

MOBILE PAYMENT/FILING SYSTEM AND REVENUE COLLECTION PERFORMANCE OF UGANDA REVENUE AUTHORITY

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ABSTRACT

The objective of the study was to examine the relationship between the Mobile payment/filing system and revenue collection performance at URA. The study utilized a descriptive cross-sectional survey design. Semi-structured questionnaires and interviews were used to collect data from a sample of 90 URA staff at the head office, Nakawa division, Kampala. Data were analyzed using the narrative, descriptive and Pearson correlation. Findings revealed that Mobile payment/filing system is significantly related to revenue collection performance at URA. The mobile payment/filing system effectively enables location free banking and is accessible to almost anyone and provides all this with near instant confirmation – SMS Message delivery.

Keywords: Mobile payment/filing system, Revenue collection performance, Uganda Revenue Authority and Uganda.

1.0 INTRODUCTION

Revenue collection is the act by which the government collects its taxes. These taxes among others include import duty, excise duty, PAYE, VAT, Agency taxes and Exchange revenue. As observed by Ngotho and Kerongo, (2014), revenue collection is very important for every government world over as it enables it to acquire assets and to deliver the much needed services. Governments should endeavor to collect the taxes in the most efficient way if they are to register economic development. They should also continue to devise ways of reducing the challenges faced in tax collection because if they don't collect sufficient funds they register huge gaps in the revenue collection (Owino et al, 2017; Onyango, 2011). Governments should also continue to put measures in place to eliminate corruption in the revenue collection (Balunywa et al, 2014). The use of ICT such as Mobile payment and filing can help to increase the revenue collection as it helps tracking non-compliant revenue payers. (Balunywa et al, 2014).

Further, according to Tanzi & Zec (2002), governments worldwide have increasingly been demanding substantially more effective use of modern technology systems for the delivery of services to citizens. Paying taxes and filing returns efficiently, conveniently and in a manner that would eliminate corruption continue to be the dream of all governments. Such technological innovations are continually having a profound impact on the administration of fiscal systems as well as the way the administration of taxation is concerned (Nyongesa, 2014). In many countries today, there is growing internet penetration rate and mobile cellular network access within the last decade. Experience show that the internet and mobile cellular continue to solve problems in the tax administration. (Geetha & Sekar, 2012).

Although several payment/filing systems including mobile payment/filing are expected to enhance tax administration and consequently revenue collection, Uganda Revenue Authority, (URA), has continued to register gaps in its revenue collections. For example, since the financial years 2014/15 up to 2018/19, URA has suffered substantial gaps in its revenue collection (Uganda revenue authority report, 2020). It was just recently during the financial year 2020/2021 that URA managed to get a surplus in tax collections (Uganda revenue authority report, 2021). It is not well known how the mobile payment/filing system is implemented in Uganda to pay tax to URA. This study therefore was interested in investigating the relationship between mobile payment/filing system and revenue collection performance at URA.

2.0 LITERATURE REVIEW

2.1 Theoretical review

This study adopted a Technology Acceptance Model (TAM) as the theoretical basis for analyzing and understanding the mobile payment/filing system and local revenue collection performance of Uganda Revenue Authority.

The theory suggests that perceived usefulness (PU) and perceived ease of use (PEOU) of IT are major determinants of its usage. PU was defined as the degree of which a person believes that using a particular system would enhance his or her job performance and PEOU was defined as the degree of which a person believes that using a particular system would be free of effort. Both PU and PEOU jointly influence citizens' intention. Davis (1989) assert, "A key purpose of TAM is to provide a basis for tracing the impact of external factors on internal beliefs, attitudes and intentions". Behavior Intention (BI) is a measure of the strength of one's intention to perform a specified behavior. According to intention-based theories, user adoption and usage behavior are determined by the intention to use IT. It is a kind of "self-prediction" or "behavioral expectation", indicated as one of the most accurate predictors available for an individual's future behavior (Davis, 1989). This theory is relevant to the study as it emphasizes that using a particular system enhances performance.

