EFFECT OF ONLINE PAYMENT METHODS ON PUBLIC SERVICE DELIVERY IN DEPARTMENT OF IMMIGRATION IN KENYA

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ABSTRACT

This study examined the effect of online payment methods on public service delivery in department of immigration. The study used a descriptive research plan. A sample size of 100 immigration officials and 150 E-Citizen users were selected through a combination of sampling techniques and statistical formula. Questionnaires were used to collect data. The quantitative data obtained was analyzed using descriptive statistics such as percentages and frequency counts. SPSS (ver. 23) was used to process the quantitative data. The data were then presented using frequencies and percentages and summarized using tables. The study found that online payment methods such as mobile money have played a significant role in the delivery of public services in Kenya's Department of Immigration. The study recommends that there will be a need for collaboration between the various sections of the government to ensure that all citizens, including those who are illiterate and those who are not tech savvy, are taken into account.

Keywords: online payment methods, public service delivery, immigration department, payment methods, mobile money, delivery service, public service, online payment methods effect

1. INTRODUCTION

Innovation in e-governance has been adopted extensively in most developing countries. This involves advancement of innovation particularly in the field of web and in that manner; its impact on various aspects of life in the world has been immense (Mansar, 2006). Many governments have restructured their public sectors aiming to resolve the existing problems associated with the ineffectiveness of public service delivery and dissatisfaction of citizens. Service delivery has greatly improved since the emergence of ICT with advantages such as faster data processing, easy tracking and retrieval of information, transparency, easy access and sharing of government information among others (Boamah, 2010).

The power of the internet and digital payments is becoming increasingly important in staying connected and making payments at any time and from any location. Online system is progressively turning out to be a daring means of payment in today's business

world. An online payment system, according to Vinitha and Vasantha (2018), is one in which monetary value is digitally transmitted between two entities.

There have been various studies on the effect of online payment methods on public service delivery. A study conducted by Hasan, Bhuiyan and Hossain (2015) on E-Pay: Improving interaction between government and citizens in the age of the internet, Bangladesh found that that e-pay can reduce corruption, increase access to information, reduce the rate of in-person contact with public officials, increase citizen participation in decision-making, broaden the scope of competition for all equally, equal treatment from government officials, government services available to citizens 24 hours a day from any place, increase the scope for citizens to complain about corrupt practices, stop arrangement between 'demanders' and 'suppliers', eliminate the 'middleman', and above all, prevent corruption between stakeholders.

In the context of Africa, a study conducted by Kishura (2020 on the impact of government electronic payment gateway (GePG) on revenue collection: a case of ministry of finance and planning, Tanzania found that GePG had an impact in the increase of revenue as compared to the time before the system was installed.

According to a study conducted by Okiro (2015) on the effect of e-payment systems on revenue collection by the Nairobi City County Government, adoption of e-payment systems has a positive impact on revenue collection performance in Nairobi City County. There are a number of challenges that face online payment which include: age, illiteracy, education among others. As a result, the purpose of this study is to determine the effect of online payment methods on public service delivery in department of immigration

2. METHODOLOGY

The study employed descriptive research plan. Mugenda and Mugenda (2003) depicts descriptive exploration plan as an efficient, experimental inquisitive into which the analyst doesn't have an immediate control of free factor as their sign has effectively happened or on the grounds that it innately can't be controlled. The research design was ideal for this study because of its ability to create a profile about a phenomenon. Descriptive research design is concerned with finding out about the how, who, when and where of a phenomenon in contemplation of building a profile (Mugenda & Mugenda, 2003).

The target population involved staff at Passport delivery section, Department of Immigration and e-citizen users in Nairobi County. According to the public service commission, there are 500 staff members in the department of Immigration Headquarter Offices in Nyayo House. Out of this population, 186 of the staff members are associated with issuance of passports and hence they formed the target population of the study. Additionally, the researcher also targeted the e-citizen users.

