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Effectiveness of Mobile Phone Payment on Fee Collection in Private Universities in Nakuru County, Kenya

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ABSTRACT: Privatization of higher education has played an important role in harnessing of academic knowledge and the necessary abilities considered as a backbone influencer in this Nation. However, with the emergence of many private universities that eventually open many campuses and learning centers in different parts of the country, there has been stiff competition for students. Universities are therefore adopting sound revenue generation mechanisms. The purpose of the paper was to evaluate the effectiveness of mobile phone payment on fee collection in private universities in Nakuru County. The paper was theoretically anchored on theResource Based View (RBV) Theory. The paper used cross-sectional research design embracing targeting students in private universities in Nakuru County. The sample size was 376 students selected using simple random sampling technique. Data was collected using students' questionnaires and Key Informants Interview schedules. Data was analyzed using Statistical Package for Social Sciences (SPSS) version 22. Descriptive statistics was used to present research findings using frequencies, percentages and means displayed in tables and figures. The relationship between the study variables was tested using inferential statistics namely; regression, correlation and Chi-square at 5 % levels of significance. The paper yielded Pearson Correlation that yielded correlation coefficient of $r\ (349) = 0.522$, p-value = 0.000 < 0.05, regression coefficient $\beta 1 = 0.290$ p-value = 0.000 < 0.05 and Pearson Chi-Square test yielded $\chi 2\ (12, N = 182) = 47.291$, $p = 0.000 < 0.05$.This implies that mobile phone payment is a statisticallysignificant effective mode of fee collection in private universities in Nakuru County at 5 % levels of significance.The paper recommends clear guidance to be provided during the orientation of new students to acquaint them with relevant information on mobile phone payment.

I. INTRODUCTION

As documented by Bezovski (2016), it is more convenient to make payments through wireless devices like mobile phones and smartphones are thought to provide more convenience, reduce the fee for the transaction, and increase the security of electronic payment. This payment system has also made it easier for businesses to collect useful information about their customers and their purchases. Wang (2020) found the applicability of mobile payment systems to be quite wide due to the remarkable growth and greater penetration of mobile devices as compared to other telecommunication infrastructure. Mobile payment methods are suitable for offline micropayments as well as for online purchases. This method is a potential attraction for online traders due to an enormous user base of mobile phones.

The use of mobile payment service does not only reduce the overall cost of a transaction but also offer a better payment. Mobile money services have been defined as electronic money accounts that can be accessed via mobile phone (Bosire&Ntale, 2018). Mobile money services offer secure and convenient means for banked and unbanked people to send and receive money with mobile phones at home and abroad; anywhere at any time. It contains features such as mobile wallet, mobile transfer, airtime transfers and mobile banking. Mobile wallet enables the subscriber to receive, store, send or pay money anywhere any time. Money transfer options means that one can send money from their mobile money account to a different subscriber anywhere anytime, which is similar to airtime transfer, where one can purchase and send airtime to another subscriber within the same network. Mobile banking works closely with banks to provide banking services to subscribers of mobile money.

A study conducted by Tossy (2014) in Tanzania revealed that mobile payments are commonly used by students in Tanzania when paying for the examination fees. The study established that the intention to mobile phone payment system was determined by several factors which included its user friendliness interims of facilitating conditions,

performance expectancy, efforts involved, social influence, trust as well as the perceived risks. According to Kshetri and Acharya (2012), the current mobile money providers in Kenya are Safaricom's M-Pesa, which was introduced in March 2007; Zain's Zap which was introduced in January 2010 but later rebranded to Airtel Money following the takeover of Zain by Airtel, YU-Cash started in December 2009 by Essar while Orange Money's Iko Pesa was launched in November 2010 by Telkom Kenya. M-Pesa is by far the largest, accounting for more than 90% of mobile money subscriptions. The recent trends are usage of mobile money more to pay school fees, to remit electricity and other monthly bills and recently as means of payment in supermarkets.

In one of the pioneer Universities in East Africa Makerere University, a study by Luanga (2016) revealed that there is a big proportion of students who pay all their tuition fees to the university through cash deposits, electronic funds transfer or bank drafts to the university's accounts in specific bank branches. However, according to Luanga (2016), the bank payments are sometimes not fault proof. A witnessed during examination duration when most of the students are in a rush to clear their fees so as to be allowed to sit for their end of semester examinations leading to long queues, too much waiting by students and congestion at banks where payments are made. Such inconveniences are found to sometimes make some students fail to sit for their tests and/or Examinations as a lot of time is wasted while they are queuing to make payments.

