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- V. Literature Review
- VI. Methodology
- VII. Results and Discussion
- VIII. Conclusion and Recommendations
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EFFECT OF E-GOVERNMENT ON PUBLIC ACCOUNTABILITY OF FEDERAL MINISTRIES, DEPARTMENTS AND AGENCIES (MDAs) IN NIGERIA

CHINELO NWOGO MADUKA

ABSTRACT

The need for accountability and transparency in public sector management has become a global challenge, especially in the 21st century which necessitated the study titled the effect of e-government on public accountability of federal ministries, departments and agencies in Nigeria with the independent variable as e-government proxied as e-payment, e-information, e-procurement and e-service delivery while the dependent variable as public accountability. The survey research design which made use of primary data drawn from five-point likert scale structured closed-ended questionnaire of three (3) selected federal ministries, departments and agencies in Nigeria. The theories in which this study underpinned were technology acceptance model (TAM) theory and diffusion of innovation theory. The SPSS version 25 software statistical package was used for coding of the questionnaire respondents and panel ordinary least square for the study. The multiple regression model was adopted in determining the extent of the effect of independent variable (e-government) on dependent variable (public accountability) of the banks under consideration. The result of the regression analysis revealed that e-payment and e-service delivery have positive and insignificant effect on public accountability of federal ministries, departments and agencies in Nigeria. The result also indicated that e-information and e-procurement have positive significant effect on public accountability of federal ministries, departments and agencies in Nigeria. The implication of the result is that any increase unit change in the e-government proxies will result to the same unit increase change in the public accountability. Based on the findings, the researcher recommended that the government should continuous evaluation and get feedback from users are key to ensuring that e-government continues to evolve and be relevant to citizens' needs. Therefore, a sustainable e-government development strategy must integrate technological innovation with an inclusive and participatory approach, ensuring that any changes not only bring technical efficiency but also improve the quality of interaction between government and society.

1. INTRODUCTION

In the current digital era, governments in various countries have adopted information and communication technology to improve the quality of the public service they offer. The transformation led to the implementation of electronic government (e-government) policies intended to make government services more accessible to the general public (Clarke, 2020; Daud et al., 2020). The European Union and all other levels of government in Europe form policies, which are translated at the various levels to manage the praxis of the e-government implementation process of turning policy into practice. This idea is rooted among many scholars (Krasnykov et al., 2024; Wijaya et al., 2024; Hochstetter et al., 2023; Irwansyah et al., 2022), who argue that a fundamental

shift has taken place in most western countries regarding governing organization and methods of working in society and that there is a movement of regulation and implementation of policies from central government to other levels and social spheres. The implications rely on regional and uptake in the specific setting and on the competencies of the professionals in regional and local public sector administration (Irene, 2014). In the same vein, Ahmed (2021) added that e-government has become a fundamental way of reforming and delivering better services to citizens because of the use of technology for different aspects of government.

In developing countries like Africa, people are facing challenges like a lack of infrastructure, digital literacy

gaps, or limited resources. However, many developing countries in Africa are making significant strides in e-government. Nigeria lacks the understanding that employees are social beings, belonging to a particular social system, family style, and culture. Therefore, to improve the accountability of employees in public organizations, there is a need to consider the e-government when designing public organizational policies and work processes, understanding that, without personal efforts and proper accountability, organizations may not succeed and achieve their aim of establishment (Muindi, 2015; Ismael et al., 2021).

The e-government deployment in Nigeria is currently low, with the country ranking 140th out of 193 countries in the 2022 UN e-government maturity survey. This shows that information and communication technology (ICT) tools such as the internet, websites, and mobile phones are prevalent in Nigeria, despite its developing nation status. Thus, the Nigerian government can leverage ICT tools for e-government for the purpose of effective and efficient service and improved public accountability using e-government tools and platforms, information can be shared, displayed, and discussed among the public with ease. However, there has been little deployment of e-government to enhance public accountability in Nigeria (Akpan et al., 2020).

Onwunyi and Okoli (2017) stress that e-governance in Nigeria was introduced with the formulation of the Nigerian National Policy for Information Technology in March 2001, with the cardinal objectives, among others, to: improve the accessibility to public administration for all citizens; bring transparency and accountability to government processes; bring the government to the doorsteps of people by creating virtual forums and facilities to strengthen accessibility to government information; and facilitate interaction between the governed and government, leading to transparency and accountability. The researcher observed that over the years, there has been very low accountability among ministries, department and agencies in Nigeria. The increasing rate of low accountability among employees of ministries, department and agencies in Nigeria is becoming alarming. E-government has been used for only basic government services, such as citizen passport, university entrance examinations in Nigeria. Studies have equally shown that e-government implementation on public accountability in many countries are very weak, inadequate and not complied with (Akpan et al., 2020).

Many studies reviewed such as (Danga & Bello, 2021; Walid & Sherzad, 2020; Ehiedu et al., 2023; Andrea et al., 2022; Chiejina, 2021; Obasa & Gado, 2022; Inyan et al., 2024; Kuria et al., 2023; Krasnykov et al; 2024; Wijaya et al., 2024; Irwansyah et al., 2022) used only

one or two variables of e-government while other studies like (Akpan et al., 2020; Daud et al., 2020; Oni et al., 2016; Clarke, 2020; Twizeyimana & Andersson, 2019; Irene, 2014; Bassey et al., 2023) looked at different sectors on e-government. With the above identified gap and more, the current study on the effect of e-government on public accountability of federal ministries, departments and agencies (MDAs) in Nigeria using four (4) different variables for e-government such as e-payment, e-information, e-procurement and e-service delivery in order to fill the gap for further improvement in Nigeria public sector in particular and the whole world in general. Therefore, the main objective of this study is to determine the effect of e-government on public accountability of federal ministries, departments and agencies (MDAs) in Nigeria. The specific objectives of the study are to:

- i. evaluate the effect of e-payment (E-PAY) on public accountability (PACC) of federal ministries, departments and agencies (MDAs) in Nigeria.
- ii. ascertain the effect of e-information (E-INF) on public accountability (PACC) of federal ministries, departments and agencies (MDAs) in Nigeria.
- iii. assess the effect of e-procurement (E-PCM) on public accountability (PACC) of federal ministries, departments and agencies (MDAs) in Nigeria.
- iv. determine the effect of e-service delivery (E-SDL) affect public accountability (PACC) of federal ministries, departments and agencies (MDAs) in Nigeria.

The following null hypotheses were formulated for this study.