A sample is a subset of the target population, which is obtained using the correct sampling method (Sekaran & Bougie, 2010). Normally, a sample comprises elements that form the subjects to be studied. Since this research involved the Passport delivery section, Department of Immigration services Headquarter Office at Nyayo House, and E-citizen users at Nairobi County, stratified sampling and simple random sampling procedures were used.

Stratified sampling method allowed the categorization of the staff according to four (4) strata as shown by Table 1. All the listed officials in each stratum were assigned identification numbers. The aim of collecting data from immigration officials of different ranks allowed triangulation of data; hence enhance the reliability and validity of such data. A sample of 100 staff members was selected from a target population of 186 as shown in Table 1.

Table 1
Sample size

Designation (strata)	Population	Sample (F)	Percentage (%)
Heads of units/Shifts in Charge	14	8	8
Immediate Supervisors	32	18	18
Officers in each grade	68	34	34
Assistant officers in each grade	72	40	40
Total	186	100	

2.3.2 Sample Size and Sampling Procedure for E-citizen Users
Since the population of the e-citizen users was unknown, the researcher used a statistical formula suggested by Mugenda and Mugenda (2003) to establish the sample size. The formula is argued to be suitable in cases where the sample is not known and it is as follows:

$n = p (1 - p) (Z/d)^2$

Where:
n is the sample size

Z is the area under the normal curve as per the table of normal curve. Given the confidence level of 90% = 1.645, 95% = 1.96, 99% - 2.58.

d is the margin of error = 0.08

p is the proportion in the target population estimated to have characteristics being measured Mugenda and Mugenda (2003) recommend that if value of p is unknown, then assume p = 0.5

The sample size (assuming 95% = 1.96 level of confidence) was therefore given by;
n = 0.5 (1 − 0.5) (1.96 / 0.08) ^2 = 150

Therefore, the sample size of the e-citizen users was 150. This population was obtained from the E-citizen user information database in e-passport application section upon approval by the administration. Emails and contacts were collected randomly until the desired number of E-citizen users was obtained. In order to obtain this information, the researcher presented the research permits (NACOSTI) and the university letter to the administration to prove that it was for academic purpose. After providing these letters, the HR officer gave a written approval which was handed to the e-passport application department to provide the information pertaining to the e-citizen users.

Questionnaires were used in the study. Questionnaires are economical, ensure anonymity, permit the use of standardized questions and have uniform procedures. They also provide time for the respondents to think and are easy to score (Ogula, 2005). Another advantage is that they can reach a big group and give the respondents freedom to express their views and make suggestions.

Descriptive and inferential analysis was used in the study. The Statistical Package for Social Sciences (SPSS) was utilized in summarizing data into frequencies and percentages. The data was split down into different aspects of e-citizen and service delivery. The information collected was presented using bar charts, graphs and pie charts and in prose-form. Descriptive data was presented using measures of central tendency like mean and standard deviation. Inferential statistics tested the research hypothesis. For the inferential statistics both correlation and regression analysis were done. The reason as to why inferential statistics were used is because it helps to draw statistical conclusions that can be generalized for the population data. Therefore, the regression and correlation statistics enabled the researcher to establish the relationship between e-citizen use and public service delivery.

3. RESULTS

3.1 Demographic Characteristics

Respondents' demographic information in this study was sought to show the characteristics of those who participated in the study. The demographic information that was looked into included gender, age bracket, education level, years of working for immigration staff, and the employment status of e-citizen users.

In terms of gender, there was an equal representation of respondents from the immigration department. This is whereby 50% of the staff was male and the remaining 50% female. This is attributed to the fight towards gender balance in the public offices in all public institutions in the country.

The E-citizen users also indicated their gender. Slightly more than half (56%) of the E-citizen users that participated in the study were male. The remaining 44.3% were female.

