve the policy of e-tendering systems. It will help them to set appropriate priorities for reforms in the area of public e-tendering, and to monitor the progress of set objectives; and provide valuable information on the assessment of the public expenditure system⁷⁰.

⁵⁵ Conducted a study in Kenya on factors influencing electronic procurement readiness, the study adopted a cross sectional research design and the findings revealed that refusing change, lacking enthusiasm, lack of skills etc. Technology, finance, leadership, legal framework are some factors

that would affect electronic procurement readiness. It fails to however, establish the impact of electronic procurement on general performance.

Also in a study carried out to examine the impact electronic tendering has on procurement of goods and services in the public sector of the PWC in Ireland 2001 it was established that they had earned a lot of savings because of the use of ICT services. The report stated that 177 million per annum could be generated leading to a 2% increased savings. A study similar to this one carried out in the UK by Tinsley and Stephenson. It was concluded that the use of electronic tendering saves up time and costs to a great extent. It was also noted that what hindered the advancement of electronic tendering was associated with doubt and hesitation.

H₀₁: There is no significant relationship between e-tendering and market share in oil and gas field servicing firms.

H₀₂: There is no significant relationship between e-tendering and profitability in oil and gas field servicing firms.

2.3.2 E-payment and organizational performance

E-payment utilization success in the public sector. The purpose was to examine critically the essence and use of e-payment system, it adopted the cross sectional descriptive research design and the study found out that despite the efforts put by the governments through reforms towards the use of e-procurement, utilization of e-payment still remains a major challenge for many procurement functions. The findings further revealed that successful e-procurement practices established systems and feedback mechanism they associated e-payment with improved procurement performance. Findings of the study on e-procurement revealed that e-payment facilitates the bidding process which in turn enhances transparency and accountability especially

in public procurement. The research further revealed that e-payment is associated with improved efficiency and enhanced procurement operations⁶².

Most researches from the African countries focused on user acceptability of e-payment systems except that investigates on its effectiveness⁴⁹. E-payment system in financial institutions and small and medium enterprises respectively. This clearly shows that e-payment is an emerging issue in developing countries and need for further research on how government, financial institutions and other stakeholders in electronic payment services can influence people to adopt e-payment systems in transaction and other payment services.

⁶⁸ conducted a study, on evaluating the specifications of electronic payment system in the view of Iranian bank users, using the survey research design. The study described that all specifications are classified into four sub-structures such as technical, legal, security and socio-economic. Finally, at the end of the study it was revealed that socio-economic index has major influence on adoption of e-payment services in Iran.

⁶⁹ Aguedin their study based on diffusion of innovations theory (DOI); investigates factors that influence adoption and usage of e-services including e-payment in Saudi Arabia. The study adopted the descriptive research design and Factors like demographic profile of users, complexity. Trust, security, privacy issues, service quality and loyalty were empirically tested against primary data collected through survey. Perceived complexity was found to be the most significantly related factors affecting e-service adoption in Saudi Arabia, followed by privacy and compatibility.

The UN department of economic and social affairs report noted that e-payment is one of the components and basic requirements of e-payment. The e-payment falls under the post tendering

phase and comes last after the e-ordering and e-invoicing (European bank for reconstruction and development). Despite the presence of the myriad of benefits that the holistic e-payment system can offer the bank for reconstruction and development noted that the governments were only keen on ensuring that e-payment covers e-payment.

⁷⁰ Carried out a research on the contributions of e-payment strategies on the performance of Kenyan state cross- corporations using sectional survey design. Although the study established that e-payment significantly affect the performance of state corporations, it failed to access an indirect relationship between e-payment and performance. Furthermore a study conducted by B

⁷¹ Agued on how e-payment impacted on the performance of supply chain in Elqeyo-Marakwet country using descriptive research design established that e-payment had great significance in the companies' operations the authors considered the e-payment variable which they established; it facilitated a more effective supply chain that was transparent and enhanced optimal allocation of value.

H₀₃: There is no significant relationship between e-payment and market share in oil and gas field servicing firms.

H₀₄: There is no significant relationship between e-payment and profitability in oil and gas field servicing firms

2.3.3 E-ordering and Organizational Performance

Traditionally, ordering process between various parties was organized through mail, phone, fax and electronic data interchange (EDI) and more recently internet. The claime that a company engaging in e-ordering can cut procurement cost by 8 to 15%, they conducted a study on performance of the electronic procurement platforms by evaluating the effectiveness of e-

ordering module. The study adopted the survey research design and revealed that e-ordering can be used as a tool to reduce process time, generate ordering savings and to drive incremental revenue. He further found out that the use of e-ordering starts with selection of an e-tool to complement an organizational strength, followed by change management and training of the staff and other stakeholders were possible. Similarly, the study conducted by on the critical factors that influence successful utilization of e-ordering in the public sector and identified end user uptake and training, supplier system integration, security authentication, re-engineering process, performance measurement, change management program and communication systems as the critical factors that determine the success of utilization of e-procurement platforms.

⁷² Conducted a study on the effect of e-ordering and e-informing on supply chain performance, it was informed innovation diffusion theory where the explanatory research design was adopted and their findings showed that e-ordering and e-informing had a positive and significant effect on supply chain performance. The study concludes that e-ordering and e-informing which are elements of e-procurement dimensions' increases supply chain performance, and advised that there is need therefore for firms to make use of e-ordering in the procurement process, and finally there is also need to electronically consult references for product/service quality so as to heighten supply chain performance.

Furthermore,⁵⁷ asserts that online ordering system is an e-commerce function where a company allows customers to order products or services via their website. Since the internet is booming, having an online ordering system can boost sales to some extent as it eases customers to place an order for company's services. People can place orders from their comfort zone as long as they have laptops with internet connection thus improve supply chain performance.

H₀₅: There is no significant relationship between e-ordering and market share in oil and gas field servicing firms.

H₀₆: There is no significant relationship between e-ordering and profitability in oil and gas field servicing firms.

However, this is not the case with what is happening in most oil and gas services company in Rivers State as they tend not to embrace the great role and ease which electronic form of procurement brings coupled with the insecurity that most automated process can possess, more so, most managers of oil and gas firms in Nigeria react to problems in Nigeria rather than present such problems beforehand which leads to high costs and risks thereby leading to ineffectiveness in the firm, all these will be looked into and a long lasting solution will be proffer that will be of immense benefit not only to the oil and gas sector but to the academic body and other organizations

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Chapter Three

Methodology

The procedures and method used in collecting and analyzing the data for this study is systematically discussed in this chapter. The methodology is discussed under the following: Research design; population of the study; sampling and sampling technique; description of the instruments; pilot study; validation of the research instrument; reliability of the instruments; administration of instruments and methods of data analysis.

3.1 Research Design

Research design is a plan that firms use to guide their scientific study, which helps in resolving problems⁽¹⁾ as “the arrangement and conditions for the collection and analysis of data in the method that is aimed at combining relevance to the purpose with economy in procedure”, Research design is concerned⁽¹⁾ to be the management and analysis of data in a manner that aims to combine relevance to the research purpose with economic procedure. This study adopts a survey research design especially the cross sectional research design because it deals with getting data from target respondents and determining the association between variables.

3.2 Population of the Study

The research population is a complete set of items that is of interest to a researcher or an investigator². It may comprise of Procurement Manager, supply Chain Managers, firms, etc. Thus, the population of this study consists of two hundred and ninety-three (293) oil and gas services in firms in Rivers State (Rivers State Yellow Pages, 2013 – 2014). See appendix for list of oil and gas firms

3.3 Sample and Sampling Technique

Sampling is the process of drawing samples from the population. Sometimes a combination of methods is used. Sampling as a concept refers to the process of selecting a portion of the target population to represent the whole population. The probability sampling technique was used to obtain the sample size of the study. Thus,⁴ formula for sample size determination used to obtain the sample size from the population. This method was adopted because the population is large, so it generated an appropriate sample size for the study from which generalization can be made on the population.

The formula is: $S = N / (1 + N\alpha^2)$

Where:

S = Sample size

N = Population size

α^2 = Level of Significance usually 0.05.

Thus, the sample size will be:

$$\begin{aligned} S &= 293 / (1 + 293 \times 0.05^2) \\ &= 293 / (1 + 293 \times 0.0025) \\ &= 293 / (1 + 0.7325) \\ &= 293 / 1.7325 \\ &= 148.6556 \end{aligned}$$

S = 149 (rounded).

Thus, the sample size is one hundred and forty-nine (149). The study respondents were procurement managers, marketing managers and store managers; one from each of the one hundred and forty-nine oil and gas firms.

3.4 Description of research instrument

The research instruments for this study will be questionnaires comprising two sections- Section A and B. Section A involves four items which deal with the demographic details of respondents. Section B contains twenty (20) scaled questions using Likert scale questions format. The responses to the questions are scaled as follows:

Strongly Agree (SA), Agree (A), Indifferent (ID), Disagree (DA) and Strongly Disagree (SDA).

The instruments measured the components of e-procurement and measures of organizational performance.

3.5 Validity and reliability of Research Instrument

The final draft of the research instrument was submitted to the Supervisor for verification of content, construct and criterion validity before been administered. Thereafter, it was sent to Managers of five oil and gas servicing firms to make inputs based on the experience they have on the job. The researcher used Cronbach's alpha test to ascertain the reliability of the research instrument while conducting the research in order to obtain data that is consistent with the main objective. An alpha score of 0.70 or more indicates that the instrument is reliable. Besides this, pre-testing aided the researchers in clearing any ambiguities and ensuring that the questions posed measured what was intended.

