



The Strategic
**JOURNAL of Business & Change
MANAGEMENT**

ISSN 2312-9492 (Online), ISSN 2414-8970 (Print)

www.strategicjournals.com

Volume 10, Issue 4, Article 056

E- GOVERNMENT AND SERVICE DELIVERY IN TAITA TAVETA COUNTY GOVERNMENT, KENYA

Zuhura Rehema & Dr. Peris Koech, PhD

E- GOVERNMENT AND SERVICE DELIVERY IN TAITA TAVETA COUNTY GOVERNMENT, KENYA

¹Zuhura, R., & ² Koech, P.

¹Master Student, Jomo Kenyatta University of Agriculture and Technology [JKUAT], Kenya

² Lecturer, Jomo Kenyatta University of Agriculture and Technology [JKUAT], Kenya

Accepted: October 19, 2023

DOI: <http://dx.doi.org/10.61426/sjbc.v10i4.2791>

ABSTRACT

Despite the application of ICTs in Governments, issues of Government efficiency, effectiveness, public service delivery, promotion of good governance and enhancement of democracy have been of concern in most Governments. E-Government adoption is a reform that has the potential to mound Kenya's public sector pitfalls and especially in the County Governments. The main objective of this study was to establish the effect of E-government on service delivery at the County Government of Taita Taveta. The study used Diffusion of Innovations theory, Meta theory, theory of Change, Technology Acceptance model, Expectancy – Disconfirmation theory and Efficiency theory. Descriptive research technique was used for this study and the population of interest was 118 employees at the County Government of Taita Taveta from IT department, finance and procurement. Yamane formula was employed to come up with 92 respondents. Questionnaire was used to obtain primary data and was in the form of likert scales questions. The study did a pilot study of 9 employees from County Government of Taita Taveta. Data analysis was done with the use of SPSS and Microsoft excel and presented using percentages, tabulations, means and other central tendencies. Correlation analysis, regression analysis and analysis of variance were used to test for the significance of the model. The results were presented by the use of tables. Electronic Government, Electronic Citizen, Electronic Business and Electronic Employee have significant effect on service delivery at the County Government of Taita Taveta. The study recommends that E-Government services should be designed with the user in mind and concise instructions for each step of the process. The study recommended that the E-Citizen platform can be improved by simplifying the user interface to make it more user-friendly. The county government can increase awareness of the e-Citizen platform by launching awareness campaigns through various media channels. The County government should offer online training programs that enable employees to learn new skills and improve their performance. The study also recommends that the County government should invest in strong cybersecurity measures to ensure the safety and security of citizens data.

Key terms: E-Business, E-Citizen: E-Citizen, E-Employee, E- government, Service delivery

CITATION: Zuhura, R., & Koech, P. (2023). E- government and service delivery in Taita Taveta County Government, Kenya. *The Strategic Journal of Business & Change Management*, 10 (4), 866 – 881. <http://dx.doi.org/10.61426/sjbc.v10i4.2791>

INTRODUCTION

Due to the direct and indirect forces of globalization, governance has become a key agenda both in developed countries as well as developing world (Rosenau, 2017). Public service delivery is the main rationale for the existence of any popularly elected Government. Thus, every Government takes various initiatives to bring about changes within their existing traditional and process-oriented administrative systems and to achieve the trust and seek support from its citizens in the course of delivering public services efficiently (Kharel, 2018). It is an accepted fact that traditional Government structures and systems are no longer adequate to meet the demands of rising citizen aspirations as the consequence e-governance has emerged (Waseem & Shaikh, 2019). Salam (2017) pointed out three main contributions of e-governance like improving Government processes (e-administration), connecting citizens (e-services), and building external interactions (e-society).

