

# Analysis of Transaction Support Technology and Service Delivery of Selected Supermarkets in FCT, Abuja, Nigeria

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**Abstract-** *This study analyses the Transaction Support Technology and Service Delivery of Selected Supermarkets in FCT, Abuja, Nigeria, taken into consideration electronic payment technology and mobile payment system. The population of the study was 240 people which comprises of 40 customers of City Mart, Gwagwalada, 40 customers of ShopRite Abuja Gate Ways, Lugbe, Airport road, 40 customers of Geskiya Supermarket, Kurudu, 40 customers of Big Idea Supermarket & Pharmacy, Gwarinpa, 40 customers of Price Ebeano Supermarket, Gaduwa and 40 staffs (8 each from each of the selected supermarkets). The sample size was determined using the Taro Yamane sample size determination technique, Survey instrument was used in this study and the collected data analyzed based on such issues as transaction processing and performance amongst others. Findings revealed that transaction processing system affect the service delivery of selected superstores in FCT, Abuja and the following recommendations where made based on the findings, since electronic payment technology has a significant influence on quality service delivery and it was also recommended that Management of courier services should invest more on mobile payment system since its increase will improve quality service delivery*

**Indexed Terms-** *ERP, HRDSS, Decision Support Systems, Electronic payment technology, Transaction Processing Systems*

## I. INTRODUCTION

The impact of information technology on service delivery has become a burning issue in recent times as a result of the western model of technological development in work place like the use of big data,

analytics, web 2.0 and the over dependent on Computer related technologies for production and the dwindling employees' performance which impede on the service delivery of supermarkets in recent times [1].

Many employers attribute the ability of the supermarkets to deliver efficient and effective services to their customers to their strength and abilities as well as their technical knowledge and skills of employees alone. Although that is true, but they are only individual factor which is one aspect of the complex factors that affect service delivery in an organization [2]. According to [3], organizational service delivery is affected by many factors but the most pressing problems reside in the use of transaction support systems which are essential functions of modern information technology, and it is virtually impossible to study any organizational level information technology system today without knowing something about them and how they operate and impact on service delivery. In fact, without transaction support systems, it is unlikely that information technology would even be considered a serious field of study because information technology supports every other types of information systems such as executive support system, decision support system and management information system depends on the external information provided by transaction system.

In customer service, technology is not just a tool a business should have but it is an integral part that support all business function today. It is used in creating innovative experience in customer support services by enabling effective and efficient service delivery [4]. Over time, with the complexity of

technology and the introduction of various technological innovations, technology has been viewed as a threat to some superstore stores since more people now shop online. According to [5], technology can be used to enhance customer experience in superstores. However, from a positive perspective, technology has made work much easier and faster ranging from service delivery to customer interaction and from the way transaction is carried out in selected superstores in Abuja today, the complexity in interacting with customers has been reduced. Technology ensures that every organization provide quality services and products to your customers.

Technology plays a lot of roles in supporting the major functions of superstores, according to [6], technology play three major support roles in supply chain and superstore procurement system such as transaction support, collaborative support and decision support among other. However, this study focusses on the aspect of transaction support aspect, this aspect in supply chain management is especially in the area of electronic commerce. It includes the use of e-mail electronic data interchange, fund transfers such as electronics-payment system and electronics-sourcing, bulletin boards, publishing, image processing, shared databases and magnetic/optical data capture.

This study categorizes transaction support aspect into two types: Batch transaction processing technology which gathers information and store them without immediate processing and the real time processing technology system that consist of e-payment technology which include: debit cards, credit cards, electronic funds transfers, direct credits, direct debits, internet banking and e-commerce payment systems and other payment system such as USSD (unstructured supplementary service data) and Mobile App and e-sourcing technology which is a collection of digital tools that help streamline, simplify and improve strategic sourcing activities of the superstore and the Procurement processes performed by an the procurement agents in the superstore [8]. These systems had helped the superstores to collect, record, process, store, and retrieve data easily. The superstores save time and reduced paper work by implementing these systems. The users of the newly introduced e-payment systems and e-sourcing systems are satisfied as they have assisted the users with easy data

recording, processing, retrieval etc. The real time processing system has assisted the superstores to effectively utilize its resources, and to avoid many operational issues faced during previous manual operation.

