E- CHANNELS AND INTERNALLY GENERATED REVENUE OF EBONYI STATE

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Key words: Internally Generated Revenue, e-channels, e-registration, e-revenue payments, e-filing of returns.

ABSTRACT: The increasing cost of States running their institutions and the level of failure to keeping to their promised socio-economic responsibility coupled with dwindling mono-revenue source (oil and gas-revenue) has left various levels of government in Nigeria - Federal, State and Local Governments at the precipice of economic collapse and has provoked the urgent need for their evolving strategies to improve revenue bases. The chunk of state’s revenue of current times comes mainly from federation account allocations and value added tax; minimally augmented with internally generated revenue (IGR) from taxes and non-tax revenues. There is, however, urgent need for state government to evolve and consider more technologically-driven strategic alternatives to improve revenue generation through enhancement of their internally generated revenue, utilizing the revolutionizing information and communication technology platforms. This paper is set out to examine ways of enhancing internally generated revenue (IGR) in states through the use of technology. The sub-objectives are to: Examine the level in which the use of e-business channels has impacted on the revenue generation in the states; Identify challenges that have impeded deeper penetration of e-business and sufficient internal revenue generation in the states, and; to advance e-business channels strategies that will enhance internal revenue generation in the states. The paper applies survey sampling method and used both primary and secondary data. It adopted the fiscal federation theory as the theoretical framework. The findings are that: internally generated revenue constitutes just a small proportion of the state finances; the current system of revenue generation is fraught with challenges; the revenue base of the state’s areas is uneven, so narrow and need to be diversified and driven by user-friendly technology while applying online business directory to mine revenue payers database. To enhance internal revenue generation, strategies such as establishment of a dependable data base of legible revenue contributors (payers) which is accessible is required, eliminating all sources of revenue leakages through the automation of revenue collection system, tracking the underground economy for more traction of revenue generation, diversification of the revenue base through wealth creation among others are necessary solution combo.
INTRODUCTION

It is no longer a hidden fact that Nigeria’s only source of major revenue generating unit, “oil” is fast depleting. Incidentally, the significant decrease in the global oil prices and volume demanded has made diversification of the State and in fact, the entire Nigerian economy from over-dependence on oil a mandatory policy issue. Regrettably, much dependence on oil revenue has essentially “milked the cow dry”. Thus, the increasing cost of running government coupled with the dangerously hemorrhaging revenue has left various government tiers in Nigeria - Federal, State and Local Governments with no other option than the need to evolve strategies to improve their revenue base. Since the last few years including the new normal introduced by the break out of Covid-19 pandemic, the near collapse of the national economy has created serious financial stress for all tiers of government but worst affected are the states and local governments.

Despite the numerous sources of revenue available to the various tiers of government which were specified clearly in the 1999 Constitution of the Federal Republic of Nigeria, it is disheartening to note that since the 1970s till date, over 80% of the annual revenue of the three tiers of government came from petroleum as against what was obtainable in the 1960s when agriculture, mining and other sources of revenue account for the lion share of the regions’ and by extension the nation’s annual revenue. The serious decline in the price of oil in recent years and the concomitant of the pervaded bribery and corruption has consequently led to the decrease in the funds available for distribution to the states (Adesoji and Chike, 2013). Factually, statistics show that “most state governments generate only 15% of their revenue and depend on federal allocation for further sustenance but unfortunately, this is no longer sustainable,” (Balogun, 2015). With the 2015 general elections, over 75 per cent of the newly elected state governors without being prodded, now have resolved to focus on planned strategies to miraculously turnaround from oil dependence to self-sustainability. There is no doubt that a deliberate plan to stop leakages, wastages and corrupt practices in the system and introduce technology-driven platforms is imperative but will only make sense where the inflow is certain. This therefore means that there is a greater need for the state governments to consider more feasible alternatives for revenue generation through which they can enhance their internally generated revenue.

Statement of the Problem

A lot of development challenges confront States in the Nigeria of today. To have national development would mean that all federating units of the country will have equal or near equal opportunities, resources to grow and develop at their own place. But this is not to be for high level tax evasion and avoidance, dwindling IGR of States and their over-dependence on FAAC (Federal Accounts Allocation Committee) monthly disbursements which has not only limited their pace of provision of socio-economic infrastructure and services to the citizens but have elicited loss of trust and confidence of the citizens on their governments. A steady flow of revenue that would enable Local Government Councils and States to lay the foundation for stability and relative self-sufficiency would help, generally the country’s quest for national development (Olusola, 2011). The federal
government cannot do it on its own; neither States nor Local Government Councils could do it on their own, hence an issue that requires a technology driven platform to change the narratives of poor internally generated revenues in States.