E-citizen users were asked about the highest education level and IT experience they have acquired. Less than a half (40%) of the respondents had a bachelor degree followed by 29.5% with a diploma and 23.8% with a master's degree or PHD holders. The remaining 6.7% had attained secondary certificate as their highest education level. The findings suggest that the respondents had a high level of education, which could influence positively on understanding and adopting of E-Citizen innovation. However, this is not an indication that all the respondents are well conversant with technology. This is evident whereby only a small number (6.5%) of the respondents were IT experts, slightly above a third (36.4%) of respondents had advanced level of experience in IT and 42.1% of them had intermediate level experience whereas the remaining 6.4% had a novice level of IT experience.

In terms of work experience, slightly above two thirds (66.7%) of the staff in the immigration department had a working experience of 11– 20years. A quarter (25%) of the respondents had a working experience of 10 years and below whereas the remaining 8.4% had worked for more than 21 years.

3.2 Mode of Payment When Using E-Citizen Application

The study sought to examine the mode of payment when using e-citizen application. Figure 1 shows the distribution of the respondents by Mode of Payment When Using E-Citizen Application
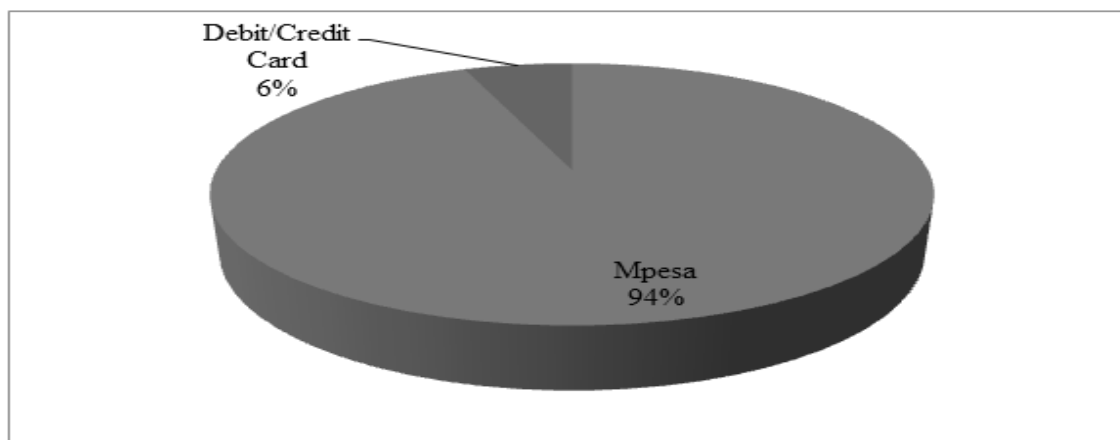

Figure 1 Mode of Payment When Using E-Citizen Application

As shown in Figure 1, M-pesa was the most preferred mode of payment when applying for E-citizen services as indicated by overwhelming majority (94%) of the respondents. The remaining 6% preferred Debit/Credit card.

3.3 Effect of Online Payment Methods on Service Delivery

Then the study sought to find out how online payments affect public service delivery at the Immigration Department in issuance of passports. The respondents showed their level of agreement with various statements about the effect of online payments on service delivery.

Table 2
Effect of online payment methods on service delivery

Statement	SA	A	UD	D	SD	Mean	Std. Deviation
I believe that mobile payment platforms have played a key role in the adoption of government services on E-Citizen platform in Kenya	62.5	25.0	4.2	8.3	-	1.5833	.91383
Online payment has impacted user activity on E-citizen adoption.	45.8	25.0	20.8	8.3	-	1.9167	1.00175
Online payment has impacted transaction volume on E-citizen adoption.	37.5	45.8	16.7	-	-	1.7917	.70958

Key: SA- Strongly Agree, A- Agree, UD-Undecided, D- Disagree, SD- Strongly Disagree

As shown in Table 2, majority (62.5%) of the respondents strongly agreed that they believe that mobile payment platforms have played a key role in the adoption of government services on E-Citizen platform in Kenya. This was further supported by 25% who were in agreement. A few (8.3%) disagreed whereas the remaining 4.2% were undecided. a mean score of 1.58 and standard deviation of .913 was obtained. This implies that majority of the respondents are positive that mobile payment platforms have played a key role in the adoption of government services on E-Citizen platform in Kenya.

