

Effectiveness of Electronic Funds Transfer on Fee Collection in Private Universities in Nakuru County, Kenya

CPA Rosslyn S. Baya¹, Dr. Munene Ruthwinnie²

¹ Student, Masters in Business Administration, Mount Kenya University,

² Lecturer, Department of Accounting & Finance, Mount Kenya University

ABSTRACT: There have been increased number of private universities in Kenya as entrepreneurs, religious organizations among other corporates exploit the ever rising demand of tertiary education. This brings about stiff competition amongst the private universities. It is therefore paramount for the institutions to adopt sound revenue generation mechanisms, for this case, electronic payment modes which comprises of internet banking, mobile phone payment as well as electronic funds transfer. The purpose of the paper was to evaluate the effectiveness of electronic funds transfer on fee collection in private universities in Nakuru County. The paper was anchored theoretically on the Technology Adoption Model (TAM). 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 correlation coefficient $r(349) = 0.621$, $p\text{-value} = 0.000 < 0.05$, coefficient of regression $\beta_1 = 0.490$ $p\text{-value} = 0.000 < 0.05$ and Chi-Square test yielded and $\chi^2(16, N = 182) = 62.028$, $p = 0.000 < 0.05$. This implies that electronic funds transfer is a statistically significant effective mode of fee collection in private universities in Nakuru County. The paper recommends that the universities should invest more on research and innovation so as to continuously improve revenue generation modes. Furthermore, instructions on how to use electronic funds transfer should be well outlined and availed to the users through different modes of dissemination for instance print and electronic media, notice boards among others.

I. INTRODUCTION

Electronic Payment System (EPS) has been found to solve many challenges faced by university managements in Indonesia by integrating the University Management Information System (UMIS) and Bank Systems (BS). The university policies as well as operational procedures are customized in such a way that they support a unique payment system selected by the institution. The finance and administration divisions in the university generate the procedures of collecting and implementing the university fees paid by students and from their sponsors and guardians. A study conducted by Moertini, Athuri, Kemit and Saputro (2011) on the development of electronic payment system for universities in Indonesia demonstrated a trend revealing that more and more Indonesians do financial transactions electronically using banks Automated Teller Machines (ATMs), internet banking and Short Message Service (SMS) banking. The study documents that in the major banks operating in Indonesia, out of 5,000,000 transactions done, approximately 3,500,000 to 4,000,000 transactions were through ATM. On the same note, most banks in Indonesia were found to have annually recorded an increment in their ATM transactions by approximately 32%. More promisingly, the study stated that in Indonesia, internet transactions have tremendously increased recording an 87% increment specifically in the SMS and mobile banking transactions. Moertini *et al* (2011), conducting transactions electronically is gaining momentum in Indonesian becoming a common practice for its citizens.

Electronic Funds Transfer (EFT) was the earliest implementation of e-commerce. Popularly known as direct deposit, is a system of transferring money from one bank account directly to another without any paper money changing hands,

such as depositing fees directly from the account of the one paying into the university's bank account. EFT has expanded to refer to any transfer of money initiated through an electronic terminal, including credit/ debit smart cards, Automated Teller Machine (ATM), Electronic Funds Transfer at Point of Sale (EFTPOS), Electronic Data Interchange (EDI) and internet banking (Kobusinge, 2013).

Cain, Doig, Flanary, Barata (2001) found out that good practice for the management of financial records in computerized systems and analysis the optimal ways of creating the linkages between the manual (that is paper-based) and computerized parts of systems and provides tools to evaluate and monitor the performance of record keeping systems. It focuses on the transaction records that are used by and produced as a result of financial management functions, in particular the accounting function. Normally, these are required for audit purposes. Relevant administrative, operational and policy records are also taken into account, including tenders, contracts, accounting directives, loan agreements and so on.

EFTs are here to stay and their use is expected to grow significantly in the future. It is incumbent on risk managers to ensure their use does not inhibit good provider-to-patient communication. EFT allows different departments with diverse needs to communicate with each other by sharing the same information in a single system at a reduced cost. Festo and Nkote (2013) alludes to the fact that Universities in Africa have continued to play a pivotal role in the nations' socio-economic development and due to this realization, higher education in Africa has significantly expanded over the past years. In a study conducted by Mwewa (2018), it was found out that the students Electronic Payment System (EPS) in the University of Zambia improved efficiency, effectiveness, accountability and minimize the risk of fraud.