2.2 Mobile payment/filing system and revenue collection performance

In Africa (and many developing countries of the world), it can be argued that the journey towards mobile money has followed a "customer centric" evolution path as opposed to a "technology centric" model of innovation observed in developed nations (Geetha & Sekar, 2012). In these regions, there has been a rapidly growing internet penetration rate and mobile cellular network access within the last decade, trends which have been successfully harnessed in addressing existing problems. About 90% of the mobile customer base in Africa purchase prepaid card vouchers using cash, from retail outlets in order to top up their mobile device call credit. MNOs run their own retail outlets as well as license independent dealers authorized to sell mobile recharge vouchers to end customers. In 2008, it was a popular use case for students to request payment for services or gifts in form of recharge vouchers and even hold on to a collection of recharge vouchers as stored monetary value.

It was also common to receive and gift recharge vouchers as birthday presents and use them for the fulfillment of a bevy of social obligations (Jayakumar & Nagalakshmi, 2016). Another

use case that quickly became popular was the use of recharge vouchers as a medium to transfer value over huge geographical distances. Concerned consumers (lead users in this case) quickly discovered they could send “money” (recharge vouchers) to loved ones in remote villages simply by purchasing these vouchers and texting the digits via short message service (SMS) - at no extra expense. Their loved ones could either use the recharge vouchers themselves or exchange it for cash after finding an exchange partner in need.

This provided value as it addressed several problems especially peculiar to the developing nations. First, it provided an expense-free method to exchange value for both the banked and unbanked. Next, it addressed issues related to infrastructure and transfer over wide geographic distances effectively enabling location free banking (Laukkanen & Lauronen, 2015). Furthermore, it was accessible to almost anyone and provided all of this with near instant confirmation – SMS message delivery. No alternative method of value exchange provided comparative qualities. Available options were costly, risky or inaccessible.

Consumers could either send value through risky mass transit systems (public/private transportation) or make expensive bank transfers (Jayakumar & Nagalakshmi, 2016). Even today, other factors such as sparse bank branch coverage, extended waiting times for transfers and infrastructure challenges (particularly power), still make bank transfers less desirable. Thus consumers, through innovative use cases, defined the basic structure for the most successful form of Mobile Money in the third world today. Observation of these innovative use cases by customers provided the initial validation but building Mobile Money infrastructures. This basic structure which involves consumers with mobile devices, voucher distribution agents and MNOs has been formalized and constitutes the basic components of mobile money.

In addition, prefilled online tax returns have been available since 2006, starting with tax payer’s basic information and later extended to include their incomes and reliefs. In 2012 IRB enhanced its e-filing system by introducing smartphone filing (Laukkanen & Lauronen, 2015).

3.0 METHODOLOGY

3.1 Introduction

This section presents how the study was conducted. It comprises of research design, study population, sample size, sampling techniques, data collection methods, data collection instruments, quality control, data Analysis, and ethical issues.

3.2 Research design

According to Kothari (2004) a research design is the arrangement of conditions for collection and analysis of data in a manner to combine relevance to the research. It is a conceptual structure within which research is conducted.

This study adopted a descriptive cross sectional survey design. This was aimed at understanding and explaining the effect of mobile payment/filing system on revenue collection performance. Both qualitative and quantitative methods were used because they supplement each other. The qualitative approach was mainly used to describe subjective assessments, opinions, and behaviors of the respondents as expressed from interviews. The quantitative

approach helped in generating numerical data, which was statistically manipulated to meet required objectives through descriptive statistics such as frequencies and percentages. A combination of qualitative and quantitative data helped in analyzing many findings and outcomes to create an in-depth research.

3.3 Study Population

For the purpose of this study, the target population comprised of 120 staff of Uganda Revenue Authority. These included senior managers, middle managers and other staff. (URA, Human Resource status 2022)

3.4 Sample Size

The sample size comprised of 90 staff of Uganda Revenue Authority. This was determined as per Krejcie and Morgan's (1970) table of determining sample size from a given population.

Table 3.1: Sample size

Category	Population	Accessible sample size	Sampling techniques
Senior managers	16	11	Purposive
Middle managers	23	17	Purposive
Other staff	81	62	Random sampling
Total	120	90	

Source: Krejcie and Morgan (1970)

3.5 Sampling technique

The researchers used purposive and simple random sampling techniques to select and obtain respondents. Here, 62 staff of Uganda Revenue Authority were randomly selected and 28 senior and middle management staff were purposively chosen for key information purposes because of their positions. This helped the researchers to select the respondents depending on their knowledge, experience and opinions.

3.6 Data collection methods

This study used both quantitative and qualitative data collection methods. Quantitative data was collected using questionnaires that were filled by the middle managers and other staff and qualitative data was obtained from key informant interviews with the senior management staff. The study used specifically the survey and interview methods of collecting data.

