# Electronic Payment System and Revenue Generation in Lagos State

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***ABSTRACT***

*Revenue generation has become a huge challenge considering the high level of corrupt practices prevalent in the electronic payment revenue generating government agencies. Studies have shown that many electronic revenue generating agencies have experienced decline in revenue generated which had resulted in huge losses to Lagos state government because of high rate of corruption, embezzlement, illiteracy level of electronic payment users. Not many studies considered electronic payment through ATM and ETC in increasing revenue generation through personal income tax, rates and penalty. The study evaluated the effect of electronic payment on revenue generation in Lagos State.*

*The study adopted a survey research design. The population was 4275 staff among the six selected revenue generating agencies in Lagos State. The sample size was 366 derived using Taro Yamane sampling statistics formula. A structured questionnaire was used to collect data with reliability coefficient range from 0.71 to 0.93. The retrieval rate was 100%. The geographical location of reference of the study is Lagos state which has a population of about 21 million people. In order to reach a reasonable conclusion, the percentage frequency table, analysis of variance (ANOVA) and the multiple linear regression technique methodologies were adopted to test the hypotheses.*

*The study found out that electronic payment variables (ATM and ETC) have significant and positive effect on personal income tax($AdjR^2$= 0.515, F-statistic= 85.011 and p-value=0.000); e-payment has significant and positive effect on rate($AdjR^2$= 0.918, F-statistic=2055.871 and p-value =0.000) and lastly, e-payment has significant and positive effect on penalty ($AdjR^2$=0.638, F-statistic= 323.040, p-value=0.000) It was also discovered that β1ATM = 1.224 and that of β2ETC= -0.075 and it implied that ATM has positive and significant effect on revenue from penalty but ETC has a negative effect.*
*The study concluded that electronic payment system influenced revenue generation in Lagos State. The study therefore recommended amongst others that for government organizations that seek to achieve revenue optimization, its leadership style should be transparent and flexible enough so as to further positive changes.*

***Key Words:*** *Electronic payment system, revenue generation, automated teller machine(ATM), electronic transfer card(ETC), personal income tax, rates, penalty.*

## 1.1 Introduction

Revenue generation is a major source of survival and challenge for every economy of the world including the so called advanced and developing economies. That is the reason why every country is interested in the amount of revenue to be generated now and in the future because it is a determinant of economic development. In the course of trying to solve the challenge of revenue generation, taxation which includes personal income tax, value added tax, company income tax, have been the major sources of government revenue in the economies of the world. It has been to a large extent the source of revenue to the developed countries but there are still some grey areas to be touched due to various levels of evasions which have reduced the volume of revenue generated (OECD, 2017). According to Organization for Economic Co-operation and Development (OECD) (2017), United State government revenue from taxes accounts for over 50 per cent of all government revenue since the past decade and it has been projected to account for $5.6 million out of $6.7 million predicted to be generated in 2018 by the government. It has been ranked as a major source of revenue in countries such as UK, France, Sweden, Norway, and other high-income countries.

In Africa also, revenue (mostly through taxes) has significantly contributed to the economic growth of different countries. According to OECD (2017) the tax-to-GDP ratios in eight African countries namely: Tunisia, Morocco, Nigeria, South Africa, Senegal, Mauritius, Cote d'Ivoire and Cameroon ranged from 16.1% to 31.3%, in 2015. Tunisia had the highest tax-to-GDP ratio in 2015 (31.3%), followed by Morocco (28.5%) due to their substandard levels of revenue collection and remittances to the coffers of the government. However, this figure is higher than tax-to-GDP ratio of some countries listed by Organization for Economic Co-operation and Development as High-Income economies. In Nigeria, revenue generation has become a huge challenge considering the high level of corrupt practices prevalent in the revenue generating government agencies. However, revenue from taxation has always been in existence even before the amalgamation in 1914 of the North and South protectorate to form the territory now called Nigeria. These revenues were in forms of homage paid to Oba's household contribution for maintenance of peace and maintenance of security guards, soldiers, penalty paid for non - performance of civil right and contribution to educational development. In all, revenue generated in Nigeria has witnessed lots of setbacks due to sabotage by the government officials and inability to track electronically the payment of revenues (Ofurum, Bossco, Okonya & Amaefule, 2018).

Over the years various strategies have been used by different revenue generating agencies in Nigeria. In the early times, revenue was paid and received without any form of receipt to confirm their payment (especially the tax revenue which is the surest form of revenue). Furthermore, due to the hope to improve the tax revenue, government improved strategy to inculcate the issuance of receipt so as to ensure proper remittance (Ofurum, Bossco, Okonya & Amaefule, 2018). This alone failed due to forgery of documents and continuous cash collection. After series of reforms, it has become mandatory that cash are paid directly into bank which thus issues receipts. This therefore has helped to reduce forgery of receipt though there are still leakages in the system. Lagos state is regarded as the state in Nigeria that has generated the most volume of revenue as a state in Nigeria. Before year 2007 when there was a major reform in the state, the revenue generated by the state was about N600 million majorly contribute to the extent of 90% by Lagos

state internal revenue service (LIRS, 2018). The reason for the low value of revenue was due to the financial illiteracy of the people, poor economic conditions, non-accountability, corruption and embezzlement on the part of Lagos state government officials and staff. (Aregbeyen & Fasanya, 2017).

In the wake of violent conflict, a vital element that helps to build a durable peace is building a state that has the ability to collect and manage public resources. To implement peace accords and to provide public services to the government, such government must be able to collect revenue, allocate revenue collected and manage expenditure in a fashion that citizens view it as effective and equitable. It is important to note that governments require revenue to augment the spending needs to maintain an adequate level of public investment and social services. Taxes are the main source of raising revenue in both developed and developing countries (Aizenman & Jinjarak, 2018; Saeed & Sheikh, 2017). Therefore, the interest in this study by the new researcher is due to the inquisitiveness of the modalities of the advanced nations and how they have been able to track revenue generation payments and fraudulent financial activities. Therefore, the current study will be making enquiries into the existing challenges involved in the e-payment system as well as the effect of e-payment on the revenue collection in Nigeria by making reference to Lagos state.

### 1.1 Statement of the Problem

Over the years, revenue generation and collection have been identified as major challenge in developing economies. Specifically, in Nigeria, there has been series of embezzlements and mismanagement of revenues from the coffers of the government, inability to make concrete accountability of funds collected, siphoning of funds, embezzlements, missing money from government coffers as well as non-remittance of funds due to poor fund-tracking ability of the revenue collection procedure in the economy (Ogbonna, 2016). This issue has therefore led to the poor revenue generated as well as its inability to meet the financial needs of economic growth of Lagos state at large (Ogbonna, 2016). The rapid growth of Information and Communication Technology (ICT) in the global village at large has made electronic commerce as an important channel in carrying out business transactions through electronic means such as internet connections. (Okifo & Igbunu, 2015). A critical challenge for many state economies especially sub-Saharan (for example, Lagos state Nigeria) is drawing more people and their capital into the banking system. The question policy maker often asks is how to get people into the big economic tent? According to the research conducted by Global Insight in 2014, e-payment reduces the amount of currency outside the banking system for the advent of a more effective monetary policy management that will bring about stability in prices and interest rates (Okiro, 2015). Concerns have been raised on the payment system implementation and concerns have been raised on it policies (Agimo, 2016).