The challenge pertaining to the sheer amount of revenue required to address the huge development challenges confronting States in Nigeria is made worse when States can barely boast of consistent 15% internally generated revenue (IGR) achievement years-on-end while gamut of generated revenues leak away through human corruptive activities.

Unprecedently, advancement in technology has been witnessed virtually in all sectors of the economy in the last few decades resulting in several roles hitherto manually handled having been taken over by the use of computer. To remain competitive and viable, most governments, organizations, businesses and people have adopted technology-driven systems and the internet of things (IoT) in various businesses. The technology deployment increased the advancement in the growth of the concepts of e-business, e-commerce and e-governance that included revenue drives (tax administrations) all over the world, are not left out as it become necessary to use computer systems and networks in the process of revenue payments, tax registration, filing of tax returns and payment of taxes (Newman and Eghosa, 2019).

Internally generated revenue (IGR) through taxation and other non-tax means having been noted as topmost sources to solving the dwindling IGR and fluctuating FAAC disbursements to States, it requires that efforts at deploying methodology of internal revenue generation system need to be put into perspective for enhanced internally generated revenue performance of States.

Aim and Objectives of the Study

It is the paper’s broad objective to examine ways by which e-channels could enhance Internally Generated Revenue (IGR) of Ebonyi State, with sub-objectives to:

i) Examine how e-revenue registration has influenced the current level of internally generated revenue (IGR) collection in the Ebonyi State

ii) Identify areas e-filing of returns by revenue payers have contributed to the improved internally generated revenue of Ebonyi State

iii) Ascertain to what extent e-revenue payments contributes to the enhanced Internally Generated Revenue portfolio of Ebonyi State

Research Questions

The mystery of the IGR scenarios is: “what should the State governments do to improve their internally generated revenue, forestall tax evasion and avoidance and become self-sufficient enough not to rely more on FAAC disbursements from the already depleted federation account?” The task will be addressed by this study by providing answers to the following research questions:

i) Has e-revenue registration the current level of internally generated revenue (IGR) collection of State?

ii) Does e-filing of returns have impact on the internally generated revenue of Ebonyi State?
iii) What influence has e-revenue payments had on the present IGR collection of Ebonyi State?

Research Hypotheses

This study formulates three research hypotheses as temporary answers to the research questions raised for investigation to solving the identified problems of the study in establishing the statistical significance of e-channels deployment in improving the internally generated revenue collections in Ebonyi State. They include:

1. There is no statistically significant impact of e-revenue registration on the Internally Generated Revenue of Ebonyi State.
2. There is no statistically significant impact of e-filing of returns by revenue payer on Internally Generated Revenue of Ebonyi State.
3. There is no statistically significant impact of e-revenue payments on the Internally Generated Revenue of Ebonyi State.

LITERATURE REVIEW

Conceptual Review

Concept of e-Channels and Internally Generated Revenue

The modern revenue administration (tax, fees, levies, etc.) seek to focus on three key objectives of facilitation of voluntary compliance, providing adequate records for assessment of qualified revenue, tax, fees, levies, etc to pay, easy communication of information and efficiently minimizing cost of collection (Oseni, 2015). This serves as the main function which led to the prevalent use of IT systems in revenue and tax administration. The adoption of management information system or technology in the enforcement of core tax and revenue processes like registration, filing of returns, payment and general maintenance of database brought about what is today known as an electronic based business referred to as e-business. Therefore, electronic business channel is defined as the automation of core business processes which offers electronic registration, filing and payment as well as education and information to revenue and taxpayers. E-business channels is inclusive of card payments (ATM cards), POS, mobile app transactions, web transactions, internet, google, social media platforms (whatsapp, twitter, instagram, facebook, telegram, zoom, emails, etc.).

Broadly, the electronic business channel is a comprehensive internet portal that forms a suite of secure self-service options to revenue and taxpayers, may provide a single point for information and action, and is typically available 24/7 days a week, and does not require intervention from government (State or LGA revenue or tax administrative staff). The current economic situation (bloating debt profiles and dwindling revenue generation) in Nigeria has necessitated the need for governments to embark on aggressive revenue drive that will enable them discharge numerous social, economic and political duties to the citizens. With the intended shift to non-oil sources of income, e-transactions (revenue and taxation) remain an unswerving tool for government to achieve the objective (Ajape, Afara and Uthman, 2017).

