Personal Income Tax Enlightenment Framework

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Abstract— Tax payment is a civil duty. It is a major source of revenue to government. One of such taxes is Personal Income Tax (PIT), which is a key source that would demand transparency, being neglected and needing development in Nigeria. Public enlightenment would aid in this regard. There are various means through which government could enlighten its citizenry and had been doing, but web-based medium is being inadequately used. This study, therefore, focused upon developing a PIT enlightenment framework and website. Extant literature on taxation, PIT, public enlightenment, and website development, among others, were reviewed. Design and creation research strategy was adopted, and it dictates followed in developing the framework and prototype. The PIT framework and prototype website contribute towards enhancing PIT enlightenment and fostering government transparency.

Index Terms— Personal Income Tax, Tax Enlightenment Website, Taxation Website, Taxation Website Framework, Website Framework.

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1 INTRODUCTION

Tax is a financial issue and its payment is a civil duty. It is the imposition of a financial burden by the government on individuals, firms and companies. Some of the advantages of tax payment include providing sustainable finance and funding for governance, public and social services, and economic development, among others [1].

Taxes can be categorized as regressive, proportional, or progressive [2], where lower-income entities pay a higher fraction of their income in taxes than higher-income entities, everyone pays the same fraction of their income in taxes, or lower-income entities pay a lower fraction of their income in taxes than do higher–income entities, respectively. There are two major types of tax, which are the direct and indirect tax, where payment due is received immediately and payment due is received at a later period, respectively. The direct tax are sub-divided into various kinds, namely Company Income, Petroleum Income, Value Added, Personal Income, Withholding, Education, Stamp Duties, Capital Gain, and National Information Technology Development Fund, among others. Proper taxation system in developing countries would play an important role as a major source of revenue to, as well as driving accountability from, their federal governments, as it does in developed countries.

Personal Income Tax (PIT) is a key source being neglected and needing to be developed. When citizens pay PIT, they are bound to require judicious use of their contributions and demand accountability and transparency, which are necessary for good governance. In this regard, public enlightenment is essential.

Some of the ways through which citizens could be enlightened include online advertisement, newspaper advertisement, radio advertisement, television advertisement, public speaking, door hangers and flyers, event sponsorship and word-of-mouth advertisement [3], among others. More people are getting online. The use of modern technology to improve the effectiveness of income tax administrations and to expand taxpayer services has come to attract increasing attention in developed and developing countries. Government embark on enlightenment, but web-based medium is being inadequately used. A need for a tax payment system which enlighten tax payers on PIT and also helps generate revenue for a country is revealed [1], [4], [5]. There is, therefore, the need to develop a PIT enlightenment framework, and website, particularly for Nigeria, to enlighten the public about PIT with payment and other services enabled, which this study focused upon.

The following tasks were undertaken to accomplish the research: extensive review of extant literature on taxation, PIT, public enlightenment, and website development, among others; design and creation research strategy was adopted, and it dictates followed; the Waterfall model of software development was utilized in developing the application, and the programming environment consists of PHP programming language, Hypertext Mark-up Language and Cascading Style Sheet; the evaluation was done by having a number of people interact with the website and having their opinion on how useful they found it.

This study would contribute towards enhancing PIT enlightenment and fostering government transparency. It would help in making citizens aware of the available services rendered by the government to tax payers, disseminate information and ideas to people about PIT, and evoke the interest of the people, by creating an understanding between the government and the tax payers [6].

2 OUTCOMES

2.1 The PIT Framework

The PIT enlightenment system includes features that would inform the tax payers on why and how to pay PIT, and on new tax reforms. It provides avenues for group discussions, and feedback to and from concerned authorities. It also provides current and interesting news to keep visitors coming back.