Furthermore, in Lagos State which is the area of study, the revenue generating agencies are Lagos State Internal Revenue Service, Motor Vehicle Administration Agency, Lagos State building Investment Company, Lagos State Lands Bureau, Lagos State Physical Planning Permit Agency, Lagos State Advertisement and Signage Agency. Despite that most of them have adopted e-payment in the collection of revenue due to the government; there is still a high level of corruption and inconsistencies. It has also been observed that much of the revenue accruing to the state is being embezzled by some of those that have access to the ICT (Owuor, 2016). The

Lagos State government has over the years been confronted with the challenges of mobilizing internally generated revenue among the agencies over the years. Lots of efforts have been put in place in order to curb the corrupt practices in the revenue generation but most of these efforts have proved abortive. Due to inefficiency of revenue collection in developing countries like Nigeria, she faces various challenges in her revenue collection performance such as inability to collect enough funds to cover her budget expectations and thereby causing huge local revenue collection gaps (Onyango, 2017). This study will therefore decompose the concept of revenue generation into four variables such are internally generated revenue, personal income tax, rates and penalty. By implication, the above gaps have driven the need for this study, and it will be providing a concrete and effective analysis with respect to the impact of electronic payment on revenue generation using Lagos state as the case study.

### 1.2 Objective of the study

The main objective of this study was to evaluate the effect of electronic payment on revenue generation in Lagos state. The specific objective is to;

i. determine the effect of electronic payments system on Personal Income Tax in Lagos state.

ii. evaluate the effect of electronic payments system on rates collected in Lagos State and

iii. assess the effect of electronic payments system on penalties collected in Lagos State.

### 1.3 Hypotheses of the Study

In line with the objective of this study, and in order to give answer to research question stated above, this hypothesis is tested:

$H_{01:}$ There is no significant effect of electronic payments system on Personal Income Tax in Lagos state.

$H_{02}$: Electronic payments system does not have significant effect on rates collected in Lagos State.

$H_{03}$: There is no significant effect of electronic payments system on penalties collected in Lagos State.

## 2. Literature Review

This subsection focuses on the conceptual, theoretical and empirical review as well as the justification of the study

### 2.1 Conceptual Review

The main concepts used in the study are reviewed below

#### 2.1.1 Electronic Payment System

According to Okifo and Igbunu (2015), electronic payment is a form of financial exchange that takes place between the buyer and seller facilitated by means of electronic communication. According to the study, the value of electronic payment goes way beyond the immediate

convenience and safety of cards to a greater sphere of contributing to overall economic development. The term electronic payment can be referred narrowly to e-commerce- a payment for buying and selling goods and services offered through the internet, or broadly to any type of electronic funds transfer. Furthermore, Ayodele (2017) defined e-payment as electronic transfer of cash via online transactions for business-to business (B2B), business-to-consumer (B2C), person-to-person (P2P), and most recently administration-to consumer (A2C) purposes. A2C payment addresses the payment of taxes toward the government. It was also defined e-payment as cash and associated transactions implemented using electronic means. Typically, this involves the use of computer networks such as the internet and digital stored value system. This system allows bills to be paid directly from bank, and without the use of writing and mailing cheques.

In the definition provided by Guttman (2017) e-payment is defined as credit card details, or some other electronic means, as opposed to payment by cheque and cash. It is also defined as a payer's transfer of monetary claim on a party acceptable to the beneficiary (Worku, 2016). Electronic payment can also be defined as convenient, safe and secure methods for payment of bills and other transactions by electronic means such as card, telephone, the internet and electronic fund transfer. Electronic payment gives consumers an alternative to paying bills and debts by cash, cheque and money order. Its main purpose is to reduce cash and cheque transactions. According to Agba (2016), e-payment is affecting payments from one end to another and through the medium of the computer without manual intervention beyond inputting the payment data; it is the ability to pay the suppliers, vendors and staff salaries electronically at the touch of a computer button. The application of electronic payment (concepts, techniques, policies) and implementation of electronic devices in banking industry has become a subject of fundamental importance and concerns to all banks operating within Nigeria territory and indeed a prerequisite for local and global competitiveness.

### 2.1.1.1 Automated Teller Machine

This concept is defined an electronic banking machine that dispenses cash, accepts deposits, and performs other services when a customer inserts a plastic card and pushes the proper coded buttons.An automated teller machine (ATM) is an electronic telecommunications device that enables customers of financial institutions to perform financial transactions, such as cash withdrawals, deposits, transfer funds, or obtaining account information, at any time and without the need for direct interaction with bank staff. ATMs are known by a variety of names, including automatic teller machine in the Unites States (ATM in Nigeria, America, British, Australia, Malaysia, South Africa, Singapore, India, Maldivia, Hiberno, Phillippia and SriLankan English) often redundantly ATM, automated banking machine (ABM, Canada English) (Schlichter, 2017). On most modern ATMs, customers are identified by inserting a plastic ATM card (or some other acceptable payment card) into the ATM, with authentication being by the customer entering a personal identification number (PIN), which must match the PIN stored in the chip on the card (if the card is so equipped), or in the issuing financial institution's database.Using an ATM, customers can access their bank deposit or credit accounts in order to make a variety of financial transactions such as cash withdrawals, check balances, or credit mobile phones. ATMs can be used to withdraw cash in a foreign country. If the currency being withdrawn from the ATM is different from that in which the bank account is denominated, the money will be converted at the financial institution's exchange rate (Schlichter, 2017).

### 2.1.1.2 Electronic Transfer Card

Electronic funds transfer (EFT) are electronic transfer of money from one bank account to another, either within a single financial institution or across multiple institutions, via computer-based systems, without the direct intervention of bank staff. According to the United States Electronic Fund Transfer Act of 1978 it is a fund transfer initiated through an electronic terminal, telephone, computer (including on-line banking) or magnetic tape for the purpose of ordering, instructing, or authorizing a financial institution to debit or credit a consumer's account (EFTA, 2018). According to the study by Schlichter (2017), electronic money transfer is an important and safe means of electronically sending money from an entity to another. He further stated that the financial institution of any economy must be well instituted with it in order to ensure that every bank users possess such package. Though, this service is readily available in Nigeria but it is not quite efficient due to financial illiteracy of bank users and poor education of the financial institution on its usage as well as internet fraudulent activities that are prevalent in the Nigerian economy (Alao, 2018).