The real time processing system as an online Payment system has enabled the supermarket to collect payments on time, to accurately forecast future revenues, and to easily collect previous arrears. According to [8], The technology has enabled the superstores to properly collect its revenues, and to avoid the costs associated with delayed revenue collection. Further, the technology facilitates easy issuance of payment receipts to the customers which previously had required the presence of students to collect receipts. With the assistance of the technology, collection details are generated at regular interval and sent to relevant authorities for reimbursement. customers are not required to be present in the supermarket, or go to banks to make their payments with this system.

According to [9], most Supermarkets are using one among the many technologies in place for keeping records that is keeping the information on a computer stored in the operating system and the file processing technology allows users to manipulate the information, the technology system can present a number of application programs; these are written to meet the needs of the organization, new technology application programs are added as the need arises.

- Statement of the Problem

A close look at the operations of most supermarkets in Abuja shows that most of them had been performing poorly in recent times, most superstores spend most of their productive time, gathering transaction records without processing them immediately which may be responsible poor customer service delivery. Most of the customers also complained of poor payment system and nonfunctional electronic payment technology resulting to poor transaction and communication with the customers and management of the superstores, stiff competition, and poor delivery services. It was also observed that the inefficiency of electronic sourcing technology in the supermarkets may have resulted to high customer turnover, stiff

competition in the business environment and poor relationship with the business partners.

However, it is not known whether the dwindling in service delivery is as a result of not implementing effective transaction processing technology in their business operations. Therefore, the management of the supermarkets had looked for means and ways to market their goods so as to attract more customers no matter the distance and manage ease interaction between the supermarkets' sales department and the client's viable method that did not need physical contact. Thus, this study sought to analyses transaction support technology and the service delivery of the supermarkets in FCT, Abuja so as to establish better methods of applying technology in business to satisfy customer needs.

- Purpose of the Study

The purpose of this study is to analyze information technology and service delivery of selected supermarkets in FCT, Abuja. The specific objectives are as follows:

- To determine the influence of electronic payment technology on service delivery in supermarkets
- To assess the extent to which mobile point of sales technology impact on service delivery in supermarkets

- Hypotheses

The following Null Hypotheses are meant to guide research.

H0<sub>1</sub>- Electronic payment system has no significant influence on service delivery in supermarkets

H0<sub>2</sub>- mobile point of sales has no significant impact on service delivery in supermarkets

- Significance of the Study

The significance of this study is to give further insight to other researchers and academicians on information technology and service delivery as well as study other gaps. Furthermore, this study gives awareness to private and government employers on the benefits of information technology used in superstores by giving adequate attention to the intangible aspect of their organization. The study is also aimed at establishing new data and interpretation as well as new frontiers of

knowledge that would be of importance to various stake holders and the documented report of this study will be easily acquired in the library and will equip the learners with more knowledge and skills on information technology.

- Scope of the Study

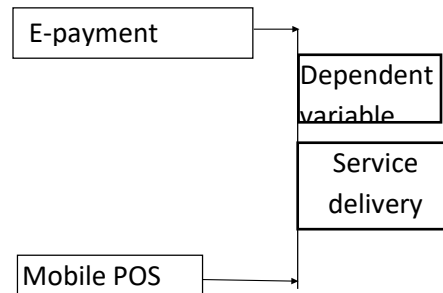
## II. REVIEW OF RELATED LITERATURE

This section deals with the review of literature considered important to this study. The literature review is discussed under the following sub-headings: Conceptual Framework, Theoretical Framework, Empirical studies and Appraisal of the Reviewed Literature

### Conceptual Framework

The conceptual model of the study is illustrated below:

#### INDEPENDENT VARIABLE



Source; Author, 2022

- Electronic Payment Technology

This study sees electronic payment technology as an integral part that support e-commerce. With the coming of e-commerce, a lot has changed in the aspect of new types of purchasing relationships such as auction between individuals online. These has made organizations, individuals and governments to be exploring various types of electronic payment system and issues surrounding electronic payment system and digital currency [8]. Some proposed electronic payment systems are simply electronic version of existing payment systems such as cheque, invoices and credit cards, while, others are based on the digital currency technology and the improve they systems in supermarkets are a proper reflection on the broader implications for the existing payment system [10].

