JPPUMA: Jurnal Ilmu Pemerintahan dan Sosial Politik UMA (Journal of Governance and Political Social UMA), 10 (1) (2022): 99-110, DOI: 10.31289/jppuma.v10i1.7040

JPPUMA: Jurnal Ilmu Pemerintahan dan Sosial Politik UMA
(*Journal of Governance and Political Social UMA*)

Available online http://ojs.uma.ac.id/index.php/jppuma

The Effect of Smart Government on Governance in Covid-19 Era

Unachukwu Nnedi Obianuju[1)]*, Mercy Ejovwokeoghene Ogbari[2)] & George Uzoma K. Chima[3)]

1) Department of Business Management, Covenant University, Ota, Ogun State, Nigeria.
2) Centre for Business Management, Covenant University, Ota, Ogun State, Nigeria
3) Legacy Associated Consults Ltd, Apapa, Lagos State, Nigeria

Received: March 28, 2022; Reviewed: April 23, 2022; Accepted: May 11, 2022

Abstract

The research work looked at the relationship between various dimensions of smart government which are citizen centricity, efficiency, effectiveness and the dimensions of smart governance being strategic dimension, networking and collaboration between institutions. This study made use of a quantitative analytical cross-sectional design. The study made use of the Stakeholder theory. It also made use of the purposive, convenience and simple random sampling technique. A survey was designed for the respondents which was inclusive of one hundred and thirty (130) postgraduate students of Covenant University, Ota, Ogun state and the Statistical package for social sciences was used in running the analysis. According to the findings of this study, smart government could be regarded a foundation for establishing governance by utilizing advanced information and technology for good governance, which is characterized by multiple interrelationships between individuals, government and other decision makers. The sample size and analyses focused majorly on the Postgraduate students of Covenant University. From the findings, the students assert that the governments use of ICT platforms has been able to enhance the resilience of the government and organisations as they have been able to develop a means to cope, adapt and adjust to this global change. The efficient and effective use of ICT, allowed for networking and collaborative interaction between government and other state and the governments and organizations. This implies that governments ability to take smart and strategic actions in the face of unforeseen and unpredictable challenges through the use of ICT has proven a candid means for the government to efficiently and effectively run any nation state. The findings focus on examining the effect of smart government on governance. The paper is significant in giving insightful directives on the realities of running government in a continuous dynamic environment which factors are unpredictable and gives a guide on how government should be run in the face of untold challenges.

Keywords: Smart City; Smart government; Smart governance; Citizen centricity; Efficiency.

How to Cite: Obianuju, U.N. Ogbari, M.E. & Chima, G.U.K. (2022). The Effect of Smart Government on Governance in Covid-19 Era. *JPPUMA: Jurnal Ilmu Pemerintahan dan Sosial Politik UMA (Journal of Governance and Political Social UMA), 10 (1): 99-110*

*Corresponding author:
E-mail: nnedi.unachukwupgs@stu.cu.edu.ng

ISSN 2549-1660 (Print)
ISSN 2550-1305 (Online)

INTRODUCTION

Smart cities are often referred to as cities where citizens are allowed to participate and there is collaboration among stakeholders. This implies that government operations and structures need to be transformed to some extent in order to create a smart city (Castelnovo, Miscuraca &Savoldelli, 2015). Smart city is a concept which looks at development, execution and implementation that is applied to a particular region as a means of aiding complex interactions between the various cities that exists in it (Ni Putu, 2015).

The IBM a world-class enterprise is known as the originator of the first smart city concept, which divides into six dimensions namely; smart economy, Smart individuals, smart governance, smart society, and smart environment are all examples of smart mobility. The goal of a smart city is to effectively and efficiently monitor, link, and control several resources that exist within the city in order to maximize service to inhabitants (Ni Putu, 2015).