The advancement in Information and Communication Technology (ICT) has added a new dimension to the governance arena and the concept of e-governance has emerged. ICTs are developing faster than ever before and these aids the process of development and good governance (Lee-Geiller & Lee, 2019). E- government is widely accepted as effective tools of service delivery and equated with good governance by all developed countries in general and developing countries (Salam, 2017). Advancement in Internet Technology (IT) is creating new aspirations and expectations among people for enhanced and quality service delivery. E-government aspect emphasizes the use of information technology in delivering services to citizens and transforming its relations with the citizens, businesses and other arms of Government (Pereira et al., 2017).

Government service delivery deals with the effective management of customer service and customer satisfaction (Alzaydi et al., 2018). It also includes methods of improving responsiveness dealing with customer complaint, customer right, worker

productivity, success stories, project management, organization poisoning corporate relation, public sectors accountability and better management of citizen's services. Service delivery deals with the effective management of customer service and customer satisfaction (Kasiri et al., 2017). Service delivery includes method of improving responsiveness, dealing with customer complaint, consumer rights, workers' productivity, service stories, project management, product positioning, corporate relation, public sector accountability and better management of citizen service (Scott, 2019).

In Nigeria E- government can be traced to the formulation of the Nigerian National Information Technology (NNIT) policy in the year 2000. The essence of the policy was to make Nigeria an Information Technology (IT) capable country in Africa and a key player in the information society and also use IT for education; creation of wealth; poverty eradication; job creation; governance; health; agriculture (Abasilim & Edet, 2015). E- government initiatives in Nigeria are geared towards connecting communities, vital agencies, institutions of Government and educational institutions at all levels with ICT. From the National Rural Telephony projects to other laudable initiatives like the Nigerian telemedicine initiative, Public service network initiative, internet exchange point initiatives, State and local Government ICT facilities loan scheme initiative and wire Nigeria initiative (Adeyemo, 2018).

The E- government in Kenya was approved in January and published in March 2004 as a national framework for delivering 'a better life' through services in a better, convenient, and cost-effective way to Kenyans. The E- government is thus linked to the mandate and pledge made by the Government to change the lives and livelihoods of citizens for the better (Ochara, 2010). Services envisaged include, among others, the ability of citizens and business to file tax returns and make tax claims Online, download passport forms online, and for Government to undertake police operations online. The overall goal of E- government is to make the

Government more results oriented, efficient, and citizen centered. E- government is supposed to facilitate citizens in order to access Government services and information as efficiently and as effectively as possible through the use of Internet and other channels of communication (Republic of Kenya, 2018).

Service delivery is an essential function in the relation between government bodies and citizens. Over the past ten years the realization that citizens are customers has become increasingly important to the way county governments think and act (Republic of Kenya, 2018). The Constitution of Kenya promulgated in 2010 provides for the establishment of a two-tiered Government in a devolved system of governance. Devolution has created County Governments with distinct functions and responsibilities for the development of Counties. Taita Taveta County is located approximately 360 km southeast of Nairobi and 200 km northwest of Mombasa, and is a port and major gateway to the United Republic of Tanzania through Taveta town. The population of the County in the 2019 census stood at 347,909 with a gender split of 50.2% being male and 49.8% being female. Mobile penetration has been improving over the years at Taita Taveta County, it is estimated over 80% of the County is covered by telecommunication network service provider (County Government of Taita Taveta, 2020).

The County has one Huduma Centre, located in Wundanyi, offering services ranging from immigration services, National registration, business registration and National Transport Authority Services and many more. The National Government through the Ministry of Finance operates the Huduma Centres providing one-stop shop services for a range of Government services and the establishment of similar services in other Sub-Counties within Taita Taveta will greatly enhance service delivery to the citizens. Private Service providers and the County Government have made significant progress in the provision of internet services. Several cyber cafes can be found in major towns greatly contributing to increased usage of

internet services. With youth using their mobile phones to access the internet for social media and other digital utilities, farmers accessing information online, the level of penetration can be assumed to be on the rise in the County (County Government of Taita Taveta, 2020).

