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Influence of Electronic Payment Systems on Revenue Collection Performance in Trans Nzoia County Government Kenya

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Abstract:

Trans Nzoia County, like other county governments in Kenya, has consistently failed to collect targeted revenue for the past three financial years, hence the need to evaluate factors affecting revenue collection efficiency. This study aimed to analyze electronic payment systems' influence on revenue collection performance in Trans-Nzoia County, Kenya. The specific objectives were:

- *To determine the influence of electronic fund transfer payment systems, To investigate the influence of mobile payment systems,*
- *To establish the influence of electronic billing machines, and*
- *To identify the influence of online banking on revenue collection performance in Trans-Nzoia County*

Revenue Diversification and Resource Based View Theory guided the study. This study adopted a descriptive survey research design. The study utilized the census technique to come up with a sample size of 57 respondents. A questionnaire was the main tool for data collection. Research experts ensured that the content, especially the questionnaire was relevant and appropriate for the study. The study used Cronbach's alpha coefficient to determine the questionnaire's reliability coefficient. The study findings were that:

- *Electronic fund transfer payment systems had a positive and significant effect on revenue collection performance ($\beta=0.170$, $P = .05$),*
- *Mobile payment systems had a positive and significant effect on revenue collection performance ($\beta=0.263$, $P = .05$),*
- *Electronic billing machines had a positive and significant effect on revenue collection performance ($\beta=0.231$, $P = .05$), and*
- *Online banking had a positive and significant effect on revenue collection performance ($\beta=0.213$, $P = .05$)*

This study concluded that electronic fund transfer payment systems, mobile payment systems, electronic billing machines, and online banking had a positive significant effect on revenue collection performance. Therefore, the study recommended that management should make more attempts to carry out electronic fund transfer payment systems, mobile payment systems, electronic billing machines, and online banking to enhance revenue collection performance.

Keywords: *Electronic payment systems, revenue collection, trans-nzoia County, governments*

1. Background to the Study

Revenue collection is very important for every government worldwide as it enables the governments of the day to acquire debt-free assets that the government uses to grow its economy (Ngotho & Kerongo, 2014). More importantly, high revenue collection performance is significant to promote optimality in the service delivery and economic development of the counties. However, studies, other journal publications, and documentaries have shown that most governments face serious challenges in their revenue collection performance (Balunywa, 2014), where governments cannot collect sufficient funds to cover their budget expectations. For years, revenue collectors have not channeled all the money they collect to the County Treasury. For instance, revenue collection staff may collude with the revenue payers to avoid paying the prescribed charges and instead bribe the collector to shield against paying the correct amount to the County government. The net influence could be a bigger loss, which shall deter the county's economic development, growth, and improved

service delivery (Mutakha, 2011; Mwangi, 2010). Electronic Payment has been introduced to eliminate or significantly reduce corruption, achieve the county's financial objective and simplify payments (Abor, 2004). In fact, the world has witnessed an upsurge of Electronic Payment systems meant to eliminate revenue losses through corruption and simplify payments (Abor, 2004). Electronic payment is a payment by either direct credit, Electronic Transfer of credit or debit card details, M-pesa, or some other electronic means, as opposed to payment by cheque and cash (Agimo, 2004). Electronic payment is a payer's transfer of a monetary claim on a party acceptable to the beneficiary, a financial exchange that takes place online between the buyer and the seller. The process of cashless transactions plays a big role in ensuring that the County government collects enough revenue to finance its activities.

2. Statement of the Problem

Revenue collection is low, and its management is weak. This is believed to be due to a manual revenue collection and administration system characterized by low collection, delays, and poor record keeping. With the introduction of electronic payment systems, it was believed that revenue collections will improve and bridge the gap in the budget. However, the challenges persisted as the county government of Trans-Nzoia failed to meet its expected budget due to poor revenue management systems. Based on the above problem, this researcher proposed to carry out a study to analyze the influences of electronic payments on revenue collection performance in Trans-Nzoia County.

3. Literature Review

Presence and Convenience (Wonglimpiyarat, 2017) reckons investment in electronic payment systems is worth it. The county governments, hospitality institutions, and banks- all fall under the service industry. The service industry is able to realize global reach where they are no longer limited to clients who can reach them physically. This results in a high revenue stream. Exchange of emails, short messages, and other electronic messages to customers ensures superb customer service since complaints and inquiries are quickly addressed. The service industry is also spared office space booking and hiring shop assistants hence low capital cost. Mass customization is also possible through online transaction systems (Greenwood, 2014). Regular customer communication makes it possible to come up with mass-customized products or services with reduced time-to-market reach.