3.6 Method of Data Collection

The researcher, in this study administered one hundred and forty nine (149) structured copies of questionnaires to targeted respondents electronically

3.7 Method of Data Analysis

The study made use of both descriptive and inferential statistics to analyze the data, Descriptive statistics such as the mean, standard deviation, bar chart, distribution and percentages were used to analyze the demographic data of the respondents. Inferential statistics of Pearson Product Moment Correlation was used to ascertain the relationship between the hypothesized variables. Furthermore, to determine the combined influence of the dimensions of e-procurement (e-tendering, e-ordering and e-payment) on each measure of organizational performance (market share and profitability), multiple regression analysis was adopted. The analysis in the study were done with the help of Statistical Package for Social Science (SPSS), version 21.0

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Chapter Four

Results and Discussion of Findings

Preambles

The focus of this study was to investigate the relationship between e-procurement and organizational performance of oil and gas field servicing firms in Port Harcourt, Rivers state. The study collected primary data from procurement managers, marketing managers, relationship manager, ICT managers and logistics managers; one from each of the one hundred and forty-nine (149) oil and gas servicing firms operating in Port Harcourt using a self-made structured questionnaires research instrument which was confirmed to be reliable through the Cronbach's Alpha test, and also by the scrutiny of the research supervisor. In this chapter of the study, data presentation, analysis and interpretation was done with a view to proffering answers to the research questions posed earlier in the study.

4.1. Presentation of data

As earlier stated, the research instrument used for the collection of primary data for the study was a self-made structured questionnaire. One hundred and forty nine (149) copies of the research questionnaire were produced and administered to the target respondents for the study. However, only hundred and forty-seven (147) questionnaires representing approximately ninety-eight per cent (98.66%) of the printed and administered questionnaires were retrieved and used in the final analysis. Table 4.1 shows the demographic analysis of respondents and subject combinations.

Table 4.1.1: Frequency Table Showing Gender Distribution of the Respondents

Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Male	52	35.4	35.4	35.4
Female	95	64.6	64.6	100.0
Total	147	100.0	100.0	100.0

Source: SPSS Output from Survey Questionnaire, (2022).

The data in Table 4.1.1 revealed that 52 of (35.4%) of the respondents are Male while 95 of (64.4%) of the respondents are Female. Majority of the respondents are female.

Table 4.1.2: Frequency Table Showing Marital Status of the Respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Single	52	35.4	35.4	35.4
Married	79	53.7	53.7	89.1
Separated	16	10.9	10.9	100.0
Total	147	100.0	100.0	

Source:SPSS Output from Survey Questionnaire, (2022).

Table 4.1.2 showed that out of 147 respondents, 52 of (35.4%) are single, 79 of (53.7%) are married and while 16 of (10.9%) are divorced or separated

Table 4.1.3 Frequency Table Showing Distribution of Respondent's Designation

Designation	Frequency	Percent	Valid Percent	Cumulative Percent
Relationship Manager	16	10.9	10.9	10.9
Procurement Manager	46	31.3	31.3	42.2
Marketing Manager	35	23.8	23.8	66.0
Logistics Manager	26	17.7	17.7	83.7
ICT Manager	24	16.3	16.3	100.0
Total	147	100.0	100.0	

Source:SPSS Output from Survey Questionnaire, (2022).

Table 4.1.3 showed that out of 147 respondents, 16 of (10.5%) are relationship managers, 46 of (31.3%) are procurement managers, 35 of (23.8%) are marketing managers, 26 of (17.7%) are logistics managers and while 24 of (16.3%) are ICT managers

4.2. Data Analysis, Interpretation

This section is concerned with the analysis of the primary data collected for the study. This analysis is done at univariate, and bivariate level using both descriptive and inferential statistical analysis and tools. Specifically, descriptive statistical tools are used at the univariate level of analysis, while inferential statistics is used at the bivariate level of analysis to test the proposed hypotheses of the study. This analysis was done with the use of the Statistical Package for Social Sciences (SPSS version 20.0).

Table 4.2.1E-Tendering as a Dimension of E-Procurement (n = 147)

	N	Sum	Mean	Std. Deviation	Variance
In our organization we carry out the entire procurement activities on internet.	147	620	4.22	1.274	1.624
We transmit requests electronically through use of internet to execute procurement operations.	147	624	4.24	1.208	1.460
E-notices, e-selection, e-mailing, and e awarding to request for information and response for prices to suppliers and receiving back their feedback are done through the internet.	147	631	4.29	1.251	1.565
Complete tendering process; from advertising to receiving and submitting tender-related information are done online.	147	643	4.37	1.195	1.428

Source: SPSS Output from Survey Questionnaire, (2022).

Table 4.2.1 shows the descriptive statistics for E-Tendering. It shows that all the items have a high mean score above 3.0, and also a very good standard deviation, resulting in a high variance amongst the measurement items. It also reflects the sample size (147) and a minimum entry of 1 as well as a maximum entry of 5. The high mean score above 3.0 indicates that oil and gas servicing firms in Port Harcourt are involved in the practice of E-Tendering to a great degree. More so, from the table, among the four (4) question items used to measure the variable it can be seen that question 4 has the highest mean score of 4.37. It was intended to measure the extent to which the oil and gas servicing firms complete their tendering process; from advertising to receiving and submitting tender-related information online as they carry out their E-Procurement activities. This means that, questions 4 has the strongest influence on the variable.

Table 4.2.2 E-payment as a Dimension of E-Procurement (n = 147)

	N	Sum	Mean	Std. Deviation	Variance
Our monetary transactions with clients are made on electronic platform.	147	675	4.59	.905	.819
In our organization we carry out mobile payments, internet payments, e-cards, pc banking and e-cash in the supply chain.	147	627	4.27	.988	.977
We adopt electronic funds transfer and smart cards based electronic payment system.	147	667	4.54	.878	.771
In our organization we carry out transaction or place order via the internet with ease.	147	696	4.73	.805	.648

Source: SPSS Output from Survey Questionnaire, (2022).

Table 4.2.2 shows the descriptive statistics for E-payment. It shows that all the measurement items of the variable have a mean score above 3.0 and a very good standard resulting in a high

variance amongst the measurement items. The table also reflects the sample size (147) and a minimum entry of 1 as well as a maximum entry of 5. The high mean score above 3.0 indicates that oil and gas servicing firms in Port Harcourt are involved in the practice of E-Payment to a great degree. More so, from the table, among the four (4) question items used to measure the variable it can be seen that question 4 has the highest mean score of 4.73. It was intended to measure the extent to which the oil and gas servicing firms carry out their transaction or place order via the internet with ease as they carry out their E-Procurement activities. This means that, questions 4 has the strongest influence on the variable.

Table 4.2.3 E-ordering As a Dimension of E-Procurement (n = 147).

	N	Sum	Mean	Std. Deviation	Variance
We make request of goods and services from clients through electronic means.	147	627	4.27	1.207	1.457
Our organization uses electronic means for the identification of a need to purchase of products.	147	609	4.14	1.277	1.630
We make payment of products purchased through electronic platform.	147	585	3.98	1.445	2.089
Our organization carries out post contract/payment activities such as contract management, supplier management and development via electronic means.	147	628	4.27	1.138	1.295

Source: SPSS Output from Survey Questionnaire, (2022).

In Table 4.2.3above showing the descriptive statistics for E-Ordering as a dimension of E-Procurement, all the measurement items have a mean score above 3.0 and a standard deviation which is also above the average resulting in a high variance amongst the questions. The table also reflects the sample size (147) and a minimum entry of 1 as well as a maximum entry of 5. The high mean score above 3.0 indicates that oil and gas servicing firms in Port Harcourt are involved in the practice of E-Ordering to great degree. More so, from the table, among the four (4) question items used to measure the variable it can be seen that questions 1 and 4 have the highest mean score of 4.27. They were intended to measure the extent to which oil and gas servicing firms in Port Harcourt make request of goods and services from clients through electronic means and carries out post contract/payment activities such as contract management, supplier management and development via electronic platforms as they carry out their E-Procurement activities. This means that, questions 1 and 4 have the strongest influence on the variable

Table 4.2.4 Market Share as a Measure of Organizational Performance (n = 147).

	N	Sum	Mean	Std. Deviation	Variance
Our organization serves a large percentage of the entire available market for our products.	147	642	4.37	1.304	1.700
Sales of our company relative to other competitors in the market are high.	147	619	4.21	1.351	1.825
The percentage sales of our firm increases steadily.	147	630	4.29	1.314	1.726

Our products and services are gaining acceptance across the regions in which our businesses are located.	147	640	4.35	1.128	1.271
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Source: SPSS Output from Survey Questionnaire, (2022).

Table 4.2.4 shows the descriptive statistics for market share as a measure of organizational performance. As the table indicates, all the items have a mean score above 3.0, and a good standard deviation resulting in a high variance amongst the question items. It also reflects the sample size (147) and a minimum entry of 1 as well as a maximum entry of 5. The high means score above 3.0 indicates that to a great degree market share is a strong measure of the organizational performance of oil and gas servicing firms in Port Harcourt. More so, from the table, among the four question items used to measure the variable, it can be seen that question 1 produced the highest mean score of 4.37. It was intended to find out the degree to which oil and gas service firms in Port Harcourt serve a large percentage of the entire available market for their products. This means that questions 1 has the strongest influence on the variable.

Table 4.2.5 Profitability as a Measure of Organizational Performance (n = 147).

	N	Sum	Mean	Std. Deviation	Variance
Our organization makes success in her investments.	147	637	4.33	1.094	1.196
We have increase in our sales margin.	147	631	4.29	1.148	1.318
Form our business we have funds to reinvest in other businesses.	147	621	4.22	1.115	1.244
Our organization has the ability to meet her financial obligation to stakeholders.	147	627	4.27	1.075	1.155

Source: SPSS Output from Survey Questionnaire, (2022).

Table 4.2.5 shows the descriptive statistics for profitability as a measure of organizational performance. As the table indicates, all the question items have a mean score above 3.0 and a good standard deviation resulting in a high variance amongst the question items. It also reflects the sample size (147) and a minimum entry of 1 as well as a maximum entry of 5. The high mean score above 3.0 indicates that to a great degree profitability is a strong measure of the organizational performance of oil and gas servicing firms in Port Harcourt. More so, from the table, among the four question items used to measure the variable, it can be seen that question 1 produced the highest mean score of 4.33. It was intended to find out the degree to which oil and gas service firms in Port Harcourt succeed in their business investments. This means that question 1 has the strongest influence on the variable.