Higher education in Kenya has rapidly grown (Festo & Nkote, 2013). This has led to stiff competition especially for the private universities necessitating innovative procedures for sustainability (Mathooko & Ogutu, 2014). Fees is the main means of revenue collection warranting the need to embrace more conducive modes, for this paper, mobile phone fee payment. This is aimed to solve of the commonly experienced challenges in the former financial transactions for instance; lack of trust, security, usability, high transaction costs, lack of perceived advantage and perceived risk (Lwanga & Adong, 2016). Mobile phone payment has become one of the commonly used mode of payment, there is no adequate research done about its implementation in the Kenyan private university. It is against this backdrop that the paperwas authored to evaluate the effectiveness of mobile phone payment on fee collection in private universities in Nakuru County. The paper was guided by the following hypotheses;

H_0: There is no statistically significant effectiveness of mobile phone payment on fee collection in private universities in Nakuru County.

Ha: There is a statistically significant effectiveness of mobile phone payment on fee collection in private universities in Nakuru County.

The paper was anchored on the Resource Based View (RBV) Theory. Financial sustainability, for this matter private universities, gives the organizations a competitive advantage and superior performance therefore becoming an integral part of strategic management (Porter & Kramer, 2011; Raduan, Jegak, Haslinda, &Alimin, 2009). In a review of Resource Based View (RBV),Madhani, P. M. (2010) emphasized on the importance of organizations attaining competitive advantage by making the resources and capabilities of the firm the foundation for its long term strategy rests upon two reasons. The RBV's central proposition is that if a firm is to achieve a state of sustainable performance, it must acquire and control Valuable, Rare, Inimitable and Non-substitutable (VRIN) resources and capabilities. This study draws on the RBV theory to explain the electronic payment modes for private universities to attain fee collection.

II. METHODOLOGY

This paper adopted a cross-sectional research design targeting students and finance officers in private universities in Nakuru County, Kenya. Nakuru County is located at the Mid-Rift valley region and is neighbored by eight other counties namely; Kericho and Bomet to the west, Baringo and Laikipia to the North, Nyandarua to the east, Narok to the south-west and Kajiado and Kiambu to the south. A sample of 349students in selected university were selected using Simple Random Sampling (SRS) technique. Data was collected using structured questionnaires comprising of closed ended because they assure the participants of anonymity hence encouraging them to be more truthful in their response (Vicente & Reis, 2010).Besides, they are cheaper to administer them and analyze the data. Data was analyzed using Statistical Package for Social Sciences (SPSS) version 25. Descriptive statistics was used to summarize the research findings. The relationship between the study variables was tested using inferential statistics namely multipleregression, correlation and Chi-square at 5% levels of significance.

III. RESULTS

The paper sought to establish the extent of mobile phone payment in fee collection. The response was categorized in an ascending order from 1 to 5 with 1=Least Extent, 2=Little Extent, 3=Moderate Extent, 4= Much Extent, 5=Very Much Extent. The results are displayed in Figure 1.