While taxation is seen as a compulsory contribution levied by the government on personal income and business profits or added to the cost of some goods, services and transactions (Majura, 2013); Internally Generated Revenue (IGR) are revenues that accrue to the state government from its internal activities without

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recourse to external sources (Tunji, Olajide and Olubukunola, 2014). To avoid disappointment or embarrassment from non-remittance of allocation from federal government, the state government needs this, especially as oftentimes, allocation from federal government is being delayed and government at the state level cannot endlessly wait for the allocation before it can carry out its responsibilities to the citizenry.

E-business, which comprises of conduct of online business processes on the web, internet, extranet or combination thereof has its earliest form of digital transactions rooted in the advent of ATMs and cards launched in the early 1960s but their effect took place in the 1980s upon the introduction of the world wide web (WWW) and digital networks when retailers were connected to suppliers as the need for online catalogs and inventory software system was in high demand. IBM was one of the first companies to use the term ‘e-business’ in October 1997 launching its thematic campaign to address the confusion many consumers had a bout internet-based businesses. It is a digital-only transaction that came to provide entities as financial institutions with exclusively cutting-edge technology via digital platforms like mobile and tablets connected to the internet, offering the most basic banking services, no physical location; and operates in a very simplified manner with the aid of electronic documentation, real-time data, and automated processes. In most cases, requirements in opening an account with digital-only entities are the application of link and few personal verification documents as they do not have physical address for the normal transactional activity; rather only location for admin and their servers. Its emergence and adoption in various parts of the world like Nigeria enabled a new degree of freedom to the banking new entrants ecosystem providing a 'David and Goliath' dynamic which compelled them to iterate quickly as compared to the incumbent traditional payment systems. From their unique ability to access daily banking functions via mobile devices, empowering cashless transactions, it appeared digital-only-financial income drives is not just the future of banking but a total revenue generation evolution for banks and government sectors.

An electronic system of internally generated revenue drives is the application of management of information system (MIS), information and communication technology (ICT) to documenting financial records like registration of revenue payers, mining of revenue payers' directories, filing tax returns, availing receipts/vouchers for accounts preparation to determine taxes and levies to be paid, 'remitting taxes based on assessment as prescribed by the relevant revenue or tax authority.

The need for states and local governments to generate adequate revenue from internal sources has become a matter of extreme urgency and importance. This need should engender zeal on the part of the States and local government councils and even the federal government to look for new sources of revenue or to become aggressive and innovative in the mode of collecting revenue from existing sources. Since the importance of a non-oil revenue base is at the front burner of governance, the way forward is therefore diversification of the States’ economy through technological innovativeness that would boost the nation’s economy. Internally generated revenue through e-taxation, e-revenue drives
and other non-tax means are noted as top on the agenda to solving south-looking IGR base.

Internally Generated Revenue (IGR) also denotes the revenue that the federal, state and local governments generate within their respective areas of jurisdiction (Abiola and Ehigigiamusoe, 2014). IGR for State government has also been described as revenues that are derived within state from various sources such as taxes (pay as you earn, direct assessment, capital gain taxes, lease fees, levies, etc.) and motor vehicle license, among others (Adenugba and Chike, 2013). Asimiyu and Kizito (2014), economic development and sustainability of states in Nigeria are dependent on their ability to generate revenue internally to supplement the revenue allocation from federation account. Holban (2007), while taxation plays significantly three roles: generation of sufficient funds for financing public services and social transfers; provision of incentives for more employment and efficient use of natural resources; reallocation of income; non-tax resources also need to be mopped up through efficient and effective e-business channels.

Experts and administrators in tax and revenue modeling have advocated for technology-driven revenue and tax system to expand the country’s tax base, achieve economic diversification away from the oil revenue, and enhance the delivery of public services and fiscal propriety (Harrisson and Nahashon, 2015; Yekeen, 2017). In a bid to deepen e-business, government has introduced the unique identifier for tax payers - Taxpayer’s Identification Number (TIN) (effective February, 2008); automated tax system that facilitates tracking of tax positions of taxpayers; e-payment system(e-tax) and enforcement scheme (involving special purpose tax officers in collaboration with other security agencies to ensure strict compliance in payment of taxes); these measures have led to an improvement in tax administration in the country (Asuquo, 2016). These processes need to be replicated for driving other non-tax revenues in the States and local government areas.