Figure 1 ((a) to (f)) presents the PIT enlightenment framework showing the three main sections which are the 1) content, 2) community and 3) the commerce (Figure 1 (a)), following a successful e-commerce model [7]. The content section addresses various information that site visitors would be interested in, such as breaking and current news, benefits of paying tax, and solutions to frequently asked questions, among others. In addition, the social media, such as Facebook and Twitter, would be used to extract trending information about tax, to be presented as part of current new of interest. The community section is intended to hold visitors' interest in the website, and offers fora for prospective and current tax payers

to communicate with the government and to have discussion among themselves on various tax issues. The commerce section would give a guided tour of how to pay tax and also make information available about the different locations at which tax could be paid and tax officials physically present.
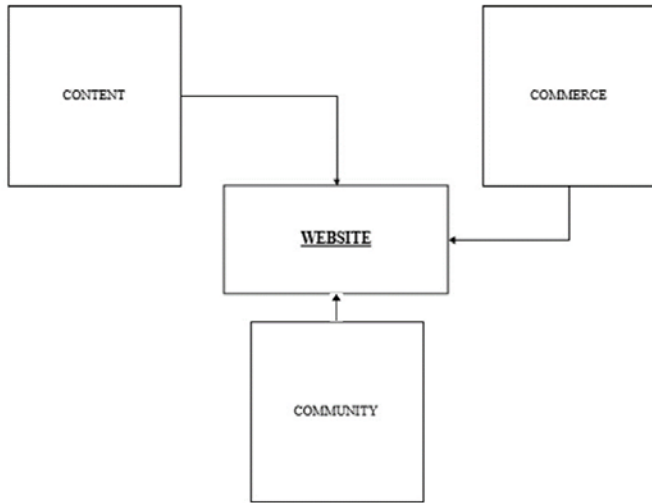

Figure 1(a) – Top-level View of the Website

2.1.1 Content

The web content section would contain news and information, frequently asked questions and tax benefits, among others, which would help update the current and prospective tax payers on the current happenings in the tax world (see Figure 1 (b)). In other to enrich the provision by the website of interesting current and general news, data extraction techniques are suggested to extract from social media trending news, particularly PIT related, that would attract and keep visitors. Visitors would also be informed about the various amenities the government has provided, based on payment of tax.

In order to fill the website with much content on PIT, information from concerned and credible agencies, such as Federal Inland Revenue Service (FIRS), PWC Nigeria, and Joint Tax Board (JTB), among others, would also be presented. The benefits of PIT would be retrieved from the FIRS and PWC Nigeria websites. To enable the tax payers see what the government does with paid tax, there would also be a section where answers to questions that come up frequently would be displayed, which would give the payers firm idea about the PIT. More frequently asked questions would be retrieved from JTB, FIRS and Nigeria Investment Hub to help understand the problem being faced by the PIT payers and resolve them promptly. These would be posted as Frequently Asked Questions subsection with truthful answers.
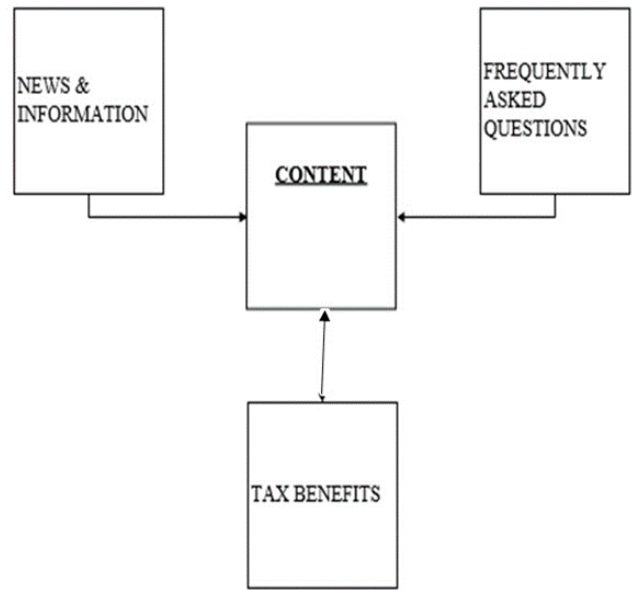