Table 4.3 Summary of Descriptive Statistics

	N	Mean
E-Tendering	147	17.12
E-Payment	147	18.13
E-Ordering	147	16.66
Market Share	147	17.22
Profitability	147	17.11

Source: SPSS Output (2022)

The SPSS output on table 4.3 above shows high mean scores. But it can be seen that among the dimensions of the independent variable, E-payment has the highest total mean score of 18.13; indicating that this dimension has the strongest influence on the independent variable. Also, market share has a total mean score of 17.22; this means it has a stronger influence on the dependent variable relative to other measures.

4.3. Test of Research Hypothesis

This part of the data analyses is focused on the test of the research hypotheses formulated for the study using inferential statistical tools. Six (6) hypotheses were formulated, and these were tested using Correlation analyses. The Pearson Product Moment Correlation analysis was the statistical tool used to test the relationships between the dimensions and measures of the predictor and criterion variables. These analyses were carried out with the aid of the Statistical Package for Social Sciences (SPSS version 20.0). To determine the strength of relationships between the hypothesized variables, categorization scheme was adopted. This is presented below.

Range of r values	Description
± 0.80 to 1.00	Very Strong
± 0.60 to 0.79	Strong
± 0.40 to 0.59	Moderate
± 0.20 to 0.39	Weak
± 0.00 to 0.19	Very Weak

The Decision Rule that guides the test of hypotheses is:

Level of Significance = 0.05.

Reject Null Hypothesis if Probability Value (p) < Level of Significance;

Accept Null Hypothesis if Probability Value (p) > Level of Significance.

4.3.1 Test of Hypothesis 1 (H_{01}): There is no significant relationship between e-tendering and market share

Table 4.3.1 Correlation between E-tendering and Market share

E-Tendering	Market Share
-------------	--------------

E-Tendering	Pearson Correlation	1	.782**
	Sig. (2-tailed)		.000
	N	147	147
Market Share	Pearson Correlation	.782**	1
	Sig. (2-tailed)	.000	
	N	147	147

Source: SPSS Output (2022)

In Table 4.3.1 our correlation table for hypothesis, one shows a Pearson correlation coefficient (r) of 0.782 which indicates a strong positive relationship between E-tendering and market share. The correlation table also shows a p-value of 0.000 which is less than our set alpha level of 0.05. This indicates that our test result is statistically significant. Therefore, we reject the stated null hypothesis and accept the alternate research hypothesis. This means that there is a significant relationship between E-tendering and market share.

4.3.2. Test of Hypothesis 2 (H₀₂): There is no significant relationship between e-tendering and profitability

Table 4.3.2 Correlation between E-tendering and Profitability

		E-Tendering	Profitability
E-Tendering	Pearson Correlation	1	.933**
	Sig. (2-tailed)		.000
	N	147	147
Profitability	Pearson Correlation	.933**	1
	Sig. (2-tailed)	.000	
	N	147	147

Source: SPSS Output (2022)

In Table 4.3.2 our correlations table for hypothesis, two shows a Pearson correlation coefficient (r) of 0.933 which indicates a very strong positive relationship between E-tendering and profitability. The correlation table also shows a p-value of 0.000 which is less than our set alpha level of 0.05. This indicates that our test result is statistically significant. Therefore, we reject the

stated null hypothesis and accept the alternate research hypothesis. This means that there is a significant relationship between E-tendering and profitability.

4.3.3 Test of Hypothesis 3 (H₀₃): There is no significant relationship between e-payment and market share.

Table 4.3.3 Correlation between E-payment and Market share

		E-payment	Market Share
E-payment	Pearson Correlation	1	.445**
	Sig. (2-tailed)		.000
	N	147	147
Market Share	Pearson Correlation	.445**	1
	Sig. (2-tailed)	.000	
	N	147	147

Source: SPSS Output (2022)

In Table 4.3.3 our correlation table for hypothesis three shows a Pearson correlation coefficient (r) of 0.445 which indicates a moderate positive relationship between E-payment and market share. The correlation table also shows a p-value of 0.000 which is less than our set alpha level of 0.05. This indicates that our test result is statistically significant. Therefore, we reject the stated null hypothesis and accept the alternate research hypothesis. This means that there is a significant relationship between E-payment and market share.

4.3.4. Test of Hypothesis 4 (H₀₄): There is no significant relationship between e-payment and profitability.

Table 4.3.4 Correlation between E-payment and Profitability

		E-payment	Profitability
E-payment	Pearson Correlation	1	.503**
	Sig. (2-tailed)		.000
	N	147	147
Profitability	Pearson Correlation	.503**	1

Sig. (2-tailed)	.000
N	147

Source: SPSS Output (2022)

In Table 4.3.4 our correlation table for hypothesis four shows a Pearson correlation coefficient (r) of 0.503 which indicates a moderate positive relationship between E-payment and profitability. The correlation table also shows a p-value of 0.000 which is less than our set alpha level of 0.05. This indicates that our test result is statistically significant. Therefore, we reject the stated null hypothesis and accept the alternate research hypothesis. This means that there is a significant relationship between

4.3.5. Test of Hypothesis 5 (H_{05}): There is no significant relationship between e-ordering and market share

Table 4.3.5 Correlation between E-ordering and Market share

		E-ordering	Market Share
E-ordering	Pearson Correlation	1	.887**
	Sig. (2-tailed)		.000
	N	147	147
Market Share	Pearson Correlation	.887**	1
	Sig. (2-tailed)	.000	
	N	147	147

Source: SPSS Output (2022)

In Table 4.3.5 our correlation table for hypothesis five shows a Pearson correlation coefficient (r) of 0.887 which indicates a very strong positive relationship between E-ordering and market share. The correlation table also shows a p-value of 0.000 which is less than our set alpha level of 0.05. This indicates that our test result is statistically significant. Therefore, we reject the stated null hypothesis and accept the alternate research hypothesis. This means that there is a significant relationship between E-ordering and market share.

4.3.6. Test of Hypothesis 6 (H₀₆): There is no significant relationship between e-ordering and profitability.

Table 4.3.6 Correlation between E-ordering and Profitability

		E-ordering	Profitability
E-ordering	Pearson Correlation	1	.784**
	Sig. (2-tailed)		.000
	N	147	147
Profitability	Pearson Correlation	.784**	1
	Sig. (2-tailed)	.000	
	N	147	147

Source: SPSS Output (2022)

In Table 4.3.6, our correlation table for hypothesis six shows a Pearson correlation coefficient (r) of 0.784 which indicates a strong positive relationship between E-ordering and profitability. The correlation table also shows a p-value of 0.000 which is less than our set alpha level of 0.05. This indicates that our test result is statistically significant. Therefore, we reject the stated null hypothesis and accept the alternate research hypothesis. This means that there is a significant relationship between E-ordering and profitability.

Table 4.3.7 Correlation matrix of all variables

		E-Tendering	E-payment	E-ordering	Market Share	Profitability
E-Tendering	Pearson Correlation	1	.522**	.802**	.782**	.933**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	147	147	147	147	147
E-payment	Pearson Correlation	.522**	1	.498**	.445**	.503**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	147	147	147	147	147
E-ordering	Pearson Correlation	.802**	.498**	1	.887**	.784**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	147	147	147	147	147
Market Share	Pearson Correlation	.782**	.445**	.887**	1	.778**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	147	147	147	147	147
Profitability	Pearson Correlation	.933**	.503**	.784**	.778**	1
	Sig. (2-tailed)	.000	.000	.000	.000	

N	147	147	147	147	147
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Table 4.3.7 shows the relationships between all the variables in the study. As indicated, E-Tendering has a strong and strong relationship with Market Share; very strong relationship with profitability evident in the correlation coefficients of 0.782 and 0.933 respectively. In a similar vein, the analysis shows that E-payment has a moderate relationship with market share and profitability indicated by 0.445 and 0.503. Furthermore, the analysis revealed correlation coefficients of 0.887 and 0.784 which means E-ordering has very strong relationships with market share; and strong relationship with profitability. Again, in all the results, the probability values are less than 0.05 that means the relationships between the variables are statistically significant.

Table 4.3.8 Correlation between E-procurement and Organizational Performance

		E-procurement	Organizational Performance
E-procurement	Pearson Correlation	1	.913**
	Sig. (2-tailed)		.000
	N	147	147
Organizational Performance	Pearson Correlation	.913**	1
	Sig. (2-tailed)	.000	
	N	147	147

From the statistical analysis on table 4.3.8, the correlation coefficient (r) is 0.913 indicating that there is a very strong, positive relationship between e-procurement and organizational performance. The correlation table also shows a p-value of 0.000 which is less than our set alpha level of 0.05. This indicates that our test result is statistically significant. This result confirms the results of the tested hypotheses

Table 4.3.9 Summary of Hypotheses Test

	Predictor Variable	r	P	Criterion Variable	Relationship
Ho ₁	E-tendering	0.782	0.000	Market Share	Strong ⁺
		*			
Ho ₂	E-tendering	0.933	0.000	Profitability	Very Strong ⁺
Ho ₃	E-payment	0.445	0.000	Market Share	Moderate ⁺
Ho ₄	E-payment	0.503	0.000	Profitability	Moderate ⁺
Ho ₅	E-ordering	0.887	0.000	Market Share	Very Strong ⁺
Ho ₆	E-ordering	0.784	0.000	Profitability	Strong ⁺

Source: Research Desk, 2022

4.4 Discussion of Findings

Here, we discuss the findings of the analyses conducted on the hypotheses; relating them with previous studies carried out by other scholars, and notions in extant literatures to ascertain whether the findings of this study are in consonance with other studies or there exist a point of departure in extant literature notions.