The continued growth of the Internet affects the role of the brand, and the way Trans Nzoia County government manages its brand image is changing. In order to remain competitive in the market, many county governments have developed information technology to benefit from high conversion rates and lower distribution costs (Asongu, 2015). From the perspective of consumers, IT-based systems are used as information distributors and reservation facilitators, which allow them to make bookings at a fraction of the time, cost, and inconvenience of traditional methods. The Internet and the web help companies to provide the right information efficiently and at the right time to the right individuals (Andrieu, 2016). Online brand image is built from scratch. It is a situation where a pure online retailer or online company that starts its business online, as opposed to 'bricks and motor' counterpart companies, can leverage its offline brand awareness. Some examples include Amazon international electronic commerce company, the world's largest online retailer, and some county governments that launch their own website to create brand awareness and brand image, thus boosting their revenue streams (Moser, 2015).

Incorporating technology in the online receipting process has positively influenced organizational performance, especially in developed countries. Unlike the traditional receipting process, online receipting is a value-added service that allows reliable online communication between the sender and the recipients (Dasgupta, 2014). A certified receipting process has to guarantee the following aspects. First, the validity of the origin and the receipt exchange must not be denied, and both the sender and Impeding Mechanisms for Adopting a New Technology the recipient receive a confirmation in case the receipt is delivered successfully or if the delivery fails (Barnes & Corbitt, 2013). Moreover, the correctness and the unmodified status of the content have to be assured. Both parties, the sender and the recipient, should be identified so that restricted access to the transferred receipt can be ensured for them only. The main goal of a certified receipt service is not only to enable a reliable online payment but also to make electronic communication between two parties more accessible compared to physical receipting (Azam, 2015).

4. Research Methodology

In this study, a descriptive survey research design was used. This selection helped to address the influences of electronic payment on revenue performance. The use of descriptive survey design was applied in this study for it enabled the researcher to systematically and accurately describe the population, or situation, or phenomenon without, in one way or another, manipulating or influencing the environment in which the study was being done.

The target population of this study constituted 57 top management, accounts/revenue staff, e-commerce staff, and service staff who interact with the customers on a daily basis. Since the target population was too small and reachable, the census technique was employed for sampling where the 57 management staff cherished in the research in accordance with Kothari (2014). This study employed the usage of a questionnaire that allowed the researcher to validate and cross-check the findings (Patton, 2006). The research instrument was developed to increase the quantity, depth, and breadth of the research perspective. In designing the questionnaire, the researcher paid attention to the question-sequence to make the questionnaire successful and ensure the accuracy of the answers obtained. Primary data was the base of this study using structured questionnaires.

Face and content validity was adapted to confirm the research instruments. The expert opinion from the supervisors and other lecturers from the department of management established the face and content validity of the board of the senior/middle management team by assessing their items to ascertain their relevance, meaningfulness, and

appropriateness to the respondents (Cohen & Manion, 2010; Dawson, 2009). Necessary adjustments to the questionnaires were made as per the supervisors' recommendations to ensure that items yielded the required data for the study. In seeking to establish the trustworthiness of the study tools, the study used internal consistency and specifically Cronbach's Alpha internal consistency on data collected. The research endeavored to ascertain whether the research instrument was consistent by correlating the items in the tool to yield a correlation coefficient referred to as Cronbach's Alpha (α). The tool is consistent when the value of Cronbach's Alpha is equal to or is greater than 0.7; otherwise, it is inconsistent (Kothari, 2012).

Employing the reviewed tool, the study obtained results for the Cronbach Alpha for the entire questionnaire using the EFT payment system, mobile payment system, electronic billing machine, and online banking. These results show 0.843 as the overall Cronbach's Alpha value for the questionnaire. According to Daglas *et al.* (2016), this exceeded the threshold of 0.7. So the current items in the tool were retained since the tool was highly dependable.

To ascertain the patterns displayed in the data implored concerning the chosen variables, data interpretation was controlled by the objectives of the study and the range of data assembled (Zikmund *et al.*, 2010). Before data analysis, data gathered from the management team were appropriately taken through a thorough data cleaning process. This procedure includes identifying and adjusting fraudulent or incorrect records from the data (Kothari, 2011).