One of the greatest factors that fostered the need for smart government was the SARS-CoV-2, which was identified by the World Health Organization as a worldwide pandemic in February 2020, but it is best recognized by the sickness it causes which is COVID-19. The pandemic posed significant challenges, as well as the government's efforts to address the public's social welfare needs (Ufua, Osabuohien, Ogbari, Falola, Falola, & Lakhani, 2021).

Businesses suffered as a result, and it became necessary for businesses to be diligent in analyzing their ability to tolerate disruptions in operations and finance. as well as to move quickly to minimize real or possible difficulties (Olokundun, Ibidunni, Ogbari, Falola, Salau, 2021). It was a perfect opportunity for SMART countries to demonstrate their technology prowess to the rest of the globe. As a result of COVID-19's escalating consequences, most countries have had to respond to the health problem by restricting bodily movement, particularly in all cities across the globe. By the time most sections of the world implemented total and partial lockdowns based on orders issued by the government, the health crisis had transformed into a national disaster affecting majority of large economies across the globe. As a result of anxieties of contacting the fatal disease by citizens, video conferencing and other internet commerce platforms gradually and increasingly became normalized during this time (Lee & Lee, 2020).The digital transition altered government models in unforeseen ways.

The term "governance" be referred to as the collaboration and engagement of many decision makers (Alonso &Lippez-De Castro, 2016). Smart government is a term commonly used to describe actions that examine new technologies which involve the development of innovative strategies to help government infrastructures and structures become more robust and agile (Pereira, Parycek, Falco & Kleinhans, 2018).

Smart government is a critical component of smart governance, which is a pressing need in the twenty-first century. Smart governance relies heavily on technology. It is undeniable the relevance of smart governance, it has brought about a modern way in which politics, government, and public administration is been thought about. E-government is enabled by the implementation of digital processes in the administrative and political systems (Sarker& Wu, 2018). The advanced version of e-government is smart government. Over a few years, the governance system has relied on technology to conduct its business. Majority of wealthy countries also rely on contemporary technology to keep

their governments working smoothly. Modern technology being used for governance has become a popular trend among practitioners, researchers, academicians and politicians (Sarker& Wu, 2018). The ability to take intelligent actions into decision-making processes is referred to as smart governance (Scholl &Alawadhi, 2016). It is the ability to have a government that's participatory, open, and smart (Scholl & Scholl, 2014). It is the government's ability to make better and more sound decisions. Few research on smart government has looked at its impact on governance. Therefore, the objective of the study is to examine the effect of smart government on governance. The specific objectives are as follows: To analyse the influence of citizen centricity on strategic dimension, to examine the effect of efficiency on networking and to access the impact of effectiveness on collaboration between institution. The research seeks to offer solutions as to what extent can citizen centricity influence strategic dimension? In what way can efficiency affect networking? And to what extent can effectiveness impact collaboration between institutions?

Smart cities can be regarded as a fresh insight into urban growth (Harrison & Donnelly, 2011). It demonstrates how sophisticated information systems are integrated and presented to incorporate the process of urban infrastructure this includes water distribution, transportation, and public safety. It has been redefined and includes all types of knowledge-based innovation in city development, operations and planning (Harrison & Donnelly, 2011). Smart cities are also efficient cities that make extensive use of new technologies (Vanolo, 2013). According to Chourabi, Nam, Walker, Gil-Garcia, Mellouli, Nahon, Pardo, & Scholl, (2012), The intelligence of modern cities, dwell in the more efficient coupling of Intelligence sensors, digital telecommunication networks, sensory organs and software are all ubiquitously implanted (the knowledge and cognitive competence). Schaffers, Komninos, Pallot, Trousse, Nilsson &Olivera. (2017) view Smart cities from a multi-dimensional perspective, and can be seen as a future scenario that focuses on how technology improves inhabitants' lives.