Statement of the Problem

Despite the application of ICTs in Governments issues of Government efficiency, effectiveness, public service delivery, promotion of good governance and enhancement of democracy have been of concern in most Governments (Scott, 2019). According to Okong'o and Kyobe (2018), E-government implementations at devolved units of Government are generally more problematic and are associated with high failure rates. A study conducted by Sigwejo and Pather (2016), showed that 60 percent of all e-Government initiatives in developing countries either fail or fall short of expected outcomes. In his study, Sulehat and Taib (2016) also confirms that e-Government implementation in developing countries is commonly associated with low levels of success. High failure rates is now a matter of great concern to many Governments, citizens of the general public and other stakeholders because it results in massive wasteful spending of public money, a situation that most developing countries can least afford due to limited financial resources (Adeyemo, 2018).

One of the key reforms of the 2010 Constitution of Kenya was to transform the way we govern and manage our society. However, despite devolving services to counties, service delivery remains very poor. Lack of good governance policy yields to weak County performance which has led to low public goodwill characterized by poor citizen-Government relations in the counties (Cannon & Ali, 2018). E-Government adoption is a reform that has the potential to mould Kenya's public sector pitfalls and especially in the County Governments. The challenges faced by County Governments in Kenya include slow delivery of service, corruption, and slow response rates to conflict and other security issues. Since its official launch, to date, most County

Governments in Kenya have not fully adopted the E-Government strategies which may be a solution to poor service delivery in the counties (Hassan, 2019). E-Government use can enhance effective service delivery by ensuring that factors such as time and timelessness, completeness, courtesy, consistency, accessibility, convenience, accuracy, and responsiveness of Government services are adhered to (Ashaye & Irani, 2019).

Studies have been done in regard to e-Government strategies and service delivery but few have focused on County Governments hence the need to fill the gap. Shaikh, Shah and Wijekuruppu (2016) studied public service delivery and e-governance: the case of Pakistan and noted that e-governance play a vital role in bridging the gap between citizens and the Government. Citizens can be empowered by education, information and participation which would indirectly improve the quality of public services. However, the above study was a global study and its scope was not in the County Governments. Abasilim and Edet (2015) focused on e-governance and its implementation challenges in the Nigerian Public Service and deduced that lack of ICT infrastructure, attitude or resistance to change were major challenges. However, the above study was a regional study and left out the concept of service delivery. Locally, Muraya (2015) focused on factors affecting successful adoption of e-Government in Kenya's public sector and noted that social factors, security, policy factors and infrastructure affected successful adoption of e-Government. However, despite the above study being a local study, its focus was on adoption of e-Government and left the aspect of service delivery and the focus was not County Governments. Based on the above findings, a gap thus existed and the study sought to focus on the effect of E-Government on service delivery in Taita Taveta County Government, Kenya so as to fill the gap.

Objectives of the Study

The main objective of this study was to establish the effect of E-Government on service delivery in Taita

Taveta County Government, Kenya. The study was guided by the following specific objectives

- To assess the effect of E-Government strategy on service delivery at the County Government of Taita Taveta.
- To determine the effect of E-Citizen on service delivery at the County Government of Taita Taveta.
- To evaluate the effect of E-Business on service delivery at the County Government of Taita Taveta.
- To establish the effect of E-Employee on service delivery at the County Government of Taita Taveta.

LITERATURE REVIEW

Theoretical review

Diffusion of Innovations Theory (DOI)

Diffusion of innovation theory was postulated by Rogers (1995). It is concerned with the manner in which a new technological idea, artefact or technique, or a new use of an old one, migrates from creation to use. It has potential application to information technology ideas, artefacts and techniques. Diffusion research has focused on five elements: the characteristics of an innovation which may influence its adoption; the decision-making process that occurs when individuals consider adopting a new idea, product or practice; the characteristics of individuals that make them likely to adopt an innovation; the consequences for individuals and society of adopting an innovation; and communication channels used in the adoption process.