3.7 Data Collection Instruments

The researcher used questionnaire and interview guide to collect data from the respondents.

3.8 Questionnaire

The questionnaire was structured into sections seeking personal information, questions about the independent variable and the dependent variable. The questionnaire was supplied to 90 employees of URA. The questionnaire was used because it is the main method of data collection (Kothari, 2011) in addition to being cheap and time saving.

The questionnaire was used to collect quantitative data from the employees of Uganda Revenue Authority in accordance with the research, objective. The responses to the questionnaire were interpreted using a five point Likert mean range scale that were interpreted as; Strongly agree =5 (very high) with mean range of 4.20 – 5.00; Agree = 4 (High) with mean range of 3.40 – 4.19; Undecided = 3 (Medium) with mean range of 2.60 – 3.39; Disagree = 2(low) with mean range of 1.80-2.59, Strongly Disagree = 1(very low) with mean range of 1.00 – 1.79.

3.9 Interview guide

Interviews, specifically semi-structured interviews, were chosen because of their flexibility to explore themes that dig deeper to answer the research question. This method allowed new ideas to be brought up and explored during the interviews. The choice to conduct interviews was based on practical reasons such as respondents' availability. The respondents were interviewed on the relationship between mobile payment/filing system and revenue collection and performance. The interviews were structured, meaning that there was a list of pre-determined questions to be asked to the respondents. In both face to face and oral interviews, the questions were the same and were asked in a manner that ensured the least bias in the response.

3.10 Review of Secondary Data

Secondary data was collected from articles, newspapers, text books and Journals. These were accessed through desk research, visiting various libraries and the internet. The secondary data was useful in enabling the Researcher learn more about the Mobile payment/filing systems in Uganda and was further used for cross referencing in the discussion of the study findings.

3.11 Validity and Reliability

To ensure that the questionnaire seeks data in line with the study objective and gives consistent results, the researcher first tested for the validity and reliability of the research instrument.

3.12 Validity

Validity measures the degree to which the research or study achieves what it sets out to do. The research instrument was validated in terms of content. The revenue collection experts determined whether the sets of items could accurately measure the performance of revenue collection. The Experts were requested to comment on the representatives and suitability of questions and give suggestions on the structure of the tools. The instruments were also scrutinized by the research experts to judge the items on their appropriateness of content, and to determine all the possible areas that needed modification so as to achieve the objective of the study. This helped improve the content validity of the data that was collected.

3.13 Reliability

According to Kothari (2004), reliability establishes the consistency of a research instrument in that the results it achieves should be similar in similar circumstances and so the same research respondents using the same instrument should generate the same results under identical conditions.

The researchers measured the reliability of the questionnaire to determine its consistency in testing what they were intended to measure. The test re-test technique was used to estimate the reliability of the instruments. This involved administering the same test twice to the same group of respondents who were identified for this purpose. To test reliability of the questionnaire, 15 questionnaires were piloted and the result of the reliability test produced. The researchers determined Cronbach's Alpha or reliability coefficients which estimate the internal consistencies of data in measuring a given construct.

3.14 Data Analysis

The data were analyzed both quantitatively and qualitatively as seen below;

3.14.1 Quantitative data analysis

In analyzing the data, the researchers' main aim was to establish whether the answers to the research questions were provided. In this case, the researchers used SPSS version 20 to analyze the data since it saves time and gives correct results of the findings and tabulation was applied using frequencies and percentages in the Validation of the statistical findings. The study used Pearson correlation coefficient to determine the degree of the relationship between mobile payment/filing system is related to revenue collection performance of Uganda Revenue Authority. Pearson r correlation is the most widely used correlation statistic to measure the degree of the relationship between linearly related variables. In this study the researchers used Pearson correlation to measure how electronic tax payment is related to revenue collection performance,

3.14.2 Qualitative data analysis

In this section, content and narrative analysis were done. Under content analysis, verbal or behavioral data was categorized to classify, summarize and tabulate the data. Narrative analysis was done through reformulation of stories presented by respondents taking into account context of each case and different experiences of each respondent. Narrative analysis was also used to revise the primary data got by the researcher from the field through interviews.

3.15 Ethical issues

The researcher ensured that no respondent suffered the effects of the research activities. The researcher ensured confidentiality. The respondents' participation was voluntary, and the purpose of the research was declared to the respondents.