4.4.1 The Relationship between E-tendering and Organizational Performance.

We earlier argued in the literature review part of this work that the achievement of organizational performance can be influenced by a firms' E-tendering, this is because a bulk of the firms' stakeholders and customers carryout their business activities electronically or online. The results from the test of Ho₁, and Ho₂ of this study revealed a positive and statistically significant relationship between E-tendering and all the measures of organizational performance. These findings are in consonance with results of related studies previously carried out by other scholars.

Specifically, the findings agree with the study carried out by¹ where E-tendering was found to be a very good predictor of organizational performance of public corporations in Rwanda Revenue Authority, though they used a larger sample size and categories of respondents than ours and adopted as inferential statistics (unlike ours) the regression analysis to measure the relationship between E-tendering and organizational performance in terms of supply chain processes.

Also, the result of this study corroborates with the findings² where E-tendering was found to have a positive and significant correlation with the supply chain performance of rail corporations in Nairobi; improving their responsiveness to suppliers' needs, and consequently enhancing their effectiveness. More so, the results of this study agrees with the views³ that E-tendering can impact organizational performance because it confers on organizations the ability to extract useable information from their marketplace and business environment so that they can continually keep abreast with the changing needs and demands of their vendors and suppliers for effective procurement decision making. Furthermore, the result of this study agrees with that of PWC, in Ireland where in their study they found among other things that E-tendering impact positively and significantly on public institution performance by improving the performance of the procuring entity in terms of policy goals and decisions.

However, while in the study⁴ E-tendering was found not to relate strongly and positively related with organizational performance, though adopting a descriptive design like ours, in our study we found E-tendering to relate positively with organizational performance. This we assume might be due to the use of larger sample size and categories of respondents than ours. Also, while in the study² E-tendering was found not to relate strongly with organizational performance, in our study we found E-tendering to relate strongly with organizational performance. This we assume might

be due to the use of a descriptive research design and the focus of their study in non-oil and gas industry.

4.4.2 The Relationship between E-payment and Organizational Performance.

The results from the test of Ho₃, and Ho₄ of this study revealed a positive and statistically significant relationship between E-payment and all the measures of organizational performance of oil and gas field service firms in Port Harcourt. These findings are in consonance with results and notions of related studies previously carried out by other scholars. Specifically, our findings agrees with the study carried out⁵ where E-payment was found to be a positive predictor of organizational performance in terms of procurement activities in India, though they used a larger sample size than ours and adopted as inferential statistics unlike ours the cross sectional descriptive research design, and Partial least square and structural equation modelling measure the relationship between E-payment and organizational performance in terms of their procurement performance.

Also, the result of this study is consistent with the findings of the study⁶ where they found among other things that e-payment facilitates the bidding process which in turn enhances transparency and accountancy especially in public procurement resulting in improved efficiency and enhanced procurement operations. More so, the results of this study is in consonance with the findings of Shale⁷, wherein adopting a cross sectional survey design like ours, E-payment was found to relate positively with the performance of state corporations firms in Kenya in their quest to gain competitive advantages in procurement processes. Furthermore, the result of this study agrees with the findings⁸ where E-payment was found to facilitate a more effective supply chain that was

transparent, and enhancing optimal allocation of value and consequently relates positively with the organizational performance in the area of supply chain activities of public companies in Elgeyo-Marakwet County in Kenya though adopting a descriptive research design unlike ours. However, while in the study⁵ E-payment was found to relate very strongly with organizational performance, in our study we found E-payment to relate moderately with organizational performance. This we assume might be due to their use of a larger sample size, industry focus and geographical business environment. Also, while in the study⁶, E-payment was found to relate very strongly with organizational performance, in our study we found E-payment to relate moderately with organizational performance. This we assume might be due to the focus of their study in non-oil and gas industry and smaller respondents than ours.

4.4.3 The Relationship between E-ordering and Organizational Performance.

The results from the test of Ho₅ and Ho₆ of this study revealed a positive and statistically significant relationship between E-ordering and all the measures of organizational performance of oil and gas field service firms in Port Harcourt. These findings are consistent with the results and notions of some research studies previously carried out by other scholars which we earlier noted in the literature review part of this work.

Specifically, our findings corroborates with the study carried out⁹ where E-ordering was found to relate positively with organizational performance in terms of supply chain performance activities of public firms in Nairobi, though they used a larger sample size and respondents than ours and adopted unlike ours the explanatory research design, and as inferential statistics the multiple regression analysis to measure the strength and influence of the relationship between E-ordering and organizational performance. Also, the result of this study is consistent with the findings of the study¹⁰ where in adopting a survey research design, it was found among other things that E-

ordering reduces process time, generates ordering savings and drives incremental revenue in public procurement resulting in improved efficiency and enhanced procurement operations and organizational performance in general.

More so, the results of this study agrees with the theoretical assertions¹⁰, that E-ordering systems can boost sales to some extent as it eases customers to place an order for company's services from their comfort zone as long as they have laptops with internet connection which arguably will improve supply chain performance. Furthermore, the result of this study agrees with the theoretical notions that a company engaging in E-ordering can cut procurement cost by 8 to 15% which consequently will improve organizational procurement efficiency and performance³.

However, while in the⁹ study, E-ordering was found to relate moderately with organizational performance, in our study we found E-ordering to relate very strongly with organizational performance. This we assume might be due to their industry focus and geographical business environment. Also, while in the study¹⁰ E-ordering was found to relate moderately with organizational performance, in our study we found E-payment to relate very strongly with organizational performance. This we assume might be due to the focus of their study in non-oil and gas industry and smaller respondents than ours^{10,7}

EndNotes

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Chapter Five

Conclusion

5.1 Summary of Findings

The study revealed that 52 of (35.4%) of the respondents are male while 95 of (64.6%) of the respondents are female.

The findings revealed that enhanced organizational performance is the key to survival and growth of firms in the business environment. It is therefore a goal so important to firms that, it has been the object of all discourses in business management. Organizational performance is the only thing that keeps a firm going in the competitive and dynamic business landscape. The achievement of sustained organizational performance is thus the reason firms undertake research, invent new processes, and develop new products and new markets. It is also the reason firms contrive and implement marketing strategies, practices and policies.

The emergent nature of procurement and supply chain as a field of study easily lends itself to new ideas; knowledge is therefore sourced from different domains of research as scholars strive to make meaningful contributions to existing body of knowledge in marketing in particular and to business management in general. The current investigation sought to ascertain the relationship between E-procurement and organizational performance of oil and gas servicing firms in Port Harcourt. It is indeed an enterprise focused on uncovering new knowledge, constructs and variables that are relevant to the success of corporations, especially those in the oil and gas sector in Port Harcourt as it relate to the link between E-procurement activities and organizational performance.

From the Study, it was found that there is a positive relationship between E-tendering and market share of every Organization. The correlation also shows a p-value of 0.000 which is less than our set alpha level of 0.05. Therefore, we reject the null hypothesis which stated that there is no significant relationship between the E-tendering and Market share. Thus, we accept the alternate hypothesis. This means that there is a significant relationship between E-tendering and market share of Oil and Gas services in Port Harcourt.

The study, E-payment and profitability of Organizations at 0.503 which indicates a moderate positive relationship between E-payment and profitability. The correlation p-value of 0.000 which is less than our set alpha level of 0.05. This indicates that our test result is statistically significant. Therefore, we reject the null hypothesis and accept the alternate research hypothesis. This means that there is a significant relationship between E-payment and Profitability.

The study found at this level 0.784 which indicates a strong positive relationship between E-ordering and profitability. The correlation p-value of 0.000 which is less than our set alpha level of 0.05. This indicates that our test result is statistically significant. Therefore, we reject the stated null hypothesis and accept the alternate research hypothesis. This means that there is a significant relationship between E-ordering and profitability.

5. 2 Conclusion

Based on the empirical tests carried out and the discussion of the findings of the study in the previous chapter, we therefore conclude that E-procurement can serve as a strategic tool that oil and gas servicing firms in Port Harcourt can apply in their quest towards improving and maintaining organizational performance in terms of market share and profitability. In addition, we conclude that the adoption of E-tendering, E-payment and E-ordering as E-procurement tools

by oil and gas servicing firms can positively influence their drive towards improving their market share and profitability.

5.3 Recommendations

Based on the findings of this study and its relative consistency with results of similar previous studies, the discussions presented, the conclusions reached and the implications determined, it is recommended that:

1. E-procurement should be adopted as a strategic tool by sustainable-performance oriented oil and gas servicing firms in Port Harcourt in their quest towards achieving and maintaining organizational performance in terms of market share and profitability.
2. Oil and gas servicing firms should improve more in E-tendering, E-payment and E-ordering activities so as to boost their drive towards being viewed as sustainable-performance oriented firms.
3. Other oil and gas servicing firms whose objectives are to do business in a manner that improves and sustains their market share and profitability should adopt E-tendering, E-payment and E-ordering as part of their E-procurement strategies or tools.

5.4 Contribution to knowledge

a. Conceptually

This study has made an appreciable level of contribution to the existing stock of knowledge in procurement especially in the area of supply chain and logistics management. The study will further support the usefulness of e-procurement within the supply chain departments in the oil

and gas servicing firms in Port Harcourt. The study will also lay credence to the use of e-procurement in achieving organizational performance.

b. Theoretically

The study was essentially based on the concept of e-procurement and organizational performance which is deeply rooted in the early theories of institutional, diffusion of innovation and principal agency theories.

The institutional theory is the traditional approach that is used to examine elements of public procurement identified three pillars of institutions as regulatory, normative and cultural cognitive. The regulatory pillar emphasizes the use of rules, laws and sanctions as an enforcement mechanism with expedience as the basis for compliance. Institutions are composed of cultural cognitive and regulative elements that together with associated activities and resources give meaning to life. The author explained the three pillars of institutions as regulatory, normative and cultural cognitive. The regulatory pillar emphasizes the use of rules, laws and sanctions as an enforcement mechanism with expedience as the basis for compliance.