Rogers (1995) argued that it consists of four stages: invention, diffusion (or communication) through the social system, time and consequences. The information flows through networks. The nature of networks and the roles opinion leaders play in them determine the likelihood that the innovation will be adopted. Innovation diffusion research has attempted to explain the variables that influence

how and why users adopt a new information medium, such as the Internet.

Expectancy – Disconfirmation Theory

Expectancy-disconfirmation theory (EDT) is of the view that satisfaction is determined by the level of discrepancy between the expectancy and perceived performance (Bhattacharjee, 2001). The theory adopted the idea that consumers' satisfaction is determined by product/service performance, customers' expectations before consumption, and the gap between performance and expectations. This theory has its roots in motivation theory that postulated that people are driven by the desire to satisfy their needs (Maslow, 1954) or that their behaviour was directed at the achievement of relevant goals.

It was later conceptualized by Oliver (1977) to measure post-purchase customer satisfaction from perceived quality of products. Satisfaction level is as a result of the difference between expected and perceived performance (Oliver, 1977). Disconfirmation can either be positive or negative. Positive disconfirmation occurs if the customer is satisfied if the performance of product is equal to his/her expectations while negative disconfirmation occurs when the product performance is perceived to be below his/her expectation.

Efficiency Theory

Efficiency Theory (EF) is derived with respect to the universal algorithm known as the "brute force" approach (Yampolskiy, 2013). Brute Force (BF) is an approach to solving difficult computational problems by considering every possible answer. BF is an extremely inefficient way of solving problems and is usually considered inapplicable in practice to instances of difficult problems of non-trivial size (Yampolskiy, 2013). It is an amazing and underappreciated fact that this simplest to discover, understand and implement algorithm also produces the most accurate (not approximate) solutions to the set of all difficult computational problems. Efficiency in general describes the extent to which resources

such as time, space, energy, etc. are well used for the intended task or purpose (Mouzas, 2006).

Governments are under pressure to improve public sector service delivery and at the same time contain expenditure growth. While factors such as ageing populations and increasing health care and pension costs add to budgetary pressures, citizens are demanding that Governments be made more accountable for what they achieve with taxpayers' money. There is no blueprint for enhancing public sector efficiency (Peacock & Wiseman, 2009). Government have thus adopted diverse approaches to reforming key institutional arrangements, which include: increasing devolution and decentralization; strengthening competitive pressures; transforming workforce structure, size, and HRM arrangements; changing budget practices and procedures; and introducing results-oriented approaches to budgeting and management (Curristine, Lonti&Joumard, 2007).

Empirical Review

Electronic E-Government refers to sharing data and conducting electronic exchanges at the national, provincial and local levels (United Nations, UN Global E-Government Survey 2003). According to Riley (2001), Governments depend on other levels of Government within the state to effectively deliver services and allocate responsibilities. For example, in Kenya, there's a devolved system of Government. There are various Departments in the County Government charged with overseeing some functions such as provision of health care, pre-primary education, Water and Sanitation and maintenance of local roads in Kenya among others (Kimenyi, 2013). For e-governance to be successful, collaboration and cooperation among different Government levels is mandatory. According to Ndou (2004), online communication and cooperation allows Government agencies and departments to share databases, resources, pool skills and capabilities, enhancing the efficiency and effectivity of processes.

Electronic Citizen also known as Government to consumer refers to the initiatives designed to facilitate people's interaction with Government as consumers of public services and as citizens (United Nations, UN Global E-Government Survey 2008). The goal of G2C is to offer a variety of ICT services in an efficient and economical manner. According to Rohilla (2014), E-Citizen Strategy makes it possible for citizens to make transactions such as payment of taxes and renewing of licenses with ease, within the shortest time possible. Government to Citizen Initiatives also strives to enhance access to public information through the use of websites and kiosks (Rohilla, 2014). One of the main goals of implementing such initiatives has been to create a 'single window' where citizens can carry out a variety of tasks that involve multiple Government departments. In such cases, the Government would provide better services as the citizen wouldn't need to contact each Government department individually (Rohilla, 2014). According to a United Nations E-Government Survey (2010), countries are creating websites that support citizens by making it easier for them to find information, by integrating sites into a one stop shop, and by creating single sign on for access to all Government services. From the survey, Republic of Korea is the most successful in creating 'connected presence' for the country's citizens, followed by the United States, Canada, United Kingdom and Canada.