The term "smart government" is sometimes used to emphasis emerging technology alongside creative techniques to make governmental systems and frameworks more dynamic and robust (Gil-Garcia., Zhang, & Puron-Cid, 2016). Mellouli, Luna-Reyes, & Zhang, (2014) define smart government as the government's thorough use of advanced technologies, which follows mainly two patterns: the change toward information sharing and the widespread availability of technology, both of which aid in better understanding of societal issues and improving government relationships with private institutions, citizens, non-governmental organizations, as well as other government agencies.

Smart-government is a technological combination of smart cities and e-government. It involves combining the best features of both while remaining admin-centric and opaque (Mutahar, Daud, Ramyah, Isaac &Aldholay, 2018). The second type is referred to as "next generation – smart government," and it is a hybrid of Government and smart cities (Aldholay, Isaac, Abdullah, Abdulsalam& Al-Shibami, 2018). It is the form of government that many countries wish to have. It is open and transparent in all of its dealings with the public.

Interconnection, advancement, information sharing, data, citizen-centricity, sustainable development, creative thinking, effectiveness, efficiency, fairness, entrepreneurship, public

participation, flexibility, perseverance, and innovation are some of the components of smartness that influence the implementation and advancement of smart governments, while Incorporation, citizen-centricity and technology savvy are all traits that apply to e-governments(Gil-Garcia, Zhang &Puron-Cid, 2016).

Citizen-Centricity: A citizen-centric public sector prioritizes citizens and ensures that services are designed with them in mind (Berntzen, Marius &Ansgar, 2018). Citizen-centricity in e-governance focuses on citizens' demands from the perspective of citizens themselves; hence citizen participation and their representatives are at the core of citizen-centricity (Malhotra, Chariar& Das, 2017).

Efficiency: Efficiency is associated with getting things carried out right (Peter & Mbah, 2020). Efficiency entails one deriving the greatest possible output out of the smallest quantities of input. It shows the relationship between input and effect. Efficiency focuses more on effect regardless of the resources needed to achieve this objective (Yakie&Tamunomiebi, 2020).

Effectiveness: Effectiveness focuses or looks at the accuracy in which activities are carried out (Peter &Mbah, 2020). Effectiveness looks at the achievement derived from the use of a specific set of resources and the gravity of the effect (Hanushek&Lockhead, 1994).

Smart governance is a governing strategy that uses existing resources to make rational decisions in order to achieve policy goals, allowing a system and its linked components to function effectively in a rapidly changing and socially complex context. Smart governance is a third-generation administrative concept based on information and communication technologies that evolved from the classical governmental structure. S.M.A.R.T (social, mobile, analytics, radical openness, and trust) is an acronym for smart governance, according to Melhem, with S standing for social, M for mobile, A for analytics, R for radical openness, and T for trust (Bagga, Sodhi, Shukla &Qazi, 2017).

To be smart, a government must be socially developed in the delivery of individualized and citizen-friendly services, allowing citizens and civil society to successfully cooperate with it. Similarly, SMS, social media, cloud computing, apps are examples of mobile technology. networks are being used to provide public services and conduct regular commercial tasks. Similarly, using big data analysis as a means of achieving governance effectiveness can be done easily in the course of conducting smart governance.

Smart governance refers to the use and growth of digital technologies in government and is a new phrase in the scientific literature. It's a system that involves elements of smart systems, cities and regions. According to Khalid, Ali, and Amiya, smart governance has four aspects (2019). Strategic dimensions, networking, institutional collaboration, and dimensions of empowered citizenship are among them

Strategic dimensions: Strategic dimensions primarily focus on a leader's ability to anticipate and actively manage complex political situations in order to prevent risk. Strategic sensitivity and resource flexibility are two important aspects of strategic dimension (Khalid, Ali & Amiya). Strategic sensitivity concentrates the administration's ability to assume and mitigate any risk

Networking: The network component is primarily concerned with interactions across multiple agencies and segments that might lead to collective decision-making relating to government politics and accurate facts to achieve an institutionally intended outcome (Al-Khouri, 2012).