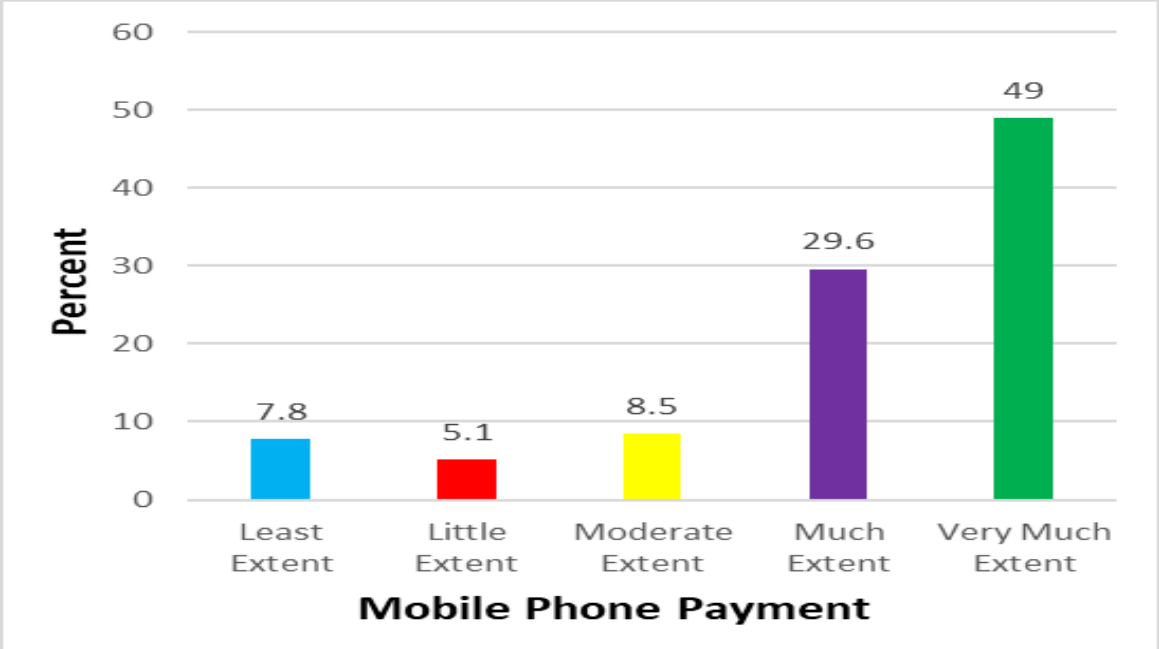

Figure 1: Extent of Mobile Phone Payment

According to Figure 1, the paper established that payment of fee using mobile phones was done to a very much extent according to 49% of the participants. The paper revealed that mobile phone payment was considered user friendly due to the affordability and ownership of mobile phones as well as the efficiency in receiving funds easily through mobile phones. The mobile phone agents are easily accessible making it easy to pay the university fees from any locations. The costs of transaction through mobile phones is relatively low compared to other costs that would have been incurred in the process of paying university fees. Mobile phone transactions are user friendly as the instructions given on how to pay university fees are clearly elaborated. There are minimal efforts in the payment using mobile phones making it convenient for university fees payment. The social influence of peers favors the utilization of mobile phone. Most importantly, thereare reduced risks of losing the funds when paying fees using mobile phone as compared to handling of cash.

The paper sought to establish the levels of agreement by the students on the statements concerning fee collection by their university. The response was categorized in an ascending order from 1 to 5 with 1=Strongly Disagree, 2=Disagree, 3=Undecided, 4= Agree, 5=Strongly Agree. The response was summarized using descriptive statistics namely mean (μ) and standard deviation (σ). Mean is a measure of central tendency used to inform conclusions. If the $\mu > 3$, it implies that the respondents agreed with the statement asked while $\mu < 3$ implies that the respondents are in dispute with the statement. The measure of dispersion, namely standard deviation proofs that there was some divergent response which implies that the respondents participated independently without being coerced. The results are displayed in Table 1.

Table 1: Fee Collection

Statement	Percent (n=349)					μ	σ
	1	2	3	4	5		
The university is able to collect revenue adequately from students through electronic payment	6.9	3.1	13.5	39.0	37.4	4.0	1.12
The university is perceived to sustainably cater for operational costs	13.0	11.8	21.1	29.5	24.5	3.4	1.33
There are adequate resources allocation for essential services	9.6	14.6	18.2	33.8	23.9	3.5	1.26
Learning materials are adequate	10.3	8.5	14.1	41.7	25.4	3.6	1.24
Study space is adequate	9.4	6.1	11.0	38.4	35.2	3.8	1.24
The study environment is conducive in the institution	6.6	4.1	13.6	37.5	38.2	4.0	1.13
There are adequate ICT facilities	12.2	12.2	10.0	39.4	26.3	3.6	1.32
There are adequate boarding facilities	13.6	11.7	20.7	33.0	21.0	3.4	1.31
There are adequate sporting facilities	17.9	21.1	16.3	27.8	16.9	3.0	1.37
There are adequate recreational facilities	20.5	21.8	19.2	23.1	15.4	2.9	1.37
Apprenticeships/training facilities adequate	12.0	15.8	22.1	30.6	19.6	3.3	1.28
There are efficient transport services	15.5	11.5	23.6	28.6	20.8	3.3	1.34

As shown in Table 1, it was revealed that the universities were able to collect revenue adequately from students through electronic payment as per the opinion of (39.0%) who agreed and mean of 4.0. Majority of the students (29.5%) agreed that they perceived their university to sustainably cater for operational costs as supported by the mean of 3.4. There are adequate resources allocation for essential services as opined by majority of the students (33.8%) who agreed and mean of 3.5> 3. This agrees with Mathooko and Ogutu (2014) who asserted that the sustainable survival, growth and prosperity of these universities depend on how well they respond to the changes taking place in the environment.