Electronic Business refers to the electronic interactions between Government agencies and private businesses (Ndou, 2004). It involves business specific transactions such as payments with regard to sales and purchases of goods and services (United Nations Global E-Government Survey, 2008). For businesses, conducting online transactions with Government reduces red tape and simplifies regulatory processes. The delivery of integrated, single-source public services creates an enabling environment to conduct business. As an example, the Republic of Korea has one of the most impressive e-procurement implementations through its continued development of the Government e-

Procurement System (United Nations, 2008). It has a single window for public procurement which provides full integration from initial purchase request and bid information to actual payment.

Electronic Employee is one of four main primary interactions in the delivery model in Government. It is the relationship between online tools, sources, and articles that help employees maintain communication with the Government and their own companies. E-Employee strategy states the relationship with employees allows new learning technology in one simple place as the computer. Documents can now be stored and shared with other colleagues online (Sarker, 2018).

Electronic employee strategy solutions are about empowering Government employees so that they can effectively support citizens, speed up their internal administrative processes and render optimal solutions. It streamlines internal processes, improves knowledge sharing, collaboration and staff productivity (Kalra, 2019). In this case, the Government acts as an employer, and interacts with its employees, specially the civil servants, using information technology to enhance internal management efficiency with low administrative costs. It allows co-ordination with other Government employees anytime, anywhere. Some examples of E-Employee strategy services include software for maintaining personnel information and records of staff, which can be accessed easily and conveniently (Reddy, 2019).

The delivery of service in Government departments has been and continues to draw attention from the external and internal environment. Service delivery is affected by various factors such as remuneration of its workforce, training, promotional procedures, and culture of the systems and among other factors (Adaku, Amoako-Gyampah&Famiyeh, 2018). However, it is important to note that Service delivery in Government institutions is highly depended on information-technology and the skills and knowledge of the employees who work in those institutions. Traditionally, public sectors and Government institutions were known to deliver

services which were not sync with the needs and preferences of the customers due to policies and procedures which were more profit-driven and less customer-focused (Siddiquee, 2019). However, with the rise of the information revolution driven by ICT and the growing customer expectations, the citizen has become more empowered in terms of accessing information and using it to address his or her needs without any constraints. Citizens today are more aware of their rights, have better access to information on public services and consequently have higher expectations of service levels because they have been accustomed to capable private sector organizations providing high levels of customizations and other benefits (Bradwell& Marr, 2017).

METHODOLOGY

Research Design: A research design is a structural framework of various research methods as well as techniques that are utilized by a researcher (Kothari, 2014). A descriptive research design was employed which is a research method that describes the characteristics of the population or phenomenon studied.

Target population: Kothari and Tromp (2014) define a study population as a set of elements, individuals, households that are well defined and are under study. The population of the study was employees in the County Government of Taita Taveta. The population of interest was 118 employees at the County Government of Taita Taveta from IT department, finance and procurement.

Sample Frame: A sampling frame lists the population elements from which the sample is obtained (Cooper & Schindler, 2013). The use of the sampling frame is necessary as the researcher had no access to the whole population. The sampling frame represents the entire population under study. In this study, the 118 employees at the County Government of Taita Taveta from IT department, finance and procurement constituted the sampling frame.

Sample Size and Sampling Technique: Sampling as explained by Erik and Marko (2011) is used to choose a few persons in the research such that they are the representative of the population under study. Kothari, (2014) stated that a sample is a small group where accessible population is obtained from. The analyst utilized a stratified random sampling strategy since the study population was not homogenous and, in this way, it is conceivable to isolate this population into strata to induce a representative sample. To calculate the sample size of 92 of the respondents, the Yamane's formula (1967) was employed. The researcher then adjusted the minimum sample of 92 respondents upwards by 10% in order to account for possible withdrawals, unreturned questionnaires and lack of cooperation from the respondents. The adjusted sample size was 102.

