

**THE ROLE OF E-PROCUREMENT INTEGRATION ON SUPPLY CHAIN
PERFORMANCE IN UGANDA : A CASE STUDY JUMIA**

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**UGANDA CHRISTIAN
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DECLARATION

I Ampeire Peron, I would like to say that I did all the work for this research paper about “The role of E-procurement integration on supply chain performance” at Jumia Uganda on my own with just a little help. I didn't hand in this paper for any grades at school or college. I also mentioned all the books and articles I used for my research to show that it was adopted to support my work

Signature: 

Date: 23rd Sept 2024

AMPEIRE PERON

APPROVAL

I have closely supervised the creation of the research report and it is now ready to be sent to the examining body.

Signature:
MADAM NATUHWERA MAUREEN

Date: 24th September 2024

DEDICATION

I would like to express my gratitude to my amazing family, particularly my parents, Mr. Ndyanabo James Mrs. Ndyanabo Dinnah Asiimwe for helping me with my research. I am also thankful to the lecturers especially my supervisor madam Natuhwera Maureen who guided me on the subject I was studying.

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LIST OF ABBREVIATIONS

- E-Electronic
- EDI – Electronic Data Interchange
- ECOM- Electronic Commerce
- ICT- Information and Communication Technology
- IT – Information Technology
- PDE – Procurement and Disposal Entities E-procurement – Electronic Procurement
- S.C- Supply Chain

ABSTRACT

The research looked at how e-procurement integration affected supply chain performance at Jumia Uganda. They looked at the main office in Nakasero, which controls all the branches in Uganda and handles all the buying activities. The main goal was to see how e-procurement impacted Jumia Uganda's performance overall.

The study wanted to see how the amount of transactions influences Jumia Uganda's money situation, how sticking to rules affects new ideas and flexibility in Jumia's online shopping system, and how better information systems make customers happy at Jumia Uganda.

A number of employees at Jumia's main office were asked to fill out a survey to share their thoughts, which were then evaluated. More details about Jumia Uganda were found from online sources and published materials. Researchers conducted the study using a case study approach.

Information was gathered, examined it, and displayed the results using tables, pie charts, and graphs to show how often things happened and what percentage they made up. Each person in the study agreed to keep their identity and details private by signing a research agreement. After looking at all the information, the researcher found that there are challenges when trying to use e-procurement in a company, like expensive internet costs. However, most of these problems can be solved by planning carefully and thinking about the good and bad parts of the system.

Also, the researcher discovered that using e-procurement can make a company work better. Based on these discoveries, the researcher suggested that businesses need to find ways to solve any issues that may arise from using e-procurement in order to fully benefit from its advantages. He also suggested that further studies should examine how e-procurement affects a company's success and how providing training to employees can help enhance their e-procurement skills.

CHAPTER ONE

INTRODUCTION

1.0 Introduction

This chapter presents the background of the study, statement of the problem, general objective, specific objectives, and the research questions, significance of the study, justification of the study, the conceptual framework and scope of the study

1.1 Background of the study

E-procurement comprises of the use of computers to carry on the procurement process online or electronically. Some of these activities include searching, sourcing, negotiating, ordering, receipt (Croom and Brandon Jones,2004). E-procurement has streamlined business processes, automates tasks and improved decision making through data analytics, leading to increased productivity and cost saving (Economist Intelligence Unit, 2019). Supply chain is a crucial aspect of business operations as it directly impacts the efficiency and effectiveness of an organization. An organization's supply chain management is plagued by inefficiencies, corruption, fraud, inadequate infrastructure, lack of transparency, resulting in high procurement costs, long lead times, low supplier satisfaction, inefficient inventory management, and limited visibility and control over supply chain operations. Despite the potential benefits of E-procurement integration, its adoption and implementation in the organization's supply chain management remains limited and there is a significant lack of empirical research on its impact in this context.

In Uganda, e-procurement is being fronted by public procurement and Disposal of Public Assets Authority (PPDA) although still at a very minimal level and rather at a slow pace compared to Kenya and Tanzania which are in advanced stages of its implementation. As most e-procurement initiatives in developing countries, the fundamental problem motivating this study is the need to understand the CSFs underlying the implementation of e-procurement initiatives in the public sector. In the developed countries although a number of public sector agencies are actively pursuing e-procurement, evidence from business press reveal that many of the efforts are not meeting original expectations. In fact, implementation rate of public procurement systems has been slow and many government agencies tend to overstate the degree to which they are involved in e-procurement (MacManus, 2002)

The Ugandan government in 2010 drafted and passed the National Electronic Government Framework where e-procurement is highlighted as one of the key result areas. It envisioned improved transparency, accountability and making credible timely information available to all citizens while providing services efficiently and effectively (National Electronic Government Framework, 2010). However, the national Electronic Government Framework (2010) has not helped much. Based on the above analogy, the study to analyze the effect of the adoption of e-procurement on the organizational performance in Uganda

The government of Uganda continued to lose millions to mainstream the government procurement fraud. The purchasing function is one of the most important departments in any organization. To contributes immensely to organizational effectiveness and efficiency (Christopher et al., 2022)

This knowledge gap hinders the understanding of the potential benefits and challenges of E-procurement integration making it difficult to develop effective strategies for its adoption and implementation and ultimately hindering the improvement of supply chain performance in the organization. E-procurement has simplified the purchasing, sourcing and disposal of items in an organization (Farudah et al., 2023). The increasing use of online business has led to lower costs (Ahmad and Scott, 2019), therefore improving the financial performance of organizations that have adopted the use of E-procurement (Jeong et al, 2016)

1.2 Statement of the problem

Resources and government commitment are essential in enhancing procurement supply chain management. In contrast with the previous studies which state that E-procurement is positively related to supply chain performance, it is still not possible to implement in Uganda. E-procurement is a system which will not be separated with modern technologies and many developing countries do not have this sufficient infrastructures and human resources to adopt the system. No system can work with only half implementation and this condition will not give any impact to the procurement done. E-procurement should also reduce corruption however the fact is the realization of E-procurement itself is susceptible to corrupt practices. E-procurement has made the procurement process faster. However, most government palatals agents are reluctant to embrace the concept of e-procurement. Most Public Procuring and