### 2.1.2 Personal Income Tax

Personal income tax is a variable and a concept that is familiar in any economy that receives taxes and perhaps that have a fair or good taxation system. This is because the personal income tax is expected to generate a high level of income to the government for the purpose of carrying out its mandate as a government (PITAAM, 2011). It is therefore defined as a tax paid on one's personal income as distinct from the tax paid on the firm's earnings. In an incorporated firm, the owners (shareholders) pay taxes on both their income (salary or dividend from the firm) firm's income (profits). In partnerships and sole-ownerships, the tax is paid only once on the firm's profits (Bassey, 2015).There is a law that backs the statutory responsibilities of income earners in the economy of Nigeria to pay personal income tax. This law has therefore witnessed some reforms over the years and the updated ta law is the Personal Income Tax Amendment Act (2011). This law enables the government of every state in Nigeria to receive the payment of personal income tax revenue based on some regularities and jurisdiction laws. Each state is expected to adopted this law and receive the taxes that accrues to its state and such revenue is part of its internally generated revenue used in administration (Bassey, 2015).

### 2.1.3 Taxation

Tax is defined as a compulsory levy imposed by the government on a subject such as individuals, firms, government agencies and upon his property in order to provide security, social amenities and create conditions for economic wellbeing of the society. Also, according to Ogbonna & Appah (2015), tax is defined as a major source of government revenue all over the world. In the course of definition of the term tax, Azubuike (2018) noted that government uses tax proceeds to render their traditional function such as the provision of public goods, maintenance of law and order, defense against external aggression, regulation of trade and business to ensure social economic maintenance. Musgrave & Musgrave (2016) observed that the economic effects of tax include micro effects on the distribution of income and efficiency of resource use as well as macro effect on the level of capacity output, employment, prices and growth. Ogbonna (2016) stated that a tax is a compulsory payment imposed on income, profit, wealth, estate, property, goods and services of individuals and corporate bodies by the government for the sustenance of

the government and for which there is no guarantee direct benefit. Taxes represent potent instrument of fiscal policy used by government to manage the economic development of the state. It constitutes a major aspect of the macro-economy (Aneke, 2017).

Generally, the importance of taxation to a nation need not be over emphasized as it is a powerful tool of economic reform and a major player in every economy of the world. Akintoye & Tashie (2015) pointed out the importance of taxation in the activities of any government cannot be over-emphasized. The world over, taxes is one major source of government revenue, however, not every national government have been able to effectively exploit this great opportunity of revenue generation. This can be attributed to a number reasons including the system of taxation; tax legislation; tax administration and policy issues; over reliance on other sources of revenue (such as foreign aid and grants); corrupt practices in the system – especially as it relates to the system of tax collection and behavior of citizens towards tax payment; and ease of tax payment.

### 2.2 Theoretical Review

The present study reviewed various theories on e-payment and revenue collection. The main theories reviewed include the Theory of Consumption Value (TCV), Revenue Diversification Theory (RDT), and The Expediency Theory of Taxation.

#### 2.2.1 Theory of Consumption Value (TVC)

This is an electronic payment theory or theory on electronic payment system. It was propounded by Sheth (1991). TCV is a theory that explains why consumers behave in certain ways when they make choices between various products/services. In the assumptions of the theory, the theory assumes that decisions, such as to use or not to use, are based on consumption values, which are the extrinsic and intrinsic reasons and motives that drive decisions. Another assumption of the theory is that, there are five types of consumptions values: functional value, social value, emotional value, epistemic value, and conditional value, all of which are independent of each other, and contribute differently to behavior. In other words, consumer behavior is a function of consumer's perception of these values that are related to a certain product/service. The theory was supported by Ho & Ko (2008), Turel, Serenko & Bontis, (2009) as tt has been applied many different research settings, including durable and nondurable consumer products, industrial goods, and services. It has also been used in explaining technology related decisions, such as the decline in software value over time (Alpert, 1994), internet banking (Ho & Ko, 2008), ringtones as hedonic IT artefacts (Turel *et al*, 2009), and hyped technology (Hedman & Gimpel, 2010). The major critic of the theory is that it is not applicable to every economy due to the different peculiarity of the people.

#### 2.2.2 Revenue Diversification Theory (RDT)

This theory is originally derived from the modern portfolio theory and it is discussed within the context of resource dependence theory by Pfeffer & Salancik (1978). The theory suggests that there is need to spread the usage of financial resources in the economy in order to prevent wastage. The assumptions of the theory are; there is balance in the level of income of the people, it is applicable to county economies, revenue is easily diversified. According to the theory there is an equal balance between multiple incomes sources in the revenue portfolio of non-profit organizations usually lead to increased financial stability. In this study the revenue

diversification strategy that stems from the financial Modern Portfolio Theory, will be applied as the second potential revenue strategy for county governments. It was supported by Bernelot (2013) and according to him, the revenue diversification theory focuses on whether a more diversified, well-balanced revenue portfolio increases financial stability for county by reducing revenue volatility. There is a positive effect of the strategies adopted in raising revenues on finances. Commercial and market-oriented revenue strategies have been found to have a positive effect on revenue collection performance. The theory is criticized on the tenet that revenue may not be easily diversified in developing economies where revenue is not easily generated.

### 2.2.3 The Expediency Theory of Taxation

This theory was propounded and expanded by Bhartia (2009). The expediency theory of taxation states that every tax revenue collection proposal must pass the test of practicability, which must be the only consideration when the county government is choosing a revenue collection proposal. The tenets/ assumptions of the theory are; it is a selfish approach to revenue collection, each economy protects only its interest, and so on. Also, the proposition is that the economic and social objectives of the government should be treated as irrelevant, since it is useless to have a tax which cannot be levied and collected efficiently. However, there are pressures from economic, social and political groups. Every group tries to protect and promote its own interests and county government is often forced to reshape tax structure to accommodate these pressures (Bhartia, 2009). This theory has inadequate support in literature and in addition, the administrative set up may not be efficient to collect the tax at a reasonable cost of collection. Taxation provides a powerful set of policy tools to the authorities and should be effectively used for remedying economic and social ills of the society such as income inequalities, regional disparities, unemployment and cyclical fluctuations (Bhartia, 2009). The benefit of the theory is that its relevant to the present study in that, it seeks to explain influence of administrative set up, such as efficient e-payment system, in revenue collections by county Governments. It has only been criticized on the timing of the application.

## 2.3 Empirical Review

There are series of empirical studies that have been written in line with the relationship between electronic payment system and revenue generation. Therefore, this subsection focuses on studies on relationship between electronic payment system and personal income tax. First, Otieno, Oginda, Obura, Atila, Ojera, and Siringi, (2016) carried out a similar study on information system and collection of Personal Income Tax and used the Chi-square methodology. The study found that there is a relationship between Information Systems (IS) and both efficiency and effectiveness in revenue collection (PIT), there is a strong positive relationship between Internal Control Systems and revenue collection. However, resistance to change by the council staff was derailing the full implementation of IS. The study is useful to the present study for full integration of IS, and more specifically e-payment system, in revenue collection.