E- Channels Benefits and Internally Generated Revenue Drives

The critical issue that e-business addresses are internet-based business support systems and payment platforms for automation of all back-end operational processes and payments across all revenue streams. These tasks are not without risks to be encountered in data ownership, protection and cyber security but with a strong in-house IT team and experienced legal department to protect the interest of all the parties, including taxpayers, the risks will be significantly mitigated.

Of course, pathways to achieving improved IGR through digitalization may vary from States but the conditions may remain the same, including providing broadband access and supporting the growth of digital skills in the wider economy. The goal is to facilitate the scale-up of modern, revenue payer-friendly, and technology-driven revenue administration in all local government councils of the State that will be capable of providing world-class services, characterized by efficient, paperless operations, equipped with ICT-enabled risk-based enforcement capable of optimizing their revenue mobilization strategies.

The impact of technology-enabled electronic business can be seen and felt in every area of lives from commerce to entertainment, education, communications, healthcare, defense and taxation (PWC, 2013). Technology has
influenced lives in many ways and continues to change the way things are currently done from the simple day to day activities to the complex and less routine tasks. The critical challenge of low IGR in the States has been linked to weak environment (institutions of the State) and low technological integration in revenue administration as factors militating against efforts to mobilize domestic revenues in the State.

E-business in showcasing its benefits has drastically changed how enterprises, governments agencies, nonprofit organizations and other institutions operate, allowing them to increase productivity, lower costs, move more quickly toward digital transformation and upgrade processes. E-invoicing, automated billing and digital payment systems lower the amount of time workers devote to these tasks which were hitherto manually done few decades ago. Cloud-based business applications enable remote and hybrid workers to perform their jobs in the office from their homes and other locations. Cloud-based apps and the internet allow business transactions 24/7 that even solo practitioners and small businesses can conduct business globally. Advanced technologies as big data, artificial intelligence (AI), machine learning, the cloud computing, automation and IoT have improved the ease, speed and effectiveness of numerous e-business tasks such as e-archiving of information, deriving data insights, recording financial transactions and personalizing interactions with customers, etc.

With the development of e-business technology mostly in use by banking sectors, various other sectors including public sector have given their customers easy access to mobile devices that have access to online and digital services. While looking at the high end transactional expectations of millennial and coming generations’ digital-only banks emerge as the most influential choice of these potential customers. Badmus, G. (2019) asserts that digitization has made most physical banks lose out these opportunities on their expansion due to the fast-moving technological transformation as most of their customers are willing to switch their services for this unique feature in bills payment, efficient sending of money, fast transfer speed, and access to loan products safely and conveniently without physical appearance in banks. E-business channels like digital-only transaction is a general term that covers a broad group of financial service providers offering banking services exclusively through digital means and with no physical locations.

With this done, there will be no hiding place for tax evaders, revenue defaulters, etc. especially with the use of modern technology as all potential revenue and tax payers are captured by the system. However, the use of information communication technology (ICT) can be catastrophic if carelessly employed by both the revenue, tax payers, tax authorities and database administrators as scammers and hackers of the internet facilities can utilize the ignorance or lax security of the system. Challenges of Electronic Channels system and Internally Generated Revenue

The e-channels system in Nigeria is confronted with several challenges which include a low computer literacy level and the high cost of setting up on e-revenue (tax) system (Umenweke and Ifediora, 2016). Also its effectiveness is highly dependent on the availability of an efficient internet service.
Several places in Nigeria at the moment do not enjoy an effective internet service, especially in rural areas. Although there is a steady rise in the number of people with access to the internet and improved connectivity, a lot still needs to be done as the percentage of people without access to the internet in Nigeria is approximately above 50% of the population, considering that its estimated population is put at above 200 million in 2020 (NPC, 2021). This challenge is further compounded by the unreliable public power supply (electricity). Another challenge of the e-business channels system is the aloneness of the FIRS (the Federal Tax Authority) of having full automated processes while at the state level, many revenue authorities are still either using manual processes or combining the manual and electronic system in driving their internally generated revenues. The situation hinders effective collaboration between revenue authorities at the Federal and State levels to prevent double taxation. The State revenue authorities deserve to automate their processes to provide the necessary synergy with the federal level (FIRS) in not only contributing positively to the rating of the country on the ease of doing business index; investors will find it easy to fulfill their tax obligations to the federal and state governments through convenient and transparent e-revenue payment platforms as well as assisting tax authorities to easily share information on a revenue payer and build up a comprehensive revenue history of taxpayers.