Data were analyzed with the help of SPSS (version 25), where both descriptive and inferential statistics were generated. Data that were analyzed applying descriptive statistics included mean and standard deviation. Correlation and regression analyses were the most significant inferential statistics employed in clarifying the strength, magnitude, direction, and nature of influences disclosed. The study utilized a multiple regression model to estimate the influence between a quantitative dependent variable and independent variables.

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

Where:

- Y = Revenue collections performance
- β_0 = is the regression intercept representing the expected value of the dependent variable if all of the independent variables are set to zero.

$\beta_1, \beta_2, \beta_3$, and β_4 are the regression coefficients and are essentially the slope of the regression line:

- X_1 = EFT Payment System
- X_2 = Mobile Payment System
- X_3 = Electronic Billing Machine
- X_4 = Online Banking
- ε = Error or Residual term to account for the unexplained variations in y

5. Results

The study had a sample size of 57 research participants, and the researcher administered the questionnaire to all of them but managed to get back 43 of the filled-in questionnaire. This represents a response rate of 75.44 percent of the total response, as indicated in table 1. The study considers the rate of 75.44 as very good since it was over 70 percent, as stated by Saunders *et al.*'s (2017) proposition that a response rate, which is over 70 percent, is very good. The study findings about the respondents' gender showed that 30 (69.77%) were male while 13 (30.23%) were female. These findings show that a large number of the management were male. It also indicates that the study tried to minimize the issue of gender biases. The study collected data from both male and female genders, and their opinions were all captured in the study.

A large number of the management, 29 (40%), were above 50 years old, while 14(32.56%) teachers were below 50 years old. It is a clear indication that the majority of the respondents were lying above 50, and the number reduced as the age reduced. These findings imply that the older management team probably is swift in decision-making. The study findings on the level of education of the respondents showed that:

- 21(48.84%) were Undergraduate Degree level,
- 16 (37.21%) were diploma graduates,
- 4 (9.30%) had a certificate level, and
- 2(4.65%) had a master's level of education

Most of the respondents had undergraduate degree education levels. This implies that all the respondents were people with enough knowledge. With their knowledge, they understood the study questions and gave a correct and clear view of the study questions. These findings also reveal that the management team was professionally qualified to carry out their roles in revenue collection. The results of the study on the years of experience of the respondents indicated that:

- 21 (48.84%) of the respondents had experience in revenue collection for 1-5 years,
- 17 (39.53%) had it for 6-10 years,
- 5 (11.63%) had it for 11-15 years

This implies that the majority of the respondents had experience in revenue collection for 1-5 years, which might have caused continuous training in management.

Before ensuing the regression analysis, the study examined the descriptive statistics of the study sample. In view of this, descriptive analysis was done to provide summaries of demographic variables of the sample: gender, length of service, academic qualifications, and the approximate number of staff for each of the sampled organizations. It is vital to explain how the mean values were interpreted throughout this study. Mean values close to the high end of the scale (closer

to 5) indicated a high level, and in contrast, mean values close to the lower end of the scale (1) indicated a low level of values. This interpretation was employed throughout this study.

Details	SA	%	A	%	N	%	D	%	SD	%	Mean	Std. Dev
Card transactions are essential in creating a global customer presence	9	16	32	56	1	1	4	20	5	7	3.55	1.78
Internet transactions create convenience among customers when interacting with the products and services offered by the organization.	11	15	31	69	2	3	5	12	1	1	3.84	0.87
Phone payments are crucial for customer service delivery hence attracting more sales from clientele	10	16	29	67	2	3	3	13	1	1	3.83	0.91
Electronic checks are essential in creating a competitive position hence attracting potential customers.	11	20	27	64	1	1	4	11	3	4	3.85	0.99
ATMs services provide customers with the secure option of making payments for their reservations.	8	16	27	72	1	1	3	8	2	3	3.80	0.93
Direct deposits are essential in reducing the costs of operations in the firm.	7	20	31	71	2	3	2	5	1	1	3.76	1.04
Valid N												43