Whereas 45.8% of the respondents strongly agreed that online payment has impacted user activity on E-citizen adoption, 25% agreed and 20.8% were undecided. The remaining 8.3% disagreed with the statement. A mean score of 1.916 and standard deviation of 1.00 was obtained. This shows that online payment has influenced user activity on e-citizen adoption.

An overwhelming majority (83.3%) of the respondents strongly agreed and agreed that online payment has impacted transaction volume on E-citizen adoption. This statement was further supported by a mean score of 1.791 and a standard deviation of .709. This implies that online payment has indeed influenced transaction volume on E-citizen adoption.

4. DISCUSSION

The study attempted to determine whether mobile payment platforms influenced the adoption of government services on the E-Citizen platform in Kenya. The study discovered that that mobile payment platforms have played a key role in the adoption of government services on E-Citizen platform in Kenya. In consistent with this study findings, Maake, Oino and Awuor (2015) found that Mobile Money transfers (M-Pesa) transactions have been a driver to realize an e-Government in Kenya through the monetary controls.

The study also looked into whether online payment had an effect on user activity on E-citizen adoption. The study concluded that online payment has influenced user activity on e-citizen adoption. This is in line with an observation made by Okenyuri (2014) who observed that use of online payment platforms such as M-pesa bill payment transaction cost has an effect on customer's activities especially efficiency in payment of bills and accessibility of payment points

The study went to on find out whether online payment has impacted transaction volume on E-citizen adoption. The study found that online payment has influenced transaction volume on E-citizen adoption. This was in line with the study conducted by Okiro, A. (2015) on the effect of e-payment system on revenue collection by the Nairobi City County Government which found that the revenue collection performance in Nairobi City County increased considerably after introduction of e-payment system in revenue collection.

5. CONCLUSION

The findings of this study revealed that online payment methods such as mobile money have played a significant role in the delivery of public services in Kenya's Department of Immigration. However, because the government will be moving all of its services online in the future, there will be a need for collaboration between the various sections of the government to ensure that all citizens, including those who are illiterate and those who are not tech savvy, are taken into account.

REFERENCES

Boamah, A. C. (2010). Challenges of E-citizen project implementation in a South African Context. *The electronic journal information systems evaluation*, Vol 2 pp 153-164

Hasan, M., Bhuiyan, M.Y., & Hossain, M. (2015). E-Pay: Improving Interaction between Government and Citizens in the Age of the Internet "A study on a developing country like Bangladesh".

Kishura, D. (2020). The Impact of Government Electronic Payment Gateway on Revenue Collection: A Case of Ministry Of Finance and Planning–Tanzania.

Maake, B. M., Oino, N. N., & Awuor, F. M. (2015). M-Powering: How Mobile Money (M-PESA) Services Promote Realization of a Digital Society in the Kenyan Government. In *Emerging Issues and Prospects in African E-Government* (pp. 97-107). IGI Global.

Mansar, S. (2006). *E-citizen Implementation: Impact on Business Processes*, Proceedings of the IEEE sponsored Third International Conference on Innovations in Information Technology (IIT06).

Mugenda, O. M., & Mugenda, A. G. (2003). *Research methods: Quantitative and qualitative Approaches*. Nairobi: African Centre for Technology Studies.

Ogula, P. A. (*2005*). *Research methods*. Nairobi: CUEA Publications.

Okenyuri, L. (2014). *The effects of Safaricom M-Pesa system on efficiency of customer bill payment in Kisii County*. Unpublished thesis, Moi University.

Okiro, A. (2015). *The effect of E-Payment system on revenue collection by the Nairobi City County Government* (Doctoral dissertation, University of Nairobi).

Sekaran, U., & *Bougie*, R. (*2010*). *Research methods for business: A skill-building approach (5th ed.)*. Haddington: John Wiley & Sons.

Vinitha, K., & Vasantha, S. (2018). Usage of E-Payment and Customer Satisfaction. *EXECUTIVE EDITOR*, *9*(3), 130.