- Types of Electronic Payment Technology

There are different types of electronic payment technology, according to [11], explained six types of electronic payment technology: PC-Banking, Credit Cards, Electronic Cheque (E-cheque), Micro payment, Smart Cards, E-Cash. There are three types of electronic payment systems: Digital Token based electronic payment systems, Smart Card based electronic payment system, based electronic payment systems. This can further be classified electronic payment system into two categories: Electronic Cash and Electronic Debit-Credit Card Systems. Thus, Electronic payment system can be broadly divided into four general types [8]: Online Credit Card Payment System, Electronic Cheque System, Electronic Cash System and Smart Card based Electronic Payment System.

- Mobile point of sale

Mobile point of sales is very vital in supermarket service delivery; it keeps clients moving through the registration line as proficiently as conceivable notwithstanding amid deals surge times. The use of mobile point of sales in supermarket can also avoid back-ups at the sales registers because of returns. Enhance consumer loyalty and help prevent lost deals with mobile point of sales solutions. It gives the staff an opportunity to use cell phones linked with mobile point of sales stock management systems to promptly help clients to get the information they have to make their purchase [12].

An ever increasing number of shoppers incline toward their receipts to be emailed to eliminate paper and help them remain organized. A retail firm can give them an option with mobile point of sales for receipts to be furnished carefully or with customary paper receipts to address your clients' issues [13].

- Service Delivery

A service is effective when its results are valid to the customers. Transaction processing system help to build new and better service delivery by rising transparency and efficiency, and enhancing the coordination of public sector procedures and management [13]. This study views service quality as a product of accountability and responses, it is therefore explained by quality of work.

Quality of work is measured by the indicator of meeting or exceeding the standard that is set by the organization. Speed of work achievement is measured by the indicator of the time length of work accomplished. In an Information system context when we measure the effectiveness, we are basically measuring the capacity of the outputs of information systems or of an IT application to fulfill the requirements of the firm and to attain its objectives, making this firm more competitive. In the same IS context the efficiency is the measurement of how inexpensively can you get things done, and are the customers to whom you provide IS services happy with the quality and ease of service delivery being offered? And does it reduce the operational expenses? Various studies have been undertaken to measure the impact of IS on management performance (efficiency and effectiveness) of business organizations using different performance constructs. These components explain all activity levels and performance indicators common to all units and cover the full variety of resources used. These components consist of customer satisfaction, income, supplier/customer links, firm image, confidence, job interest of workers, stakeholders' and inter-office links.

In this study the researcher evaluates the effect of transaction processing systems on service delivery after Information technology implementation and utilization by comparing it to the previous service delivery level of the documents authentication and registration agency and its effect on overall employee's satisfaction. Models and frameworks have been proposed in literature for undertaking information system. It is noticed that some of these have very limited focus; while others are more generic, yet, mainly theoretical in nature. Moreover, most of these frameworks address the success of using transaction processing system components on service delivery. Moreover, the suitability of the automating method to the organizational context is of great significance. While automating services could benefit manufacturing and service firms, there should be a distinction in its implementation to suit the unique situation of the firm [11].