- H₀₁:** E-payment(E-PAY) has no significant effect on public accountability (PACC) of federal ministries, departments and agencies (MDAs) in Nigeria.
- H₀₂:** E-information (E-INF) has on significant effect on public accountability (PACC) of federal ministries, departments and agencies (MDAs) in Nigeria.
- H₀₃:** E-procurement (E-PCM) has no significant effect public accountability (PACC) of federal ministries, departments and agencies (MDAs) in Nigeria.
- H₀₄:** E-service delivery (E-SDL) has no significant effect on public accountability (PACC) of federal ministries, departments and agencies (MDAs) in Nigeria.

2. LITERATURE REVIEW

2.1 Conceptual Review

This section provides the main conceptual review of the followings: public accountability, e-government, e-payment, e-information, e-procurement and e-service delivery.

2.1.1 Public Accountability

Public accountability means that government and its employees are accountable and their activities are open to the public. From this definition of public accountability, it is clear that the public entities that utilize public resources have an obligation to account for the way these resources are allocated, used and the results these spending have achieved (Siska, et al., 2020). It should be noted that e-governance and public accountability are closely linked, as e-governance can be used as a tool for enhancing public accountability. The use of e-governance can promote transparency and citizen participation in decision-making processes, which can improve the effectiveness of accountability mechanisms (Gaventa & McGee, 2013). Furthermore, e-governance can enable citizens to monitor government activities and hold public officials accountable for their actions and decisions. E-governance can also enhance the efficiency and effectiveness of public sector, which is an essential aspect of public accountability (Dubnick & Frederickson, 2011). Despite these links, e-governance requires strong institutional frameworks, effective laws and regulations, and active citizen engagement to succeed as a tool for enhancing public accountability (Vassil & Vassil, 2015).

2.1.2 E-government

E-government denotes the use of modern devices to foster interaction between government and citizens to strengthen public accountability. According to Kurniawan et al. (2023), e-government can be broadly described as Information and Communication Technology (ICT) deployment to achieve a more efficient and effective government by leveraging it for vigorous and effective public participation in governance. The World Bank (2021) notes that technology adoption for e-government serves various objectives, including better delivery of government services to citizens, improved interactions with business and industry, citizen empowerment through access to information, or more efficient government management. According to Afieroho et al. (2023), e-government focuses on using ICT to encourage more purposeful public participation in government via easy access to information and government officials, thereby inducing more effective government-public engagement and good governance.

2.1.2.1 E-Payment

The e-Payment systems are the automated processes of exchanging monetary value among parties in business transactions and transmitting this value over the ICT networks which affect payment from one end to another end through the medium of the computer without manual intervention beyond inputting payment data. It is the ability to pay the suppliers, vendors and staff salaries electronically at the touch of a computer button. The study continue that it has become a medium through which monetary substance

circulates conveniently, especially in developing economy like Nigeria where carrying cash around is habitual (Andrea et al., 2022). Edmundo & Oxana (2017) say that the introduction and use of electronic payment instruments hold the promise of broad benefit in the form of reduced costs, greater convenience and more secure, reliable means of payment and settlement for a potentially vast range of goods and services offered worldwide over the internet or other electronic networks. As stated by Worku (2010) e-payment and e-banking applications represent a security challenge as they highly depend on critical ICT systems that create vulnerabilities in financial institutions, businesses and potentially harm customers.

2.1.2.2 E-information

The electronic information or e-information describe any data stored, processed, or transmitted in an electronic format such as emails, text messages, raw data, sound files, image files, video files, documents, spreadsheets, databases, programmes and algorithms (Aranyosy, 2022). According to Rana et al. (2017), [electronic information](#) is a system that utilizes electronic technology to gather, store, process, retrieve, and disseminate information. Onikoyi et al. (2022) posit that e-information as the use of electronic devices such as computers, telephones, the internet, and satellite systems to store, retrieve, and transmit data, text, images, and other types of information. The study continues that it involves the use of computers and other technologies to acquire, organize, store, retrieve, and disseminate information which will be processed through the computer stored data as well as telecommunication technology provision of information communication technologies that allow users to access databases and connect them to other computer networks in other locations.

2.1.2.3 E-procurement

E-procurement is the combined use of electronic information and communications technology (ICT) in order to enhance the links between customer and supplier, and with other value chain partners, and thereby to improve external and internal processes (Oniyangi & Ibrahim, 2024). Bloch and Bugarić (2022) explained that public procurement constitutes a significant portion of national PIB in all countries and electronic platforms for supporting public transactions are an important application of e-government. Inyan et al. (2024) define e-procurement as the use of Internet-based (integrated) information and communication technologies (ICTs) to carry out individual or all stages of the procurement process including search, sourcing, negotiation, ordering receipt, and post-purchase review. However, there is still some resistance to change, and therefore the importance of identifying whether e-procurement creates value in a procurement process, how and what the benefits of changing from a traditional

procurement process to electronic procurement in Nigeria is still unclear, and inefficient.

2.1.2.4 E-service delivery

E-service delivery is the provision of services via the internet, thus e-service may also include e-Commerce, although it may also include non-commercial services (online), which is usually provided by the government (Akpan et al, 2020). Abdi (2019) state that e-service deliver is all about using computer device in the service delivery of physical facilities and human resources contact in a government establishment which includes the aspects of service delivery involving interior and exterior facilities, physical facilities and service officers. Kuria et al. (2023) define e-Service delivery as the process of use electronic device in the delivery of services of the government activities in order to provide the client with increased value by setting standards, policies, principles and constraints to guide all aspects of their business and customer interactions. It continues that the organizations have the duty to ensure there is regular and consistent delivery of products and service since it is only through this that they are able to undertake business expansions and consumer retention. Those organized firms dealing in service delivery are showing increasing focus towards tailoring their services around the customers' priorities; making sure their services meet the desires of the consuming unit.

2.2 Empirical Studies Review

The following empirical studies were reviewed according to each proxies of e-government on public accountability for this study.

2.2.1 E-payment and Public Accountability

Ehiedu et al. (2023) examined the e-payment system (EPS) and efficiency of banks in Nigeria from 2012 to 2016 both years inclusive. The e-payment as independent variable proxied by mobile payment, automated teller machine (ATM) & point of sale (POS) while efficiency as dependent variable. The secondary data was adopted for the study. The ordinary least square method of cross-sectional panel multiple regression analysis was adopted for the study. The SPSS Statistical software was used to run the linear regression for the stud. The findings indicate that e-payment system (EPS) has positive and insignificant effect on the efficiency of banking in Nigeria. Based on the result, the study recommended amongst other that banks and other financial institutions should intensity efforts in mounting other e-payment channels to promote trade and commerce in Nigeria. The study intended to fill the gap on the effect of e-government on public accountability by the use of primary data to get information on e-payment which will enrich the knowledge of e-government in Nigerian MDAs.