Disposing Entities (PDE's) do not know how to adopt electronic procurement systems due to lack of understanding of the procurement process automation. Yet, with the increased level of efficiency and effectiveness of PDE's. Studies have been conducted on e-procurement both internationally and locally. Batenburg (2015) conducted a study on the adoption of e-procurement by European firms. The study concludes that there are differences between countries in the adoption of e-procurement and that firms from countries with low level of uncertainty avoidance such as UK are early adopters⁹. With the inefficiencies, lack of transparency resulting in high procurement costs, long lead time, low supplier satisfaction, inefficient inventory management. Thus knowledge gap hinders the understanding of the potential benefits and challenges of e-procurement integration, making it difficult to develop effective strategies for its adoption and implementation, and ultimately hindering the improvement of supply chain performance in Uganda

1.3.1 General objective of the study

The general objective of the study is to analyze the effect of the adoption of e-procurement on the supply chain performance

1.3.2 Specific objectives of the study

1. To examine the relationship between compliance on innovation of e-procurement
2. To examine the role of technological integration on operational efficiency
3. To examine the number of transactions on financial performance

1.4 Research questions

1. What is the relationship between compliance on innovation of e-procurement?
2. What is the role of technological integration on operational efficiency?
3. What is the impact of the of transactions on financial performance?

1.5.0 Scope of the study

The study was meant to analyze the relationship between e-procurement on the performance of Ugandan organizations and then the impact of the implementation and adoption of e-

procurement on the organization's performance in Uganda especially the challenges and the possible solutions to these challenges faced

1.5.1 Content scope

The study analyzed the relationship between e-procurement on the performance of Ugandan supply chain and the impact of the implementation and adoption of e-procurement on the organization's performance emphasis on the challenges and the solutions

1.5.2 Geographical scope

The area of the study was Jumia Uganda which is located in Nakasero plot 47 Lumumba Avenue Kampala Uganda

1.5.3 Time scope

The study was started on April 15th to collect enough needed data

1.6 Significance of the study

- The research findings would help enhance the understanding of how e-procurement integration can impact supply chain performance, leading to improved delivery of goods and services as well as transparency within the organization
- The study findings helped organizations understand more about e-procurement and its importance as it improves the performance and effectiveness of the whole procurement process for it is a very important part in the organization that should be highly focused on for the development of organizations
- The study findings would provide insights for organizations in Uganda and other developing countries on the challenges and their solutions together with the benefits that come with the implementation of the e-procurement system
- The research findings would help inform the policymakers or the government together with the regulatory bodies about the role of e-procurement in the improvement of supply chain efficiency, effectiveness and competitiveness

1.7 Justification

- ◆ The rapid growth of E-procurement in the business world. E-procurement is becoming very important in today's business world and thus understanding its influence on supply chain performance is of great cause and importance for the organization to remain highly competitive compared to other organizations
- ◆ The study aimed to enhance supply chain sustainability through exploring the impact of e-procurement on supply chain performance hence sustainable development goals (SDGs) through developing supply chain sustainability and social responsibility with in the different organizations
- ◆ Carrying out informed policies and decision making. The research would provide valuable information for the government, policymakers, regulators, and other organization leaders and how to make proper and decisions as well as strategies related to e-procurement and supply chain management of the organization
- ◆ This research aimed at identifying areas where e-procurement integration should be improved in the supply chain performance to help in efficiency, effectiveness and competitiveness within an organization

1.8 Definition of key terms

- E-procurement: This is the process of requisitioning, ordering and purchasing goods and services online. E-procurement is also known as electronic procurement
- Supply chain: This is a network of individuals, organizations and activities involved in producing and delivering a product or service from raw materials to the end customer
- Supply chain performance: This refers to how well supply chain system operates and achieves its objectives

1.9. CONCEPTUAL FRAMEWORK



CHAPTER TWO

LITERATURE REVIEW

2.0. INTRODUCTION

This chapter contains the review of literature concerning e-procurement, supply chain performance and the relationship between e-procurement and supply chain performance. It covers e-procurement, theoretical review (sub-section in this chapter are in line with specific objectives). The information in this chapter is collected and reviewed from different sources, writers, books, journals and magazines all relating to major variables

2.1 Definition of key terms

Electronic procurement, also known as e-procurement, involves the use of digital technologies in order to control the procurement process. Different researchers have a different definition of this

According to the many researches carried out, electronic procurement has been confused with electronic purchasing. These two seem to be similar and have been in many cases used to refer to similar occasions. According to Marcmanus (2002) electronic purchasing has a narrow scope, electronic procurement refers to the use of internet based information and technologies to carry out procurement at all its different stages such as supplier searching, solicitation, evaluation, negotiating, ordering and more.

According to the procurement principles and management 10th edition (2008); this defined electronic procurement as a term that is used to describe the use of the electronic methods in the different levels in buying a good or product from identifying of the requirement to payment and then to managing

According to Schwalbe, (2011), he defined electronic procurement as the coordination, administration, computerization, enhancement and of enablement of an association's acquisition procedure, utilizing electronic devices, advances and online applications

According to Nandankar and Sachan (2020), electronic means the use of the internet so as to conduct transactions between the seller and the customer which involves activities like ordering, invoicing, payment and more

According to Gardenal (2013), electronic procurement is described as a strategic tool for automating and simplifying procurement activities thus improving organization performance. This analysis emphasizes the effect of electronic procurement on the business efficiency metrics

According to Panayiotou and Gayialis (2004), e-procurement is a method used by the government in order to promote transparency and accountability in the public sector's procurement system. This description hence refers to the specific use of e-procurement in the government system to elevate and monitor the activities carried out in the public sector