Wahab (2017) carried out a study on sales terminal in Nigeria and it used Descriptive Methodology. It established that the adoption and use of the e-payment system was found to be low mainly due to the inadequate availability of point of sale terminals at shopping points among others. These are affecting the perceived ease of use even though the perceived usefulness of e-payment systems is strongly present among individuals and businesses. The study recommended

customer education and wide spread deployment of e-payment point of sale terminals to merchants. Kayaga (2016) carried out a study in South Africa and made use of Simple regression/ ANOVA/ Description methodologies (like the current study) because the survey design was adopted. The study showed that new technology alone is not sufficient if the government does not recognize the need for skilled tax officials especially in the collection of taxes from income of personal individuals. The scholar further avers that, effective tax administration requires qualified tax personnel with requisite skills to maintain these systems and operate them to their fullest potential.

Okifi and Ogbunu (2015) carried out a study and the crux of such study on Electronic Payment System in Nigeria by focusing on its Economic Benefits and Challenges. Due to the nature of the study, it adopted descriptive methodology and made use of materials from secondary sources. According to them, the arrival of the internet has taken electronic payments and transactions to an exponential growth level. The benefits of e-payment are unquantifiable in that it would galvanize Nigeria into a cashless society and elimination of fear of the unknown. Though e-payment is faced with challenges, like public acceptability, lack of uniform platform being operated by the banks, lack of adequate infrastructure and issues of security, with the proper use of e-payment system, corruption which is a cancer in government arena will be holistically addressed. Simiyu (2016) studied the impact of electronic payment on revenue from taxation in Nigeria and adopted the Regression methodology using data from the central bank of Nigeria from 1990 to 2014. The study established that, tax officers accepted bribes when offered to reduce tax liability and demand for bribes when they visited, a situation that hugely affected revenue collection in Nigeria.

The paper by Olurankinse and Oladeji (2018) examined self-assessment, e-taxation payment systems and revenue generation in Nigeria. Both Pearson's product moment correlation coefficient statistical tool and the regression analysis were used as the methodologies to test the hypotheses the respondents were drawn from 30 tax executives from 30 quoted companies in Rivers State of Nigeria. Results indicate a positive and significant relationship between self-assessment and e-taxation payment systems and venue generation. The paper concludes that e-taxation is an online tax payment and administration system that is used for the generation of tax from all competent taxpayers based on statutory guidelines for the purpose of assessing tax returns in the economy. A study carried out by Oladutire (2015) on the Effectiveness or Extent of Implementation of Self-Assessment Program in Nigeria, the descriptive methodology was adopted with focus on selected corporate bodies and the FIRS in Rivers State; found out that the self-assessment tax system is a good means for revenue generation in a cost-effective manner.

Olorunse (2015) in his study on the impact of electronic banking in Nigeria banking system, the primary data were collected through the use of questionnaire while the secondary data were data collected from CBN electronic banking guideline, annual report of Unity Bank Plc. The study used both descriptive and inferential methodologies in analyzing the data. The electronic banking system in Nigeria has made banking transaction to be easier by bringing services closer to its customers. Furthermore, in the study by Siyanbola (2013) on the effect of cashless banking on Nigerian economy, a descriptive research design was adopted and Non-parametric tool of chi square was employed to analyze the data. It was discovered that Dynamism in financial system is manifested by the nature and quality of payment products paraded in the system. For instance,

Muema *et al.* (2015) carried out a related study on the role of electronic payment on the generation of rates revenue in the Mobile parking management system using Kenya as a case study. The description analytic methodology was used in the analysis of the study, it was indicated that Nairobi county and the parking industry were generally ready to adopt the mobile parking management system, although as with any technological adoption it was bound to face some barriers which could be overcome.

Odior and Fadiya (2016) carried out a related study on the impact of cashless banking in Nigeria, its challenges, benefits and policy implications. The data employed in the study was from secondary sources using descriptive methodology and analysis with the aid of graphs, tables, charts and trend analysis of cash system in Nigeria. It was found out that the development of e-money could lead to the decline in currency demand; also, the consistent usage of e-channels in financial transactions would lead to network congestion. A further study by Kinyanjui and Kahonge (2017) on Mobile Phone–Based Parking System which focused extensively on rates charged and collected as revenue. The study thus adopted analysis of variance as the methodology and it revealed that the use of e-payment by mobile phone-based technology in mobile parking increase parking fees collection. However, there is need to develop an application to control traffic flow, allocation and availability of parking space within the streets of Nairobi, which is a major concern to every motorist. The study by Kaburia (2018), the multiple regression methodology was used. The study on E-payment systems and alternatives for developing Countries found out that lack of suitable e-Payment alternatives was a critical challenge to the growth of e-commerce in Kenya. An e-Payment model suitable for individuals in Kenya was proposed.

### 2.4 Justification for the study

The relationship between electronic payment system and revenue generation has been investigated in developing and developed countries though in different dimensions, but these researchers did not come to a general conclusion. One of the gaps (which justified the essence of this study) noticed by the current study in literature is that researchers did not take time to decompose the concept of electronic payment system as they have used the word as a whole. For instance, Kaburia (2018) in his study on electronic payment systems and alternatives for developing countries, the concept of electronic payment was not decomposed but used in itself as a whole, which made the study not easily apprehended. This implies that electronic payment as a variable was adopted directly in their studies without considering a relevant variable that can be used in its measurement. Fenuga and Oladejo (2010) on the effect of e-payment on customer service delivery in Nigerian banks focused on how the electronic payment system has been able to improve the level of customer service with special focus on the banking sector. This study analyzed differently by focusing on the Lagos State government considered the impact that e-payment has shown since its adoption in the process of revenue generation by the government in Lagos state.

Ndunda, Ngahu and Wanyoike (2015) revealed that level of tax payment (compliance) affected optimal revenue collection in an economy by using the multiple linear regressions. However, this study used a simple linear regression by decomposing the revenue generation variable into four dependent variables such as personal income tax, rates and penalties by focusing on the Lagos state economy. Nyongesa (2014) recommended for decentralized ICT based tax collection

systems and offices in the sub-counties in adoption of differentiation strategies in revenue collection role in Mombasa County. This study also made recommendations that are relevant to the Nigerian economy.

Muema, kyambo, kirichu and Senagi (2015) study indicated that Nairobi county and the parking industry were generally ready to adopt the mobile parking management system, although as with any technological adoption it was bound to face some barriers which could be overcome. This current study is therefore dissimilar as it focused on the overall impact of electronic payment system through dual decomposition (electronic mobile credit transfer and electronic teller machine) on the effectiveness of revenue generation in Lagos State. This study therefore fills this gap by decomposing the concept of electronic payment into electronic transfer card and automated teller machine as measurement variables for it. This study will therefore decompose the concept of revenue generation into personal income tax since Lagos state generates more revenue from it.

## 3. Methodology

The research design adopted in this study was survey since it can only get adequate information when it makes use of questionnaire to carry out its survey and it will be able to cover more areas and generate different opinions from respondents. The population for this study comprised all the staff of all the revenue generating agencies in Lagos state that are four thousand two hundred and seventy-five in number (4,275) based on their knowledge on e-payment system and revenue generation of Lagos State government which was the area of the current study. This include Lagos state internal revenue service (3,029), Lands Bureau (267), motor vehicle Administration Agency (283), Lagos State Advertising and Signage Agency (426), Lagos State Physical Planning Permit Authority (207), Lagos State Building Investment Company (63) (Data retrieved from Lagos State Treasury Office, 2018). The sampling methodology used to determine the sample size was determined using the Slovin (1960) sampling statistics and Taro Yemane formula which is;

$$n = \frac{N}{1+N(e)^2}$$

Where; n = Minimum number of participants needed for the study (sample size); N = Population Size; e = margin of error or error margin; 1 = constant value. Thus, N = 4,275 (population of the study), e = 0.05.