Andrea, et al. (2022) determined the effect of e-payment systems on gross domestic product of Nigeria using secondary data of ex-post facto research design for the period of ten (10) years from 2011 to 2020 both years inclusive. The e-payment systems as independent variable proxied as automated teller machine (ATM), point of sale (POS), and mobile applications while gross domestic product (GDP) as dependent variable. The auto regressive distributed lag model (ARDL) was used to analyses descriptive statistics and unit root test with e-view version 10 statistical software package. The findings revealed that ATM payment system, POS payment system and mobile application payment system have positive and significant effect on gross domestic product in Nigeria. The study concluded that banks should constantly upgrade hardware and software whenever a new version is available to help enhance their security. The study intended to fill the gap on the effect of e-government on public accountability by the use of e-payment which will enrich the knowledge of e-government in Nigerian MDAs.

Chiejina (2021) explored the effects of e-payment system on the efficiency of banks in Nigeria from 2012 to 2016 both years inclusive. The independent variable as e-payment system was proxied as automated teller machine (ATM), point of sale (POS) and mobile payment while efficiency as dependent variable proxy as economic growth. The secondary data was adopted for running linear regression using SPSS version 21. The ordinary least square method of cross-sectional panel multiple regression analysis was adopted for the study. The regression result indicate that e-payment system has positive and insignificant effect on the efficiency of banks in Nigeria. So, the study concluded that central bank of Nigeria (CBN) should embark on an intensive campaign for complete adoption of e-payments products at the grassroots. The study intended to fill the gap on the effect of e-government on public accountability by the use of e-payment which will enrich the knowledge of e-government in Nigerian MDAs.

Nwankwo et al. (2022) studied the effect of electronic payment system on tax revenue generation in Nigeria using ex-post facto research design and secondary data from 2013 to 2021 both years inclusive. The electronic payment system as independent variable proxied by automated teller machine (ATM) payment, mobile banking payment, point of sale (POS) payment and web-transfer payment while tax revenue generation as dependent variable. The linear multiple regression model (MRM) was employed to analysis multiple regression with e-views version 10. The findings revealed that automated teller machine payment, mobile banking payment and web-transfer payment have positive and significant effect on tax revenue generation in Nigeria while point of sale payment has positive and insignificant effect on tax

revenue generation in Nigeria. The study recommended that government should invest in its internet security framework to create a firewall against fraud and instill confidence in the citizens to adopt the use of POS which would contribute to aggregate consumption and improvement in tax revenue generation. The study intended to fill the gap on the effect of e-government on public accountability by the use of different variables which will enrich the knowledge of e-government in Nigerian MDAs.

Sani et al. (2022) studied effects of e-payment system on corrupt practice in Nigerian Public Sector using purposive technique of primary data. The data collected from 400 respondents using structured close-ended questionnaire of five (5) point Likert scale option. The State ministries of Kogi, Adamawa, Ebonyi, Delta and Federal Capital Territory (FCT) Abuja. The ordinary least square method of cross-sectional panel multiple regression analysis was adopted for the study. The SPSS version 25 was adopted to analysis the descriptive, correlation and analysis of variance (ANOVA) statistics. The e-payment system as independent variable proxied as point of sale, smart card, mobile payment, debit card & remita while corrupt practice as dependent variable as embezzlement of public funds. The findings revealed that e-payment systems have significant effect on corrupt practice in Nigerian public sector. The study concluded that efforts should be made to encourage digital systems for the receipts and payments of cash in Nigerian public sectors and ensure compliance by all the three tiers of government. The study aligned with the above which used both structured close-ended questionnaire of five (5) point likert scale and cross-sectional panel multiple regression analysis which will enrich the knowledge of e-government in Nigerian MDAs.

2.2.2 e-Information and Public Accountability

Eliana et al. (2023) investigated the influence of the use of information technology and public accountability on the quality of financial reports in government organizations using quantitative research. The study adopted online questionnaire of structured close-ended of five (5) point Likert scale to analysis the sample size of 450 government employee respondents of partial least squares (PLS) structural equation modeling (SEM) with Smart PLS 3.0 software tools. The results revealed that the use of information technology and public accountability have positive significant effect on the quality of financial reports in government organization. The study concluded that the more accountable financial management and financial reporting, the more performance will improve and public trust in the government activities will increase. The study aligned with the above which used a structured close-ended questionnaire of five (5) point likert scale which will enrich the knowledge of e-government in Nigerian

MDAs.

Onikoyi et al. (2022) analyzed the impact of information and communication technology (ICT) on organizational performance of Nigerian Bottling Companies in southwest using descriptive survey research design. The purposive sampling technique was employed for selection of 385 questionnaires of structured closed-ended with five (5) point Likert scale option. The information and communication technology (ICT) as independent variable proxied by internet access and cloud computation while organizational performance as dependent variable. The ordinary least square method of cross-sectional panel multiple regression analysis was adopted for the study. The study used SPSS version 25 for analyzing the correlation, analysis of variance (ANOVA) and regression analysis. The study found that information and communication technology (ICT) has positive and significant impact on organizational performance of Nigeria Bottling Companies in south west geopolitical zone. Based on the findings, the study recommended that organizations should embrace internet access and cloud computation in order to improve the effectiveness of the communication to its customers' benefits. The study aligned with the above which used both structured close-ended questionnaire of five (5) point likert scale and cross-sectional panel multiple regression analysis which will enrich the knowledge of e-government in Nigerian MDAs.

Yixuan & Arumugam (2021) evaluated the impact of accounting information system on organizational performance in China using primary data sources. The ransom sampling technique was used to select 350 respondents which 200 respondents were returned through mail for analyzing the study. The independent variable of accounting information system proxied as accounting knowledge, managing support and record-keeping performance while organizational performance as dependent variable. The ordinary least square method of cross-sectional panel multiple regression analysis was adopted for the study. The multiple regression analysis was analyzed using SPSS version 25. The regression coefficients result indicate that accounting knowledge and record-keeping performance have positive and significant effect on organizational performance in China while managing support has positive and insignificant effect on organizational performance in China. The study aligned with the above which used structured close-ended questionnaire of five (5) point likert scale, cross-sectional panel multiple regression analysis and SPSS version 25 which will enrich the knowledge of e-government in Nigerian MDAs.

Ukwuoma et al. (2022) carried out a study on the role of e-governance in overcoming the consequences of the COVID-19 pandemic in Nigeria. The study adopted review approach in analyzing the subject. The

results revealed that some of the challenges identified by the study include but are not limited to inadequate technical know-how and information and communication technology (ICT) skills to drive and sustain e-government. The study recommended that the Ministry of Communications Technology and Digital Economy should build a backbone that will connect all States of the country and the up skilling of the workforce through the Ministry of Labour and Employment amongst others. The study intended to fill the gap which will enrich the knowledge of e-government in Nigerian MDAs by using both four different variables and SPSS version 25 in running the five point likert scale structured questionnaires.