4.0 FINDINGS AND DISCUSSION

The objective of this study was to scrutinize the relationship between mobile payment/filing system and revenue collection performance at URA. According to the study, the independent variable was mobile payment/filing system, conceptualized as: clients paying tax easily from anywhere by use of their mobile phones; accessibility of the system; clients checking statements easily and clients getting alert messages easily on their phones. The dependent variable was revenue collection performance measured in terms of revenue collected reduced avoidance and evasion of tax and costs of tax collection. Below findings are presented in form of summary descriptive statistics and associative relationships.

4.1 Descriptive statistics results

Summary descriptive results are given in table 4.1, on both the mobile payment/filing system and revenue collection performance.

Table 4.1: Summary descriptive statistics

	Variable	Mean value	Std	t value
1	Mobile payment/filing system	4.04	0.939	4.302
2.	Revenue collection performance	3.96	0.560	7.071

Summary descriptive results in Table 4.1, show that respondents rated themselves high on average on all aspects of mobile payment/filing system (mean = 4.04; std = 0.939; t = 4.302) at 0.01 or 1% significance level. On revenue collection performance, again respondents rated themselves high (mean = 3.96; std = 0.560; t = 7.071) at 0.01 or 1% significance level. Generally, descriptive payment/filing system was allowing clients: to pay easily from anywhere by use of their phones; mobile payment system was easy to access; clients were checking tax statements easily and that clients get alert messages easily on their phones., Respondents also highly agreed with all statements on revenue collection performance at URA.

4.2 Correlation Results

The study sought to establish whether there was a statistically significant relationship between mobile payment filing system and revenue collection performance. Results are presented in Table 4.2.

Table 4.2: The Associative relationship between Mobile payment/filing system and revenue collection performance

		Mobile payment/filing system	Revenue collection performance
Mobile payment/filing system	Pearson correlation	1	0.890**
	Sig (2 – tailed)		0.000
	N		90
Revenue collection performance	Pearson correlation	0.890**	1
	Sig (2 – tailed)	0.000	
	N	90	

**** Correlation significant at 0.01 level (2 – tailed)**

Associative relationship results in Table 4.2, illustrate that there is a statistically significant positive high relationship between mobile payment/filing system and revenue collection performance at URA, ($r = 0.890$, Sig = 0.000) at 0.01 or 1% significance level. The positive associative relationship if predictive, means that when mobile payment/filing system is increasingly used by clients of URA, revenue collection performance also increases.

Results are in agreement with Jayakumar & Nagalaksmi, (2016) who indicated that mobile payment provided value as it addressed several problems especially peculiar to the developing nations, by providing an expense-free method to exchange value for both the banked and unbanked. The system also addresses issues related to infrastructure and transfer over wide geographical distances effectively enabling location free banking (Laukkanen & Lauronen, 2015). Further, results were supported by Laukkanen & Lauronen who confirmed that the mobile payment system was accessible to almost anyone and that it provided all this with near instant confirmation – SMS message delivery.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The study sought to scrutinize the relationship between mobile payment/filing system and revenue collection performance at URA. From the study findings it can be concluded that mobile payment/filing system is significantly related to revenue collection performance at URA. The system effectively enables location free banking and accessible to almost anyone and provides all this with near instant conformation- SMS message delivery.

Uganda Revenue Authority should encourage and expand on the use of mobile payment system because it facilitates registration of tax payers among others and increases the quality and quantity of information available to tax officers as well as lowering corruption by reducing face to face interactions. Further, returns filed electronically have much lower error rates than paper returns and substantially cut the need to impose penalties and other primitive measures to foster compliance.

Although the study contributes to our understanding of mobile payment factors that explain revenue collection performance, it has limitations, and hence findings should be used with caution. The limitation includes; Few variables were included in the model. For example, mobile payment/filing system and revenue performance could have been operationalized more than that. There are also other factors which explain revenue collection at URA. The study was also essentially a cross-sectional study that looks at mobile payment/filing system and revenue collection performance, at a particular point in time. This may not give a complete picture of the phenomenon studied and may limit some of the conclusions obtained.

Considering the above limitations, the study opens up areas for further research; One, more variables as may be related to mobile payment/filing system and other measures of revenue collection performance should be included in the model. Secondly, future researchers may consider exploring appropriate econometric methods that may improve the understanding of revenue collection performance.

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