- Empirical studies

[14] conducted a study on the impact of using information system in improving and managing the

decision-making process of the Employees Affairs Department of Al-Balqa Applied University at Al-Karak. The study adopted a 24 items questionnaire with five responses (Likert Scale) was developed and distributed to 20 participants, representing the Employees Affairs Department. Mean and standard deviation was used to for discrete data while Regression analysis to test the hypotheses with the aid of SPSS. It was discovered that information system improves the decision making process of the Employees

[11] assessed the consequences of IT in procurement logistics on organizational service delivery a case study of Tuskys Supermarket - Kisii Branch. The study was guided by the subsequent objectives; to assess a number of the factors affecting IT in procurement logistics in Tuskys Supermarket Kisii - Branch, to seek of the results of IT on Procurement logistics in a company and to seek out a number of the Challenges Facing IT in Procurement Logistics. This study adopted a descriptive research design which helped the researcher to get pertinent and precise information on current status of phenomena, situations and groups under study. The study targeted a complete population of 300 employees working in supermarkets within the central city district of Kisii Town, 50 drawn from top management, 140 from accounts and 160 drawn from sales representatives. The study used a sample size of 30. The researcher used stratified technique in sampling. It was discovered that Factors affecting IT on procurement logistics such as: Cost, Competence and Capital outlay of the firm haven't been handled properly within the organization hence making it to deal with any upcoming challenges on the identical line. Effects of IT on Procurement logistics in a corporation such as; Timely delivery, Shorter time interval, Cost reduction and Good relationship haven't been well realized within the organization on most of the departments that aren't managing procurement. Tuskys Supermarket Kisii-Branch has not effectively managed to smother the Challenges Facing IT on Procurement Logistics such as; Lack of capital, Organizational structure, External competition, Legal policies and Technological knowhow.

[16] evaluate the determinants and adoption of Transaction Processing Systems within the directorate of Immigration and Registration of Persons in Kenya.

the precise objectives of the study were: (i) to determine the extent to which the Transaction Processing system is getting used. (ii) To establish the determinants/drivers, benefits and challenges within the adoption of Transaction Processing Information Systems'. This study targeted Staff within the directorate who relied on the knowledge system for his or her daily operations and determinants, benefits and challenges that influence the adoption of TPIS were studied. Using the questionnaires each specific challenge or benefit respondents were asked to rate the benefit or lack thereof that every specific benefit or challenge respectively delivered to their departments thanks to the very fact that that they had incorporated a TPIS in their business processes. Items selected by majority showed that the departments derived certain benefits from the adoption of their respective system in their businesses. Additionally, they encountered challenges that discouraged their adoption of TPIS in their businesses processes. The study unveiled the very fact that internet cost of computers and access to computers ranked first in among the challenges that undermine the adoption of the TPIS. it absolutely was also observed that a number of the directorates' internal factors to support data system through the adoption of TPIS are focused on eliminating this challenges and cost; hence, the department is on the proper track in terms of prioritizing of business processes than investing in TPIS. [13] Studied the effect of computerized accounting systems on the quality of financial reporting in the NWSC Mbarara branch. A correlational design was used with mixed approach using both quantitative and qualitative data. The study considered a population of 132 and random sampling was employed to determine a sample of 97 from the total population. Data was collected using a questionnaire method with a response rate of 85.6% which was representative enough of the whole population, Findings revealed moderate positive relationship between computerized accounting systems and quality of financial reports with correlation coefficient of  $(R) = 0.426^{**}$  given by Pearson correlation and adjusted R2 square of 17.1% indicating a total outcome in quality. A significant positive relationship between reporting svstems on the quality of financial reports at a correlation coefficient  $(R) = 0.536^{**}$  aiven by Pearson correlation and adjusted R2 of 27.9% indicating the variable is explained by computerised reporting systems. There

was a moderate positive relationship between systems security and quality of financial reports with correlation coefficient Of (R) =0.402\*\*\* given by Pearson correlation and adjusted R2 of 15.1% indicating a total outcome in quality of financial reports is explained by systems security. The results of the study indicate that there a significant positive association between computerised accounting systems and quality of financial reports.