Substituting,

$$n = \frac{4,275}{1+ 4,275(0.05)^2}$$

n = 366

For the purpose of this study, three hundred and sixty-six (366) respondents who are the staff of Lagos State Internal Revenue Service due to the fact that the focus of this study is on Personal income tax and were randomly selected. They are the parastatals that were mentioned earlier. For the purpose of collection of data for this study, the primary source (questionnaire survey) and secondary data source (journals and articles) were adopted. The validity and reliability tests of

the questionnaire instruments were carried out. The validity of the scales used in this study was assessed for content and construct validity. The reliability test was also carried out using the results of the pilot study carried out and the Cronbach's Alpha coefficient of the variables 0.754 ranged between 0.754 and 0,934. For the purpose of appraising the e-payment and revenue generation in Lagos state using Lagos state internal revenue as well as other revenue generating agency in Lagos state as the case study, Analysis of Variance (ANOVA) simple linear and percentage frequency table were the methodologies adopted. The models used are therefore stated below;

$PIT = \beta_0 + \beta_1 ETC + \beta_2 ATM + \mu_t$ .....……..model 1

RTS = β0 + β1 ETC + β2 ATM + μt …….. model 2

PNT = β0 + β1 ETC + β2 ATM + μt ……model 3

Based on the regressions which represent the variables;

PIT = Personal Income Tax (PIT); ETC = Electronic Tax Card (ETC) and ATM = Electronic Teller Machine (ATM); $\beta_{0-2}$ = parameter/ coefficient of the explanatory variable; μ= Stochastic variable/ error terms of the models.

## 4. Results and Discussion of Findings

The results and the discussion of the findings in the study are therefore shown below.

### 4.1 Data Analysis

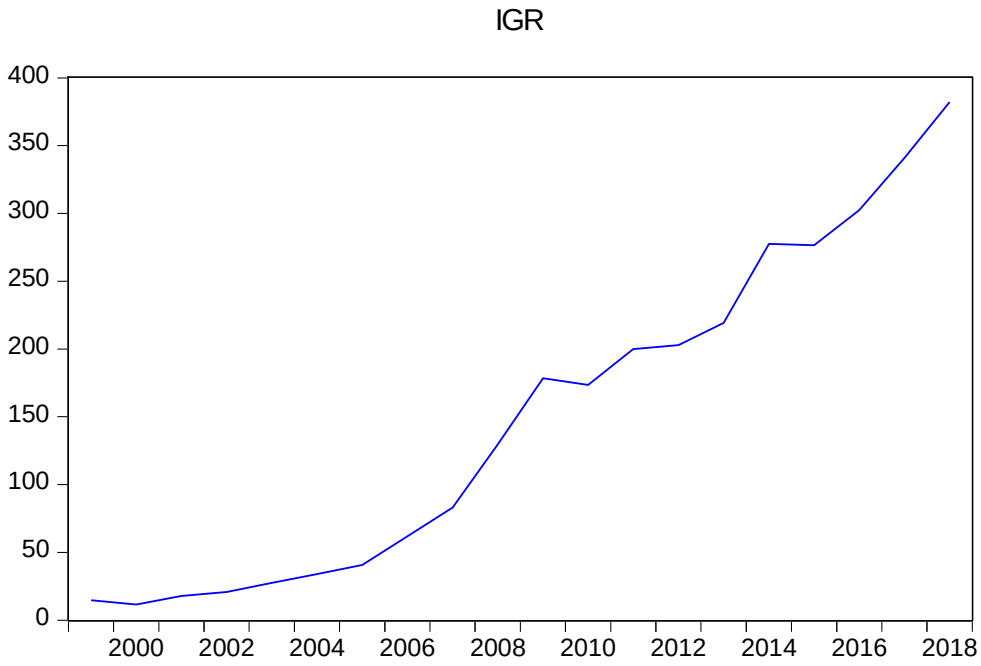
#### 4.1.1 Summary of Responses

**Table 4.1 Table of Questionnaire Responses**

| Selected Revenue-Generating Agencies | Questionnaire Distributed | Questionnaire Retrieved | % Response |
|---|---|---|---|
| Lagos State Internal Revenue Service | 366 | 348 | 95.1 |

**Source:** Author's Computation, 2019

**Figure 4.1 Trend of Internally Generated revenue of Lagos State**




**Source:** The Researcher Using eViews 9.

**Interpretation**

Figure 4.1 above shows the revenue generated by Lagos State government from all sources from 1999 to 2018. These include personal income tax, rates and penalties. The trend shows that there was barely an improvement in the revenue from 1999 to 2001 as the curve was almost perfectly elastic (horizontal). Furthermore, the revenue generated witnessed a little upturn from 2003 to 2004 due to the invention of some policies like autonomous of some of the revenue generating agencies. However, in 2007 Lagos State Internal Revenue) which is the agency that contributes about 85% of the total revenue generated by Lagos State) was granted an autonomy from Lagos state ministry of finance. Due to this fact, cash collection was been reduced while there was an introduction of electronic payment system into the cash collection of most of all the revenue generating agencies of Lagos State. This led to consistent upturn in the revenue generated. Additionally, there was a little downturn in 2010 and this was due to the aftermath of the global economic meltdown. The global economic meltdown also affected the economic activities of Lagos State which affected the revenue collected by the government of the state from personal income tax, rates, penalty and other sources of revenue that accrue to the state. Also, the state witnessed an insignificant downturn from 2014 to 2015 which was due to the beginning of the economic depression that was witnessed after the incoming of the new government. It was also deduced by analysts (Nwokoma, 2018) that the major reason for the recession was due the fall in the price of crude oil. This affected the other revenue generated by Lagos state government. Summarily, the introduction of electronic payment has led to the reduction in the leakage (through corrupt practices) of revenue generated by the government and continuous improvement in the revenue generated to date. This secondary finding therefore corroborates with the findings from the survey used as the major design of the current study which concluded

that there is a significant positive impact of electronic payment on revenue generation in Lagos State.