Aranyossy (2022) looked at the adoption of e-government technologies from a citizen-centric, value-based point-of view. The study analyzes e-government technology adoption and value creation on a large, representative Hungarian sample, using the data of the Good State Public Administration Opinion Survey. The technology acceptance model and an e-government-specific were adopted for De Lone – McLean information system (IS) success model, traditional association metrics and statistical tests for the analysis. The results confirm the relevance of the technology adoption factors suggested by the mainstream IS literature, while citizen-level value creation – in the form of cost or time saved, satisfaction level raised – was less demonstrable. Increasing citizens' internet trust or improving facilitating infrastructural conditions, as well as a significant value proposition in terms of time savings and ease of use would help increasing e-government service adoption levels and value creation potential. The study intended to fill the gap which will enrich the knowledge of e-government in Nigerian MDAs by using both four different variables and SPSS version 25 in running the five point likert scale structured questionnaires.

2.2.3 e-Procurement and Public Accountability

Mebrate & Shumet (2024) assessed the impact of procurement practice on organizational performance in Ethiopia using primary source of data. The procurement practice as independent variable measured by inventory management, procurement control, procurement monitoring, procurement planning and staff competency while organizational performance as dependent variable. The five (5) point Likert scale option of structured closed-ended questionnaire was coded on SPSS version 20 statistical software into Smart-PLS for the analysis. The partial least square structural equation modeling (PLS-SEM) was employed for analyzing both descriptive statistics and multiple regression. The findings indicate that inventory management, procurement control and procurement monitoring have positive and insignificant effect on organizational performance in Ethiopia while

procurement planning and staff competency have positive and significant effect on organizational performance in Ethiopia. The study aligned with the above which used both structured close-ended questionnaire of five (5) point likert scale and cross-sectional panel multiple regression analysis with SPSS which will enrich the knowledge of e-government in Nigerian MDAs.

Inyan et al. (2024) assessed the effects of e-procurement on organizational performance in Warchild South Sudan using descriptive research design. The e-procurement as independent variable while organizational performance. The purposive and stratified sampling of simply random sampling were used to select the sample size of 40 respondents which the structured closed-ended questionnaire of five (5) point Likert scale options which the study coded into the SPSS version 20 statistical software to analysis for descriptive statistics, correlation analysis and regression analysis. The ordinary least square method of cross-sectional panel multiple regression analysis was adopted for the study. The finding indicates that e-procurement has positive and significant effect on organizational performance in Warchild South Sudan. The study recommended that the management should provide training for the employees on the usage of e-procurement system in order to help the corporate management of Warchild South Sudan to emphasize the need to carry out all the procurement functions through e-procurement. The study aligned with the above which used both structured close-ended questionnaire of five (5) point likert scale and cross-sectional panel multiple regression analysis which will enrich the knowledge of e-government in Nigerian MDAs.

Musa, et al. (2023) examined the factors that influence user intention to adopt e-procurement in the Nigerian public sector using survey research design. The well-structured questionnaire of five (5) point Likert scale option was used to collect primary data from 278 procurement and information technology (IT) departments' officials of key federal government ministries and agencies. The technology acceptance model (TAM) model was adopted and extended with security-related factors, namely perceived trust and perceived security. The partial least squares-structural equation modeling (PLS-SEM) approach was used to test and validate the model for the study. The result found that perceived ease of use have negative and significant effect on the intention to adopt e-procurement. The study concluded that Nigeria government should contribute to a better understanding of the factors influencing the adoption of e-procurement in the Nigerian public sector. The study aligned with the above which used both structured close-ended questionnaire of five (5) point likert scale and multiple regression analysis which will enrich the knowledge of e-government in

Nigerian MDAs.

Obasa & Gado (2022) explored the impact of public procurement practices on organizational performance of Bureau of Public procurement in Abuja Nigeria using survey research design. The public procurement practices as independent variable measured by contract monitoring & evaluation; contract review and supplier selection while organizational performance as dependent variable. The quota sampling and simple random sampling techniques were used for the study. The sample size for the study was 171 staff out of 894 staff from Bureau of public procurement which was shared for respondents using five (5) point Likert scale structured closed-ended questionnaire coded into SPSS version 20 for the analysis of correlation and multiple regression analysis. The ordinary least square method of cross-sectional panel multiple regression analysis was adopted for the study. The regression result revealed that contract review and supplier selection have positive and significant effect on organizational performance of Bureau of Public Procurement in Abuja, Nigeria while contract monitoring & evaluation have positive and insignificant effect on organizational performance of Bureau of Public Procurement in Abuja, Nigeria. The study recommended that the government should monitor and audit the tendering procedures to ensure transparency and accountability for the effectiveness and efficiency of the organization. The study aligned with the above which used both structured close-ended questionnaire of five (5) point likert scale and cross-sectional panel multiple regression analysis with SPSS which will enrich the knowledge of e-government in Nigerian MDAs.

Mukuku & Osoro (2022) investigated the effect of procurement practices on performance of manufacturing industry in Nairobi County in Kenya using descriptive research design. The procurement practices as independent variable measured by procurement process and supplier sourcing while performance as dependent variable. The stratified random sampling technique employed for 220 respondents of sample size out of 500 respondents of the population of the study. The five (5) point Likert scale options of structured closed-ended questionnaire was adopted for the collections of data which was analyzed by coding it into SPSS version 28 statistical software for descriptive statistics, Pearson correlation and multiple regression for the study. The ordinary least square method of cross-sectional panel multiple regression analysis was adopted for the study. The result found that procurement process and supplier sourcing have positive and significant effect on performance of manufacturing industry in Nairobi county in Kenya. The study recommended that that the manufacturing firms should employ the use of information technology in its procurement activities

to support its procurement planning in the development of technical abilities to provide high quality products or service in order to meet customers' needs and standards. The study aligned with the above which used both structured close-ended questionnaire of five (5) point likert scale and cross-sectional panel multiple regression analysis which will enrich the knowledge of e-government in Nigerian MDAs.

2.2.4 e-Service Delivery and Public Accountability

Krasnykov et al. (2024) evaluated the impact of e-governance on the quality of public services and municipal property management using survey research design method. The study adopted e-governance as independent variable and quality of public services and municipal property management as dependent variable. The questionnaire was structured closed-ended five (5) point Likert scale options which were coded into SPSS version 23 statistical software. The study adopted quantitative and qualitative methods while t-test and Pearson correlation coefficient used for testing the hypotheses. The correlation result indicates that electronic governance has positive relationship with quality of public services and municipal property management in western Europe. The study aligned with the above which used both structured close-ended questionnaire of five (5) point likert scale and cross-sectional panel multiple regression analysis with SPSS which will enrich the knowledge of e-government in Nigerian MDAs.