[18] investigated the Role of Electronic Point of Sale On Supply Chain Performance in Retail Sector in Kenya Among Selected Supermarket Chains in Nairobi County. This research adopted a purposive sampling technique in selecting the sample. Descriptive statistics such as mean, frequency distribution and percentages were used to summarize and present data. Pearson’s correlations coefficients were run to examine the relationship among the independent and the dependent study variables that are set out in the objectives of the study. The review discoveries demonstrated that 73.2% of progress in Supply Chain Performance at retail division can be explained by four factors in particular rapid scan systems, cloud based communication systems, mobile point of sale and EFTPOS. And they positively affect supply chain performance

### III. METHODOLOGY

The research design used in this work is descriptive-quantitative research method. According to [1], it involves description, recording, analysis, and interpretation of the conditions or relationship that exist, practices that prevail, beliefs and processes that are ongoing. The study had two categories of population; (1) 200 customers of the selected supermarkets and (2) 40 employees from the selected supermarkets. Therefore, the population of the study was 240 people which comprises of 40 customers of City Mart, Gwagwalada, 40 customers of ShopRite Abuja Gate Ways, Lugbe, Airport road, 40 customers of Geskiya Supermarket, Kurudu, 40 customers of Big Idea Supermarket & Pharmacy, Gwarinpa, 40 customers of Price Ebeano Supermarket, Gaduwa and 40 staffs (8 each from each of the selected supermarkets). The sample size was determined using the Taro Yamane sample size determination technique modified by smith (2008) which is;

$$n = \frac{N}{3 + N(e)^2}$$

Where; N= Population size

n= Sample size

e= Error of Margin (0.05)

$$n = \frac{240}{3 + 240(0.05)^2}$$

$$= 66.67$$

However, 68 samples where considered for the study, purposive sampling method was used to allocated the samples as follows: the sample customers were allocated (1) 58 customers of the selected supermarkets and (2) 10 employees of the selected supermarkets (2 each from each of the selected supermarkets). The customers were allocated 12 to City Mart, Gwagwalada, 11 to ShopRite Abuja Gate Ways, Lugbe, Airport road, 12 to Geskiya Supermarket, Kurudu, 11 to Big Idea Supermarket & Pharmacy, Gwarinpa, and 12 to Price Ebeano Supermarket, Gaduwa. The employees of each supermarket were 2 respectively making up a total of 10 employees. Questionnaire was designed with comprehensive information to analysis of transaction processing system and the performance of supermarkets in Abuja. The questionnaire was administered to the staff and customers of the supermarkets in order to capture their opinion on the research questions. This is because the required information can only be obtained from both the staff and customers of the supermarkets.

The questionnaire consists of two sections namely section one and section two with relevant questions to the required data. Section one contains eight (8) questions aimed at collecting staff demographic data and other information from customers on transaction processing system expected to be provided by the management of the supermarkets. Section two contain thirteen (13) questions to evaluate the extent to which respondents agreed or disagreed with the impact of transaction processing system and service delivery of selected supermarkets in Abuja. The respondents were asked to indicate their choice to each question on a likert scales (1- 5) with possible response from 1 = Strongly Agree (SA), 2 = Agree (A), 3 = Neutral (N), 4 = Disagree (D) to 5 = Strongly Disagree (SD). All

the questions added up to twenty-one (21). To determine the reliability and validation of the research instrument, the service of an expert was engaged in the field of computing. The expert is a PhD holder with sufficient experience in Management Information System. The comments and suggestions given were integrated in the questionnaire before it was administered. The study adopted descriptive statistics and they hypotheses was tested with Ordinary Least Square (OLS) regression analysis computed with the aids of Social Packaging Statistical System (SPSS). The OLS model can be specified as shown below using service delivery as the dependent variable and the transaction processing technology.

(electronics payment system and mobile point of sales) as its proxies that constitutes the independent variables. The regression model is as below.

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \varepsilon$$

Where

Y = Service delivery of supermarkets

$\beta_0$  =Constant

$X_1$  =E-payment technology

$X_2$  =Mobile point of sale

$\beta_1, \beta_2,$  are regression coefficients and  $\varepsilon$  is the error term.