### 4.1.2 Tests of Hypotheses

This subsection of the fourth chapter of the study relate to the test

**Hypothesis One:** There is no significant effect of electronic payment on personal income tax in Lagos State.

**Table 4.3 Linear Regression Estimate for Model 1**

| able | o-efficient | Standard r | -Stat | Probability |
|---|---|---|---|---|
| | 1 | 5 | 6 | 0 |
| I | 4 | 7 | 9 | 0 |
| | 3 | 7 | 3 | 4 |
| | 2 | | | |
| sted $R^2$ | 5 | | | |
| S.E of Regression | 1 | | | |
| atistics | 11 | | | |
| Prob (F-statistics) | 00 | | | |
| rvation | | | | |

**Dependent Variable: PIT** **Significant at 5%**

**Source:** Author's Computation, 2020

**Estimated model 1**

$PIT = \beta_0 + \beta_1 ATM + \beta_2 ETC + \mu$

$PIT = 6.281 + 0.694 ATM + 0.068 ETC$

The results of the multiple regression analysis on table 4.3 (for testing the first hypothesis) shows that Electronic Teller machine (ATM) and Electronic Transfer Card (ETC) which are the independent variables have positive relationship with Personal Income Tax (PIT) the dependent variable. This was thereby indicated by the positive values of their coefficients, that is $\beta_1 = 0.694$ which is > 0 and $\beta_2 = 0.068$ which is also > 0. This therefore implies that a unit increase in the use of ATM will results to about 0.69 unit increase in the revenue generated through personal income tax (PIT) while a unit increase in the use of Electronic transfer card will lead to a significantly low about 0.07 unit rise in personal income tax. The results are thereby consistent with the *a priori* expectation that personal income tax will have a positive relationship with electronic payment system which was been proxied by ATM and ETC.

Furthermore, the probability of the t-statistics of the individual variables showed that all the variables are significant at 5% level of significant which is acceptable in this study. This is because the probability value of the t-statistics of ATM is 0.000 and that of ETC is 0.024 and they are both less than 5% significant level. Additionally, the $R^2$ is 0.532 which showed that about 53.2% variation in personal income tax was explained by electronic payment system while

the remaining 46.8% are caused by the other variables or factors that were not included in the model. Hence the coefficient of determination shows that the main model has a fair explanatory power. The Adjusted $R^2$ is 0.515 and it implies that the model is a measure of good fit.

The F-statistics is 85.011 with a probability value of 0.0000 shows that electronic payment system has significant effect on personal income tax. Therefore, this study rejected the Null hypothesis and accepted that alternative which means that there is significant impact of electronic payment system on PIT in Lagos State. This therefore is not farfetched because Lagos State has the highest revenue generating economy amongst the states in Nigeria especially from personal income tax source. This is an indication that the electronic payment system introduced into the revenue collection platform some years ago has helped to block the leakages and improved revenue from such source. Therefore, we reject the null hypothesis and conclude that electronic payment system has a positive and significant effect on personal income tax in Lagos State.

### 4.1.3 **Hypothesis Two**

Objective two: To evaluate the effect of electronic payments system on rates collected in Lagos State.

Research Question two: What is the effect between electronic payments system and rates collected in Lagos State?

Hypothesis two: There is no significant relationship between electronic payment and rate in Lagos State.

**Analysis of Primary Data**

**Table 4.9 Linear Regression Estimate for Model 2**

| **able** | **Co-efficient** | **tandard or** | **Stat** | **Probability** |
|---|---|---|---|---|
| | 70 | 5 | 544 | 0 |
| I | 1 | 5 | 07 | 0 |
| | 5 | 5 | 0 | 4 |
| | 9 | | | |
| djusted $R^2$ | 3 | | | |
| S.E of Regression | 7 | | | |
| atistics | .871 | | | |
| Prob (F-statistics) | 00 | | | |
| rvation | | | | |

**Dependent Variable: Rate** **Significant at 5%**
**Source: Author's Computation, 2019**

**Estimated model 2**

$Rate = \beta_0 + \beta_1 ATM + \beta_2 ETC + \mu$

Rate = -8.770 + 1.161 ATM + 0.075 ETC

The results of the multiple regression analysis on Table 4.9 (for testing the second hypothesis) shows that Electronic Teller machine (ATM) and Electronic Transfer Card (ETC) which are the independent variables have positive relationship with rates revenue the dependent variable. This was thereby indicated by the positive values of their coefficients, that is $\beta_1 = 1.161$ which is > 0 and $\beta_2 = 0.078$ which is also > 0.

This therefore implies that a unit increase in the use of ATM will results to about 1.6 unit increase in the revenue generated through rates while a unit increase in the use of Electronic transfer card will lead to a significantly low about 0.08 unit increase rate. The results are thereby consistent with the *a priori* expectation that revenue from rate will have a positive relationship with electronic payment system which has been proxied by ATM and ETC. Furthermore, the probability of the t-statistics of the individual variables showed that all the variables are significant at 5% level of significant which is acceptable in this study. This is because the probability value of the t-statistics of ATM is 0.000 and that of ETC is 0.000 and they are both less than 5% significant level. Additionally, the $R^2$ is 0.919 which showed that about 91.9% variation in personal income tax was explained by electronic payment system while the remaining 8.1% are caused by the other factors that were not included in the model. Hence the coefficient of determination showed that the main model has a very good explanatory power. The Adjusted $R^2$ is 0.918 and it implies that the model is a measure of good fit.

The F-statistics (Analysis of Variance) is 2055.871 with a probability value of 0.0000 shows that electronic payment system has significant effect on rate. Therefore, this study rejected the Null hypothesis and accepted that alternative which means that there is significant impact of electronic payment system on rates in Lagos State.

### 4.1.4 Hypothesis Three

**Objective three:** To assess the effect of electronic payments system on penalties collected in Lagos State.

**Research Question two:** What is the effect of electronic payments system on Penalties collected in Lagos State?
**Hypothesis three:** There is no significant relationship between electronic payment and penalty in Lagos State.
**Analysis of Primary Data**

**Table 4.10 Linear Regression Estimate for Model 3**

| Variable | Co-efficient | Standard Error | t-Stat | Probability |
|---|---|---|---|---|
| C | -5.622 | 0.931 | -6.038 | 0.000 |
| ATM | 1.224 | 0.103 | 11.842 | 0.000 |
| ETC | -0.076 | 0.080 | -0.946 | 0.345 |
| $R^2$ | 0.640 | | | |
| Adjusted $R^2$ | 0.638 | | | |

| | | | | |
|---|---|---|---|---|
| S.E of Regression | 1.923 | | | |
| F-Statistics | 323.040 | | | |
| Prob(F-statistics) | 0.0000 | | | |
| Observation | 366 | | | |

**Dependent Variable: Penalty** **Significant at 5%**
**Source: Author's Computation, 2020**

**Estimated model 3**

**Penalty = β0 + β1 ATM + β2 ETC + μ**

**Penalty = -5.622 + 1.224 ATM - 0.076 ETC**

The results of the multiple regression analysis on Table 4.10 (for testing the last hypothesis) show that Electronic Teller machine (ATM) has positive relationship with penalty while Electronic Transfer Card (ETC) has negative relationship with penalty the dependent variable. This was thereby indicated by the positive value of the coefficients of ATM that is β1 = 1.224 which is > 0. This consistent with the a priori expectation that revenue from penalty will have a positive relationship with the use of electronic payment system (especially Automated Teller Machine) while that of ETC is β2 = -0.076 which is < 0.