The normative pillar refers to norms (how things should be done) and values (the preferred or desirable), social obligation being the basis of compliance. The cultural-cognitive pillar rests on shared understanding (common beliefs, symbols, shared understanding) in Nigeria and Rivers, State in particular procurement is guided by the public procurement act 2007 and Rivers State public procurement law, 2008 respectively. Regulations and guidelines which from time to time is issued by the public procurement authority only and which must comply with to the letter by all the private entities and providers.

The principal agent theory as advocated explains that procurement managers in private sector play a relationship role but his findings are based on the buyer/supplier relationship and the need the buyer, as the principal, to minimize the risks posed by the agent the another agreed that procurement managers including all the civil servants concerned with public procurement managers take on the principal agency theory holds that sabotage is likely to occur when I hire is some disagreement between policy makers and the bureaucracy. The democratic perspective focuses on responsiveness to citizens and their representatives In relation to the study, the drive for legitimacy ensures that the actions of an organized are desirable, proper or appropriate within the environmentally and socially constructed systems of norms, values, benefit and definitions. In other words, organization benefit from perception of credibility, persistence, and meaningfulness theory increasing the possibility of survival.

The diffusion of innovation theory was proposed by Rogers in 1962; referred to in Einstein (2008). According to Rogers, diffusion of invitations theory is a theory of why, how and what rate new ideas and technology spread through cultures operating at the individual and firm level based on diffusion of innovations theory at the firm level. Innovativeness is related to such independent variables as individual (leader) characteristics, internal organizational structural characteristics, and external characteristics of the organization. Individual characteristics describe the leader attitude toward change. Internal characteristics of organizational structure include observations according to Rogers, centralization is the degree to which power and control in a system are concentrated in the hands of a relatively few individuals; complexity is the degree to which an organizations members possess a relatively high level of knowledge and expertise; formalization is the degree to which an organization emphasizes its members following rules and procedures; interconnectedness is the degree to which the units in a social

system are linked by interpersonal networks; organizational slack “the degree to which uncommitted resources are available to an organization; size is the number of employees of the organization”.

External characteristics of an organization refer to system openness in relation to the study, the ability of an organization to adopt relevant technology lies on the type of activity that requires the use of new technology. The use of e-procurement in this case depends upon the need to reform the key stages of the procurement process. The internal characteristics of organizations structure, centralization, complexity, Formalization, interconnectedness, organizational slack and the number of employee. This relationship demands that a system to be put in place should meet the requirements of the organization characteristic or operation of the procurement process considered as an internal characteristic that deals with tendering payment and ordering and this the adapted technology most considered for the performance of this task would be E-tendering, E-payment, and E-ordering. Since technological adoption involves change in the performance of the institution, the dependent variable in this study will be organizational performance

c. Empirically

This study empirically examined the concept of e-procurement and performance within an organization. The study lean on the strategy and management perspectives in line with a journal titled (2007) Mitigating to internet based e-procurement: factors affecting e-procurement adoption and mitigation at the firm level. *Journal of Information and management*. Where he emphasized that e-procurement system plays a fundamental role in B2B purchasing by streamlining the buying process and providing the information the information needed to make more effective purchasing decisions. He stress that previous studies allude to the fact that many

companies have found benefits from their implementation of E-procurement system. The adoption of web based e-procurement system in the B2B purchasing transaction allows firms to reduce transaction costs, improve internal procurement process efficiency, and increase collaboration with suppliers

5.5 Areas of Further Research

a. Method

The searchlight of the research could be extended to more than 293 oil and gas servicing firms in order to offer a wider coverage to reduce the research error. In addition, this research dealt with OIL AND GAS sector, further research could be carried out in other sectors as well

b. Population

The population of the proposed research should be stakeholders in the sector which will include but not limited to contractor/suppliers and end-users

c. Demographic

Perception of OIL AND GAS stakeholders on e-procurement as an effective tool in achieving organizational performance.

d. Research design

An attempt to increase the population of the study will provide an opportunity to use probability sampling technique for all the respondents which will amount to effectiveness and efficiency in the findings of the study

e. Sector/Industry

The study can be carried out in sectors like manufacturing, engineering, health etc.

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Appendix 1 Questionnaire

Lead City University,
Faculty of Environment, Management and Social Science
Department of Management and Accounting

Research Questionnaire

Dear Respondent,

I am a Post Graduate student of the above named university and department undertaking a course of study in Procurement and Supply Chain Management (MSc.). I am conducting a study on

Electronic Procurement and Organizational Performance of Oil and Gas Services Companies in Rivers State. In view of this, I wish to crave your indulgence in helping me complete a copy of this questionnaire. Sir/Ma, I assure you that the information gotten would be used for the purpose for which it is being sought.

Thanking you in anticipation of your co-operation.

Okonye, Chukwudi (Mr.)

SECTION A:

Respondent's Demographics

1. Gender

(a) Male ☐ (b) Female ☐

2. Marital Status

(a). Married ☐ (b) Single ☐ (c) Separated ☐

3. Official Position

(a) Relationship Manager ☐ (b) Procurement Manager ☐
(c) ITC Manager ☐ (d) Logistics Manager ☐ (e) Marketing Manager ☐

The questionnaire is designed in a five-point scale of 'strongly disagree to strongly agree'.

Strongly Agree (SA) = 5

Agree (A) = 4

Indifferent (ID) = 3

Disagree (DA) = 2

Strongly Disagree (SDA) = 1

S/N	E-procurement	SDA	DA	ID	A	SA
	Measurement items for E-Tendering					
1	In our organization, we carry out the entire procurement activities on internet.					
2	We transmit requests electronically through use of internet to execute procurement operations.					
3	E-notices, e-selection, e-mailing, and e-awarding to request for information and response for prices to suppliers and receiving back their feedback are done through the internet.					
4	Complete tendering process; from advertising to receiving and submitting tender-related information are done online.					
	Measurement items for E-payment					
1	Our monetary transactions with clients are made on electronic platform.					
2	In our organization we carry out mobile payments, internet payments, e-cards, pc banking and e-cash in the supply chain.					
3	We adopt electronic funds transfer and smart cards based electronic payment system.					
4	In our organization we carry out transaction or place order via the internet with ease.					
	Measurement items for E-ordering					
1	We make request of goods and services from clients through electronic means.					
2	Our organization uses electronic means for the identification of a need to purchase of products/services.					

3	We make payment of products purchased through electronic platform.					
4	Our organization carries out post contract/payment activities such as contract management, supplier management and development via electronic means.					
	Organizational Performance					
	Measurement items for Market Share					
1	Our organization serves a large percentage of the entire available market for our products.					
2	Sales of our company relative to other competitors in the market are high.					
3	The percentage sales of our firm increases steadily.					
4	Our products and services are gaining acceptance across the regions in which our businesses are located.					
	Measurement items for Profitability					
1	Our organization makes success in her investments.					
2	We have increase in our sales margin.					
3	From our business we have funds to reinvest in other businesses.					
4	Our organization has the ability to meet her financial obligation to stakeholders.					

Thank you.

Appendix 2

Demographic Statistics of Respondents

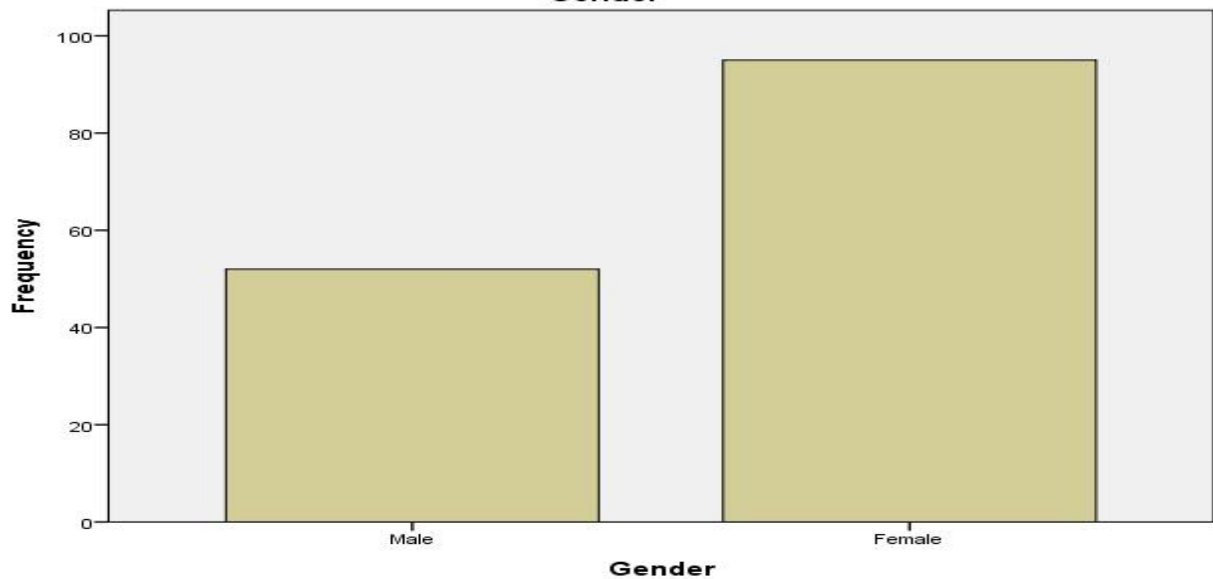
Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	52	35.4	35.4	35.4
	Female	95	64.6	64.6	100.0
	Total	147	100.0	100.0	