2.2. Objective 1: To examine the relationship between compliance on innovation of e-procurement of Jumia

This goal shifts the attention away from identifying new ways or strategies to overcome these obstacles. It involves evaluating existing methods, best practices, or novel approaches that have worked well in the tackling the challenges of implementing e-procurement systems in Ugandan organizations

The aim of the book is the provide practical advice to the businesses that are considering e-procurement. This study seeks to investigate the complex relationship between compliance with legal requirements and innovation in Jumia's e-procurement processes. The e-commerce industry is dynamic, and companies like Jumia must strike a balance between compliance with the 15's desire to innovate and adapt to changing market conditions. This report will include an in-depth review of Jumia's e-procurement policies, compliance reports, and innovation initiatives. The study will explore how compliance with legal and ethical requirements can influence the company's ability to innovate by conducting surveys, interviews and data analysis. It will also address the challenges and opportunities that come with maintaining compliance while still encouraging innovation. These findings will provide valuable insights into Jumia's tactics

2.2.1 Compliance in E-procurement

Compliance in e-procurement is the following of rules, regulations, administrative and standards set to guard proper electronic procurement processes. It helps in ensuring fairness, transparency and accountability with in the procurement process. Compliance is very important as it reduces corruption, fraud, which are high risks in procurement.

2.2.2 Innovation in e-procurement

With innovation, it's coming up with new ideas, practices, technologies and processes in order to enhance as well as optimize the procurement process. It more of use of artificial intelligence, digital work to streamline and promote efficiency with in procurement

2.2.3 Relationship between compliance and innovation

Regulatory frameworks and adoption in relationship:

For a well running and operation of e-procurement system, regulatory frameworks are very important. According to Shipman (2018), strong and resilient regulatory structures are needed to facilitate the adoption of e-procurement in Uganda public procurement systems

Innovation of E-procurement can improve compliance through automation the procurement processes as well as reducing human intervention. This will reduce on the issues of corruption and fraud (Mukono,2019). Respecting procurement laws will hence create trust among different sectors and parties. Trust is key to the adopting of e-procurement technologies. According to reports by Boateng(2019), compliance with e-procurement laws with in Uganda increased confidence with stakeholders as well as transparency

Challenges and solutions

i. Technological infrastructure

For modern e-procurement to be implemented in the organization and work accordingly, a lot of infrastructure is needed to achieve this. Effectiveness of e-procurement will depend on how much investments made on infrastructure

ii. Resistance to change by procurement managers and suppliers.

This issue could be solved through carrying out extensive training and awareness campaigns to make them understand the benefits that come with e-procurement

Jumia Uganda overview

E-commerce and procurement

Jumia Uganda being one of the leading e-commerce platforms, it relies heavily on effective procurement methods to manage its supply chain. Its use of e-procurement has been key and of great impact in increasing operational efficiency and customer satisfaction.

According to Nakitto et al(2020), he explains how Jumia Uganda's e-procurement system has simplified its procurement process thus leading to lower costs and improved vendor management

Innovation and compliance

Jumia Uganda's procurement process accountable and transparent as a result of innovation and compliance. Some of the innovation practices such as real time data analytics, automation of the procurement process have been designed and implemented (Kate, 2019)

Jumia Uganda's integration of innovation technologies in its procurement system has not only promoted efficiency and effectiveness but also has ensured that most of the procurement activities are in line with establishment requirements and regulations

2.3 Objective 2: To examine the role of technological integration on operational efficiency

Introduction

Technological integration, has greatly improved operation efficiency in many industries as well as organizations. A lot of research has been conducted on these sectors, most focusing on the digital transactions as well as the use of new technologies to improve efficiency and also streamline most of the operations. In most of the highly developed countries, automated and flexibility processes have been developed and improved in the manufacturing and supply chain. With predictive maintenance, use of robots and AI have greatly improved decision making, reduced lead time, route scheduling (uhlemann et al., 2017; tortorella and fettermann, 2018). Digital transformation has occurred in many industries

Manufacturing

Automation has enabled the integration of better systems on the economic and in production sectors. This has improved efficiency and productivity. Big data analytics can be used to improve production process in real-time (negri et al., 2017)

Supply chain

Digital technologies have played a crucial role in improving supply chain agility and efficiency. These technologies have improved real time data sharing, coordination as well as improved decision making within supply chain hence resulting into more effective and cost effective operations (Rodríguez-Espindola et al., 2020)

Banking and Finance

The banking industry has elevated to digital transformation so as to improve its operations and be more efficiency. Through use of technologies like machine learning, artificial intelligence and robots has improved workflows thus reducing on the operating costs and improving customer satisfaction (Parviainen et al., 2017)

Benefits of technological integration

Improved collaboration and coordination

All this has been enhanced through use of digital platforms and tools. With this improved collaboration, it has resulted into better inventory management, cost effective logistics and shorter lead time

Enhance decision making

Data driven decision making has been very important in improving business across different organizations and countries with the advanced analytics. In manufacturing, data data collected from the different stages is then used to make informed decision making, reduce wastes for example (Bokrantz et al., 2020)

Increased flexibility

A number of businesses have been able to adopt and transfer and shift respond to new changes in the market places due to the new technologies such as cloud computing, automation, robots. This flexibility is important in maintaining winning market competition and surviving the new challenges (Ghobakhloo, 2020)

Challenges that come with integration of technology

Need for substantial capital expenditure, the difficulty of integrating new technologies with existing infrastructure, and the need to train the employees to easy work with the new advanced technologies (chen et al., 2021)

With the increased digitalization, data has been put at a high risk of hacking. Security concerns concerns have become more apparent, hence requiring strong measures to safeguard very important documents (fatimah et al., 2020)