Table 1: EFT Payment System and Revenue Collection Performance

The respondents were requested to give their views on whether card transactions are essential in creating a global customer presence. The study findings revealed that 38 (88.37%) of the respondents agreed, compared to 5 (11.63%) who disagreed. This was confirmed by (Mean=3.84 and SD = 1.047). The majority of respondents were requested to give their views on whether internet transactions create convenience among customers when interacting with the products and services offered by the organization. The study results revealed that 41 (95.35%) agreed while 2 (4.65%) disagreed (Mean=3.79; SD=1.047). Respondents were also asked if phone payments are crucial for customer service delivery hence attracting more sales from clientele, and the study findings revealed that 39 (90.70%) agreed while 4 (9.30%) disagreed, as supported by the mean of (Mean=4.04; SD=0.342). In addition, the study results showed that 42 (97.67%) of the respondents agreed that electronic checks are essential in creating a competitive position hence attracting potential customers, whereas 1 (2.33%) were in disagreement, as shown by the mean of (Mean=3.93; SD=0.346). Finally, the study findings revealed that:

- 34(79.07%) of the respondents agreed, and 9(20.93%) disagreed that ATMs services provide customers with a secure option of making payments for their reservations,
- 40(93.02%) of the respondents agreed, while 3(6.98%) disagreed that direct deposits are essential in reducing costs of operations in the firm, and
- 40(93.02%) of the respondents agreed, while 3(6.98%) disagreed that direct deposits are essential in reducing the costs of operations in the firm

All are supported by (Mean=4.03; SD=0.348), (Mean=3.96; SD=0.341) and (Mean=3.83; SD=1.072), respectively.

Statements		SA	A	U	D	SD	Total	Mean	Std Dev
Mobile banking provides its customers with mobile apps that are used for logging into their accounts	F	27	13	3	0	0	43	4.52	1.115
	%	62.79	30.23	6.98	0	0	100		
Point-of-sale solutions are more secure contactless payments at the merchant's place of business	F	15	13	7	5	3	43	4.51	0.275
	%	34.88	30.23	16.28	11.63	6.98	100		
Remote payments allow users of mobile devices to send funds to a person in a different geographic area.	F	21	19	2	1	0	43	4.48	0.450
	%	48.84	44.19	4.65	2.33	0	100		
Mobile browser-based payments provide flexibility to consumers and merchants while unifying online and offline operations.	F	22	17	3	1	0	43	4.28	0.273
	%	51.16	39.53	6.98	2.33	0	100		
Mobile Wallet device is a secure virtual wallet that allows customers to store payment information, loyalty rewards, and coupons.	F	24	16	3	0	0	43	4.21	0.402
	%	55.81	44.19	6.98	0	0	100		
Wireless credit card readers enhance customer convenience, which leads to increased sales and improved retention	F	27	11	3	1	1	43	3.88	0.359
	%	62.79	30.23	6.98	2.33	2.33	100		

Table 2: Mobile Payment Systems and Revenue Collection Performance

The respondents were asked to give their views on whether mobile banking provides their customers with mobile apps that are used for logging into their accounts. The study findings showed that 40 (93.02%) of the respondents agreed, compared to 3(6.98%) who were undecided. This was supported by (Mean=4.52 and SD = 1.115). Respondents were also asked to give their opinions if the point-of-sale solutions are more secure contactless payments at the merchant's place of business. The study results revealed that 28 (65.12%) agreed while 8 (18.60%) disagreed (Mean=4.51; SD=0.275). Respondents were again asked if remote payments allow users of mobile devices to send funds to a person in a different geographic area, and the study findings showed that 40 (93.02%) agreed while 1(2.33%) disagreed as supported by the mean of (Mean=4.48; SD=0.450). In addition, the study results showed that 39 (90.70%) of the respondents agreed that Mobile browser-based payments provide flexibility to consumers and merchants while unifying online and offline operations, whereas 1 (2.33%) was in disagreement, as shown by (Mean=4.28; SD=0.273). Finally, the study findings showed that:

- 40(93.02%) of the respondents agreed, and 0(0.00%) disagreed that mobile wallet device is a secure virtual wallet that allows customers to store payment information, loyalty rewards, and coupons,
- 38(88.37%) of the respondents agreed, while 2(4.65%) disagreed that wireless credit card readers enhance customer convenience, which leads to increased sales and improved retention

All are supported by (Mean=4.21; SD=0.402) and (Mean=3.88; SD=0.359), respectively.