However, e-business as technology-driven platform, influencing the way we work, play and interact with others, though has transformed and impacted the macro environment (Eric and Richard, 2008; Abiola, 2014) is not without challenges confronting it. Among the greatest problems facing internally generated revenue in Nigeria States are tax evasion, tax avoidance, non-tax compliance, revenue (fees, levies, penalties, etc) misdirection and collusion of revenue officials including the revenue authorities with the payers to circumvent compliance, remittance and payments (Adegbie and Fakile, 2011; Odia, 2014). However, with e-business channel system, revenue collection efficiency is guaranteed, revenue misdirection is stopped, tax compliance is enhanced, circumvention and collusion of revenue/tax officials with revenue/tax officials are closely checked and incidence of tax evasion and avoidance would be greatly reduced (Harrison and Nahashon, 2015; Oseni, 2015).

The most threatening challenge to e-business channels in IGR drives as it relates to revenue system in the country is the devastating activities of cyber criminals, who try to compromise the integrity of the revenue service portals. It is a major challenge to the development and sustainability of e-business systems.

Huge gap in the drive for collection of revenues, onboarding and engagement with new tax payers, low tax compliance rates dampens government’s efforts to grow its IGR through its tax base; unstructured database of taxpayers due to larger percentage of workforce or legible taxpayers being engaged in semi-formal and informal sectors (sub-contractors, artisans, traders, semi-skilled and unskilled labourers not captured on government tax database and do not have a clear tax payment channel.

Another challenge is inability of governments to convince potential taxpayers of the benefits of paying taxes or engaging current
revenue payers in their journey to effectively demonstrate what they can gain from paying taxes; importantly a ‘middleman factor’ is another critical challenge where fees and levies are contracted out to be collected by government representatives resulting to possible leakage through fraud and corruption.

In consideration of the above challenges, e-business provides multiple digital channel communications (Omni channel) approach to citizens engagement that can allow government to identify and segment its tax bases in various strata and allow for 360-degree view of the citizens, providing insights into their behavior, needs and preferences, forge closer relationship with them, establish richer engagements over their preferred channels, creating overall citizen experience and cutting out the middleman in revenue collection to introducing direct payment systems, customer notification, validation and real-time accountability structure that would ultimately and positively impact on internally generated revenue.

The common thread of challenges arising from e-business include securing e-business services against increasing sophisticated cyber threats, scaling services fast enough to meet demand without jeopardizing performance, evolving technologies fast enough to keep pace with changing market dynamics, keeping pace with e-business capabilities that by their electronic nature are always on; finding and training skilled workers to keep pace with advanced technologies.

Theoretical Review

This study adopts eclectic theoretical approach and Technology Acceptance Model. The first theoretical framework underpinning this study is rooted in expediency theory of taxation.

The expediency theory of taxation

The theory was propounded by Buehler in 1936. The theory stated that every tax revenue collection system must pass the test of practicability, which must be the only consideration when government is choosing a revenue collection system. The assumption of the theory 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 effectively. This theory is relevant to the study in that e-business channel on revenue generation system is expected by state board of internal revenue to enhance revenue collection by creating an enabling technological environment that facilitates efficient assessment and revenue collection process. The expediency theory is therefore linked to this study since it seeks to explain the influence of administrative set up, such as efficient e-business channels (tools) payment system, in revenue collection by the board of internal revenue and any other revenue collecting body for the either the State or the Local Government Area.