Ogu & Chukwurah (2023) studied e-governance and public service delivery of Anambra State Civil Service in Nigeria from 2018 to 2022 years. The survey research design was adopted for the study. The population of the study comprised 6,955 employees in Anambra State Civil Service, out of which a sample size of 361 staff were draw using Krejice and Morgan's sample size determination table. The instrument used for data collection was questionnaire. Data collected were analyzed using frequency, percentages, mean, standard deviation and t-test. The findings of the study revealed that e-governance has positive and significant effect on public service delivery in Anambra State Civil Service. The study recommended that Anambra State Civil Service should regularly train and retrain their staff on information and web development technologies through annual seminars, workshops and conferences for them to update their skills and knowledge of application of e-governance for service delivery. The study intended to fill the gap which will enrich the knowledge of e-government in Nigerian MDAs by using both four different variables and SPSS version 25 in running the five-point likert scale structured questionnaires.

Kuria et al. (2023) studied the effect of customer

service delivery on organizational performance of private universities in Kenya using descriptive cross sectional design. The independent variable as customer service delivery measured by quality of services, employee loyalty, employee capability and service reliability while organizational performance as dependent variable. The stratified random sampling technique was used for sample size selection of 124 participants. The SSPS version 23 statistical software package was adopted for the analyzing the quantitative data approaches. The five (5) point Likert scale structured closed-ended questionnaire and the responses were coded into the statistical software in order to test the descriptive, correlation and regression analysis for the study. The finding revealed that the service delivery had a positive and significant effect on organizational performance of private universities in Kenya. The study recommended that private institutions ought to undertake more in relation to adopting changes based on feedback in improve customer delivery. The study aligned with the above which used both structured close-ended questionnaire of five (5) point likert scale and cross-sectional panel multiple regression analysis with SPSS which will enrich the knowledge of e-government in Nigerian MDAs.

Irwansyah et al. (2022) examined the effect of e-government on local government performance accountability in Indonesia using cross-sectional data for 2020. The study adopted e-government as independent variable and local government performance accountability as dependent variable. The study employed the purposive sampling technique for the four hundred and thirty-five (435) sample size out of five hundred and fifteen (515) administrative government in Indonesia. The logit regression of quantitative testing was carried out using STATA 14 statistical software. The result indicates that ICT utilization has positive and significant effect accountability while online implementation has negative and significant effect on accountability in Indonesia. The study concluded that the Indonesia government should boost the use of digital technology in government systems which has demonstrably improved accountability performance. The study intended to fill the gap which will enrich the knowledge of e-government in Nigerian MDAs by using both four different variables and SPSS version 25 in running the five point likert scale structured questionnaires.

Umar & Ikechukwu (2022) conducted a study on the impact of e-governance on service delivery in Joint Admissions and Matriculation Board (JAMB). The study adopted mixed approach method. The approach encapsulates both qualitative (questionnaires) and quantitative (Interview and observations). A total of 46 questionnaires were administered to staff of JAMB which were all recovered valid and analyzed using

simple percentage. The study revealed that E-Governance has positive and significant effect on service delivery in JAMB. The study recommended that government should make adequate provisions for infrastructure like electricity among others in order to improve service delivery in Kaduna. The study intended to fill the gap which will enrich the knowledge of e-government in Nigerian MDAs by using both four different variables and SPSS version 25 in running the five-point likert scale structured questionnaires.

2.3 Theoretical Framework

There are different theories to explain e-government and public accountability. The Study was anchored on the two theories such as: Technology Acceptance Model (TAM) (1995) is discussed below:

2.3.1 Technological Acceptance Model (TAM)

This model was propounded by Taylor & Todd in 1995. It was observed that much research supports the Technology Acceptance Model (TAM), as an excellent model to explain the acceptance of information systems (IS) and information technology (IT), it is never-the-less questionable whether the model can be applied to analyze every instance of IS & IT adoption and implementation (Lee et al, 2011). The TAM has been widely used as the theoretical basis for many empirical studies of technology acceptance and has partially contributed to understanding users' acceptance of information systems (IS)/information technology (IT) (Taylor & Todd 1995). As public servants are increasingly being exposed to e-government adoption, their acceptance of this new concept is also increasingly regarded as a critical factor (Amberg et al, 2004; Heinonen & Strandvik, 2003). Although academic researches on the use of ICT by public servants is relatively new and thus still scarce, thus, some studies conducted in this field had not amply use the Technology Acceptance Model (TAM) as used in this study.

Researchers and practitioners alike strive to find answers to the problem of acceptance of new technological concepts by investigating individuals' decisions on whether to adopt application system that appear to promise substantial benefits (Mun & Hwang, 2003). It was however discussed in Lee et al (2011) well known model that studies on TAM have become increasingly essential to improve understanding and prediction of acceptance and utilization (Lau & Woods, 2008). Some of previous empirical works sought to explicate the determinants and mechanisms decisions based on the technology acceptance model (TAM) (Davis et al., 1989). It was revealed, convention that the adoption process influences successful use of technology systems is more often tenable (Karahanna et al, 1999). More explicitly, this present study tries to look into e-government implementation and public accountability. An

innovation is “an idea, practice, or object that is perceived as new by an individual or another unit of adoption” (Rogers, 1995).

3.0 METHODOLOGY

A descriptive survey research design was adopted for this research study. Nworgu (2016) opined that a descriptive survey research design is one which a

group of people or items are studied by collecting and analyzing data from only a few people or items considered being representative of the entire group. The population for this study comprised of 5,502 respondents. This study adopted the formula type developed by Taro Yamane (1967). The sample size was drawn from the study population.

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

Where: N = Population size = 5,502

e = Acceptable sampling error = 0.05

n = Sample size

1 is constant.

$$n = \frac{5,502}{1 + 5,502 * 0.05^2}$$

$$n = \frac{5,502}{14.755} = \underline{\underline{372.89054558}}$$

Approximately, the sample size is 373 respondents.

This sample size comprises male and female staff and ensures that every staff gets equal opportunity to be selected and it reduces bias.

The method of data collection was a self-structure questionnaire to be developed by the researcher. The questionnaire for this study was divided into two

sections of A and B. Section A would elicit information on the personal data of respondents such as age, gender, number of years spent in their organization among others. Section B would contain twenty (20) option statements, referred to as questions. In this research work, the researcher adopted Cronbach's Alpha statistical test as it is the most popular internal consistency reliability estimate.

Table 3.2 : Reliability Statistics

Cronbach's Alpha	N of Items
.833	5

Source: Author's Computation (2023), SPSS Version 25.