Collaboration between institutions: The use of ICT in government activities is reshaping traditional government administration. On the other hand, agency interconnectedness is rapidly rising. Smart governance emphasizes cross - functional interaction, which involves cooperation and integration of activities among multiple internal departments, including non-hierarchical institutions in some cases. Using big data technologies, it is possible to deal with cooperation and integration among many organizations early on. The term "interaction platform" refers to a system that encourages institutional collaboration among various government stakeholders through the use of appropriate channels to achieve common goals.

The stakeholder theory propounded by Edward Freeman in 1984, explains that for any business or institution to be of value to its stakeholders and remain sustainable for a long time, business owners and managers must maintain the interests of the stakeholders. According to Freeman, (1984), A stakeholder is a person or group of people who are significantly involved in a company's goals and objectives**.** The stakeholder theory's applicability to this study project is explained on the assumption that the citizens are the most important persons in the society. The ability of the government to remain centred on the interest of the citizens, specifically in the area of problem solving and solution adaptation will help in improving the efficiency and effectiveness of government decisions, smart government being one which looks at the use of ICT in carrying out governmental activities and collaboration amongst institutions especially during the Covid 19 and its aftermath. The government was able to successfully continue in carrying out its activities with the aid of technology, having the interest and safety of the nation at heart and this was able to be of great aid to developing countries such as Nigeria (Albasu&Nyameh, 2017).

RESEARCH METHODS

The research work is quantitative in nature, and as such the descriptive research design was used. A 5-point Likert scale questionnaire was used in obtaining the opinions of various statements through a variety of itemized rating scales. To verify which questions the respondents were required to answer, the researcher modified a questionnaire from prior research publications linked to the study's aims. The statistical software for social sciences (SPSS) IBM version was used to code and analyze the questionnaire items.

The sample size was determined using the Inclusion and exclusion criteria. This implies that only respondents that met up with the criteria for the study were included in the research. The research. was inclusive of one hundred and thirty (130) postgraduate students of Covenant University, Ota, Ogun state.

Operationalization is the representation of variable in a construct. The hypothesis and research consists of independent variable and dependent variable. X is the independent variable and Y is the dependent variable

Mathematically, Y= f(x)

F = functional analysis

Y = dependent variable

X = Independent variable

Substituting for X and Y

X = Smart government (SG)

Y = Smart governance (SG)

Smart government (SG) is a function of Smart governance (SG)

Therefore Y= f (X), SG = f (SG)

Thus

Where X = f (x1, x2, x3, x4, x5…..xn)

X_1 = citizen centricity

X_2 = efficiency
X_3= effectiveness
And
Y_1 = strategic dimension
Y_2 = networking
Y_3 = collaboration between institutions.

The purposive, convenience and simple random sampling was used to obtain data from the respondents which was one hundred and thirty (130) postgraduate students of Covenant University, Ota, Ogun state.

Tabel 1. Reliability of the Research Instrument

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.844	.806	13

The Cronbach Alpha procedure was used to test the retrieved questionnaires and the instrument becomes reliable when the research instrument yields a value >0.7. The result of the reliability is shown in Table 1. Overall, the instrument is adjudged reliable and valid

RESULTS AND DISCUSSION

Demographic Profile of Respondents

In this study the demographic profile of the respondents, presented distribution in terms gender, age, educational requirement, college.

Table 2. Demographic distribution of respondents

		Frequency	Percent
Gender	Male	76	58.5
	Female	54	41.5
	Total	130	100
Age	21-30	66	50.8
	31-40	45	34.6
	41-50	19	14.6
	Total	130	100
Marital Status	Single	68	52.3
	Married	62	47.7
	Total	130	100
College	CMSS	40	45.8
	COE	25	24.4
	CST	35	8.4
	CLDS	30	21.3
	Total	130	100

The Table 2, above highlights the demographic distribution of the respondents made up of four sections. The first section displayed the gender of the participants who took part in this study. 76 participants were male with the percentage of 58.5% while 54 participants were females with a percentage of 41.5 %. This showed that most of the respondents in the study were males.