Technology Acceptance Model

The second theory is Technology Acceptance Model (TAM). This theory was developed by Fred Davis in 1986, an information systems theory that models how users come to accept and use a technology. The theory is based on the assumption that the acceptability of an information system is determined by two main factors, being Perceived Usefulness (PU) and Perceived Ease Of Use (PEOU). Perceived Usefulness is the degree to which a person believes that using a particular system would...
enhance his or her job performance. Perceived Ease of Use (PEOU) is the degree to which a person believes that using a particular system would be free from effort. This theory is relevant to this study in the sense that the Technology Acceptance Model provides the bases for the adoption and implementation of the e-business channels by the State Board of Internal Revenue Service based on the assumption of its perceived usefulness on both the revenue (tax) payers and revenue (tax) of officials. The primary objective of the e-business channels is to solve the challenges of the traditional revenue administration system that makes the State Board of Internal Revenue Service the forerunner in the acceptance of the e-tax technology mainly because it has a direct positive effect on their job performance in terms of efficiency, timeliness, accuracy and reliability. As for the revenue (tax) payers, the perceived usefulness of the e-business channels will be the general ease of paying/remitting their revenues (taxes) in terms of accuracy, simplicity, convenience and trust in the system which will in turn bring about voluntary compliance, hence solving one of the major problems of revenue generation in the state. The assumption of perceived ease of use on the other hand is however, a challenge to both revenue payers and revenue officials who may feel they do not have what it takes to actually use the technology without much effort. This is mainly due to lack of technological exposure which poses a major threat to the use of e-business channels in emerging economy with high demography of low literacy in technology.

**Figure 1: Conceptual Framework**

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<th>e-Revenue registration</th>
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<tr>
<td>Acquisition of unique identifier by Revenue payers</td>
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<td>Online amendment of revenue payers details</td>
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<td>Online business directory/IGR enumeration effort of revenue payers</td>
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<tr>
<th>e-filing of returns</th>
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<tbody>
<tr>
<td>Online filing of financial records (receipts, invoices, etc.)</td>
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<td>Online amendments of returns filed</td>
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<tr>
<th>e-Revenue payments</th>
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<tr>
<td>e-generation of payment slips</td>
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<tr>
<td>Real-time update of revenue payers ledger accounts, etc.</td>
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<tr>
<th>Revenue generation</th>
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<tr>
<td>Improved monitoring of revenue payers</td>
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<td>Improved services delivery to revenue payers</td>
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<td>Improved compliance</td>
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<tr>
<td>Blockage of revenue leakages</td>
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<tr>
<td>Revenue payers acceptance of government programmes and support</td>
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<tr>
<td>Stoppage of unhealthy collusion and collaboration of revenue payers and revenue officials</td>
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</tbody>
</table>

Figure 1 above shows independent variables for measuring level of growth of internally generated revenue the dependent variables.

**Empirical Review**

Owino, Otieno and Odoyo (2017), empirically examined the influence of information and communication technology (ICT) on revenue collection in county government in Kenya. The objectives of the study were to determine the influence of ICT system for single business permits on revenue collection; evaluate the influence of ICT system for land rates on revenue collection; establish the

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influence of ICT system for Bus Park on revenue collection in Migori and Homa Bay county governments in Kenya. Primary data were collected with the use of questionnaires, and analyzed using descriptive and regression techniques. The finding showed that a strong and almost a perfect association existed between ICT systems adopted in county governments and the revenue collection; the application of ICT systems explained up to 91.9% variation in revenue collection efficiency in county governments. Further findings revealed that the application of those systems improve revenue collection efficiency in the county governments.

Metin, Ali and Metehan (2017) explored the effect of e-taxation system on tax revenues and costs in Turkey. The study aims to investigate the effect of electronic taxation system on tax revenues and tax collection cost in Turkey. Data were sourced through secondary means in the republic of Turkey. The data were examined in two groups, the pre-electronic tax period of 1993 – 2004 and post-electronic tax period of 2005 – 2016. Mann-Whitney U-test was used to analyze the data. The result of the analysis showed that the organization of the electronic tax system positively affected the tax revenues and reduced the cost per tax.

Obara and Nangih (2017), empirically investigated tax compliance barriers and internally generated revenue in Nigeria: A study of small and medium enterprises in Port-Harcourt. The objective of the study was to examine the effect of taxation barriers on government’s revenue generation in Nigeria. Primary data were collected using structured questionnaires, while formulated hypotheses were analyzed using simple regression analysis with the aid of SPSS software. The result of the study showed that problems of reliable tax database and the prevalence of cash transaction impede government’s revenue generation in Nigeria. The study recommended that effective tax automation, regular education of taxpayers on the benefits of tax compliance (payment of tax), training of revenue staff and provision of adequate logistics for efficient revenue/tax administration are some of the measures to ensure improved revenue generation in Nigeria.

Methodology

Research methodology presents the description of how the study will be approached; the research plan (research design), how data will be collected and the analysis technique that will be adopted in analyzing the data to generate the findings based on formulated hypotheses. Esene (2005) explained research methodology as the methods, procedures or modalities through which a researcher intends to accomplish research objectives.