Table 3.2 presented Cronbach's Alpha statistical test for internal consistency reliability estimate. Reliability test was conducted on five items of the questionnaires with Cronbach's Alpha statistical test of 0.833 obtained (this exceeds the standard of 0.70) was considered to be appropriate in achieving the research objectives (Oyedokun, 2015). The four hypotheses for this study was tested using the

Ordinary Least Square (OLS) regression technique of data analysis at 0.05 level of significance through the Statistical Package for Social Science (SPSS) version 25. The model was specified in such a way that model addresses the objectives of the study. The researcher adopted this model with little modification from (Dahiru, et al., (2022) as stated below:

$$PACC_{ij} = f(ePAY_{ij}, eINF_{ij}, ePCM_{ij}, eSDL_{ij}) \dots \dots \dots (1)$$

$$PACC_{ij} = \beta_0 + \beta_1 ePAY_{ij} + \beta_2 eINF_{ij} + \beta_3 ePCM_{ij} + \beta_4 eSDL_{ij} + U_t \dots \dots \dots (2)$$

Where: PACC = Public Accountability; e-PAY = e-Payment; e-INF = e-Information; e-PCM = e-Procurement; e-SDL = e-Service Delivery; β_0 = Constant or Intercept; $\beta_1 - \beta_4$ = Coefficient of the explanatory Variables; μ = error term; A priori expectations are $\beta_1, \beta_2, \beta_3, \beta_4$.

3.5.3 Measurements of Variables for the Study

Table 3.3: Measurement of Variables for the Study

Variables	Proxies	Measurement	Sources
Dependent: Public Accountability	Public Accountability (PACC)	The sum of responses for the five (5) items questionnaire testing the accountability of Ministries, Departments and Agencies (MDAs) in Nigeria.	Bassey et al. (2023) & Wijaya et al. (2024)
Independent: E-government Implementation	E-Payment (E-PAY)	The sum of responses for the five (5) items questionnaire testing the e-payment of Ministries, Departments and Agencies (MDAs) in Nigeria.	Donga & Bello (2021); Ehiedu et al. (2023) & Andrea et al. (2022)
	E-Information (E-INF)	The sum of responses for the five (5) items questionnaire testing the e-information of Ministries, Departments and Agencies (MDAs) in Nigeria.	Eliana et al. (2023); Almasradi et al. (2020) & Juliyanti & Winarna (2021)
	E-Procurement (E-PCM)	The sum of responses for the five (5) items questionnaire testing the e-procurement of Ministries, Departments and Agencies (MDAs) in Nigeria.	Juliyanti & Winarna (2021); Musa et al. (2023) & Inyan et al. (2024)
	E-Service Delivery (E-SDL)	The sum of responses for the five (5) items questionnaire testing the e-service delivery of Ministries, Departments and Agencies (MDAs) in Nigeria.	Bassey et al. (2023) & Twizeyimana & Andersson (2019)

Source: Field work, 2024.

4. DATA PRESENTATION AND ANALYSIS

4.1 Data Presentation

The questionnaire was distributed to three hundred and seventy-three (373) staff of selected MDAs in the Federal Capital Territory (FCT) Abuja in Nigeria which the study considered on. Out of the total of 373 questionnaires distributed only 370 questionnaires

were returned representing 99.2% while 3 questionnaires were not returned representing 0.8% of the total distributed questionnaires for responses. This means that only 370 respondents of the distributed questionnaires were used for the analysis for this study.

4.1.3 Descriptive Statistics

Table 4.8

	Descriptive Statistics								
	N Statistic	Minimum Statistic	Maximum Statistic	Mean Statistic	Std. Deviation Statistic	Skewness		Kurtosis	
EPAY	370	5	20	14.91	4.777	-.698	.127	-.903	.253
EINF	370	5	20	14.29	4.747	-.376	.127	-.991	.253
EPCM	370	5	20	13.83	4.466	-.030	.127	-1.011	.253
ESDL	370	5	20	13.50	4.968	-.081	.127	-1.280	.253
PACC	370	5	20	14.30	4.548	-.310	.127	-.889	.253

Source: Author's Output 2024, SPSS Version 25

The table 4.38 above of descriptive statistics shows that e-payment (E-PAY) have the highest mean value while e-service delivery (E-SDL) have the lowest mean value. Also, the lessee standard deviation of e-procurement (E-PCM) implies that it does not deviate so much from the mean, while the standard deviation of e-service delivery (E-SDL) substitution is relatively high, implying no much deviation from their respective means, which is also

reflected in the squared deviation figures. The table further indicates that the observed distribution for e-payment (E-PAY), e-information (e-INF), e-procurement (E-PCM), e-service delivery (E-SDL) and public accountability (PACC) have skewness coefficients that estimate the asymmetry of the distribution of time series data around its mean of -0.698, -0.376, -0.30, -0.081 and -0.310 respectively. The kurtosis coefficient, which measures how peak or flat the distribution of series for e-payment (E-PAY), e-information (e-INF), e-procurement (E-PCM), e-service delivery (E-SDL) and public accountability (PACC) were -0.903, -0.991, -1.011, -1.280 and -0.889 respectively. The implication of the result was that the observed distribution of e-payment (E-PAY), e-information (e-INF), e-procurement (E-PCM), e-

service delivery (E-SDL) and public accountability (PACC) were abnormally distributed. The kurtosis result indicates that e-payment (E-PAY), e-information (e-INF), e-procurement (E-PCM), e-service delivery (E-SDL) and public accountability (PACC) have insignificant values.

4.2 Analyses and Results

In this study, the researcher analyzed and show results of the followings from the SPSS version 25 software statistical package such as spearman's rho correlations, model summary, ANOVA, residuals statistics, collinearity diagnostics and regression coefficients.

4.2.1 Analyses of Results

Table 4.9 Correlations

		PACC	EPAY	EINF	EPCM	ESDL
Spearman's rho	PACC	1.000				
	EPAY	.977	1.000			
	EINF	.993	.981	1.000		
	EPCM	.981	.973	.984	1.000	
	ESDL	.991	.979	.991	.983	1.000

The table 4.39 of Spearman's rho correlation indicates that e-payment (E-PAY), e-information (e-INF), e-procurement (E-PCM) and e-service delivery (E-SDL) have positive relationship with public accountability (PACC). This implies that any unit increase on all the e-government (EPAY, EINF, EPCM and ESDL) proxies used for this study result to unit increase on public accountability (PACC). But the result of significance level at one tailed shows that

only e-payment (E-PAY), e-information (e-INF), e-procurement (E-PCM) and e-service delivery (E-SDL) have significant relationship with public accountability (PACC) at 1% level of significance. This conclusion was based from the above spearman's rho correlation of the correction coefficient of 0.977 (EPAY), 0.993 (EINF), 0.981 (EPCM) and 0.991 (ESDL) with significant value at 1% for EPAY, EINF, EPCM and ESDL respectively.