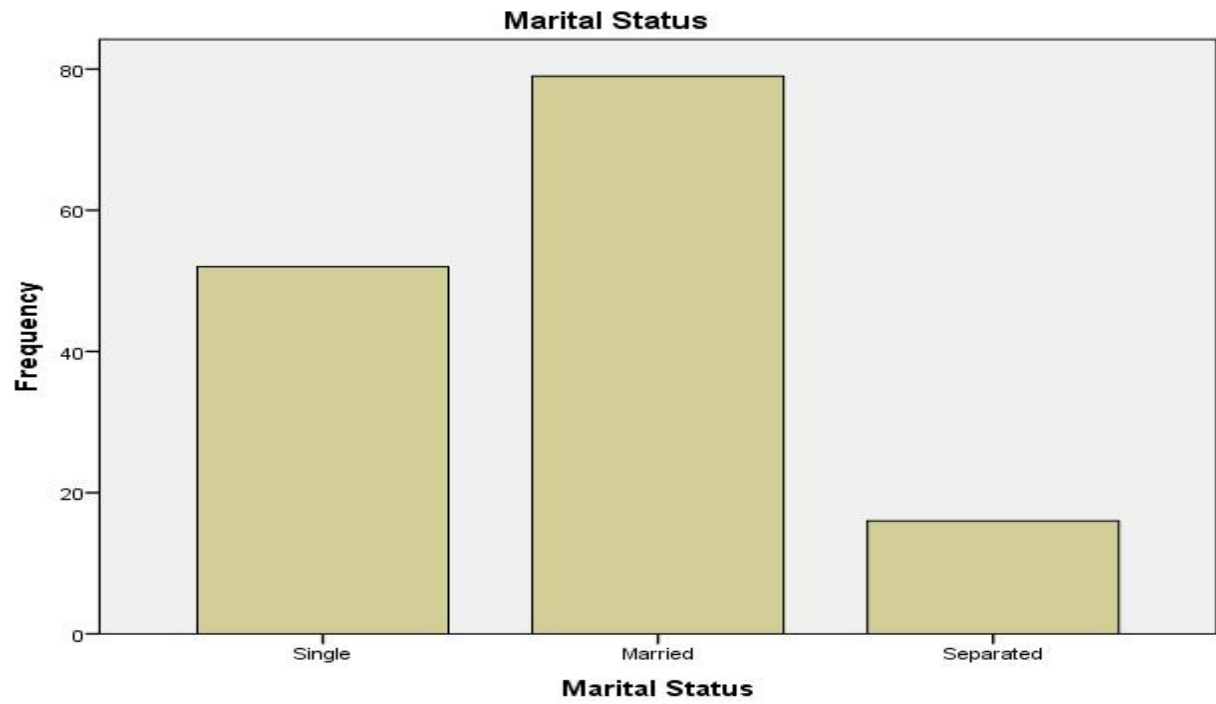
Marital Status

Frequency	Percent	Valid Percent	Cumulative Percent
52	35.4	35.4	35.4
79	53.7	53.7	89.1
16	10.9	10.9	100.0
147	100.0	100.0	

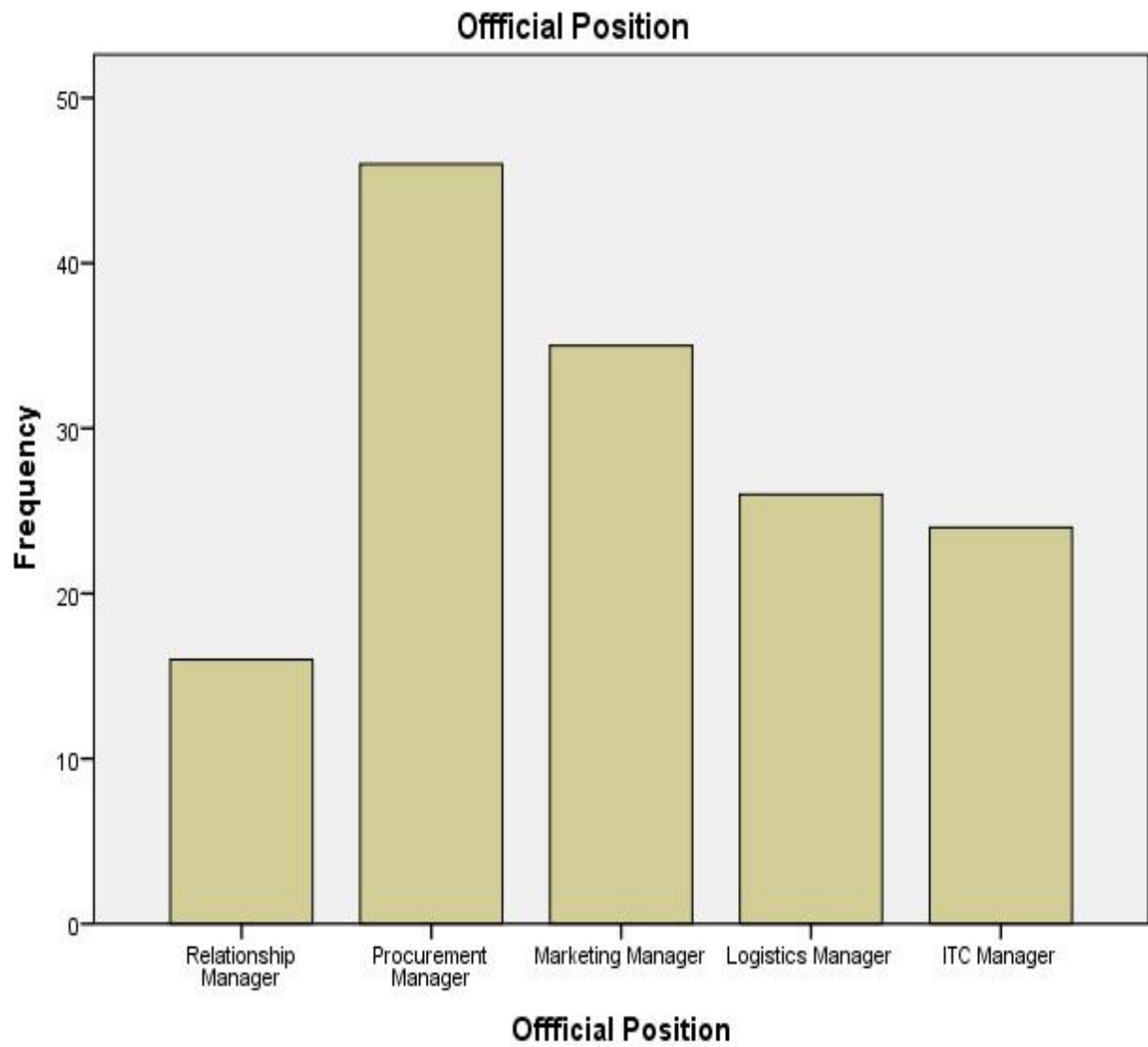
Official Position

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Relationship Manager	16	10.9	10.9	10.9
	Procurement Manager	46	31.3	31.3	42.2
	Marketing Manager	35	23.8	23.8	66.0
	Logistics Manager	26	17.7	17.7	83.7
	ITC Manager	24	16.3	16.3	100.0
	Total	147	100.0	100.0	

Gender



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Appendix 3

Descriptive Statistics

Descriptive Statistics

	N	Sum	Mean	Std. Deviation	Variance
In our organization we carry out the entire procurement activities on internet.	147	620	4.22	1.274	1.624
We transmit requests electronically through use of internet to execute procurement operations.	147	624	4.24	1.208	1.460
E-notices, e-selection, e-mailing, and e-awarding to request for information and response for prices to suppliers and receiving back their feedback are done through the internet.	147	631	4.29	1.251	1.565
Complete tendering process; from advertising to receiving and submitting tender-related information are done online.	147	643	4.37	1.195	1.428
Valid N (listwise)	147				

Descriptive Statistics

	N	Sum	Mean	Std. Deviation	Variance
Our monetary transactions with clients are made on electronic platform.	147	675	4.59	.905	.819
In our organization we carry out mobile payments, internet payments, e-cards, pc banking and e-cash in the supply chain.	147	627	4.27	.988	.977
We adopt electronic funds transfer and smart cards based electronic payment system.	147	667	4.54	.878	.771
In our organization we carry out transaction or place order via the internet with ease.	147	696	4.73	.805	.648
Valid N (listwise)	147				

Descriptive Statistics

	N	Sum	Mean	Std. Deviation	Variance
We make request of goods and services from clients through electronic means.	147	627	4.27	1.207	1.457
Our organization uses electronic means for the identification of a need to purchase of products.	147	609	4.14	1.277	1.630
We make payment of products purchased through electronic platform.	147	585	3.98	1.445	2.089
Our organization carries out post contract/payment activities such as contract management, supplier management and development via electronic means.	147	628	4.27	1.138	1.295
Valid N (listwise)	147				

Descriptive Statistics

	N	Sum	Mean	Std. Deviation	Variance
Our organization serves a	147	642	4.37	1.304	1.700

large percentage of the entire available market for our products.					
Sales of our company relative to other competitors in the market are high.	147	619	4.21	1.351	1.825
The percentage sales of our firm increases steadily.	147	630	4.29	1.314	1.726
Our products and services are gaining acceptance across the regions in which our businesses are located.	147	640	4.35	1.128	1.271
Valid N (listwise)	147				

Descriptive Statistics

	N	Sum	Mean	Std. Deviation	Variance
Our organization makes success in her investments.	147	637	4.33	1.094	1.196
We have increase in our sales margin.	147	631	4.29	1.148	1.318
Form our business we have funds to reinvest in other businesses.	147	621	4.22	1.115	1.244
Our organization has the ability to meet her financial obligation to stakeholders.	147	627	4.27	1.075	1.155
Valid N (listwise)	147				

Appendix 4

Frequency Distribution of Variables

Frequency Table of E-tendering

In our organization, we carry out the entire procurement activities on internet.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	15	10.2	10.2	10.2
	Disagree	5	3.4	3.4	13.6
	Indifferent	1	.7	.7	14.3
	Agree	38	25.9	25.9	40.1
	Strongly Agree	88	59.9	59.9	100.0
	Total	147	100.0	100.0	