2.4 Objective 3: To examine the number of transactions on financial performance

This aims to identify and understand the challenges and difficulties that organizations in Uganda face when trying to implement e-procurement schemes. Some of these challenges that can be faced include legislative hurdles, technological barriers, financial issues, resistance with the workers. The study seeks to find out what usually discourages Uganda's use of e-procurement. This analysis is crucial because it aims to determine whether the company's financial success is correlated with the number of transactions it processes. In order to achieve this, the reporter will collect and analyze the historical financial data, market trends, transaction records and procurement. To find any significant correlations between transaction volume and key financial metrics such as sales, liquidity, profitability, financial ratio analysis will have to be used The findings of this study will provide valuable insights into Uganda's business practices and as well help the organization to make informed decisions regarding its operations

Credit risk and financial results

A systematic correlation between non-performing loans and financial results, mostly during the covid- 19 pandemic, was found in studies focusing on conventional banks in the middle east and Africa. With in this period, bank financial results were negatively impacted through increased transaction volumes, particularly those associated with higher credit risk (abdelaziz et al., 2021)

Mobile money and financial inclusion

The development of mobile money services in emerging markets has shown that higher transaction volumes can significantly improve financial results. Money is made in varies ways by mobile money providers, which includes transactions, that have high margins due to low

associated costs. Their (providers) profitability increases highly as transaction volumes increase mostly when it comes to digital transactions (mckinsey, 20202)

Volume of investments and trading

According to the studies, high trading volumes have a negative effect on financial outcomes. Increased trading volumes usually result in higher transaction fees, with which it reduces overall profits. However, if trading volumes are properly dealt with effectively, in the long run they can raise market liquidity hence leading to improved financial results (hunjra et al., 2019)

Technology and transaction efficiency

For proper and effective handling of transaction volumes, technological integration is crucial for success. Improved and well managed transaction processing technologies which are digital have helped in reduction of operational costs and also increasing the speed of transaction. This has thus impacted the financial results in a positive way. Organizations that carry on their higher transaction volume operations using technology can achieve better financial results through increasing customer satisfaction and reducing costs. (rodriguez-espndola et al., 2020)

2.5 Research Gaps

E-procurement is a very important information technology tool with the ability to improve and integrate various functions within the organization. With this internal integration can increase and improve an organization's current and potential performance together with its future results. E-procurement can as well help to boost future confidence with in both internal and external challenges. E-procurement can reduce costs through ensuring that selected suppliers provide a service that does not require extensive quality control. E-procurement can as well reduce the cost by ensuring that the purchased products do not carry over to complaints from the user department or the final product to the customer.

According to the literature reviewed, no studies have been conducted on the effects of e-procurement integration on the supply chain performance of public sector organizations with in Uganda. T

Since the concept has not been adopted with in most of the organizations, there have been no or even less studies on e-procurement. Therefore, a research is needed to investigate the effect of e-procurement on the success of the organization with in Uganda

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter described the study's methodology. It includes the study design, sample size, and sampling methods, data sources, data collaboration methods and instruments, sampling technique, data presentation and analysis, as well as the limitations and conclusions

3.1 Research design

Research strategy (Creswell, 2014, p. 32) a research strategy is the overall plan or scheme of the study that serves as a guide in gathering and analyzing data. It is the framework that dictates how research should be conducted (Robson, 2011, p.91), incorporating decisions on data collection, sampling and analysis techniques to ensure accurate and reliable research findings. The study used a descriptive approach that includes quantitative and qualitative approaches. The descriptive research technique is a useful way to describe specific topics quantitatively. Despite questions about its statistical validity, admitting flaws makes it a useful scientific tool. The study used a cross-sectional approach, gather data from a variety of respondents and periods

3.2 Area of study

3.2.1 Back ground of Jumia Uganda

The study was conducted at Jumia Uganda. This is one of the leading e-commerce companies in Uganda, offering a wide variety of products and services, some of which include groceries, clothes, shoes, electronics, all sorts of home requirements and applications, among other things. Jumia Uganda has implemented a number of technological improvements so as to improve its goal of being efficiency and better customer service. E-procurement has then been integrated into the supply chain management. Jumia Uganda offers a number of e-procurement services that use an online procurement system that creates a network relationship between the organization and the suppliers. Its main intention is to streamline procurement workflows, increase transparency, strengthen the relationship with jumia's suppliers and also reduce transaction costs

3.3 Study population

The research population referred to the number of people or elements used to carry out the study. These individuals are used in data collection and analysis during the research study. The target population is mainly those workers in procurement and supply chain management for instance suppliers who work with jumia via e-procurement portal, jumia Uganda's senior management and its specialists Jumia Uganda has over 429 employees and having David Ssendendo as the head Procurement and Administration over 200 work in the head offices (www.linkedin.com/company/jumia-ug)

3.4 Sampling procedures

3.4.1 sample size

The study was aimed at Jumia Uganda's head office in Nakasero. The sample size or the number of respondents was determined by using a formula made by Taro Yaman 1967 described as;

$$n = \frac{N}{1 + N(e)^2}$$

where;

n= Sample size

N= Population size (which is 200 employees)

1 is always constant

e = error term (0.01-0.10)

therefore, the sample size $n = \frac{200}{1 + 200(0.05)^2}$

$$n = 133.3$$

Therefore, n=133 respondents

The sample size consisted of 133 participants at the company's head office.