#### IV. RESULT OF FINDINGS

Descriptive analysis: Table 1: Response Rate and Questionnaire Presentations

Category of Respondents	Distributed	Returned	Not Returned	Valid Percentage (%)
Customers				
Supermarket staff	100	68	22	100
Demographic Characteristics of Respondents				
Gender	Frequency		Percentage	
Female	20		29	
Male	48		61	
Total	68		100	
Computer literacy				
Response	Frequency		Percent	
No	7		10	

Yes	61	90
Total	68	100
Familiarity with transaction processing systems		
Response	Frequency	Percent
No	14	21
Yes	54	79
Total	68	100
Frequency operating with the transaction processing system		
Not at all	6	9
Fairly Often	20	30
Very Often	15	22
Always	23	34
No response	4	5
Total	68	100

Source: Field Survey, (2022)

Table 1 shows the response rate and questionnaire presentations. From the table, the questionnaire was personally administered by the researcher to the operational and administrative staff of the organization. 100 questionnaires were distributed, 68 were properly filled and retrieved. This means that a response rate of 68 per cent was achieved.

On questionnaire responds, it shows that 61% of the respondents were male while 29% were female which shows that there are more males that participated than female.

On the computer literacy of the respondents, the result indicates that majority of the staff (90%) of the institution are computer literate and only 10% are not computer literate. This clearly shows that the staff have adequate knowledge of the subject being researched on and their opinions can be relied upon. And on the degree of operating with transaction processing systems by staff, it shows 34% of the respondent Always use the transaction processing systems. However only 9% do not have frequency of access to the transaction processing systems.

Descriptive Statistics on the transaction processing systems and service delivery of supermarkets

Table 2: Responds to Research Questions

Q1. Electronic payment technologies influence quality service delivery in supermarkets						
	S A	Agr ee	S D	Disag ree	Undefi ned	Tot al
Respon ds	1 7	22	8	7	14	68
Percent age	2 5	32	1 2	10	21	100
Q2. Mobile point of sales influence consumer patronage in supermarkets.						
Respon ds	1 4	14	1 9	7	14	68
Percent age	2 1	21	2 7	10	21	100
Q3. Electronic payment system has a significant influence on service delivery in supermarkets						
Respon ds	1 4	17	2 2	7	8	68
Percent age	2 1	25	3 2	10	12	100
Q4. Mobile point of sales has a significant impact on service delivery in supermarkets						
Respon se	2 3	17	1 6	4	8	68
Percent age	3 4	25	2 3	6	12	100

Source: Field Survey, (2022)

From table 2 above, the respondents agree (A) to the fact Electronic payment technologies influence quality service delivery in supermarkets. This percentage represents 32% agreed, 25% strongly agreed while those that disagree (D) are 10%, 12% strongly disagree (SD), and 21.0% are Undefined (U). The respondents strongly disagree (SD) to the fact Electronic payment technologies influence quality service delivery in courier service companies

On mobile point of sales in supermarkets. This percentage represents 27% strongly disagree (SD), 10% disagree (A) while those that strongly agree (SA) and agree (A) and Undefined are 21% respectively.

For operational processing, the highest percentage of 22% (i.e. 29 respondents) agree (A) to the claim that there are adequate IT facilities deployed for operation processing in the institution,

6% strongly agree (SA), 21% are undefined (U) while 24 disagree (D) and 24% The respondents disagree (D) to the fact there is adequate

On Electronic payment system deployed for operation in the supermarkets. This percentage represents 10% disagree (DA), 32% strongly disagree (SD), while those that agree (A) is 25%, 21% strongly agree and 12% are undefined.

- Inferential Analysis.
- Regression Analysis results

In the regression analysis, Adjusted R<sup>2</sup> which is known as the coefficient of determination was used to explain how service delivery varied with electronic payment system and mobile point of sales. The model summary table shows that 57.8% of change in service delivery can be explained by four predictors namely electronic payment system and mobile point of sales. The implication is that the remaining 43.2% of the variation in supply chain performance could be accounted for by other factors not considered in this study.