We transmit requests electronically through use of internet to execute procurement operations.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	12	8.2	8.2	8.2
	Disagree	6	4.1	4.1	12.2
	Indifferent	3	2.0	2.0	14.3
	Agree	39	26.5	26.5	40.8
	Strongly Agree	87	59.2	59.2	100.0
	Total	147	100.0	100.0	

E-notices, e-selection, e-mailing, and e-awarding to request for information and response for prices to suppliers and receiving back their feedback are done through the internet.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	11	7.5	7.5	7.5

Disagree	10	6.8	6.8	14.3
Indifferent	3	2.0	2.0	16.3
Agree	24	16.3	16.3	32.7
Strongly Agree	99	67.3	67.3	100.0
Total	147	100.0	100.0	

Complete tendering process; from advertising to receiving and submitting tender-related information are done online.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	13	8.8	8.8	8.8
Disagree	3	2.0	2.0	10.9
Agree	31	21.1	21.1	32.0
Strongly Agree	100	68.0	68.0	100.0
Total	147	100.0	100.0	

Frequency Table of E-payment

Our monetary transactions with clients are made on electronic platform.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	6	4.1	4.1	4.1
Disagree	2	1.4	1.4	5.4
Agree	30	20.4	20.4	25.9
Strongly Agree	109	74.1	74.1	100.0
Total	147	100.0	100.0	

In our organization we carry out mobile payments, internet payments, e-cards, pc banking and e-cash in the supply chain.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	5	3.4	3.4	3.4

Disagree	7	4.8	4.8	8.2
Indifferent	6	4.1	4.1	12.2
Agree	55	37.4	37.4	49.7
Strongly Agree	74	50.3	50.3	100.0
Total	147	100.0	100.0	

We adopt electronic funds transfer and smart cards based electronic payment system.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	6	4.1	4.1	4.1
Indifferent	2	1.4	1.4	5.4
Agree	40	27.2	27.2	32.7
Strongly Agree	99	67.3	67.3	100.0
Total	147	100.0	100.0	

In our organization, we carry out transaction or place order via the internet with ease.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	5	3.4	3.4	3.4
Disagree	1	.7	.7	4.1
Agree	16	10.9	10.9	15.0
Strongly Agree	125	85.0	85.0	100.0
Total	147	100.0	100.0	

Frequency Table of E-ordering

We make request of goods and services from clients through electronic means.

	Frequency	Percent	Valid Percent	Cumulative Percent
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Valid	Strongly Disagree	9	6.1	6.1	6.1
	Disagree	12	8.2	8.2	14.3
	Indifferent	2	1.4	1.4	15.6
	Agree	32	21.8	21.8	37.4
	Strongly Agree	92	62.6	62.6	100.0
	Total	147	100.0	100.0	

Our organization uses electronic means for the identification of a need to purchase of products.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid				
Strongly Disagree	14	9.5	9.5	9.5
Disagree	8	5.4	5.4	15.0
Indifferent	2	1.4	1.4	16.3
Agree	42	28.6	28.6	44.9
Strongly Agree	81	55.1	55.1	100.0
Total	147	100.0	100.0	

We make payment of products purchased through electronic platform.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid				
Strongly Disagree	14	9.5	9.5	9.5
Disagree	22	15.0	15.0	24.5
Indifferent	4	2.7	2.7	27.2
Agree	20	13.6	13.6	40.8
Strongly Agree	87	59.2	59.2	100.0
Total	147	100.0	100.0	

Our organization carries out post contract/payment activities such as contract management, supplier management and development via electronic means.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid				
Strongly Disagree	11	7.5	7.5	7.5

Disagree	3	2.0	2.0	9.5
Indifferent	5	3.4	3.4	12.9
Agree	44	29.9	29.9	42.9
Strongly Agree	84	57.1	57.1	100.0
Total	147	100.0	100.0	

Frequency Table of Market Share

Our organization serves a large percentage of the entire available market for our products.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	12	8.2	8.2	8.2
Disagree	11	7.5	7.5	15.6
Indifferent	2	1.4	1.4	17.0
Agree	8	5.4	5.4	22.4
Strongly Agree	114	77.6	77.6	100.0
Total	147	100.0	100.0	

Sales of our company relative to other competitors in the market are high.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	15	10.2	10.2	10.2
Disagree	10	6.8	6.8	17.0
Indifferent	1	.7	.7	17.7
Agree	24	16.3	16.3	34.0
Strongly Agree	97	66.0	66.0	100.0
Total	147	100.0	100.0	

The percentage sales of our firm increases steadily.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	12	8.2	8.2	8.2

Disagree	12	8.2	8.2	16.3
Indifferent	3	2.0	2.0	18.4
Agree	15	10.2	10.2	28.6
Strongly Agree	105	71.4	71.4	100.0
Total	147	100.0	100.0	

Our products and services are gaining acceptance across the regions in which our businesses are located.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	10	6.8	6.8	6.8
Disagree	4	2.7	2.7	9.5
Indifferent	4	2.7	2.7	12.2
Agree	35	23.8	23.8	36.1
Strongly Agree	94	63.9	63.9	100.0
Total	147	100.0	100.0	

Frequency Table of profitability

Our organization makes success in her investments.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	9	6.1	6.1	6.1
Disagree	4	2.7	2.7	8.8
Indifferent	5	3.4	3.4	12.2
Agree	40	27.2	27.2	39.5
Strongly Agree	89	60.5	60.5	100.0
Total	147	100.0	100.0	

We have increase in our sales margin.

	Frequency	Percent	Valid Percent	Cumulative Percent
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Valid	Strongly Disagree	7	4.8	4.8	4.8
	Disagree	12	8.2	8.2	12.9
	Indifferent	3	2.0	2.0	15.0
	Agree	34	23.1	23.1	38.1
	Strongly Agree	91	61.9	61.9	100.0
	Total	147	100.0	100.0	

Form our business we have funds to reinvest in other businesses.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	8	5.4	5.4	5.4
	Disagree	8	5.4	5.4	10.9
	Indifferent	6	4.1	4.1	15.0
	Agree	46	31.3	31.3	46.3
	Strongly Agree	79	53.7	53.7	100.0
	Total	147	100.0	100.0	

Our organization has the ability to meet her financial obligation to stakeholders.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	8	5.4	5.4	5.4
	Disagree	5	3.4	3.4	8.8
	Indifferent	7	4.8	4.8	13.6
	Agree	47	32.0	32.0	45.6
	Strongly Agree	80	54.4	54.4	100.0
	Total	147	100.0	100.0	

Appendix 5

Reliability Statistics

Reliability Statistics of E-tendering

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.945	.945	4

Item Statistics

	Mean	Std. Deviation	N
In our organization we carry out the entire procurement activities on internet.	4.22	1.274	147
We transmit requests electronically through use of internet to execute procurement operations.	4.24	1.208	147
E-notices, e-selection, e-mailing, and e-awarding to request for information and response for prices to suppliers and receiving back their feedback are done through the internet.	4.29	1.251	147
Complete tendering process; from advertising to receiving and submitting tender-related information are done online.	4.37	1.195	147

Inter-Item Correlation Matrix

	In our organization we carry out the entire procurement activities on	We transmit requests electronically through use of internet to execute	E-notices, e-selection, e-mailing, and e-awarding to request for information and	Complete tendering process; from advertising to receiving and submitting

	internet.	procurement operations.	response for prices to suppliers and receiving back their feedback are done through the internet.	tender-related information are done online.
In our organization we carry out the entire procurement activities on internet.	1.000	.873	.849	.738
We transmit requests electronically through use of internet to execute procurement operations.	.873	1.000	.850	.804
E-notices, e-selection, e-mailing, and e-awarding to request for information and response for prices to suppliers and receiving back their feedback are done through the internet.	.849	.850	1.000	.747
Complete tendering process; from advertising to receiving and submitting tender-related information are done online.	.738	.804	.747	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
In our organization we carry out the entire procurement	12.91	11.574	.881	.804	.923

activities on internet. We transmit requests electronically through use of internet to execute procurement operations.	12.88	11.802	.913	.836	.913
E-notices, e-selection, e-mailing, and e-awarding to request for information and response for prices to suppliers and receiving back their feedback are done through the internet.	12.84	11.768	.875	.777	.925
Complete tendering process; from advertising to receiving and submitting tender-related information are done online.	12.76	12.611	.801	.662	.947

Reliability Statistics of E-payment

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.885	.889	4

Item Statistics

	Mean	Std. Deviation	N
Our monetary transactions with clients are made on electronic platform.	4.59	.905	147
In our organization we carry out mobile payments,	4.27	.988	147

internet payments, e-cards, pc banking and e-cash in the supply chain.			
We adopt electronic funds transfer and smart cards based electronic payment system.	4.54	.878	147
In our organization we carry out transaction or place order via the internet with ease.	4.73	.805	147

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Inter-Item Correlation Matrix

	Our monetary transactions with clients are made on electronic platform.	In our organization we carry out mobile payments, internet payments, e-cards, pc banking and e-cash in the supply chain.	We adopt electronic funds transfer and smart cards based electronic payment system.	In our organization we carry out transaction or place order via the internet with ease.
Our monetary transactions with clients are made on electronic platform.	1.000	.581	.787	.734
In our organization we carry out mobile payments, internet payments, e-cards, pc banking and e-cash in the supply chain.	.581	1.000	.600	.588
We adopt electronic funds transfer and smart cards based electronic payment system.	.787	.600	1.000	.717

In our organization we carry out transaction or place order via the internet with ease.	.734	.588	.717	1.000
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Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Our monetary transactions with clients are made on electronic platform.	13.54	5.387	.800	.684	.833
In our organization we carry out mobile payments, internet payments, e-cards, pc banking and e-cash in the supply chain.	13.86	5.570	.647	.421	.897
We adopt electronic funds transfer and smart cards based electronic payment system.	13.59	5.490	.803	.676	.832
In our organization we carry out transaction or place order via the internet with ease.	13.39	5.898	.772	.609	.847