3.5 Sampling techniques

This is a way to choose a smaller group of people or things from a bigger group for research reasons. It is a process where a portion of something for instance people is selected to represent

a certain population. The sampling technique that I will use in my dissertation will be Non probability sampling

3.5.1 Probability sampling

This is also called random sampling used in quantitative survey. This ensures that every element in the study population has equal chance of being selected. This method uses simple random sampling to choose respondents who are involved in the e-procurement activities within the company and have a significant impact on the company's performance especially those selected above others

3.5.2 Non probability sampling

Here the chance of inclusion is known. There is limited chance for all the units of the study population to be selected. Instead the researcher used purposive sampling to select participants who could provide the specific information required for the study. It is used in qualitative survey

3.6 Data collection methods

During the research study, data would be collected using both primary and secondary sources

3.6.1 Primary Data

This refers to the first hand form of information. This kind of data will be gathered through in-depth interviews, observation, questionnaires and focused group decisions. With the use of decisions and interviews, there will be provision of qualitative data

3.6.2 Secondary data

This is referred to the form of data that is already existing or already in place. This will be obtained obtains from Jumia's old reports and records, relevant literature about e-procurement integration and supply chain performance. This data will help to analyze the primary source of data

3.7 Data analysis

Data analysis is a very important sector when it comes to research. The acquired data was evaluated using both qualitative and quantitative techniques

3.7.1 Quantitative analysis

When it comes to qualitative form of data, descriptive statistics, regressive analysis and correlation analysis will be used in analyzing it. This form of information will thus help to determine the connections between e-procurement integration and supply chain performance indicators

3.7.2 Qualitative analysis

With qualitative data, there will be use and involvement of coding, identification of the themes, interpretation of the study findings so as to know the effect of e-procurement integration on Jumia

3.8 Data control

The investigation began with the submission of a research proposal together with the data collection techniques to the supervisor for review and pre-testing. After approval was done, a letter from the school of business and management studies Dean was sent. which served as a tool for obtaining permission to conduct the investigation and gathering all the required data from the respondents during the study.

Ethics is a branch of philosophy that considers how individuals should behave and consequences of their conduct in the environment for instance (wrong, right versus evil) and the formulation of rules and regulations to justify actions (aguinis&henle, 2002)

The study will follow ethical principles in terms of research, including seeking informed consent from respondents, preserving anonymity and avoiding things like being biased or evening harming the participants. Before the start of data collection, the appropriate ethical review boards will need to obtain permission the go on with the collection

CHAPTER FOUR

4.0. PRESENTATION OF DATA AND ANALYSIS

4.1 Introduction

The chapter focuses on presentation of analyzed data concerning the role of e-procurement integration on supply chain performance in Jumia Uganda. The results in this section are mainly presented using statistical tables that were generated in relation to the study objectives. The statistical tools used in the analysis and interpretation of data are descriptive in nature such as mean and standard deviations with correlation analysis. The data in this study was collected through administering questionnaires to the respondents in Jumia Uganda Ltd.

4.2 Demographic Characteristics of Respondents

The results that follow show the respondents' characteristics. The mean, standard deviation analysis and frequency distributions were used to explore the interrelationship between the study variables. The characteristic included gender and period worked with the project. The findings are presented in tables below.

4.2.1 Gender of the Respondents

The results in table 4.1 below show the gender of the respondents who participated in the study.

Table 4. 1: Gender of the Respondents

Gender		Frequency	Valid Percent	Cumulative Percent
Valid	Female	50	38.5	38.5
	Male	80	61.5	100.0
	Total	130	100.0	

The results in table 4.2 above show that the majority of the respondents were male (61.5%) while only 38.5% were the female. The sample shows that the study was dominantly composed of males.

4.2.2 Types of the Respondents

The results in table 4.2 below show the types of the respondents who were involved in the study.

Table 4. 2: Types of the Respondents

Type		Frequency	Valid Percent	Cumulative Percent
Valid	Managers	8	6.2	6.2
	Suppliers	90	69.2	75.4
	Procurement officers	32	24.6	100.0
	Total	130	100.0	

From table 4.3, results show that most respondents 90 (69.2%) were suppliers. These were followed by procurement officers at 32 (24.6%) and the managers at 8 (6.2%). This shows that the respondents were fairly picked from the three key groups that formed the core of Jumia Uganda. This representativeness of the respondents authenticates the results.

4.3 Relationship between Compliance and Innovation

This objective studied the relationship between compliance and innovation in Jumia Uganda. Thus, a thorough examination of the relationship between compliance and innovation in Jumia Uganda is made. Respondents were asked to rate the relationship between compliance and innovation in Jumia Uganda and the table below shows their mean ratings. Thereafter an examination of relationship between compliance and innovation in Jumia Uganda is also made. The above two issues were assessed using the questionnaire which was anchored such that 1 represents Strongly Disagree, 2-Disagree, 3-Neither Agree nor Disagree, 4-Agree and 5-Strongly Agree. Means that are close to 1 or 2 signify Disagreement while those that are close to 4 or 5 show Agreement with the issue being raised.

Table 4. 3: Relationship between Compliance and Innovation in Jumia Uganda

Relationship between Compliance and Innovation	Min	Max	Mean	Std. Deviation
Compliance creates new efficient practices in our e-procurement systems.	1.00	5.00	3.12	1.18
Compliance creates new efficient processes in our e-procurement systems.	1.00	5.00	3.12	1.17
Compliance promotes efficiency within our procurements.	1.00	5.00	2.88	0.96
Compliance streamlines our technologies in our e-procurement systems.	1.00	5.00	2.65	1.03
We need strong and resilient regulatory structures to facilitate our adoption of e-procurement.	1.00	5.00	2.71	0.95
Compliance is key to the adopting of e-procurement technologies.	1.00	5.00	2.61	1.02
Compliance creates new ideas in our e-procurement systems.	1.00	5.00	3.00	1.10
We have the infrastructure needed to integrate e-procurement in our operations.	1.00	5.00	2.88	1.02
We have carried out extensive training and awareness campaigns to make our staff and suppliers understand with e-procurement	1.00	5.00	2.86	1.08
Our e-procurement system has simplified our procurement process leading to lower costs and improved vendor management.	1.00	5.00	2.81	1.08
Our managers and suppliers are accepting integration of e-procurement in our business systems.	1.00	5.00	2.69	1.11

According to the results above, the relationship between compliance and innovation in Jumia Uganda is presented as per the respondents' responses. The results indicate that compliance creates new efficient practices in our e-procurement systems (Mean=3.12). Compliance creates new efficient processes in our e-procurement systems (Mean=3.12). the results show that compliance does not promote efficiency within our procurements (Mean=2.88).