The research setting of this study is Ebonyi State, located in the South Eastern part of Nigeria. The survey is conducted in the Ebonyi State Board of Internal Revenue; the body constitutionally charged to the revenue administration and collections in the state through different revenue generation systems.

Data Collection Method

The researcher adopted survey design in collecting data for the study since it involves people’s perceptions, attitude and orientation. No doubt, survey designs enables researcher to collect information about a population at a point in time. The questionnaire used in the collection of data was structured in a 5-point likert scale, validated and tested for high reliability and internal consistency.
Population of the study
Population of the study is 120 comprising mostly the senior staffs of the Board who are deeply involved in e-business channels utilization in the revenue administration of the state. The choice of senior staff were based on the researcher’s belief that these categories of staff have acquired reasonable experiences in revenue (tax) administration and have the ability to provide valid responses to the questionnaires administered.

Sample Size
The sample size of the study is 92 arrived at by applying the Taro Yamane’s formula to the population.

Random sampling technique was adopted to select the respondents the questionnaires administered on. This implied that every senior staff of the Board had equal chances of getting a questionnaire from the researcher. Out of the 92 questionnaires distributed, only 78 were returned and used for analysis of this study.

The research instrument contains 12 metric questions on e-business channels system bordering on the construct of the e-business channels in the variables of e-revenue registration, IGR enumeration effort; online business directory, e-filing of revenue (tax) returns, e-revenue payments and 5 metric questions on internally generated revenue variables. The respondents were required to indicate the level of agreement on a 5-point likert scale (where 5 = strongly agree; 4 = agree; 3 = undecided; 2 = disagree; and 1 = strongly disagree).

Research model specification
The research model of the study to test the formulated hypotheses as explained in the summary Table 1 below will take a model specification in log linear form for long-run which will be stated later.

Table 1: The summary of the model is given below:

<table>
<thead>
<tr>
<th>Variables</th>
<th>Definition</th>
<th>Measurement</th>
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<tbody>
<tr>
<td>Dependent variable</td>
<td>Internally Generated Revenue (IGR)</td>
<td>Total volume of IGR collection by LGAs in Ebonyi State</td>
</tr>
<tr>
<td>Independent variables</td>
<td>e-registration of rev payers</td>
<td>Total No. of revenue payers registered annually LGAs revenue authorities</td>
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<tr>
<td></td>
<td>e-filing of revenue returns</td>
<td>Total no. of existing and potential revenue payers whose revenue assessments could be easily obtained online</td>
</tr>
<tr>
<td></td>
<td>e-revenue payments</td>
<td>Volume of revenue collected from existing and potential revenue payers in the State via deployed e-payment tools.</td>
</tr>
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</table>

Source: Author’s computation (2023)

The model specification in log linear form is given thus:

$$IGR_t = \alpha_0 + \alpha_1 e-reg_{t-1} + \alpha_2 e-filing \ rev \ returns_{t-1} + \alpha_3 e-rev. \ pmts_{t-1} + \mu_t$$

Where:

- $IGR_t$ = Internally Generated Revenue, $e-reg$ = electronic registration of existing and potential revenue payers, $e-filing \ rev \ returns$ = electronic filing of revenue returns by existing and potential revenue payers, $e-rev. \ pmts$ = electronic revenue payments, $\alpha_0$ = the intercept, while $\alpha_1 - \alpha_3$ = the slope, $\mu_t$ = the random error.

Data Analysis and Discussion of Findings
For the purpose of achieving the specific objectives of the study, research hypotheses initially formulated in line with the general and
specific objectives of the study were tested accordingly with the mind set of examining the effect of e-business channels system on internally generated revenue.