Reliability Statistic of E-ordering

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.917	.920	4

Item Statistics

	Mean	Std. Deviation	N
We make request of goods and services from clients through electronic means.	4.27	1.207	147
Our organization uses electronic means for the identification of a need to purchase of products.	4.14	1.277	147
We make payment of products purchased through electronic platform.	3.98	1.445	147
Our organization carries out post contract/payment activities such as contract management, supplier management and development via electronic means.	4.27	1.138	147

Inter-Item Correlation Matrix

	We make request of goods and services from clients through electronic means.	Our organization uses electronic means for the identification of a need to purchase of products.	We make payment of products purchased through electronic platform.	Our organization carries out post contract/payment activities such as contract management, supplier management
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				and development via electronic means.
We make request of goods and services from clients through electronic means.	1.000	.891	.800	.720
Our organization uses electronic means for the identification of a need to purchase of products.	.891	1.000	.755	.661
We make payment of products purchased through electronic platform.	.800	.755	1.000	.624
Our organization carries out post contract/payment activities such as contract management, supplier management and development via electronic means.	.720	.661	.624	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
We make request of goods and services from clients through electronic means.	12.39	11.775	.907	.848	.861
Our organization uses	12.52	11.662	.855	.799	.877

electronic means for the identification of a need to purchase of products.					
We make payment of products purchased through electronic platform.	12.68	11.027	.795	.653	.904
Our organization carries out post contract/payment activities such as contract management, supplier management and development via electronic means.	12.39	13.499	.712	.526	.925

Reliability Statistic of Market Share

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.926	.923	4

Item Statistics

	Mean	Std. Deviation	N
Our organization serves a large percentage of the entire available market for our products.	4.37	1.304	147
Sales of our company relative to other competitors	4.21	1.351	147

in the market are high.			
The percentage sales of our firm increases steadily.	4.29	1.314	147
Our products and services are gaining acceptance across the regions in which our businesses are located.	4.35	1.128	147

Inter-Item Correlation Matrix

	Our organization serves a large percentage of the entire available market for our products.	Sales of our company relative to other competitors in the market are high.	The percentage sales of our firm increases steadily.	Our products and services are gaining acceptance across the regions in which our businesses are located.
Our organization serves a large percentage of the entire available market for our products.	1.000	.916	.946	.601
Sales of our company relative to other competitors in the market are high.	.916	1.000	.896	.562
The percentage sales of our firm increases steadily.	.946	.896	1.000	.579
Our products and services are gaining acceptance across the regions in which our businesses are located.	.601	.562	.579	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted

Our organization serves a large percentage of the entire available market for our products.	12.85	11.430	.934	.921	.867
Sales of our company relative to other competitors in the market are high.	13.01	11.418	.889	.848	.883
The percentage sales of our firm increases steadily.	12.93	11.502	.913	.900	.875
Our products and services are gaining acceptance across the regions in which our businesses are located.	12.86	14.899	.597	.362	.971

Reliability Statistic of profitability

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.928	.928	4

Item Statistics

	Mean	Std. Deviation	N
Our organization makes success in her investments.	4.33	1.094	147
We have increase in our sales margin.	4.29	1.148	147
Form our business we have funds to reinvest in other businesses.	4.22	1.115	147
Our organization has the ability to meet her financial	4.27	1.075	147

obligation to stakeholders.			
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Inter-Item Correlation Matrix

	Our organization makes success in her investments.	We have increase in our sales margin.	Form our business we have funds to reinvest in other businesses.	Our organization has the ability to meet her financial obligation to stakeholders.
Our organization makes success in her investments.	1.000	.800	.747	.752
We have increase in our sales margin.	.800	1.000	.729	.775
Form our business we have funds to reinvest in other businesses.	.747	.729	1.000	.779
Our organization has the ability to meet her financial obligation to stakeholders.	.752	.775	.779	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Our organization makes success in her investments.	12.78	9.363	.836	.708	.905
We have increase in our sales margin.	12.82	9.051	.838	.715	.904
Form our business we have funds to reinvest in other businesses.	12.89	9.358	.814	.673	.912

Our organization has the ability to meet her financial obligation to stakeholders.	12.85	9.457	.839	.709	.904
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Reliability Statistics of all Variables

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.922	.919	5

Item Statistics

	Mean	Std. Deviation	N
E-Tendering	17.13	4.565	147
E-payment	18.13	3.093	147
E-ordering	16.66	4.555	147
Market Share	17.22	4.622	147
Profitability	17.12	4.020	147

Inter-Item Correlation Matrix

	E-Tendering	E-payment	E-ordering	Market Share	Profitability
E-Tendering	1.000	.522	.802	.782	.933
E-payment	.522	1.000	.498	.445	.503
E-ordering	.802	.498	1.000	.887	.784
Market Share	.782	.445	.887	1.000	.778
Profitability	.933	.503	.784	.778	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
E-Tendering	69.12	202.040	.889	.885	.886
E-payment	68.12	274.670	.527	.293	.949
E-ordering	69.59	204.038	.872	.821	.889
Market Share	69.03	204.882	.846	.805	.895
Profitability	69.14	217.694	.880	.876	.889

Reliability Statistic of E-procurement and Organizational Performance

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.937	.955	2

Item Statistics

	Mean	Std. Deviation	N
E-procurement	51.92	10.643	147
Organizational Performance	34.33	8.151	147

Inter-Item Correlation Matrix

	E-procurement	Organizational Performance
E-procurement	1.000	.913
Organizational Performance	.913	1.000

Item-Total Statistics

	Scale Mean if	Scale Variance	Corrected Item-	Squared	Cronbach's
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	Item Deleted	if Item Deleted	Total Correlation	Multiple Correlation	Alpha if Item Deleted
E-procurement	34.33	66.443	.913	.834	.
Organizational Performance	51.92	113.281	.913	.834	.

Reliability Statistic of all items

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.968	.968	20

Item Statistics

	Mean	Std. Deviation	N
In our organization we carry out the entire procurement activities on internet.	4.22	1.274	147
We transmit requests electronically through use of internet to execute procurement operations.	4.24	1.208	147
E-notices, e-selection, e-mailing, and e-awarding to request for information and response for prices to suppliers and receiving back their feedback are done through the internet.	4.29	1.251	147
Complete tendering process; from advertising to receiving and submitting tender-related information are done online.	4.37	1.195	147
Our monetary transactions	4.59	.905	147

with clients are made on electronic platform.			
In our organization we carry out mobile payments, internet payments, e-cards, pc banking and e-cash in the supply chain.	4.27	.988	147
We adopt electronic funds transfer and smart cards based electronic payment system.	4.54	.878	147
In our organization we carry out transaction or place order via the internet with ease.	4.73	.805	147
We make request of goods and services from clients through electronic means.	4.27	1.207	147
Our organization uses electronic means for the identification of a need to purchase of products.	4.14	1.277	147
We make payment of products purchased through electronic platform.	3.98	1.445	147
Our organization carries out post contract/payment activities such as contract management, supplier management and development via electronic means.	4.27	1.138	147
Our organization serves a large percentage of the entire available market for our products.	4.37	1.304	147
Sales of our company relative to other competitors in the market are high.	4.21	1.351	147
The percentage sales of our	4.29	1.314	147

firm increases steadily.			
Our products and services are gaining acceptance across the regions in which our businesses are located.	4.35	1.128	147
Our organization makes success in her investments.	4.33	1.094	147
We have increase in our sales margin.	4.29	1.148	147
Form our business we have funds to reinvest in other businesses.	4.22	1.115	147
Our organization has the ability to meet her financial obligation to stakeholders.	4.27	1.075	147

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
In our organization we carry out the entire procurement activities on internet.	82.03	298.937	.855	.909	.965
We transmit requests electronically through use of internet to execute procurement operations.	82.01	301.281	.846	.925	.965
E-notices, e-selection, e-mailing, and e-awarding to request for information and response for prices to suppliers and receiving back their feedback are done through the internet.	81.96	300.382	.837	.922	.965
Complete tendering process; from advertising to receiving and submitting tender-related information are done	81.88	301.327	.855	.887	.965

online.					
Our monetary transactions with clients are made on electronic platform.	81.66	319.089	.566	.791	.968
In our organization we carry out mobile payments, internet payments, e-cards, pc banking and e-cash in the supply chain.	81.99	323.959	.373	.492	.970
We adopt electronic funds transfer and smart cards based electronic payment system.	81.71	318.822	.594	.784	.968
In our organization we carry out transaction or place order via the internet with ease.	81.52	321.101	.571	.760	.968
We make request of goods and services from clients through electronic means.	81.99	300.671	.862	.916	.965
Our organization uses electronic means for the identification of a need to purchase of products.	82.11	300.029	.827	.939	.966
We make payment of products purchased through electronic platform.	82.27	301.131	.698	.777	.968
Our organization carries out post contract/payment activities such as contract management, supplier management and development via electronic means.	81.98	302.582	.867	.893	.965
Our organization serves a large percentage of the entire available market for our products.	81.88	299.829	.813	.948	.966
Sales of our company relative to other competitors	82.04	300.505	.766	.946	.966

in the market are high.					
The percentage sales of our firm increases steadily.	81.97	300.732	.785	.921	.966
Our products and services are gaining acceptance across the regions in which our businesses are located.	81.90	303.627	.848	.934	.965
Our organization makes success in her investments.	81.92	305.349	.829	.929	.966
We have increase in our sales margin.	81.96	304.615	.806	.882	.966
Form our business we have funds to reinvest in other businesses.	82.03	305.383	.810	.738	.966
Our organization has the ability to meet her financial obligation to stakeholders.	81.99	305.753	.833	.884	.966

University Compliance Form

This is to certify that, this thesis by **Okonye, Chukwudi** with Matric Number **LCU/PG/001195** in the Department of Management and Accounting, Lead City University, Ibadan is in **FULL** compliance with the approved University format and style.

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