Majority of students (41.7%) agreed that the learning materials in their university are adequate. The mean response was 3.6. The study space was found to be adequate according to 38.4% who agreed and mean 3.8. The study environment was perceived to be conducive in the sampled universities according to 38.2% who strongly agreed, 39.4% who agreed that there are adequate ICT facilities with a mean of 3.6. There are adequate boarding facilities in the universities according to 33.0% who agreed and a mean of 3.4. The universities were found to have adequate apprenticeships/training facilities according to majority of the students (30.6%) who agreed and mean of 3.3> 3. The same was found with regards to the transport services perceived to be efficient by 28.6% of the students who agreed and mean response of 3.3> 3. This is in line with Sifuna (2010) who postulates that successful Higher Education systems require successful and visionary higher education institutions that embrace dynamic and robust strategies resulting in sustainable institutional fitness and survival.

However, students were of the opinion that there were inadequate sporting facilities according to majority (21.1%) who disagreed and mean of 3. Similarly, there were inadequate recreational facilities as pined by majority of the students (20.5%) who strongly agreed and 21.8% who agreed and mean of2.9 < 3.This agrees withMathooko and Ogutu (2014) who emphasized on the need forthe universities to respond to the changes taking place in the environment for sustainable survival, growth and prosperity.

The test on the relationship between mobile phone paymentand fee collection yielded correlation coefficient r (349) = 0.522, p-value = 0.000 < 0.05. This implies that there is a strong positive relationship between mobile phone paymentand fee collection in private universities that is significant at 5% levels of significant.The relationship between mobile phone payment and fee collection recorded a coefficient of regression β_1 = 0.290 p-value = 0.000 < 0.05. The Chi-square test yielded $\chi 2$ (12, N = 182) = 47.291, p = 0.000 < 0.05.This implies that mobile phone payment has a positive effect on fee collection that is significant at 5% levels of significance. This agrees with Taddesse and Kidan (2005) who asserts that Electronic payments have a significant number of economic benefits apart from their convenience and safety. These benefits when maximized can go a long way in contributing immensely to economic growth of an organization. This supports Liu, Luo and Zhang, (2021) whose study established that the convenience associated with mobile payment

increases customers' Willingness to Pay (WTP), also applies to specific products, and it does not occur if the money is a gift, as opposed to if it is earned. Moreover, when the process of cash payment is made as easy as mobile payment, people still spend less time on mobile payments than cash payment, and mobile payment effect is impacted by payment time.

IV. CONCLUSIONS

The objective for the paper was to find out the effectiveness of mobile phone payment on fee collection in private universities in Nakuru County. On this, the researcher conducted Karl Pearson Correlation that yielded correlation coefficient of r (349) = 0.522, p-value = 0.000 < 0.05. This implies that there is a strong positive relationship between mobile phone payment and fee collection in private universities that is significant at 5% levels of significant. Regression test on the relationship between mobile phone payment and fee collection recorded a coefficient of regression coefficient $\boldsymbol{\beta}_1$ = 0.290, p-value = 0.000 < 0.05. This implies that mobile phone payment forecasting has a positive effect on fee collection that is significant at 5% levels of significance. The Pearson Chi-Square test yielded χ^2 (12, N = 182) = 47.291, p = 0.000 < 0.05. This facilitated the rejection of the null hypothesis namely 'There is no statistically significant effectiveness of mobile phone payment on fee collection in private universities in Nakuru County. This led to the acceptance of the alternative hypothesis, 'There is a statistically significant effectiveness of mobile phone payment on fee collection in private universities in Nakuru County. This implies that mobile phone payment is statistically significant effective mode of fee collection in private universities in Nakuru County at 5% levels of significance.

There is need for the universities to conduct thorough trainings so as to raise awareness to students as well as their guardians and sponsors on the usage of mobile phone payment. The paper recommends clear guidance to be provided during the orientation of new students to acquaint them with relevant information on mobile phone payment.The finance officers are encouraged to develop strategies that would make payment of university fees user friendly to students as for the case of electronic payment modes and recommend them to the university management for adoption. Since private universities highly rely on the funds generated through the fees charged to students, their operations might be affected if they are not able to meet their expected revenue margins.

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