Table 3: Model Summary

Model Summary Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.578 <sup>a</sup>	.334	.318	.844

- Predictors: (Constant), electronic payment system and mobile point of sales.
- Dependent Variable: [service delivery]

SPSS Output version 2.0

Model fitness was done using Analysis of variance (ANOVA). In the ANOVA table, the result shows that the F-ratio (F=21.093, p=.000) was statistically significant. This means that the (ANOVA) model used was appropriate and the relationship of the variables shown could not have occurred by chance.

Table 4: ANOVA



ANOVA <sup>a</sup>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
Regression		9.3452	2	4.673	21.093	.000 <sup>b</sup>
Residual		18.609	84	.222		
Total		27.954	86			

- a. Dependent Variable: service delivery
- b. Predictors: (Constant), e-payment, Mpos

SPSS Output version 2.0

Table 5: Coefficients

Coefficients <sup>a</sup>			
Model	Unstandardized Coefficients	Standardized Coefficients	T Sig.
	B	Std. Beta	
		Error	
(Constant)	.134061		2.20131
Electronics payment	.078299	.373	3.802400
Mobile point of sale	.331	.316102	3.203702

- a. Dependent Variable: quality service delivery

SPSS Output version 2.0

The above table gives the results for the regression coefficient for the multiple linear equation ( $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \epsilon$ ) which by supplying the coefficients becomes:

$$Y = 0.134 + 0.299 X_1 + 0.331X_2$$

Where

Y = Service delivery of supermarkets

X<sub>1</sub> = Electronics payment technology

X<sub>2</sub> = Mobile point of sales

• Findings

According to the regression equation established, holding all independent factors a constant then service delivery will be 0.134 units. From the regression equation holding all other independent variables a constant, a unit increase in electronics payment technology will lead to a 0.299 improvement in service delivery; a unit change in mobile point of sales will lead to a 0.331 increase in service delivery.

However, at 5% level of significance and 95% level of confidence electronics payment technology and mobile point of sales have a significance influence on service delivery with p-values of 0.044, 0.031, 0.00 and 0.002 respectively and therefore their coefficients should be retained in the final model.

• Test of Hypotheses

- H<sub>01</sub>: Electronics payment has no significant influence on service delivery in supermarkets.

The above results show the regression results of electronic payment and service delivery, since a unit increase in electronics payment technology will lead to a 0.299 improvement in service delivery. thus the null hypothesis is accepted, while the alternative hypothesis is rejected, that electronics payment has no significant influence on service delivery in supermarkets.

- H<sub>02</sub>: Mobile point of sales has no significant effect on service delivery in supermarkets.

The above results show the regression results on the relationship between mobile point of sales and service delivery: since a unit change in mobile point of sales will lead to a 0.331 increase in service delivery. thus the null hypothesis is accepted, while the alternative hypothesis is rejected, that mobile point of sales has no significant effect on service delivery in supermarkets

• Contributions to knowledge

The results of this studies conforms with [19]- [20], but this present study further imply that of all the predictors considered, mobile point of sales contributes the most to the quality of service deliver in supermarkets than the electronics payment technology as implicated by their larger coefficients.

Based on the above conclusions, the following recommendations are considered below:

- i. Since electronics payment technology has a significant influence on quality service delivery in supermarkets, the management and all stake holders should invest on electronic payment technologies to take advantage of the innovation of the market.
- ii. Management of supermarkets should invest more on mobile point of sales technologies since its increase will quality service delivery that the electronics payment technology so as to improve consumer's patronage