**Data Analysis**

**Table 2: Regression Results**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Std.</th>
<th>BetaCoefficient</th>
<th>t.stat.</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent</td>
<td>0.374</td>
<td>-</td>
<td>9.675</td>
<td>0.000</td>
</tr>
<tr>
<td>Sum – e-Revenue Reg.</td>
<td>0.659</td>
<td>0.235</td>
<td>1.574</td>
<td>0.093</td>
</tr>
<tr>
<td>Sum – e-filing of returns</td>
<td>0.102</td>
<td>-0.241</td>
<td>-2.226</td>
<td>0.105</td>
</tr>
<tr>
<td>Sum – e-revenue pmts.</td>
<td>0.146</td>
<td>0.154</td>
<td>1.237</td>
<td>0.102</td>
</tr>
<tr>
<td>T-stat.</td>
<td>2.05</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source: SPSS Statistics**

R-Squared (R²) = 0.883
R-Squared adjusted (R² adj.) = 0.867
Durben Watson = 1.418

**4.1.2 Discussion of Findings**

**E-Revenue (tax) registration and internally generated revenue in Ebonyi State**

The result of hypothesis one (1) indicates that the probability value is 0.093 with the corresponding t-value of 1.574. By the decision rule guiding the study, the P-value of hypothesis one falls within the acceptable range of 10%. Thus, the result implies that e-revenue (tax) registration significantly affect internally generated revenue in the emerging economy of Ebonyi State, drawing reference from the State’s Board of internal revenue. The result of the study conforms to the findings of Bett and Yudah (2017), who examine the contribution of i-tax system as a strategy for revenue collection in Kenya revenue authority. Result of the study revealed that online registration of revenue payers has a significant contribution on the revenue collection in Kenya. Similarly, the finding is also in agreement with the result of Metin et al (2017), who explored the effect e-taxation system on tax revenue and cost of collection in Turkey which showed that transition to the e-tax system positively affected the tax revenues and reduced the cost per tax. It also conforms to the findings of Ajape et al (2017), who empirically investigated the influence of e-tax system on tax administration and tax revenue generation in Lagos State and the major findings revealed that e-tax system has enhanced revenue generation potentials of Lagos State.

**E-filing of revenue (tax) returns and internally generated revenue in Ebonyi State:**

The result of hypothesis two showed that the probability value (P-value) is 0.015, indicating that e-filing of tax returns has negative significant effect on internally generated revenue in Ebonyi State. The negative sign can be seen in the t-value (-2.226). The finding is in line with the result of Obert et al (2018) who evaluated the effect of e-filing on tax compliance in Zimbabwe which result revealed
that electronic filing actually influenced tax compliance. It also conforms to the findings of Bett and Yudah (2017) that online tax returns processing has a significant contribution on revenue collection at Kenya revenue authority. Similarly, the finding of the research also agreed with the result of Obara and Nangih (2017) that the problems and/or lack of reliable tax database and the prevalence of cash transactions impeded government revenue generation in Nigeria.

**E-Revenue (tax) payment and internally generated revenue in Ebonyi State**

The result recorded in hypothesis three indicated that the P-value is 0.102 with the corresponding t-value of 1.237. By this empirical result, the researcher rejected the alternate hypothesis, meaning that electronic revenue (tax) payment has no significant effect on internal revenue generation in Ebonyi State. The positive t-value implies a positive effect on internal revenue generation. The finding of this study is in line with the result of Ngigi (2015) who established that the amount of fines and penalties paid and tax consulting or filing expenses have significant relationship with tax compliance. The findings also conformed to Olurankinse et al (2018) that examined self-assessment; e-revenue (taxation) payment systems and revenue generation in Nigeria, the results of the analysis indicated a position that there is significant relationship between self-assessment, e-taxation payments systems and revenue generation.

**Conclusions and Recommendations**

The study evaluated the e-business channels and internally generated revenue in Ebonyi State. Governments today are under an increasing pressure to improve on the delivery of public services in a feasible cost-effective way. There is a serious decline in price of oil in recent times coupled with exponential rising level of public debts of country that has resulted to a decrease in the funds available for distribution to the state governments. As such, the need for state government to generate adequate revenue from internal sources has therefore become a matter of extreme urgency and importance. To meet this challenge for example, tax authorities have adopted e-revenue governance-led solutions like e-business activities of e-tax system, e-registration, online business directory, IGR Enumeration Efforts, e-revenue payments, etc. for the purpose of increasing IGR. The study concludes that the main objective of e-tax system cannot be achieved in Ebonyi State Board of Internal Revenue Service (EBSBIR) until the effects of electronic tax payment is adequately addressed. The implication is that though e-tax registration has been deployed but enhancement in internally generated revenue of the board cannot be guaranteed until e-tax payment is properly deployed. In consideration of the findings, the researcher recommends that the State should legalize her e-revenue (tax) system. Again, a user friendly system should be adopted to encourage easy filing of tax returns in an emerging economy.

**REFERENCES**


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Oguh Festus A. and Nwonu Cletus U.