Compliance does not streamline Jumia Uganda technologies in its e-procurement systems (Mean=2.65). Also, Jumia Uganda does not need strong and resilient regulatory structures to facilitate our adoption of e-procurement (Mean=2.71). Similarly, compliance is not key to the adopting Jumia Uganda e-procurement technologies (Mean=2.61).

However, compliance creates new ideas in our e-procurement systems (Mean=3.00). Yet, Jumia Uganda does not have the infrastructure needed to integrate e-procurement in its operations (Mean=2.88). Jumia Uganda has not carried out extensive training and awareness campaigns to make its staff and suppliers understand with e-procurement (Mean=2.86). Jumia Uganda e-procurement system has not simplified our procurement process leading to lower costs and improved vendor management (Mean=2.81). Jumia Uganda managers and suppliers are not accepting integration of e-procurement in our business systems (Mean=2.69).

The results indicate that the relationship between compliance and innovation in Jumia Uganda is not quite strong. The results have shown that compliance does not promote efficiency within Jumia Uganda procurements. Compliance did not streamline Jumia Uganda our technologies in its e-procurement systems. Also, Jumia Uganda does not need strong and resilient regulatory structures to facilitate our adoption of e-procurement. Similarly, compliance is not key to the adopting of e-procurement technologies.

4.4 Role of Technological Integration in Operational Efficiency

This objective focused on the role of technological integration in operational efficiency in Jumia Uganda. Thus, a thorough examination of the role of technological integration in operational efficiency in Jumia Uganda is made. Respondents were asked to rate the impact of number of transactions on financial performance in Jumia Uganda and the table below shows their mean ratings. Thereafter, an examination of the role of technological integration in operational efficiency in Jumia Uganda is also made.

The above two issues were assessed using the questionnaire which was anchored such that 1 represents Strongly Disagree, 2-Disagree, 3-Neither Agree nor Disagree, 4-Agree and 5-Strongly Agree. Means that are close to 1 or 2 signify Disagreement while those that are close to 4 or 5 show Agreement with the issue being raised.

Table 4. 4: Role of Technological Integration in Operational Efficiency in Jumia Uganda.

Role of Technological Integration in Operational Efficiency	Min	Max	Mean	Std. deviation
Technological integration improves operation efficiency in our company.	2.00	5.00	3.63	1.16
Technological integration streamline most of the operations.	2.00	5.00	3.64	1.03
Technological integration improves our decision making.	1.00	5.00	3.50	1.20
Technological integration reduces lead time.	2.00	5.00	3.63	1.16
Technological integration our route scheduling.	2.00	5.00	3.64	1.03
Technological integration improves our supply chain agility and efficiency.	2.00	5.00	3.64	1.03
Technological integration improves our real time data sharing.	1.00	5.00	3.50	1.20
Technological integration improves our coordination.	2.00	5.00	3.63	1.16
Technological integration leads to our effective and cost effective operations.	2.00	5.00	3.64	1.03

The results in table 4.4 present the results about the role of technological integration in operational efficiency in Jumia Uganda. According to the results, technological integration improves operation efficiency in our company (Mean=3.63). Technological integration streamline most of the operations (Mean=3.64). Technological integration improves our decision making (Mean=3.50). Technological integration reduces lead time (Mean=3.63).

Furthermore, Technological integration our route scheduling (Mean=3.64). Technological integration improves our supply chain agility and efficiency (Mean=3.64). Technological integration improves our real time data sharing (Mean=3.50). Technological integration improves our coordination (Mean=3.63).

Technological integration leads to our effective and cost effective operations (Mean=3.64).

Generally, the results above point to the fact that the technological integration plays a substantial role in operational efficiency in Jumia Uganda as exhibited by improving coordination, real time data and improving decision making.

4.5 Impact of number of transactions on financial performance

This objective focused on the impact of number of transactions on financial performance in Jumia Uganda. Thus, a thorough examination of the impact of number of transactions on financial performance in Jumia Uganda is made. Respondents were asked to rate the impact of number of transactions on financial performance in Jumia Uganda and the table below shows their mean ratings. Thereafter an examination of the impact of number of transactions on financial performance in Jumia Uganda is also made.

The above two issues were assessed using the questionnaire which was anchored such that 1 represents Strongly Disagree, 2-Disagree, 3-Neither Agree nor Disagree, 4-Agree and 5-Strongly Agree. Means that are close to 1 or 2 signify Disagreement while those that are close to 4 or 5 show Agreement with the issue being raised.

Table 4. 5: Impact of number of transactions on financial performance in Jumia Uganda

Impact of number of transactions on financial performance	Min	Max	Mean	Std. Deviation
Our transaction volume increases transaction records and procurement.	1.00	5.00	3.23	1.20
Our transaction volume increases our sales.	1.00	5.00	3.08	1.25
Our transaction volume increases liquidity.	2.00	5.00	3.56	1.12
Our transaction volume increases profitability.	2.00	5.00	3.63	1.16
Technological integration is crucial for financial success.	1.00	5.00	3.49	1.14
Increased trading volumes usually result in higher transaction fees.	2.00	5.00	3.64	1.03
Improved and well managed transaction processing technologies help in reduction of operational costs.	1.00	5.00	3.34	1.09
Our transaction volume increases the speed of transaction.	1.00	5.00	3.50	1.20

Our transaction volume increases increasing customer satisfaction.	1.00	5.00	3.46	1.07
Our transaction volume increases reducing costs.	1.00	5.00	3.30	1.12

The results in table 4.5 present the impact of number of transactions on financial performance of Jumia Uganda. accordingly, the results show that Jumia’s transaction volume increases transaction records and procurement (Mean=3.23). Jumia’s transaction volume increases its sales (Mean=3.08). Jumia’s transaction volume increases liquidity (Mean=3.56). Jumia’s transaction volume increases profitability (Mean=3.63). Technological integration is crucial for financial success (Mean=3.49).