The second section showed the age of the participants who took part in the study, 66 participants were in the age bracket of 21-30 with a percentage of 50.8%, 45 were in the age range of 31- 40 with a percentage of 34.6% and 19 were within the age range of 41-50 with a percentage of 14.6%. A great number of participants were in the age range of 21-30 years indicating that majority of the post graduate students are young and agile.

The third section revealed the marital status of the respondents who participated in this research, 68 participants were single

with a percentage of 52.3%, 62 participants were marrieddegree with a percentage of 47.7 %. Given these statistics, majority of the respondents were single

The fourth section illustrated the college of the respondents who participated in this research, 40 participants are in the College of Management and Social Sciences (CMSS) with a percentage of 45.8%, 25 participants are in the College of Engineering (COE) with a percentage of 24.4%, 35 participants are in the College of Science and Technology (CST) with a percentage of 8.4% and 30 participants are in the College of Leadership and Development Studies (CLDS) with a percentage of 21.3%. A great number of participants were from the College of Management and Social Sciences (CMSS).

Hypotheses Testing

Table 3. Model Summary

	Model	R	R Square	Adjusted R Square	Standard error of the estimate
Citizen-Centricity	1	.424[a]	.180	. 176	.60840
Efficiency	2	.547[a]	.299	. 294	.64411
Effectiveness	3	.727[a]	.529	. 525	.64982

Predictors: (constantly), Citizen-Centricity, Efficiency, Effectiveness.
Dependent Variable: Strategic dimension, Networking, Collaboration between Institutions.

The first hypothesis considers how citizen-centricity affects strategic dimension. R suggests a.424[a] relationship of citizen-centricity on strategic dimension, which implies a moderate relationship. Table 3.3 shows the extent to which the variance of the dependent variable (strategic dimension) is explained by the independent variable (citizen-centricity). This is represented by R square, which equals .18 and is stated as 18%. This demonstrates that Cicitizen-centricity accounts for 18% of the variance in strategic dimension. As a result, other factors not included in the model explains 82% (100 percent -18 percent) of the variance in strategic dimension. The error estimate is 0.60840, which is the standard error term. Therefore, the result concludes that citizen-centricity has a moderate effect on strategic dimension.

The second hypothesis looks at how Efficiency affects networking. Table 3.3 shows that R suggests a.547[a] relationship of Efficiency on networking, which implies a moderate relationship. The results are shown in table 3.3, which show how much of the variance of the dependent variable (networking) is explained by the independent variable (Efficiency). This is represented by the R square, which equals.299 and is expressed as 29.9%. This reveals that the interest rate is responsible for 29.9% of the variance in Efficiency. As a result, other factors not included in the model factors explains 70.1 % (100% - 29.9%) of the variance in Networking. The error estimate is, 64411, which is the standard error term. As a result, the findings suggest that efficiency has a moderate impact on networking.

The third hypothesis examines the impact of effectiveness in decision-making on collaboration between Institutions. Table 3, explains that R denotes a.727[a]relationship of technology on social entrepreneur, indicating a moderate relationship. The Table 3.3 shows the extent to which the dependent variable (collaboration between institutions) is explained by the variance of the independent variable (Effectiveness). This is represented by the R square, which equals.529 and is stated as 52.9%. This

indicates that effectiveness accounts for 52.9% of the variance in Collaboration between Institutions. As a result, other factors not included in the model account for 57.1% (100 percent -52.9 percent) of the variance in Institutional Collaboration. The error term is 0.64982, which is the standard error estimate. Therefore, the result concludes that effectiveness has a moderate effect on Collaboration between institutions.