Data Analysis and Presentation: Data analysis is the process of evaluating data using analytical and logical reasoning to examine each component of the data provided which help in inspecting, cleaning, transforming and modeling data with the goal of discovering useful information, suggesting conclusions (Bryman& Bell, 2007). Data collected was quantitative in nature and analysis was done quantitatively by use of descriptive statistics, these include frequency distributions, tables, percentages, mean mode, median etc. In addition, advance statistical techniques (inferential statistics) used considered.

Data analysis was done with the use of SPSS and Microsoft excel and presented using percentages, tabulations, means and other central tendencies. This generated quantitative reports through tabulations, percentages, and measures of central tendency. Tables were used to summarize responses for further analysis and facilitate comparison. Cooper and Schindler (2011) notes that the use of percentages is important for two reasons; first they simplify data by reducing all the numbers to range between 0 and 100. Second, they translate the data into standard form with a base of 100 for relative comparisons.

The regression model was as follows;

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \epsilon$$

Whereby Y = Service delivery

B0 = Constant

$\beta_1, \beta_2, \beta_3, \beta_4,$ = Coefficients of determination

Y = Service delivery

X1 = Electronic Government

X2 =Electronic Citizen

X3= Electronic Business

X4 = Electronic Employee

ϵ = Error term

FINDINGS

Response Rate

The researcher administered questionnaires to 102 respondents drawn from the staff at the County Government of Taita Taveta. Out of the 102 respondents, 94 were able to fill and return the questionnaires making a response rate of 92.2%. This

response rate was regarded as satisfactory for the analysis and computation of the data. Babbie (2004) acknowledge that a response rate of above 70% is very good to make inferences.

Correlation Analysis

Correlation analysis was adopted to determine the relationship between the dependent and independent variables. Correlation values ranges from 0 to ± 1.0 , a value of 0 shows that there is no relationship between the dependent and the independent variables. On the other hand, a correlation of ± 1.0 means there is a perfect positive or negative relationship (Orodho, 2014). The relationship was considered as weak when $r = \pm 0.1$ to ± 0.29 , while the relationship was considered medium when $r = \pm 0.3$ to ± 0.49 , $r \pm 0.5$ to ± 0.74 is strong and when $r = \pm 0.75$ and above, the relationship was considered very strong.

Table 1: Correlation Matrix

		Service delivery	E-Government	E- Citizen	E- Business	E- Employee
Service delivery	Pearson	1				
	Correlation					
	Sig. (2-tailed)					
	N	94				
E-Government Strategy	Pearson	.383**	1			
	Correlation					
	Sig. (2-tailed)	.000				
	N	94	94			
E- Citizen	Pearson	.575**	.728**	1		
	Correlation					
	Sig. (2-tailed)	.000	.077			
	N	94	94	94		
E- Business	Pearson	.445**	.694**	.570**	1	
	Correlation					
	Sig. (2-tailed)	.000	.100	.320		
	N	94	94	94	94	
E- Employee	Pearson	.482**	.463**	.405**	.688**	1
	Correlation					
	Sig. (2-tailed)	.000	.061	.111	.0641	
	N	94	94	94	94	94

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

The correlation analysis findings show that there was a positive medium relationship between E-government and service delivery ($r=0.383$, p

value=000 which is <0.05). The findings corroborate with Gwary, Asindaya & Abba (2016) whose study found that before the introduction of e-governance,

service delivery was poor but upon the introduction of e-governance, service delivery was adjudged to have improved significantly. The correlation analysis findings show that E- Citizen and service delivery had a positive strong relationship ($r=0.575$, p value= 0.000 which is <0.05). The findings correspond with Mishra and Geleta (2020) who focused on how e-government system ensure citizens' satisfaction and found that the e-service delivery has positive

impacts on citizen satisfaction. There was a positive medium relationship between E-business and service delivery ($r=0.445$, p value= 0.000 which is <0.05). There was a positive medium relationship between E-employee and service delivery ($r=0.482$, p value= 0.000 which is <0.05). Similarly, Mungai (2017) established a significant relationship between E-government with public sector performance.