The results clearly show that Increased trading volumes usually result in higher transaction fees (Mean=3.64). Improved and well managed transaction processing technologies help in reduction of operational costs (Mean=3.34). Jumia’s transaction volume increases the speed of transaction (Mean=3.50). Jumia’s transaction volume increases increasing customer satisfaction (Mean=3.46). Jumia’s transaction volume increases reducing costs (Mean=3.30).

CHAPTER FIVE

DISCUSSIONS, SUMMARY, CONCLUSION AND RECOMMENDATIONS OF THE FINDINGS

5.1 Introduction

This chapter presents the discussion of major findings in chapter four and draws conclusions and recommendations of the findings concerning the role of e-procurement integration on supply chain performance in Jumia Uganda. The results are discussed in relation to the study objectives.

5.2 Discussion of the findings

5.2.1 Relationship between Compliance and Innovation

This objective focused the relationship between compliance and innovation in Jumia Uganda. According to the results above, the relationship between compliance and innovation in Jumia Uganda indicate that compliance creates new efficient practices in our e-procurement systems. The findings revealed that compliance creates new efficient processes in our e-procurement systems.

The results further show that compliance does not promote efficiency within our procurements. Compliance does not streamline Jumia Uganda technologies in its e-procurement systems. Also, Jumia Uganda does not need strong and resilient regulatory structures to facilitate our adoption of e-procurement. Similarly, compliance is not key to the adopting Jumia Uganda e-procurement technologies.

For a well running and operation of e-procurement system, regulatory frameworks are very important. According to Shipman (2018), strong and resilient regulatory structures are needed to facilitate the adoption of e-procurement in Uganda public procurement systems. With innovation, its coming up with new ideas, practices, technologies and processes in order to enhance as well as optimize the procurement process. It more of use of artificial intelligence, digital work to streamline and promote efficiency with in procurement

However, compliance creates new ideas in our e-procurement systems (Mean=3.00). Yet, Jumia Uganda does not have the infrastructure needed to integrate e-procurement in its operations (Mean=2.88). Jumia Uganda has not carried out extensive training and awareness campaigns to make its staff and suppliers understand with e-procurement (Mean=2.86). Jumia Uganda e-procurement system has not simplified our procurement process leading to lower costs and improved vendor management (Mean=2.81). Jumia Uganda managers and suppliers are not accepting integration of e-procurement in our business systems (Mean=2.69).

The results indicate that the relationship between compliance and innovation in Jumia Uganda is not quite strong. The results have shown that compliance does not promote efficiency within Jumia Uganda procurements. Compliance did not streamline Jumia Uganda our technologies in its e-procurement systems. Also, Jumia Uganda does not need strong and resilient regulatory structures to facilitate our adoption of e-procurement. Similarly, compliance is not key to the adopting of e-procurement technologies.

5.3 Role of Technological Integration in Operational Efficiency

This objective focused on the role of technological integration in operational efficiency in Jumia Uganda. Thus, a thorough examination of the role of technological integration in operational efficiency in Jumia Uganda is made. According to the results, technological integration improves operation efficiency in our company (Mean=3.63). Technological integration streamline most of the operations (Mean=3.64). Technological integration improves our decision making (Mean=3.50). Technological integration reduces lead time (Mean=3.63).

It is quite clear that the results concur with the notion in the literature that with predictive maintenance, use of robots and AI have greatly improved decision making, reduced lead time, route scheduling (Uhlemann et al., 2017; Tortorella and Fettermann, 2018). Digital transformation has occurred in many industries

More so, results agree with the literature that automation has enabled the integration of better systems on the economic and in production sectors. This have improved efficiency and productivity. Big data analytics can be used to improve production process in real-time (Negri et al., 2017).

Digital technologies have played a crucial role in improving supply chain agility and efficiency. These technologies have improved real time data sharing, coordination as well as improved decision making within supply chain hence resulting into more effective and cost effective operations (Rodríguez-Espndola et al., 2020).

Furthermore, Technological integration our route scheduling (Mean=3.64). Technological integration improves our supply chain agility and efficiency (Mean=3.64). Technological integration improves our real time data sharing (Mean=3.50). Technological integration improves our coordination (Mean=3.63). Technological integration leads to our effective and cost effective operations (Mean=3.64). Generally, the results above point to the fact that the technological integration plays a substantial role in operational efficiency in Jumia Uganda as exhibited by improving coordination, real time data and improving decision making.

5.4 Impact of number of transactions on financial performance

This objective focused on the impact of number of transactions on financial performance in Jumia Uganda. The results on the impact of number of transactions on financial performance of Jumia Uganda show that Jumia's transaction volume increases transaction records and procurement (Mean=3.23). Jumia's transaction volume increases its sales (Mean=3.08). Jumia's transaction volume increases liquidity (Mean=3.56). Jumia's transaction volume increases profitability (Mean=3.63). Technological integration is crucial for financial success (Mean=3.49).

Accordingly, the literature review in line with the results above show that high trading volumes have a negative effect on financial outcomes. Increased trading volumes usually result in higher transaction fees; with which it reduces overall profits. However, if trading volumes are properly dealt with effectively, in the long run they can raise market liquidity hence leading to improved financial results (hunjra et al., 2019).

Further connection of the results with the literature show that for proper and effective handling of transaction volumes, technological integration is crucial for success. Improved and well managed transaction processing technologies which are digital have helped in reduction of operational costs and also increasing the speed of transaction. This has thus impacted the financial results in a positive way. Organizations that carry on their higher transaction volume

operations using technology can achieve better financial results through increasing customer satisfaction and reducing costs (Rodrguez-Espndola et al., 2020).

The results therefore clearly show that increased trading volumes usually result in higher transaction fees. Improved and well managed transaction processing technologies help in reduction of operational costs. Jumia's transaction volume increases the speed of transaction. Jumia's transaction volume increases increasing customer satisfaction. Jumia's transaction volume increases reducing costs.