Table 4.10 Tests of Normality

	Kolmogorov-Smirnov^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
EPAY	.271	370	.000	.850	370	.000
EINF	.140	370	.000	.908	370	.000
EPCM	.191	370	.000	.904	370	.000
ESDL	.150	370	.000	.908	370	.000
PACC	.133	370	.000	.917	370	.000

The above table presents the results from two well-known tests of normality, namely the kolmogorow-simrmove test and the shapiro-wilk test. The shapiro-wilk test is more appropriate for small sample sizes (< 50 samples), but can also handle sample size as large as zero. For reason, we will use the shapiro-wilk test as our numerical means of assessing normality.

The decision rule is that if the significant value of the shapiro-wilk test is greater than 0.05, the data is normal but if it is below 0.05, the data significantly deviate from a normal distribution. Based on the above decision rule on normality test, the researcher concluded that the data is non normal because the significant value is less than 0.05.

Table 4.11 Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics	Durbin-Watson
				Sig. F Change	
.994 ^a	.989	.988	.490	.000	.222

The model summary result in table 4.41 above shows that R-Squared is 98.9% of the variations in public accountability (PACC) of federal MDAs FCT Abuja in Nigeria were caused by the level of e-payment (E-PAY), e-information (e-INF), e-procurement (E-PCM) and e-service delivery (E-SDL) while 1.1% of the variation in public accountability (PACC) were affected by other factors outside our model. The adjusted R-Squared which indicates a figure high than

50% implies that e-payment (E-PAY), e-information (e-INF), e-procurement (E-PCM) and e-service delivery (E-SDL) were the major determining factors of public accountability (PACC) of federal MDAs FCT Abuja in Nigeria. The Durbin-Watson Statistic is 0.222 while F-Statistic change is 7853.651 at p-value of F statistic change of 0.000 at 1% level of significance.

Table 4.12 ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7544.047	4	1886.012	7853.651	.000
	Residual	87.653	365	.240		
	Total	7631.700	369			

The table 4.42 above was to evaluate the general model's level of significance for data under consideration for the study. F statistics has a value of 7853.651 and a probability value of 0.000, both of which are statistically significant at 1% based on the analysis result above. Based on the above figures, we

concluded that all the alternate hypotheses were accepted for the study. So, the public accountability was found to be significantly affected by e-government of listed federal MDAs FCT Abuja in Nigeria.

Table 4.43 Multicollinearity Test

Model		Collinearity Statistics	
		Tolerance	VIF
	EPAY	.053	18.997
	EINF	.022	45.039
	EPCM	.027	37.435
	ESDL	.017	57.704

The use of table 4.43 tests allows the researcher to look into the linear aspect of two predictor variables. Multicollinearity is a condition where two or more predictors exhibit a high degree of linear relationship with one another. It does not exist between the explanatory variables considered in this study because all of the VIF are less than 10 and tolerance values are greater than 0.10. It is important to remember that for

multicollinearity to exist, the regressors must generate a VIF value greater than 10 and a tolerance value less than 0.1. The findings of this study are consistent with the classical regression model's assumption that there should be no multicollinearity among the regressors included in the model, and thus the findings revealed can be interpreted confidently.

Table 4.13 Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.471	.117		4.021	.000
	EPAY	.015	.023	.016	.641	.522
	EINF	.526	.036	.549	14.578	.000
	EPCM	.399	.035	.392	11.423	.000
	ESDL	.043	.039	.046	1.090	.276

4.2.2 Test of Hypotheses

4.2.2.1 E-payment and Public Accountability

The first hypothesis which states, e-payment (EPAY) has no significant effect on public accountability of federal MDAs FCT Abuja in Nigeria is listed in the section. The regression coefficient analysis in table 4.43 above indicates that t-calculated of e-payment (EPAY) as 0.641 less than critical value of 2.0000 while P-value indicate a figure of 0.522 greater than 5% which is level of significance. This implies that e-payment (EPAY) has positive and insignificant effect on public accountability (PACC) of federal MDAs FCT Abuja in Nigeria.

4.2.2.2 E-information and Public Accountability

The second hypothesis which states, e-information (e-INF) has no significant effect on public accountability (PACC) of federal MDAs FCT Abuja in Nigeria is listed in the section. The coefficient of e-information (e-INF) shows a value of 14.578 > 2.000 while P-value indicates a figure of 0.000 less than 1% which is level of significance. This means that e-information (e-INF) has positive and significant effect on public accountability (PACC) of public accountability of federal MDAs FCT Abuja in Nigeria.

4.2.2.3 E-procurement and Public Accountability

The third hypothesis which states, e-procurement (e-PCM) has no significant effect on public accountability of federal MDAs FCT Abuja in Nigeria is listed in the section. The regression coefficient analysis in table 4.43 above indicates that t-calculated of e-procurement (e-PCM) as 11.423 greater than critical value of 2.0000 while P-value indicate a figure of 0.000 greater than 1% which is level of significance. This implies that e-procurement (e-PCM) has positive and significant effect on public accountability of federal MDAs FCT Abuja in Nigeria.

4.2.2.4 E-service Delivery and Public Accountability

The fourth hypothesis which states, e-service delivery (e-SDL) has no significant effect on public

accountability of federal MDAs FCT Abuja in Nigeria is listed in the section. The regression coefficient analysis in table 4.43 above indicates that t-calculated of e-service delivery (e-SDL) as 1.090 less than the critical value of 2.0000 while P-value indicates a figure of 0.276 greater than 5% which is level of significance. This implies that e-service delivery (e-SDL) has positive and significant effect on public accountability of federal MDAs FCT Abuja in Nigeria.

4.3 Discussions of Findings

4.3.1 E-Payment and Public Accountability

Objective One: To evaluate the effect of e-payment (EPAY) on public accountability (PACC) of federal ministries, departments and agencies (MDAs) in Nigeria.

The e-government is measured by e-payment which is independent variable while public accountability is dependent variable for this study. The regression result indicated that e-payment (e-PAY) has positive and insignificant effect on public accountability (PACC) of federal ministries, departments and agencies (MDAs) in Nigeria. The implication of this result shows that a unit increase in e-payment will lead to the same unit increase on public accountability of federal ministries, departments and agencies (MDAs) in Nigeria and vice versa. This means that when more effort is being put in e-payment, it will improve the performance of government in the public accountability of the citizens of federal ministries, departments and agencies (MDAs) in Nigeria. The result also revealed that providing more electronic payment to federal ministries, departments and agencies (MDAs) in Nigeria will not have any influence on the public accountability which mean that e-payment is not a major determining factor for public accountability of federal ministries, departments and agencies (MDAs) in Nigeria. The finding of this study agreed with Gathima & Njoroge (2018), Donga & Bello (2021), Andrea et al. (2022), Nwankwo et al. (2022), Dehbini et al. (2015), Sani et al. (2022), Oyelami et al. (2020), Adeyelu et al. (2014), Afaha (2019) and Asaolu et al. (2011) while in

contrast with the studied by Ehiedu et al. (2023), Chiejina (2021) and Azih & Nwagwu (2015).