Statements		SA	A	U	D	SD	Total	Mean	Std Dev
The billing machine offers a paperless mode of transaction which is also environmentally friendly	F	19	18	3	2	1	43	4.00	1.187
	%	44.19	41.86	6.98	4.65	2.33	100		
The electronic billing system improves VAT compliance	F	23	16	2	1	1	43	3.55	0.969
	%	53.49	37.21	4.65	2.33	2.33	100		
The electronic billing services are customer friendly	F	19	19	3	1	1	43	3.55	0.764
	%	44.19	44.19	6.98	2.33	2.33	100		
Online billing services are the least expensive forms of billing	F	21	15	4	1	0	43	3.16	0.606
	%	48.84	34.88	9.30	2.33	0	100		
Electronic billing provides appraised evidence of saving time	F	24	18	1	0	0	43	3.58	1.068
	%	55.81	41.86	2.33	0	0	100		

Table 3: Electronic Billing Machines and Revenue Collection Performance

The respondents were asked to give their views on whether the billing machine offers a paperless mode of transaction that is also environmentally friendly. The study findings showed that 37 (86.01%) of the respondents agreed, compared to 3(6.98%) who were undecided. This was supported by (Mean=4.00 and SD = 1.187). Respondents were also requested to give views if the electronic billing system improves VAT compliance. The study results revealed that 39(90.70%) agreed while 2 (4.65%) disagreed (Mean=3.55; SD=0.969). Respondents were again asked if electronic billing services are customer friendly, and the study findings showed that 38 (88.37%) agreed while 2(4.65%) disagreed, as supported by the mean of (Mean=3.55; SD=0.764). In addition, the study results showed that 36 (83.72%) of the respondents agreed that online billing services are the least expensive forms of billing, whereas 1 (2.33%) disagreed, as shown by the mean of (Mean=3.16; SD=0.606). Finally, the study findings showed that 42(97.67%) of the respondents agreed and 0(0.00%) disagreed that electronic billing provides appraised evidence of saving time as supported by (Mean=3.58; SD=1.068).

Statements		SA	A	U	D	SD	Total	Mean	Std Dev
Online receipting is essential for attracting customers to interact with the organization's services.	F	19	17	4	2	1	43	3.80	1.047
	%	44.19	39.53	9.30	4.65	2.33	100		
Online brand image influences revenue generation and is thus essential in creating a competitive advantage.	F	27	13	2	0	0	43	3.79	1.074
	%	62.79	30.23	4.65	0	0	100		
Online banking allows customers to order chequebooks	F	28	13	2	0	0	43	4.04	0.342
	%	65.12	30.23	4.65	0	0	100		
Online banking creates convenience for customers, especially through paying utility bills	F	23	19	1	0	0	43	3.93	0.346
	%	53.49	44.19	2.33	0	0	100		
Online statement accounts enhance revenue streams within organizations	F	25	17	1	0	0	43	4.03	0.344
	%	58.14	39.53	2.33	0	0	100		

Table 4: Online Banking and Revenue Collection Performance

The respondents were asked to give their views on whether online receipting is essential for attracting customers to interact with the organization's services. The study findings showed that 36 (83.72%) of the respondents agreed, compared to 3(6.98%) who disagreed. This was supported by (Mean=3.80 and SD = 1.047). Respondents were also requested to give their views on if the online brand image influences revenue generation, thus essential in creating a competitive advantage. The study results revealed that 40(93.02%) agreed while 0(0.00%) disagreed (Mean=3.79; SD=1.074). Respondents were again asked if online banking allows customers to order chequebooks, and the study findings showed that 41(95.35%) agreed while 0(0.00%) disagreed, as supported by the mean of (Mean=4.04; SD=0.342). In addition, the study results showed that 42 (97.67%) of the respondents agreed that online banking creates convenience for customers, especially through paying utility bills, whereas 0(0.00%) were in disagreement, as shown by the mean of (Mean=3.93; SD=0.346). Finally, the study findings showed that 42(97.67%) of the respondents agreed and 0(0.00%) disagreed that online statement accounts enhance revenue streams within organizations as supported by (Mean=4.03; SD=0.344).