Kenya has experienced an explosive progression in the higher education more than it is witnessed in other African states except the Republic of South Africa (Festo&Nkote, 2013). This has led to stiff competition particularly for the private universities (Mathooko&Ogutu, 2014). The sustainable survival, growth and prosperity of these universities depend on how well they respond to the changes taking place in the environment. Successful Higher Education systems require successful and visionary higher education institutions that embrace dynamic and robust strategies resulting in sustainable institutional fitness and survival (Sifuna, 2010). While the rapid dynamism and changes in the environment are a major force to reckon, problems with growth and performance of universities have been closely linked with the way institutional strategic management practices are carried out and in particular revenue collection (Mwalili, 2011).

The manual payment of university fees is also inconvenient to many students who were forced to waste a lot of time waiting in long queues before they could pay the fees directly to the university financial officers. With the increased cost of living among citizens, affordability of university fees is a challenge. This ultimately affects the collection of the much needed revenue to run of institutions. Some of these institutions are reported to have ultimately collapsed since they were not able to break even (Mwalili, 2011). Despite the concept of electronic funds transfer being a critical strategy for fee collection, there is no adequate research done about its implementation in the Kenyan private university. This formed the basis for a research paper to examine the effectiveness of electronic funds transfer on fee collection in private universities in Nakuru County. The paper was guided by the following research hypotheses;

H₀₃: There is no statistically significant effectiveness of electronic funds transfer on fee collection in private universities in Nakuru County.

H_{a3}: There is a statistically significant effectiveness of electronic funds transfer on fee collection in private universities in Nakuru County.

The study was anchored on the Technology Adoption Model (TAM) as reviewed by Marangunic and Granic (2015). TAM has been the foundation of many technology adoption and diffusion research and it is rooted in the Theory of Reasoned Action (TRA). As per TAM, the two important independent variables of actual use of technology are: Perceived ease of use, defined as the degree to which a person believes that using a particular system would be free of effort; Perceived usefulness, defined as the degree to which a person believes that using a particular system would enhance his or her performance. TAM was developed to explain and predict particular IT usages. Perceived use-fulness as the degree to which a person believes that using a particular system would enhance his or her job performance and defined perceived ease of use as the degree to which a person believes that using a particular system would be free of effort. TAM postulated that computer usage is determined by a behavioral intention to use a system, where the intention to use the system is jointly determined by a person's attitude toward using the system and its perceived usefulness. TAM is applicable for this study as those paying university fees have a variety of options to use when paying electronically; hence explaining the effectiveness of electronic payment modes on fee collection in private universities.

The choice depends on the way the user perceives technology in terms of ease of use and perceived usefulness according to TAM.

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 349 students 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 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 levels of agreement by the students on the statements concerning Electronic Funds Transfer (EFT) on fee collection. 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: Students Opinions on Electronic Funds Transfer (EFT)

| Statement | Percent (n=349) | | | | | μ | σ |
|--|-----------------|-----|------|------|------|-----|------|
| | 1 | 2 | 3 | 4 | 5 | | |
| Transferring funds directly from payer’s account into the university account is efficient in terms of saving time | 7.1 | 3.4 | 8.7 | 32.5 | 48.3 | 4.1 | 1.16 |
| EFT is a secure mode of university fees payment as it reduces chances of losing the cash money | 4.3 | 7.4 | 8.4 | 39.0 | 40.9 | 4.0 | 1.09 |
| The transfer messages can be used in future to verify that the transactions were made | 3.8 | 1.9 | 10.2 | 24.8 | 59.4 | 4.3 | 1 |
| EFT is convenient for university fees payment by sponsors and donors as the funds are directly wired to the university accounts to cater for the beneficiaries | 4.7 | 3.8 | 10.9 | 32.8 | 47.8 | 4.2 | 1.07 |
| EFT is efficient for CDF bursaries | 4.1 | 6.3 | 20.1 | 35.5 | 34.0 | 3.9 | 1.17 |
| EFT is a convenient mode of payment using cheques | 12.2 | 9.8 | 19.5 | 34.1 | 24.4 | 3.9 | 1.07 |

As shown in Table 1, majority of the students (48.3%) strongly agreed that transferring funds directly from payer’s account into the university account is efficient in terms of saving time. This was confirmed by the mean of 4.1 which was greater than 3. EFT is a secure mode of university fees payment as it reduces chances of losing the cash money as opined by majority of the students (40.9%) with a mean of 4.0. The transfer messages can be used in future to verify that the transactions were made according to majority of the students (59.4%) and mean of 4.3. This supports the argument by Baddeley (2004) that highlighted various advantages of Electronic Funds Transfer; privacy, integrity, compatibility, good transaction efficiency, acceptability, convenience, mobility, low financial risk and anonymity. Added to all these, to avoid the complexity associated with the digital cash or electronic-cheques, consumers and vendors are also looking at credit card payments on the internet as one of possible time-tested alternative (Sumanjeet, 2009).