5.5 Conclusions

a. The relationship between compliance and innovation in JumiaUganda is that compliance creates new efficient processes in our e-procurement systems. This is strengthened by the fact that compliance does not promote efficiency within our procurements. Similarly, compliance is key to the adopting Jumia Uganda e-procurement technologies.

b. The role of technological integration in operational efficiencyin Jumia Uganda isthat the technological integration plays a substantial role in operational efficiency in Jumia Uganda as exhibited by improving coordination, real time data and improving decision making.

c. The impact of number of transactions on financial performance in Jumia Uganda is that increased trading volumes usually result in higher transaction fees. Improved and well managed transaction processing technologies help in reduction of operational costs. Jumia's transaction volume increases the speed of transaction. Jumia's transaction volume increases increasing customer satisfaction. Jumia's transaction volume increases reducing costs.

5.6 Recommendations

1. Companies that have innovative processes or partnerships for this purpose must implement compliance in their governance structure, but horizontally, defining people or sectors responsible for carrying out internal and external compliance in an active position, in the various stages of building innovation: development, testing and production. Managers should be aware that compliance should not be so rigid as to restrict freedom, self-direction and promote excessively high costs.

2. The role of technology integration in significantly enhancing operational efficiency should be improved by automating processes, optimizing supply chains, improving data management, and ultimately boosting company performance.

3. The number of transactions in Jumia Uganda should be improved by offering a wide range of products and services by appealing to a larger target audience. By offering a wide range of products and services, more customers can be attracted and retained, resulting in an increase in the number of transactions, hence improved financial performance. Creating a seamless buying experience should also help increase the number of transactions by making it easy for customers to make purchases. By making it easy for customers to make purchases, you can increase the likelihood of repeat transactions and grow your business.

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QUESTIONNAIRE

ANALYZING THE ROLE OF E-PROCUREMENT INTEGRATION ON SUPPLY CHAIN PERFORMANCE IN UGANDA. A CASE STUDY OF JUMIA UGANDA

Dear Respondent,

I am AMPEIRE PERON, a Procurement finalist student from Uganda Christian University. As a requirement of my degree program, I am conducting research “**ROLE OF E-PROCUREMENT INTEGRATION ON SUPPLY CHAIN PERFORMANCE IN UGANDA. A CASE STUDY OF JUMIA UGANDA**” You have been selected to participate in this study because the contribution you make to your organization is central to the kind of information required. The information you provide is solely for academic purposes and your information will be kept confidential.

Please kindly spare some few minutes to respond to the following questions.

Section A: Personal Data

1. Age:

2. Sex:

Male Female

3. Position:

Manager Director Executive Head section

Other (specify)

4. Department.....

5. Time spent with the organization.....

Section B: relationship between Compliance and Innovation

State the extent to which you agree with the following statements by placing a tick based on your rating; (1) Strongly disagree (SD) (2) Disagree (D) (3) Neutral (N) (4) Agree (A) (5) Strongly agree (SA)

Compliance and Innovation	1	2	3	4	5
	SD	D	N	A	SA
Compliance creates new efficient practices in our e-procurement systems.					
Compliance creates new efficient processes in our e-procurement systems.					
Compliance promotes efficiency within our procurements.					
Compliance streamlines our technologies in our e-procurement systems.					
We need strong and resilient regulatory structures to facilitate our adoption of e-procurement.					
Compliance is key to the adopting of e-procurement technologies.					
Compliance creates new ideas in our e-procurement systems.					
We have the infrastructure needed to integrate e-procurement in our operations.					
We have carried out extensive training and awareness campaigns to make our staff and suppliers understand the benefits that come with e-procurement					
Our e-procurement system has simplified our procurement process leading to lower costs and improved vendor management.					
Our managers and suppliers are accepting integration of e-procurement in our business systems.					
We have enough investments in infrastructure to integrate e-procurement.					
Compliance with e-procurement laws increases confidence with our stakeholders					
Our procurement process is accountable and transparent as a result of innovation and compliance.					

Innovation practices, such as real time data analytics, automation of the procurement process, have been designed and implemented.					
Integration of innovation technologies in our procurement system has promoted efficiency and effectiveness.					
Most of our procurement activities are in line with establishment requirements and regulations.					

Section C: Role of Technological Integration in Operational Efficiency

State the extent to which you agree with the following statements by placing a tick based on your rating; (1) Strongly disagree (SD) (2) Disagree (D) (3) Neutral (N) (4) Agree (A) (5) Strongly agree (SA).

Role of technological integration on operational efficiency	1	2	3	4	5
	SD	D	N	A	SA
Technological integration improves operation efficiency in our company.					
Technological integration streamline most of the operations.					
Technological integration improves our decision making.					
Technological integration reduces lead time.					
Technological integration our route scheduling.					
Technological integration improves our supply chain agility and efficiency.					
Technological integration improves our real time data sharing.					
Technological integration improves our coordination.					
Technological integration leads to our effective and cost effective operations.					
Technological integration leads to increased flexibility.					

Section D: Impact of number of transactions on financial performance

State the extent to which you agree with the following statements by placing a tick based on your rating; (1) Strongly disagree (SD) (2) Disagree (D) (3) Neutral (N) (4) Agree (A) (5) Strongly agree (SA)

Impact of number of transactions on financial performance	1	2	3	4	5
	SD	D	N	A	SA
Our transaction volume increases transaction records and procurement.					
Our transaction volume increases our sales.					
Our transaction volume increases liquidity.					
Our transaction volume increases profitability.					
Technological integration is crucial for financial success.					
Increased trading volumes usually result in higher transaction fees.					
Improved and well managed transaction processing technologies help in reduction of operational costs.					
Our transaction volume increases the speed of transaction.					
Our transaction volume increases increasing customer satisfaction.					
Our transaction volume increases reducing costs.					