Statements		SA	A	U	D	SD	Total	Mean	Std Dev
Competence in revenue collectors has enhanced revenue collection performance	F	15	9	7	7	5	43	4.52	0.764
	%	34.88	20.93	16.28	16.28	11.63	100		
Revenue collection performance is achieved as a result of financial stability	F	21	17	3	2	0	43	4.49	0.606
	%	48.84	39.53	6.98	4.65	0	100		
Revenue collection performance is successful because of proper monitoring of revenue sources	F	23	12	7	1	0	43	4.52	1.446
	%	53.49	27.91	16.28	2.33	0	100		
Tax compliance is realized as a result of revenue collection performance.	F	14	13	9	4	3	43	3.93	0.346
	%	32.56	30.23	20.93	9.30	6.98	100		

Table 5: Revenue Collection Performance

The study results on indicators of competence of revenue collectors revealed that:

- 55.81% (mean=4.52) were of the view that competence on revenue collectors indicates revenue collection performance,
- 88.37% (mean=4.49) were of the view that revenue collection performance is achieved as a result of proper financial stability,
- 81.40% (mean=4.52) were of the view that revenue collection performance is successful because of appropriate monitoring of revenue sources,
- 62.79% (mean=3.93) were of the view that tax compliance is realized as a result of revenue collection performance

		Revenue Collection Performance	EFT Payment System	Mobile Payment Systems	Electronic Billing Machines	Internet Banking
Revenue Collection Performance	Pearson Correlation Sig. (2-tailed)	1				
EFT Payment System	Pearson Correlation Sig. (2-tailed)	0.091 0.423	1			
Mobile Payment Systems	Pearson Correlation Sig. (2-tailed)	0.096 0.397	0.087 0.443	1		
Electronic Billing Machine	Pearson Correlation Sig. (2-tailed)	.528(*) 0.000	0.035 0.756	0.044 0.696	1	
Internet Banking	Pearson Correlation Sig. (2-tailed)	.507(**) 0.000	.637(**) 0.000	.687(**) 0.000	.434(**) 0.000	1

Table 6: Correlation Analysis

*. Correlation Is Significant at the 0.05 Level (2-Tailed)

**Correlation Is Significant at the 0.001 Level (2 Tailed)

The study findings indicated that there was a positive statistical significant effect of internet banking on revenue collection performance ($r=0.507$, $p<0.001$). The relationship between EFT payment systems and revenue collection performance was analyzed, and the study findings indicated that there was a statistical significant positive effect ($r=0.637$; $p<0.001$). The study findings indicated that there was a statistical significant positive effect of mobile payment systems on revenue collection performance ($r=0.687$; $p<0.001$). The study findings indicated that there was a statistical significant positive effect of online banking on revenue collection performance ($r=0.434$; $p<0.001$). The study findings further revealed that there was a statistical significant effect of electronic billing machines on revenue collection performance ($r=0.528$, $P = .05$).

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.921 ^a	0.848	0.832	0.0812

Table 7: Model Summary

a. Predictors: (Constant), EFT Payment System, Mobile Payment Systems, Electronic Billing Machines, and Online Banking

The model indicated the simple correlation was 0.921, which indicates a positive correlation. The total variation (the adjusted R^2 of the study model is 0.832 with the $R^2 = 0.848$) in revenue collection performance was 89.1%, explained by electronic payment systems (R Square=0.848, Standard Error=0.0812). This means that linear regression explains 84.8% of the variance in the data. This implies that there was no first-order linear auto-correlation in the multiple linear regression data. This further implies that 84.8% of the variation in revenue collection performance is accounted for by electronic payment systems (EFT payment system, mobile payment systems, electronic billing machine, and online banking) in the study, while 15.2% of the revenue collection performance is accounted for by other factors out of the study.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.338	4	3.835	67.281	.000 ^a
	Residual	4.302	38	0.057		
	Total	19.64	42			

Table 8: ANOVA

a. Predictors: (Constant), EFT Payment System, Mobile Payment Systems, Electronic Billing Machine and Online Banking
b. Dependent Variable: Revenue Collection Performance

The ANOVA was highly significant ($F=67.281$, $p=0.000^a$). This implies that the regression model was fit for this particular data; hence, EFT payment system, mobile payment systems, electronic billing machine, and online banking affect revenue collection performance.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.369	0.224		1.648	0.207
EFT payment system	0.213	0.026	0.304	7.604	0.000
Mobile payment systems	0.263	0.024	0.494	10.744	0.000
Electronic billing machine	0.231	0.034	0.457	9.876	0.000
Online banking	0.170	0.046	0.231	6.345	0.004

Table 9: Coefficients

Dependent Variable: Revenue Collection Performance

Table 9 shows that:

- The regression coefficient results in that EFT payment system had a positive and significant effect on revenue collection performance ($\beta=0.213$, $P = .05$),
- Mobile payment systems had a positive and significant effect on revenue collection performance ($\beta=0.263$, $P = .05$),
- Electronic billing machines had a positive and significant effect on revenue collection performance ($\beta=0.231$, $P = .05$), and
- Online banking had a positive and significant effect on revenue collection performance ($\beta=0.170$, $P = .05$)

The t-test results indicate that mobile payment systems are the strongest predictor of revenue collection performance ($t = 10.744$, $p = 0.000$), followed by electronic billing machine ($t = 9.876$, $p = 0.000$) and EFT payment system ($t = 7.604$, $p = 0.000$) and lastly online banking ($t = 6.345$, $p = 0.004$).

The multiple regression equation that was generated for this study was:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

$$Y = 0.369 + 0.213X_1 + 0.263X_2 + 0.231X_3 + 0.170X_4 + \varepsilon$$

Where:

- Y = Revenue Collection Performance
- 0.369 = y-intercept; Constant
- .213, .263, .231, .170 = the Slope Coefficients
- X_1 = EFT Payment System
- X_2 = Mobile Payment Systems
- X_3 = Electronic Billing Machine
- X_4 = Online Banking
- ε = Error term

6. Conclusions

Based on the analysis, it was observed that electronic payment systems affect revenue collection performance in Trans-Nzoia County. The regression results indicated that electronic payment systems (EFT payment systems, mobile payment systems, electronic billing machines, and online banking) had explanatory power over revenue collection performance, accounting for 84.8 percent of the variation in revenue collection performance ($R^2 = .848$). Based on the study finding, the study, therefore, concluded that electronic payment systems (EFT payment system, mobile payment systems, electronic billing machines, and online banking) had a significant influence on revenue collection performance in Trans-Nzoia County.

7. Recommendations

The study concluded that EFT payment system (card transactions, ATM transactions, and phone payments) significantly influenced revenue collection performance in Trans-Nzoia County. Therefore, the study recommended that management in the County make more attempts to carry out EFT payment systems in the quest to enhance revenue collection performance.

The study revealed that mobile payment systems positively and significantly influenced revenue collection performance in Trans-Nzoia County. The study thus recommended that management advance and support mobile wallets, POS solutions, and mobile banking to improve revenue collection performance.

The study concluded that electronic billing machines (improved VAT compliance, appraised evidence, and monitoring of business transactions) significantly had a positive relationship with the revenue collection performance in Trans-Nzoia County. It is against this conclusion that the study recommended that management in County increase the usage of electronic billing machines since it was found to have a significant statistical positive influence on the revenue collection performance by this study.

The study concluded that online banking (online receipt, online brand image, and payment of utility bills) also significantly influenced revenue collection performance in Trans-Nzoia County. Therefore, the study recommended that management in the County should make more attempts to carry out online banking to enhance revenue collection performance.

8. References

- i. Aamir, M., Qayyum, A., Nasir A., Hussain, S., Khan, K.I & Butt, S. (2011). Determinants of tax revenue: A comparative study of direct taxes and indirect taxes of Pakistan and India.
- ii. International Journal of Business and Social Science, 2(19) 173- 177. Abor, J. (2004). Technological Innovation and Banking in Ghana, an Evaluation of Customers' Perspective. American Academy of Financial Management, 1(3), 338-356.
- iii. Agimo, T. (2004). Better Practice Checklist for e-Payment. Australia Government Information Office. Retrieved 14 June, 2015.
- iv. Balunywa, W., Nangoli, S., Mugerwa, G. W. Teko, J. & Mayoka, K. G. (2014). An analysis of fiscal decentralization as a strategy for improving revenue performance in Ugandan Local governments. Journal of Research in International Business and Management, 4(2), 28-36.
- v. Bernelet, R. M. (2013). Revenue Diversification for Museums: Exploring the Revenue Strategies of the Rijksmuseum and the Van Gogh Museum in the Quest for Financial Stability. Rooterdam: Erasmus University Rotterdam.
- vi. Bhartia, H. L. (2009). Public Finance. 14th ed. New Delhi: Vikas Publishing House PVT Ltd.
- vii. Bird, R. (2010). Sub-national Taxation in Developing Countries: A Review of the Literature. Policy Research. Working Paper 5450. Washington D.C.: World Bank.
- viii. British Parking Association (BPA). (2012). Technology in the Parking industry. Parking practice notes. West Sussex: British Parking Association.
- ix. Clegg N. & Greg C (2010). Decentralization and the Localism Bill: an essential guide. London: H.M. Government.
- x. Cooper and Schindler. (2008). Business Research Methods. 10th Edition, New York: McGraw Hill Irwin.
- xi. Fjeldstad & Heggstad (2012). Local government revenue mobilization in Anglophone Africa. CHR Michelsen Institute.
- xii. Garner B.A. (ed.) (1999). Black's Law Dictionary 7th Edition. West Group.
- xiii. Gikandi JW, Bloor C (2010). Adoption and Influenceiveness of Electronic Banking in Kenya. Elect. Commerce Res. Applications. 9(4):277-282.