4.3.2 E-Information and Public Accountability

Objective Two: To ascertain the effect of e-information (E-INF) on public accountability (PACC) of federal ministries, departments and agencies (MDAs) in Nigeria.

The e-government is measured by e-information which is independent variable while public accountability is dependent variable for this study. The regression coefficient table result indicates that e-information (e-INF) has positive and significant effect on public accountability of federal ministries, departments and agencies (MDAs) in Nigeria. The implication of this result indicates that a unit increase in electronic information lead to the same unit increase on public accountability of federal ministries, departments and agencies (MDAs) in Nigeria and vice versa. This means that when more effort is being put in the e-information, it will improve the performance of government in the public accountability of the citizens of federal ministries, departments and agencies (MDAs) in Nigeria. The result also found that providing more e-information to federal ministries, departments and agencies (MDAs) in Nigeria will have impact on the public accountability which mean that e-information is a major determining factor for public accountability of federal ministries, departments and agencies (MDAs) in Nigeria. The studies of Eliana et al. (2023), Almasradi et al. (2020), Onikoyi et al. (2022), Soka & Kimencu (2018), Juliyanti & Winarna (2021), Yixuan & Arumugam (2021) and Kazakov et al. (2021) were in agreement with the result while Farmansyah & Isnalita (2020) disagreed with the result.

4.3.3 E-Procurement and Public Accountability

Objective Three: To assess the effect of e-procurement (E-PCM) on public accountability (PACC) of federal ministries, departments and agencies (MDAs) in Nigeria.

The e-government is measured by e-procurement which is independent variable while public accountability is dependent variable for this study. The regression result indicated that e-procurement (e-PCM) has positive and significant effect on public accountability (PACC) of federal ministries, departments and agencies (MDAs) in Nigeria. The implication of this result shows that a unit increase in electronic procurement will lead to the same unit increase on public accountability of federal ministries, departments and agencies (MDAs) in Nigeria and vice versa. This means that when more effort is being put in increasing the electronic procurement, it will improve the performance of government in the public accountability of the citizens of federal ministries, departments and agencies (MDAs) in Nigeria. The result also revealed that providing more e-procurement to federal ministries, departments and

agencies (MDAs) in Nigeria, Nigeria will have impact on the public accountability which mean that e-procurement is a major determining factor for public accountability of federal ministries, departments and agencies (MDAs) in Nigeria. The finding of this study agreed with Musa et al (2023), Obasa & Gado (2022), Inyan et al. (2024), Mukuku & Osoro (2022) and Barasa et al. (2017) while in contrast with the studied by Juliyanti & Winarna (2021), Waganda (2018), Oppong (2020) and Mebrate & Shumet (2024).

4.3.4 E-Service Delivery and Public Accountability

Objective Four: To determine the effect of e-service delivery (E-SDL) on public accountability (PACC) of federal ministries, departments and agencies (MDAs) in Nigeria.

The e-government is measured by e-service delivery which is independent variable while public accountability is dependent variable for this study. The regression coefficient table result indicates that e-service delivery (e-SDL) has positive and insignificant effect on public accountability (PACC) of federal ministries, departments and agencies (MDAs) in Nigeria. The implication of this result indicates that a unit increase in electronic service delivery will lead to the same unit increase on public accountability (PACC) of federal ministries, departments and agencies (MDAs) in Nigeria and vice versa. This means that when more effort is being put in the electronic service delivery, it will reduce the number of fraud committed in the federal ministries, departments and agencies (MDAs) in Nigeria. The result also found that providing more e-service delivery to federal ministries, departments and agencies (MDAs) in Nigeria, Nigeria will have effect on the public accountability which mean that e-service delivery is a major determining factor for public accountability of federal ministries, departments and agencies (MDAs) in Nigeria. The studies of Umar & Ikechukwu (2022), Ogu & Chukwurah (2023), Siska et al. (2020), Udofot et al. (2022), Kuria et al. (2023), Irwansyah et al. (2022), Akpan et al. (2020), Osakede et al. (2017), Dahiru et al. (2020), Lawan et al. (2020), Sampson et al. (2019) and Gisemba & Iravo (2019) were in agreement with the result while Abdi (2019) disagreed with the result.

5. CONCLUSION AND RECOMMENDATIONS

Conclusion

The study titled effect of e-government on public accountability of federal ministries, departments and agencies in Nigeria. The study was structured in four (4) specific objectives and hypotheses in line with the decomposed independent variable (e-government implementation) on public accountability. Based on the findings of this study, the researcher concluded as follows:

The study concluded that spearman's rho correlations result indicates that e-payment, e-information, e-procurement and e-service delivery have positive and statistically significant relationship with public accountability of federal ministries, departments and agencies in Nigeria. The implications of this findings are that any increase on all the measurements for e-government used for this study will result to the same increase in public accountability and vice versa which means that the electronic government will help increase the accountability to the citizens in different federal ministries, departments and agencies in Nigeria while the regression coefficients result also shows that e-payment and e-service delivery have insignificant effect on public accountability of federal ministries, departments and agencies in Nigeria. The implication is that the influence of e-payment and e-service delivery on public accountability are so small which means that they have not major determining factor on public accountability while the e-information and e-procurement have significant effect on public accountability of federal ministries, departments and agencies in Nigeria. The implication is that the e-information and e-procurement have influence on public accountability which will help improve the performance of activities of federal ministries, departments and agencies in Nigeria.

Recommendations

The study recommends the following:

- i. The Federal Government of Nigeria should significantly enhance its e-payment in order to promote adequate public accountability in the Nigerian MDAs. Through this, federal ministries, departments and agencies (MDAs) can significantly enhance the effectiveness of its e-payment, leading to increase in public accountability.
- ii. The federal government should implement more e-information because it shows positive and significant effect on public accountability. The use of electronic information did not only speed up and makes access to public services easier, but also helps in expanding citizen participation in government decision-making and increasing the visibility of policy processes. Through the use of technologies such as big data, AI, and blockchain, the potential for further improvements is enormous, providing opportunities to address existing issues such as data security and ensuring the integrity of the information provided.
- iii. The federal government should be specific and accurate with respect to requisition, tendering, contracting and invoice payment of any procurement to enhance the quality-of-service delivery to stakeholders by providing timely, transparent and accurate financial information to all users. The federal ministry of works and infrastructural development should make sure that all the requisition, tender, contract and payment are made through the electronic transaction in order to provide that accountability to the general public in the use of government revenue.
- iv. The Federal Government of Nigeria should encourage the e-government for the purpose of improving e-service delivery at all levels of government because e-government can influence service delivery positively in the Nigerian public sector particularly MDAs.

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