Regression Analysis

Table 2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.821 ^a	.674	.638	.29338

a. Predictors: (Constant), E- Government, E- Citizen, E- Business and E- Employee

According to the findings, the coefficient of determination (R squared) is 0.674 and adjusted R squared of 0.638 at 95% significance level. The R squared of 0.674 implies that E- Government services (E- Government strategy, E- Citizen, E- Business and E- Employee) jointly explain 67.4

percent of the variation in service delivery at the County Government of Taita Taveta. The remaining 32.6 percent of the variation in the dependent variable can be explained by other factors which were not part of the current model.

Table 3: ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.382	4	1.345	8.269	.000 ^b
	Residual	14.482	89	.163		
	Total	19.864	93			

a. Dependent Variable: Service delivery

b. Predictors: (Constant), E- Government, E- Citizen, E- Business, E- Employee

The findings from ANOVA analysis showed that the population parameters had a p-value of 0.000. This suggests that the data was suitable for making conclusion on the population under investigation

because the p-value was less than 0.05. The results showed that the F critical was less than F calculated ($2.474 < 8.269$).

Table 4: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.952	0.427		4.5714	0.000
	E- Government	0.393	0.114	0.379	3.4474	0.001
	E- Citizen	0.672	0.143	0.681	4.6993	0.000
	E- Business	0.411	0.105	0.313	3.9143	0.000
	E- Employee	0.564	0.121	0.541	4.6612	0.001

a. Dependent Variable: Service delivery

E- Government strategy has a positive and statistically significant effect on service delivery at

the County Government of Taita Taveta as shown by a coefficient of 0.393 and p-value of 0.001. This

shows that an increase in E-Government strategies increases service delivery at the County Government of Taita Taveta by 0.393 units. The study thus rejected the null hypotheses; H_{01} Electronic Government does not have a significant effect on service delivery at the County Government of Taita Taveta. Thus, Electronic Government has a significant effect on service delivery at the County Government of Taita Taveta. Consistent with the findings, Elenezi, Tarhini and Al-Qirim, (2017) found that E- government allow both citizens and bureaucrats to send and receive information and has been hailed as a way to improve service delivery and responsiveness to citizens.

E- Citizen has a positive and statistically significant effect on service delivery at the County Government of Taita Taveta as shown by a coefficient of 0.672 and p-value of 0.000. This showed that an increase in E-Citizen increases service delivery at the County Government of Taita Taveta by 0.672 units. The study thus rejects the null hypotheses; H_{02} Electronic Citizen does not have a significant effect on service delivery at the County Government of Taita Taveta. Thus, Electronic Citizen has a significant effect on service delivery at the County Government of Taita Taveta. In tandem with the study findings, Gwary, Asindaya & Abba (2016) found a significant effect of introduction of e-governance on service delivery.

E- Business has a positive and statistically significant effect on service delivery at the County Government of Taita Taveta as shown by a coefficient of 0.411 and p-value of 0.000. This shows that an increase in E-Business increases service delivery at the County Government by 0.411 units. The study thus rejects the null hypotheses; H_{03} Electronic Business does not have a significant effect on service delivery at the County Government of Taita Taveta. Thus, Electronic Business has a significant effect on service delivery at the County Government of Taita Taveta. Inconsistent with the findings, Mahundu (2017) found no significant relationship between e-business and service delivery, however this was attributed to low access to the ICT infrastructure and poor ICT skills among applicants.