- xiv. Ismail, A. I. (2013). The Influence of Public Expenditure on Economic Growth: The Case of Kenya. Unpublished Research, Nairobi: Jomo Kenyatta University of Agriculture and Technology.
- xv. Kaburia, P. T. (2004). E-payment systems and alternatives for developing Countries. Unpublished MSc Thesis. Nairobi: University of Nairobi.
- xvi. Kalakota, R., & Whinston, A. B. (1997). Electronic Commerce: A Manager's Guide. Reading: Addison Wesley.
- xvii. Kayaga, L. (2007). Tax policy challenges facing developing countries: A case of Uganda. Unpublished Master of Laws thesis. Queens University, Kingston, Ontario, Canada.
- xviii. Kinuthia, J. N. K. & Akinnusi, D. M. (2014). The magnitude of barriers facing e-commerce businesses in Kenya. *Journal of Internet and Information Systems*, 4(1), 12-27.
- xix. Kinyanjui, K.E & Kahonge, A. M. (2013). Mobile Phone-Based Parking System. *International Journal of Information Technology, Control, and Automation (IJITCA)*, 3(1).
- xx. Makokha, S. W. A., Alala, O., Musiega, D. & Manase, G. W. (2014). Determinants of Maximization among County Governments: A Case of Kakamega County. *International Journal for Management Science and Technology (IJMST)*, 2(4).
- xxi. Muchemi, D. (2015). County still losing revenue as officers steal parking fees. Nairobi: Nairobi news.
- xxii. Namoit, A. J. (2012). The Expected Economic Impact of Devolution of Resources to the Counties: Case Study of Turkana County in Kenya. Unpublished Master of Business Administration Research, University Of Nairobi, Nairobi.
- xxiii. Ndunda, J. M., Ngahu, S. T. & Wanyoike, D. (2015). Analysis Of Factors Influencing Optimal By County Governments In Kenya A Case Of Nakuru County. *International Journal of Economics, Commerce and Management*, III (5), 1114- 1129.
- xxiv. Ngotho, J. & Kerongo, F. (2014). Determinants of in Developing Countries: Kenya's Tax Collection Perspective. *Journal of Management and Business Administration*, 1(1). Available Online at: www.writersbureau.net/journals/jmba/. Retrieved on 4 June, 2015.
- xxv. Olatunji, O. C. (2009). A Review of Value Added Tax (VAT) Administration in Nigeria. *Medwel Journals. International Business Management*, 3(4).
- xxvi. Onyango, E. O. (2013). The Influence of Financial Development on Economic Growth in Kenya. Unpublished Research, Nairobi: Jomo Kenyatta University of Agriculture and Technology/ Kenya School of Monetary Studies.
- xxvii. Polit, D. F. & Hungler, B. P. (1999) *Nursing Research: Principles and Methods*. 6th Ed. Philadelphia, Lippincott.
- xxviii. Rocheleau B & Wu L (2005). E-Government and Financial Transactions: Potential Versus Reality. *The Electronic Journal of e-Government*, 3(4), 219-230, available online at www.ejeg.com. Retrieved 30 June, 2015.
- xxix. Simiyu, D. (2010). Challenges affecting collection of turnover tax in Nairobi County – Kenya. Unpublished MBA thesis. Kenyatta University, Kenya.
- xxx. Wang A. & Wenbo, H., (2013). *Parking Management Best Practices*. Chicago: American Planning Association.
- xxxi. Wekesa, W. (2015). Nairobi County Government Missed Its Revenue Goal. *The Star*.