The F value for the first hypothesis is 48.893, which is significant at the 0.000[b] level of significance, according to ANOVA table 3.4. The conclusion is that citizen centricity has a major impact on the Strategic Dimension. The null hypothesis was rejected as a result of the significant value being less than 0.05. As a result, sustainability and resilience have a substantial impact on strategic dimensions.

The F value for the second hypothesis is 62.719 at the 0.000[b] level of significance, according to ANOVA table 3.4. The conclusion is that interest rates have a big impact on efficiency and networking. The null hypothesis was rejected as a result of the significant value being less than 0.05. As a result, efficiency and networking have a considerable impact.

Table 4. Anova of hypotheses

Model			Sum of squares	Df	Mean of squares	F	Sig
Citizen Centricity and Strategic dimension	1	Regression	18.097	1	18.097	48.893	.000[b]
		Residual	223	223	.370		
		Total	224	224			
Efficiency and Networking	2	Regression	26.018	1	62.713	62.713	.000[b]
		Residual	60.987	147	.415		
		Total	87.005	148			
Effectiveness and Collaboration between Institutions	3	Regression	60.659	1	60.659	143.650	.000[b]
		Residual	54.050	128	.422		
		Total	114.709	129			

Dependent Variable: Strategic dimension, Networking, Collaboration between Institutions
Independent Variable: Citizen Centricity, Efficiency, Effectiveness

The F value for the third hypothesis is 143.650 at the 0.000[b] level of significance, according to the ANOVA table3.4. The conclusion is that effectiveness has a major impact on inter-institutional collaboration. The null hypothesis was rejected as a result of the significant value being less than 0.05. As a result, effectiveness and collaboration across institutions have a substantial impact.

The constant B, which is 2.219 in hypothesis one, intercepts in the regression equation. This means that the Strategic Dimension is 2.219 when Citizen Centricity is at zero. The slope of the regression equation for Citizen Centricity is 0.479, so every unit rise in Citizen Centricity leads to a 0.479 increase in Strategic Dimension. Citizen centricity has an effect on strategic dimension with a level of significance of 0.000, as shown in table 3.5. (β=.424; t= 6.992;p>0.005) The null hypothesis should be rejected because the model's significance level is less than 0.05. As a result, citizen centricity appears to have an impact on strategic dimension.

The constant B, which is 2.217 in hypothesis two, intercepts the regression equation. This indicates that when efficiency is 0 and Networking is 2.217, the B value for efficiency is 0.502, the slope of the regression equation, and every unit improvement in efficiency will result in a 2.217 rise in Networking. Efficiency has an

effect on networking, as shown in Table 3.5, with a degree of significance of 0.000 ((β=0.547; t= 7.919; p<0.005). The null hypothesis should be rejected because the model's significance level is less than 0.005. As a result, it's reasonable to conclude that efficiency has an impact on networking.

Table 5. Coefficients of all hypotheses

	Model		Unstandardized Coefficients		Standardized Coeffients	T	Sig
			B Error	Std	Beta		
Citizen Centricity and Strategic dimension	1	(Constant)	2.219	.279		7.949	.000
		Citizen Centricity	0.479	.069	.424	6.992	.000
Efficiency and Networking	2	(Constant)	2.217	.250		8.859	.000
		Efficiency	.502	.063	.547	7.919	.000
Effectiveness and Collaboration between Institutions	3	(Constant)	2.609	. 333	.365	7.847	.000
		Effectiveness	0.371	. 078	.	4.749	.000
Dependent Variables: Strategic dimension, Networking, Collaborations between Institutions							

The constant B, which is 2.609, intercepts the regression equation in hypothesis three. This means When efficiency is at point 0, collaboration across institutions equals 2.609. The B value for efficiency which is the slope of the regression equation is 0.371, so for every unit increase in effectiveness, there will be a 0.371 rise in collaboration between institutions. The table above3.5 illustrates that efficiency has an effect on inter-institutional collaboration, with a significant level of 0.000 (β=.365; t= 4.749 p<0.005). The null hypothesis should be rejected because the model's significance level is less than 0.005. As a result, it can be deduced that effectiveness has an impact on collaboration between institution.