E- Employee has a positive and statistically significant effect on service delivery at the County Government of Taita Taveta as shown by a coefficient of 0.564 and p-value of 0.001. This shows that an increase in E- Employee increases service delivery at the County Government by 0.564 units. The study thus rejects the null hypotheses; H_{04} Electronic Employee does not have a significant effect on service delivery at the County Government of Taita Taveta. Thus, Electronic Employee has a significant effect on service delivery at the County Government of Taita Taveta. The findings corroborate the findings by Mutuku and Machyo (2017) who found a positive relationship between E-government supporting infrastructure, perceived ease of use, risk and privacy, perceived usefulness and service delivery.

CONCLUSIONS AND RECOMMENDATIONS

Electronic Government has a significant effect on service delivery at the County Government of Taita Taveta. The IFMIS system has allowed database sharing reduced the time taken to process a transaction, enhanced transparency and reduced misuse of funds. The E-Government strategy has enhanced better communication between the County and the national Government and enabled the citizens' participation. The e-tax system has increased the revenue collection in the County.

Electronic Citizen has a significant effect on service delivery at the County Government of Taita Taveta. E-Citizen has enhanced the efficiency of service delivery, the online passport application platform has enhanced service delivery to citizens and increased the number of people applying for passports in the County. The online NTSA services have enabled more people to access NTSA services efficiently and also provided opportunities for employment to many young people in the County.

Electronic Business has a significant effect on service delivery at the County Government of Taita Taveta. The study found that E-business has reduced the time taken to register businesses and permit applications increasing the number of businesses paying taxes in the County. E-Procurement has

reduced the time taken to purchase goods and services, and also reduced corruption when it comes to awarding contracts.

Electronic Employee has a significant effect on service delivery at the County Government of Taita Taveta. The online employee recruitment system has reduced the cost of seeking employment, time and the cost of recruitment and provided a level playing ground for people seeking employment in the County. Furthermore, E-payroll system has enhanced efficiency in processing of payments to staffs and also enabled the generation of accurate payslips to staffs in the County.

Based on the study findings, the study makes the following recommendations;

The study recommends that E-government services should be designed with the user in mind. This means that the design should be intuitive and easy to use, with clear and concise instructions for each step of the process. The E-government services should be accessible to all citizens, regardless of their physical abilities. This means that the website should be designed with accessibility in mind, including features such as text-to-speech and screen readers. To increase citizens' access to the services automation and the use of technology such as chatbots should be adopted.

E-Government services should be designed to provide personalized experiences for citizens. This can be achieved through the use of data analytics and the collection of user feedback.

The study recommends that the E-Citizen platform can be improved by simplifying the user interface to make it more user-friendly. This will help to improve the user experience, reduce errors, and increase user adoption. The Government of Kenya can also add more services to the e-Citizen platform. This will increase the value of the platform to users and encourage more people to use it.

The county government can increase awareness of the e-Citizen platform by launching awareness

campaigns through various media channels. This will help to educate citizens on the availability of the platform and how to use it.

The study also recommends that the County government should provide comprehensive and up-to-date information on business regulations, taxes, and licensing requirements online. This will help businesses to make informed decisions and comply with regulations more easily.

The County government should offer online training programs that enable employees to learn new skills and improve their performance. This will reduce the cost of training and enable employees to learn at their own pace. The County government should provide online performance evaluation tools that enable employees to evaluate their performance and receive feedback online. This will enable more frequent and timely performance evaluations, and enable employees to track their progress more easily.

The study also recommends that the County government should invest in strong cyber security measures to ensure the safety and security of citizens' data. This would help to build trust between citizens and the government, and encourage citizens to use the online services.

Suggestions for Further Studies

The study was limited to establishing the effect of E-Government on service delivery in Taita Taveta County Government, Kenya. Further studies should be focused on other counties to establish whether there are similarities or differences.

The variables included in the study model (E-Government strategy, E-Citizen, E-Business and E-Employee) jointly explain 67.4 percent of the variation in service delivery at the County Government of Taita Taveta. Thus, there is need for further studies to assess the other factors explaining the remaining 32.6 percent of the variation in the service delivery.

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