The study revealed that EFT is convenient for university fees payment by sponsors and donors as the funds are directly wired to the university accounts to cater for the beneficiaries according to majority of the students (47.8%) who strongly agreed with a mean of 4.2. More specifically, as opined majority of students (35.5%) who agreed with a mean of 3.9 > 3, EFT is efficient for CDF bursaries. EFT is a convenient mode of payment using cheques according to 24.4 % who strongly agreed with a mean of 3.9. This agrees with Sumanjeet (2009) whose study on emergence of payment systems in the age of electronic commerce revealed that Electronic Funds Transfer is a new concept in online payment system because it combines computerized convenience with security and privacy that improve on paper cash. Its versatility opens up a host of new markets and applications.

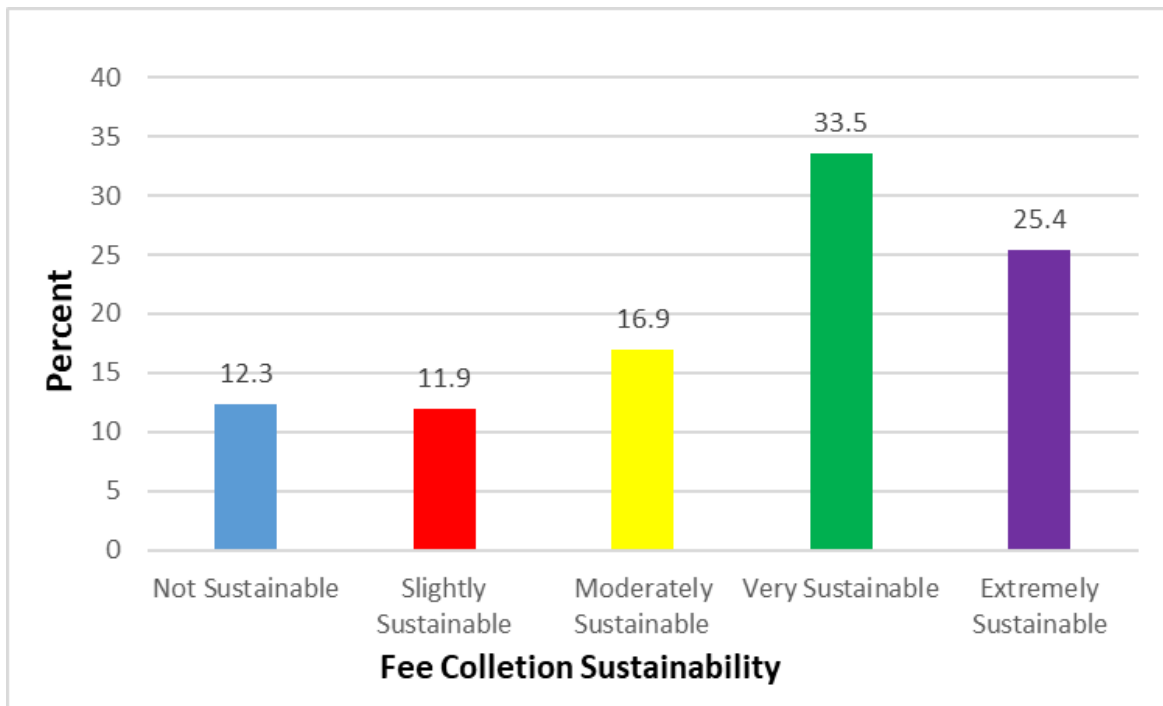


Figure 1: Sustainability of Fee Collection

According to Figure 1, the paper revealed that fee collection was sustainable in the sampled private universities. The universities were able to collect revenue adequately from students through electronic funds transfer. The respondents perceived their university to sustainably cater for operational costs as supported. There are adequate resources allocation for essential services which 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. The paper revealed that there are adequate learning materials, study space, apprenticeships/training facilities, transport services and conducive study environment. 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.

The test on the relationship between electronic funds transfer and fee collection yielded correlation coefficient $r(349) = 0.621$, $p\text{-value} = 0.000 < 0.05$. This implies that there is a strong positive relationship between electronic funds transfer and fee collection in private universities that is significant at 5% levels of significance. The relationship between electronic funds transfer and fee collection recorded a coefficient of regression $\beta_1 = 0.490$ $p\text{-value} = 0.000 < 0.05$. This implies that electronic funds transfer has a positive effect on fee collection that is significant at 5% levels of significance. The paper yielded a Chi-square of $\chi^2(16, N = 182) = 62.028$, $p = 0.000 < 0.05$ for electronic funds transfer. This agrees with the study by Worku, Tilahun and Tafa (2016) who explains that electronic payment is very convenient for the consumer. In most cases, you only need to enter your account information- such as your credit card number and shipping address, once. The information is then stored in a database on the retailer’s web server. When you come back to the website, you just log in with your username and password. “Completing a transaction is as simple as clicking your mouse: All you have to do is confirm your purchase and you are done.” emphasized the fact that electronic payment lowers costs for businesses. This agrees with Okifo and Igbunu (2015) who postulated that electronic payments as argued by have a significant number of economic benefits apart from their convenience and safety.