Table 6. Correlations

		Citizen_Centricity	**Strategic_dimension**
Citizen_Centricity	Pearson Correlation	1	.332**
	Sig. (2-tailed)		.001
	N	100	100
Strategic_dimension	Pearson Correlation	.332**	1
	Sig. (2-tailed)	.001	
	N	100	100

**. Correlation is significant at the 0.01 level (2-tailed).

Table 6, value for the first hypothesis implies there is a 0.01 significant correlation between citizen centricity and strategic dimension. This implies there is a significant relationship between citizen centricity and strategic dimension.

Table 7 value for the second hypothesis implies there is a 0.01 significant correlation between efficiency and networking. This implies there is a significant relationship between efficiency and networking.

Table 8 value for the third hypothesis implies that there is no significant correlation between effectiveness and collaboration. This therefore implies that there is no significant relationship between effectiveness and collaboration between institutions.

Table 7. Correlations

		Efficiency	Networking
Efficiency	Pearson Correlation	1	.394**
	Sig. (2-tailed)		.000
	N	100	100
Networking	Pearson Correlation	.394**	1
	Sig. (2-tailed)	.000	
	N	100	100

**. Correlation is significant at the 0.01 level (2-tailed).

Table 8. Correlations

		Effectiveness	Collaboration_between_Institutions
Effectiveness	Pearson Correlation	1	.101
	Sig. (2-tailed)		.315
	N	100	100
Collaboration_between_Institutions	Pearson Correlation	.101	1
	Sig. (2-tailed)	.315	
	N	100	100

DISCUSSION

The main objective of the current study is to examine the effect of smart government on governance, based on the proposed model, the study has been able to conclude that smart government has a significant effect on governance. It has also been able to view the various dimensions of smart government looking at its characteristics such as citizen centricity, efficiency and effectiveness and the dimensions of smart governance such as strategic dimensions, networking and collaborations between institutions. The study found that smart government characteristics positively affect governance.

CONCLUSION

The study provides a better understanding of smart government and governance and it has been able to answer its major objective which is to examine the effect smart government on governance. It has also been able to give answers to the specific objectives that citizen centricity has a positive influence on strategic dimension, Efficiency has a positive effect on networking and Effectiveness has positive impact on collaboration between institutions The study also carried out a correlation analysis which identified that there is a significant relationship between citizen-centricity and strategic dimension, there is a significant relationship between efficiency and networking. However, there is no significant relationship between effectiveness and collaboration between institutions. The study therefore recommend that government should intensify efforts on effectiveness and collaboration between institutions as it would encourage strategic dimensions, advancement and interconnectedness between institutions.

ACKNOWLEDGMENTS

The authors are thankful to the Conference Organising Committee of Covenant University Conference on E-Business and E-Government in Nigeria (CUCEEN 2021) chaired by Dr. Ugochukwu D. Abasilim for providing this platform for the publication. Also, Covenant University Centre for E-Business and E-Government Research is highly appreciated for granting the approval for the publication of this article.

REFFERENCES

Albasu, J., &Nyameh, J. (2017). Relevance of Stakeholders theory, Organizational Identity Theory and Social Exchange theory to corporate social responsibility and employees performance in the Commercial banks in Nigeria*, International Journal of Business, Economics and Management, 4* (5), 95-105.

Aldholay, A., Isaac, O., Abdullah, Z., Abdulsalam, R., & Al-Shibami, A. (2018). An extension of Delone and McLean IS success model with efficacy. *International Journal of information, Learning and Technology*, 106-118.

Al-Khouri, A. (2012). "eGovernment Strategies: The Case of the United Arab Emirates," *European Journal of Practice, 17* (9), 126– 150.