This therefore implies that a unit increase in the use of ATM will results to about 1.2 unit rise in the revenue generated through penalty while a unit increase in the use of Electronic transfer card will lead to a significant low about 0.08 unit fall in penalty revenue. This result however does not corroborate with the a priori expectation that penalty has a positive relationship with electronic payment system which have been proxied by ETC.

Furthermore, the probability of the t-statistics of the individual variables showed that only the Automated Teller Machine (ATM) variable is individually significant at 5% level of significant which is acceptable in this study. This is because the probability value of the t-statistics of ATM is 0.000 (less that 5% level of significant) but that of ETC is 0.345 (which is greater than 5% significant level). Additionally, the R2 is 0.640 which showed that about 64% variation in penalty was explained by electronic payment system while the remaining 36% are caused by the other factors that were not included in the model. Hence the coefficient of determination showed that the main model has a good explanatory power. The Adjusted R2 is 0.918 and it implies that the model is a measure of good fit.

The F-statistics (Analysis of Variance) is 323.040 with a probability value of 0.0000 shows that electronic payment system has significant effect on revenue from penalty. Nevertheless, this study still rejected the Null hypothesis and accepted that alternative which means that there is significant impact of electronic payment system on penalty in Lagos State. It should be noted that the main cause of the negative relationship between revenue from penalty and Electronic Transfer Cards was because most of the payments made by law breakers have not been through electronic transfer card. The first question is therefore answered and objective one is achieved.

### 4.2 Discussion of Findings

The study mainly tested the effect of electronic payment system and revenue generation in Lagos State. In order to test the three hypotheses of the study the frequency percentage tables were used for the thirty-four (34) questions of the study while the Analysis of variance statistical methodology was adopted to test the main hypotheses. In the study the two major variables which are electronic payment system (independent explanatory variable) and revenue generation (dependent explained variable) were decomposed into two and three sub-variables respectively. Electronic payment system was decomposed into Automated Teller Machine and Electronic Transfer Payment while revenue generation was decomposed into Personal Income Tax, rates and penalty. This was necessary in order to differentiate the current study from previous studies as well to ensure that reliable values are added to existing literature.

The first hypothesis is simply, 'there is no significant effect of electronic payment system on personal income tax in Lagos State. The independent variable (electronic payment system) was proxied by Automated Teller Machine and Electronic Transfer Card. The results showed that the decomposed electronic payment system have positive impacts on personal income tax. This was because the coefficient of ATM is 0.694 while 0.068 s that of ETC which are thereby consistent with the a priori expectation that personal income tax will have a positive relationship with electronic payment system which has been proxied by ATM and ETC.

The study therefore corroborates with the study by Wahab (2017) and Olurankinse & Oladeji (2018) who established that the adoption and use of the e-payment system was found to be low mainly due to the inadequate availability of point of sale terminals at shopping points among others. Wahab (2017) also argued that these are affecting the perceived ease of use even though the perceived usefulness of e-payment systems is strongly present among individuals and businesses. The study recommended customer education and wide spread deployment of e-payment point of sale terminals to merchants. Olurankinse and Oladeji (2018) also examined self-assessment, e-taxation payment systems and revenue generation in Nigeria. The results indicate a positive and significant relationship between self-assessment and e-taxation payment systems and venue generation. The paper concludes that e-taxation is an online tax payment and administration system that is used for the generation of tax from all competent taxpayers based on statutory guidelines for the purpose of assessing tax returns in the economy. However, Kayaga (2016) had a different opinion to the findings of the current study. He claimed that new technology alone is not sufficient if the government does not recognize the need for skilled tax officials especially in the collection of taxes from income of personal individuals. The scholar further avers that, effective tax administration requires qualified tax personnel with requisite skills to maintain these systems and operate them to their fullest potential.

In the second hypothesis which is the significant relationship between electronic payment system and rates revenue in Lagos State. The coefficient of variable ATM is 1.161 and it implies that a unit increase in the use of Automated Teller Machine as a component of electronic payment system in the payment of rates in Lagos State; it led to about over a unit rise in revenue from rates. The high value of rate through electronic payment system is therefore significant. The coefficient of ETC is 0.075 which also showed a positive but highly negligible significance of revenue from rates. Furthermore, the use of electronic transfer card has a high impact on revenue from rates in Lagos State.

In previous studies, Muema et al, (2015) studied the role of electronic payment on the generation of rates revenue in the Mobile parking management system using Kenya as a case study. The description analytic method was used in the analysis of the study, it was indicated that Nairobi county and the parking industry were generally ready to adopt the mobile parking management system, although as with any technological adoption it was bound to face some barriers which could be overcome. Also, Kinyanjui and Kahonge (2017) carried out a study on mobile phone-based Parking System which focused extensively on rates charged and collected as revenue. The study thus adopted analysis of variance as the methodology and it revealed that the use of e-payment by mobile phone-based technology in mobile parking increase parking fees collection. However, there is need to develop an application to control traffic flow, allocation and availability of parking space within the streets of Nairobi, which is a major concern to every motorist.

In the third hypothesis which was to determine the significant relationship between electronic payment system and penalty revenue. Using the multiple linear regressions, the two coefficients are 1.224 (for ATM) and -0.075 for electronic transfer card. These therefore are indications that a unit change in the use of Automated Teller Machine and electronic transfer card led to about 1.2 unit increase and 0.075 unit negligible (significant though negligible) falls in penalty revenue respectively. It should therefore be noted that the use of electronic transfer payment may not necessarily increase penalty since penalty does not apply statutorily to every citizen. It only applies to only law defaulters and it varies from one offence to another.

In related studies, Norris and Moon (2016) point out that the percent of governments adopting e-payments financial transactions especially on collection of rates and penalty revenue should have jumped by 32 per cent between 2000 and 2002 but the actual increase was only 6.5 percent. There are significant obstacles to offering online services which included; lack of IT staff and financial resources; issues of security and convenience. This finding could reflect their interest in developing online transaction systems. From the findings in this study, the study therefore showed that there is a significant relationship between electronic payment system and revenue generation in Lagos State.

### 4.3 Implication of the Study

The implication of the study is relevant in this section of the study as it explains what this study inferred to policy, the government, tax payers, and to researchers.

The model suggests that electronic payment system has a positive influence on personal income tax. The implication of this study to policy is that the taxation and revenue policies that are put to use especially to the generation of PIT in Lagos State has been effectively implemented to a large extent though not as much when it is compared to the rest of the advanced world. This thus implies that it is further required to make more decisions and implementations that relates to revenue policies in the state that can be followed by the rest of the states in Nigeria who are doing badly.

To Researchers in literature. The implication of the study was the awareness which it has brought them in respect to the performance of Lagos State as regards collection of revenue in the state. This is therefore expected to provide a substantial background to them in their further studies especially the ones that are related to electronic payment system and revenue generation.