IV. CONCLUSIONS

The paper’s objective was to examine the effectiveness of electronic funds transfer on fee collection in private universities in Nakuru County. Karl Pearson Correlation test on the relationship between electronic funds transfer and fee collection yielded correlation coefficient $r(349) = 0.621$, $p\text{-value} = 0.000 < 0.05$. This implies that there is a strong positive relationship between electronic funds transfer and fee collection in private universities that is significant at 5% levels of significance. The relationship between electronic funds transfer and fee collection recorded a coefficient of regression $\beta_1 = 0.490$ $p\text{-value} = 0.000 < 0.05$. This implies that electronic funds transfer has a positive effect on fee collection that is significant at 5% levels of significance. The Pearson Chi-Square test yielded and $\chi^2(16, N = 182) =$

62.028, $p = 0.000 < 0.05$ for electronic funds transfer. From the findings for the inferential statistical tests, the researcher went ahead to reject the null hypothesis, 'There is no statistically significant effectiveness of electronic funds transfer on fee collection in private universities in Nakuru County.' This informed the acceptance of the alternative hypothesis namely 'There is a statistically significant effectiveness of electronic funds transfer on fee collection in private universities in Nakuru County.' This facilitated the conclusion that electronic funds transfer is a statistically significant effective mode of fee collection in private universities in Nakuru County.

The paper recommends that the instructions on how the electronic funds transfer modes are applied should be well outlined and availed to the users through different modes of dissemination for instance print and electronic media, notice boards among others. The universities should invest more on research and innovation so as to continuously improve revenue generation modes. With the dynamics that comes with innovation, continuous trainings should be given regularly to update the relevant stakeholders on the steps followed when making the payments as well as updating them with any dynamics on the payment modes.

REFERENCES

- [1.] Baddeley, M. (2004). Using e-cash in the new economy: An economic analysis of micro-payment systems. *Journal of electronic commerce research*, 5(4), 239-253.
- [2.] Festo, T., & Nkote, I. (2013). Corporate governance in private universities: Financial performance perspective. *Journal of Business Law and Ethics*, 1(1), 1-15.
- [3.] Kobusinge, G. (2013). Online fees payment system for Makerere University (MUK-OFPS). *Project Report, Department of Information Systems, Makerere University, Kampala, Uganda*.
- [4.] Marangunic, N., & Granic, A. (2015). Technology acceptance model: a literature review from 1986 to 2013. *Universal access in the information society*, 14(1), 81-95.
- [5.] Mathooko, D., & Ogotu, M. (2014). Coping strategies adopted by public universities in Kenya in response to environmental changes. *Journal of management and strategy*, 5, (1) 46-59.
- [6.] Moertini, V. S., Athuri, A. A., Kemit, H. M., & Saputro, N. (2011). The development of electronic payment system for universities in Indonesia: on resolving key success factors. *ArXiv preprint arXiv: 1105.0153*.
- [7.] Mwalili, B. (2011). *Towards the Best Corporate Governance Practices Model for Public Universities in developing countries: The case of Kenya*. Unpublished PhD Theses, Southern Cross University.
- [8.] Mwewa, M. (2018). *Effectiveness of The Student's Electronic Payment System: A Case Study of the University of Zambia* (Doctoral Dissertation, The University of Zambia).
- [9.] Okifo, J., & Igbunu, R. (2015). Electronic Payment System in Nigeria: Its Economic Benefits and Challenges. *Journal of Education and practice*, 6(16), 56-62.
- [10.] Sumanjeet, S. (2009). Emergence of payment systems in the age of electronic commerce: The state of art. *Global Journal of International Business Research*, 2(2).
- [11.] Vicente, P., & Reis, E. (2010). Using questionnaire design to fight nonresponse bias in web surveys. *Social science computer review*, 28(2), 251-267.
- [12.] Worku, G., Tilahun, A., & Tafa, M. A. (2016). The impact of electronic banking on customers' satisfaction in Ethiopian banking industry (The Case of Customers of Dashen and Wogagen Banks in Gondar City). *Journal of Business & Financial Affairs*, 5(2), 1-18.