Bagga, T., Sodhi, J., Shukla, B., &Qazi, M. (2017). Smartphone security behaviour of the Indian smartphone user, Man'In India, 97(24), 333-344.

Berntzen, L., Marius, R., &Odegard, A. (2018). A citizen-centric public sector, Journal of Business and Management, 15(4), 61-90.

Chourabi, H., Nam, T., Walker, S., Gil-Garcia, J., Mellouli,S., Nahon, K., Pardo, H., Scholl et al (2012). Understanding smart cities: An integrative framework in: 45th Hawaii International Conference on System Science, (HICSS), 2289-2297.

Freeman, R.E., 1984. Strategic management; a stakeholder approach. Pitman Publication.

Gil-Garcia, J. R., Zhang, J., & Puron-Cid, G. (2016). Conceptualizing smartness in government: An integrative and multi-dimensional view. *Government Information Quarterly*, *33*(3), 524-534.

Hanushek, E., &Lockhead, M. (1994). Concepts of Educational efficiency and Effectiveness, *Journal of Management, 15*(6)112-128

Harrison, C., Donnelly, L.(2011). A theory of smart cities in: proceedings of the 55th Annual Meeting of the ISSS. *55* (5), 60-125.

Khalid, A., Ali, A., & Amiya, B. (2019). The role of smart government characteristics for enhancing UAE's Public Service Quality, *International Journal on Emerging Technologies, 10*(1), 1-7.

Malhotra, C., Chariar, V., & Das, L. (2018). Citizen-centricity for e-governance initiatives in Rural Areas, *ICT for rural development, 19*(5), 15-70.

Mellouli, S., Luna-Reyes, L. F., & Zhang, J. (2014). Smart government, citizen participation and open data. *Information Polity*, *19*(1-2), 1-4.

Mutahar, A., Daud, N., Ramayah, T., Isaac, O., &Aldholay, A. (2018). The effect of awareness and perceived risk on the technology acceptance model (TAM): mobile banking in Yamen. *International Journal of Services and Standards, 12* (2), 180-204.

Ni Putu, (2015). Analyse of Smart City Concept as Supporting the Government Information Discolsure Case Study: Bandung Smart City

Olokundun, M., Ibidunni, S., Ogbari, M., Falola, H., &Salau, O. (2021). Covid 19 Pandemic and Antecedents for Digital Transformation in the Workplace: A conceptual framework. *Journal of Medical Sciences, 9* (6), 41-46.

Peter, R., & Mbah, S. (2020). Time management and organizational productivity of manufacturing firms in Nigeria. *International Journal of Management and Entrpreneurship*, *2*(1), 200-212.

Schaffers, H., Komninos, N., Pallot, M., Trousse, B., Nilsson, M., & Oliveira, A. (2011). Smart cities and the future internet: Towards cooperation frameworks for open innovation. In *The future internet assembly* (pp. 431-446). Springer, Berlin, Heidelberg.

Scholl, H., & Scholl, M. (2014). "Smart Governance: A Roadmap for Research and Practice," in iConference 2014 Proceedings, 2014, no. 1.

Šiugždinienė, J., Gaulė, E., &Rauleckas, R. (2017). "In search of smart public governance: the case of Lithuania," *International Journal of Administration and Social Science, 11*(9), 15-65

Ufua, D., Osabuohien, E., Ogbari, M., Falola, H., Okoh, E., Lakhani, A. (2021). Re-strategising Government Palliative Support Systems in Tackling the Challenges of Covid-19 Lockdown in Lagos state, Nigeria. *Global Journal of Flexible systems Management, 22*(1), 819-832

Vanolo, A. (2013). Smartmentality: The smart city as disciplinary strategy, *Urban Studies, 16*(5), 19-50.

Yakie, F., &Tamunomiebi, M. (2020). Outsourcing and Organisational efficiency of issues in Nigeria: Rivers State University as a case study, *Journal of Strategic Management, 5*(1),14-24.