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#### REFERENCES

- [1] A. Luke, J. Dare and I Odili, (august 2021). On Effect of Political Environment on The Performance of Small and Medium Scale Enterprises in FCT, *IEEE Trans. Okada Journal of Sociology* Igbinedion University Okada. [Online]. 3(1) pp.305-323. Available: <http://www.halcyon.com/pub/journals/21ps03-vidmar>
- [2] I Odili, The effect of work environment on workers' productivity in Nigerian Breweries Plc, M.Sc. thesis, Dept. Business Admin, Nasarawa State Univ., Keffi, Nigeria, 2017. Unpublished.
- [3] C.M. Emmanuel, (may 2014). Workplace environment and its impact on organisational performance in public sector organisations. *IEEE Trans. International Journal of Enterprise Computing and Business Systems*, [Online]. 1(1) pp. 2012-2021 Available: <http://www.ijecbs.com/January2011/N4Jan2011.pdf>.
- [4] W. Piotrowicz, and R. Cuthbertson, (2014). On Introduction to the special issue information technology in retail: Toward omnichannel retailing. *IEEE Trans. International Journal of Electronic Commerce*, [Online]. Available: [https://doi.org/10.2753/JEC1086-4415180400.18\(4\), pp. 5-16](https://doi.org/10.2753/JEC1086-4415180400.18(4), pp. 5-16).
- [5] M.J. Omwansa, (Nov.2013). *Information and Communications Technology and Operational Efficiency in Supermarkets in Nairobi*. University of Nairobi
- [6] Samuel, K.S. and Ondiek, G.O. (2014). *Inventory Management Automation and the Performance of Supermarkets in Western Kenya*. International Journal of Research in Management & Business Studies. Available: <http://erepository.uonbi.ac.ke:8080/xmlui/handle/123456789/58822>
- [7] Sarapalo & Joonas (2020). Digital content popularity counting with Amazon Web Services, *University of Helsinki Journal*, Available: <http://urn.fi/URN:NBN:fi:hulib-202011174479>
- [8] Gilbertson, C. B., & Lehman, M. W. (2009). *Fundamentals of accounting*. Mason, Ohio: South Western/Cengage Learning.
- [9] Schniederjans, M. J., & Cao, Q. (2002). E-Commerce in Operations Management. *Toh Tuck Link*: World Scientific
- [10] Lysons, K (2007). Purchasing and supply chain management. London: Prentice Hall
- [11] Duke Momanyi Nyariki (2017) An Assessment of the Effects of Information Technology in Procurement Logistics On Organizations Service Delivery: A Case Study of Tuskys Supermarket n Kisii Town, Kisii University
- [12] Knoll, M., Peota, R. D., Floersch, D. J., Nistler, S., Floersch, P. J., Benson, C., & Jondal, C. (2016). U.S. Patent No. 9,256,865. Washington, DC: U.S. Patent and Trademark Office.
- [13] Kabazarwe, (2020). The effect of computerized accounting systems on the quality "of financial reporting in the NWSC Mbarara branch. *Journal of Retailing and Consumer Services*, Mbarara branch
- [14] Wafa and Al-tarawneh (2020). Conducted a study on the impact of using information system

in improving and managing the decision-making process of the Employees Affairs Department of Al-Balqa Applied University at Al-Karak.

- [15] Siraju, Rifky, Marook and Assam (2020). Investigated the influence of the Information System on the performance of organizations Mbarara branch
- [16] Paul, (2012). Evaluate the determinants and adoption of Transaction Processing Systems in the directorate of Immigration and Registration of Persons in Kenya. Available: URI: <http://41.89.196.16:8080/xmlui/handle/123456789/603>
- [17] Yaser, Alina and Aziati (2014). Studies the Role of Different Types of Information Systems in Business Organizations: *IEEE Trans. International Journal of Research (IJR)*, [Online].1, (7), pp. 2348-6848
- [18] Matotek, R., Ho, J., & Barnham, A. (2006). U.S. Patent Application No. 11/503,903.
- [19] Sylvia and Noor (2017) Role of Electronic Point of Sale on Supply Chain ‘‘Performance in Retail Sector in Kenya Among Selected Supermarket Chains in Nairobi County. *IEEE Trans. European Journal of Logistics, Purchasing and Supply Chain Management, European Centre for Research Training and Development Uk*. [Online]. 5 (2) Pp.19-55
- [20] Mak’abong’o (2012) *Determinants and Adoption of Transaction Processing 16 Information Systems at The Directorate of Immigration and Registration of Persons in Kenya*, University of Nairobi