### 4.4 Contribution to Knowledge

The study has contributed to knowledge and existing literature on the effect of electronic payment system and revenue generation in Lagos State through the following areas;

**Theory:** Through theoretical contributions as the study conformed to the theory that has been reviewed. For instance, the theoretical framework is the theory of consumption value (TCV). This is because it viewed the payment user from the perspective of a consumer. This theory explains why consumers behave in certain ways when they make choices between various products/services (especially the use of electronic payment as in the case of the current study). Based on the theoretical findings in this study, it was discovered that the tax payers from whom government revenue are derived, tend to pay more as the electronic payment system becomes better than it used to be.

**Empirical:** Through its decomposition of the two variables which are; electronic payment system and revenue, it has added to existing empirical findings. Also, it has shown there is a significant and positive impact of electronic payment system on revenue generation.

**Policy:** This study has through its recommendations contributed to existing policies in literature. Such recommendations are; the government should ensure the installation or operation of adequate high level technological package which will help to monitor the inflow of revenue to prevent diversion and so on.

**Concept:** Through its concept, it has added to existing concepts through its meaning, importance as well as how its importance can be evident in a typical entity. A conceptual framework was also constructed by the author of the current study.

**Literature:** Empirically, the findings of the study was also in accordance with other existing findings which are of the notion that improvement in electronic payment system is indeed a key to the attainment of maximum revenue as proved in existing literature.

### 5.1 Conclusion and Recommendations

This study was carried out to deduce the effect of electronic payment system on revenue generation using the revenue generating agencies in Lagos State as the source of data through the administration of questionnaire. Therefore, based on the findings of the study, with reference to the results derived, the study therefore concluded that- electronic payment system is indeed revenue-improving strategy and that; significant effect exists between electronic payment system and personal income tax, there is an effective relationship between electronic payment system and rates and, there is a significant effect of electronic payment system on penalty revenue. In view of the above summary of study, conclusion and contribution to knowledge of the study, this study recommends that government organizations that seek to achieve revenue optimization should stick to the improvement in the electronic payment system since it has been proved to be the major contributors to the increase in revenue generated in Lagos State. In addition to this, this study proffers these recommendations;

i The Alpha Beta Company should make further substantial improvement in the electronic payment system of Lagos State in order to make it to be at par with that which is obtainable in the developed economies in order to improve the revenue from personal income tax.

ii The revenue generating agency, Lagos State Internal Revenue Service should ensure the use of electronic or system audit so as to track the payment pattern of tax payers. This will further help improve the levels of revenue generation within the state.

iii The tax payers and potential tax payers should be further and consistently orientated by the Lagos State government on the adoption of technical efficient electronic payment system and its usage.

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## QUESTIONNAIRE

## E-PAYMENT AND REVENUE GENERATION IN LAGOS STATE

Please tick (√) the box that corresponds to the answer of your choice for each question.

## SECTION A: SOCIO-DEMOGRAPHIC CHARACTERISTICS

1. Sex: (i) Male [ ] (ii) Female [ ]
2. Marital Status (i) Single [ ] (ii) Married [ ]
3. Age (i) 21-30 [ ] (ii) 31- 40 [ ] (iii) 41- 50 [ ] (iv) 51- 60 [ ]
4. Ethnicity: (i) Yoruba [ ] (ii) Hausa [ ] (iii) Igbo [ ]
5. Educational status: (i) SSCE [ ] (ii) BSC/HND [ ] (iii) MSC [ ]
6. Year(s) being in service (i) 1-5 [ ] (ii) 6 – 10 [ ] (iii) 11-15 { } (iv) Above 15 years
7. Have you done any electronic transaction before? (i) Yes Audit [ ] (ii) No [ ]
8. If yes, please tick the appropriate box and proceed to section B. You may tick more than one where applicable. i) Purchase a product () ii) Pay for a service ( )iii. Pay bills ( ) iv. Others (Please specify)……..

## SECTION B:

## RESEARCH QUESTIONS

Please tick (√) the column that is most appropriate to you.

| S/N | ELECTRONIC PAYMENT AND PERSONAL INCOME TAX | Strongly Agree | Agree | Indifferent | Disagree | Strongly Disagree |
|---|---|---|---|---|---|---|
| | | (5) | (4) | (3) | (2) | (1) |
| 9. | Electronic payment system that is available in Lagos state has helped to improve the level of revenue that accrue to the state from PIT | | | | | |
| 10. | Tax payers (employers, self-employed who remit PIT) are always satisfied using electronic payment like electronic transfer card and ATM. | | | | | |
| 11. | There have been setbacks to the adoption of e-payment in the collection of personal income tax in Lagos state. | | | | | |
| 12. | The adopted and easy-to-understand nature of the electronic payment system in Lagos state has helped to improve the PIT of Lagos state. | | | | | |
| 13. | There is need to improve the electronic payment system of Lagos state so that the personal income tax can be sufficiently improved. | | | | | |
| 14. | Personal Income tax of Lagos state does not need any further improvement. | | | | | |
| | **AUTOMATED TELLER MACHINE** | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 15 | I use Automated Teller Machine for electronic transactions | | | | | |
| 16 | I am always satisfied using electronic payment like electronic Automated Teller Machine. | | | | | |
| 17 | Automated Teller machine is used for banking and other transactions. | | | | | |
| 18 | Tax payers are always satisfied using electronic payment like electronic transfer card and ATM. | | | | | |
| 19 | There are enormous challenges in the use of ATM | | | | | |
| | **ELECTRONIC TRANSFER CARD** | | | | | |
| 20 | I am aware of electronic transfer card | | | | | |
| 21 | I make use of Electronic Transfer Card | | | | | |
| 22 | I have no familiarity with Electronic Transfer Card | | | | | |
| 23 | The electronic Transfer card is an efficient means of making payments electronically. | | | | | |
| 24 | There are numerous challenges encountered in the use of electronic transfer card. | | | | | |

**Thank you for filling**

## Data

**N7U7 Table 4.11 Lagos State Revenue Generation**

| YEAR | IGR (₦'Billion) | % Change | Rise or Fall |
|---|---|---|---|
| 1999 | 14.6 | - | - |
| 2000 | 11.6 | -20.54 | Fall |
| 2001 | 17.9 | 54.31 | Rise |
| 2002 | 20.8 | 16.20 | Rise |
| 2003 | 27.5 | 32.21 | Rise |
| 2004 | 33.9 | 23.27 | Rise |
| 2005 | 40.6 | 19.76 | Rise |
| 2006 | 61.7 | 51.97 | Rise |
| 2007 | 83 | 34.52 | Rise |
| 2008 | 129.6 | 56.14 | Rise |
| 2009 | 178.5 | 37.73 | Rise |
| 2010 | 173.4 | -2.85 | Fall |
| 2011 | 199.9 | 15.28 | Rise |
| 2012 | 202.8 | 1.45 | Rise |
| 2013 | 219.2 | 8.08 | Rise |
| 2014 | 277.6 | 26.64 | Rise |
| 2015 | 276.6 | -0.36 | Fall |
| 2016 | 302.4 | 9.32 | Rise |
| 2017 | 341 | 12.76 | Rise |
| 2018 | 382.2 | 12.08 | Rise |

**Source:** Lagos State, Budg IT Research (2019), modified by the researcher.