Figure 1(b) – The Web Content

2.1.2 Commerce

The commerce section would contain details of how tax could be paid, showing the various steps and ways to go about the payment. There would also be physical and other addresses of the various tax agencies and how they can be contacted for more detailed information about the payment of tax. The commerce section would also give detailed profiles of key tax officers to contact for more information about issues relating to the payment of PIT (see Figure 1 (c)).
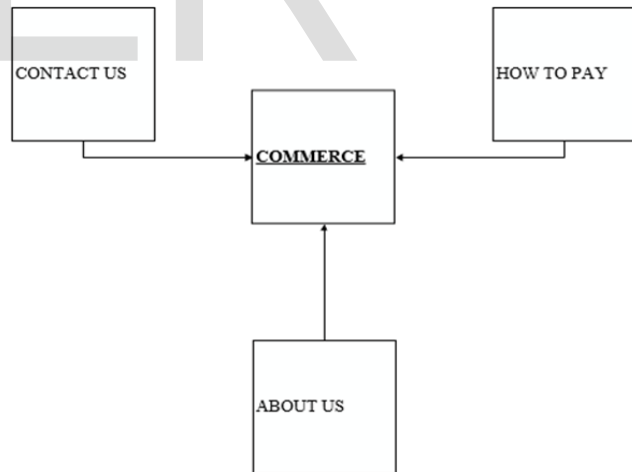

Figure 1(c) - Description of Commerce

2.1.3 Community

The community section provides facilities that would encourage discussions among prospective and current tax payers, bring them together in some form of collaboration that would provide useful feedback system for taxation system improvement (see Figures 1(d) to 1(f)). There would be tax fora that would enable tax payers communicate with one another by posting comments on various things they do not understand about tax payment, and suggesting new things that would

help the government, about which they would receive feedback from the tax administrators. The Tax fora consists of chat rooms for various types of tax such as Income Tax, Value Added Tax (VAT) and Excise Tax, Company Tax, Pay As You Earn (PAYE) and Payroll Tax, and Business Tax, which would help bridge the communication gap between the Government and Tax payers, whereby prospective and current taxpayers get feedback on issues relating to a particular tax. The social network section would also be used to extract information from people about their various opinions on taxation. Tax information would be dynamically extracted from social networks like Facebook, twitter and LinkedIn, thereby making the website more fluid.
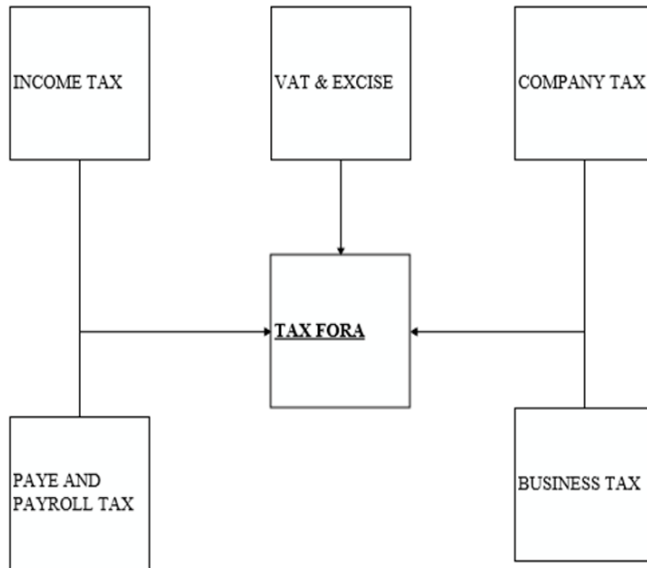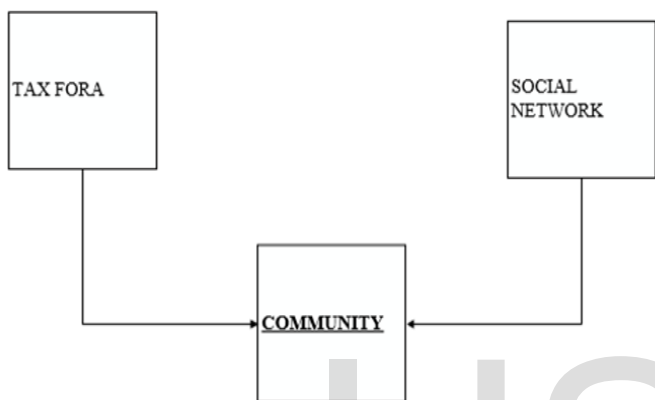

Figure 1(e) - Description of Tax Fora

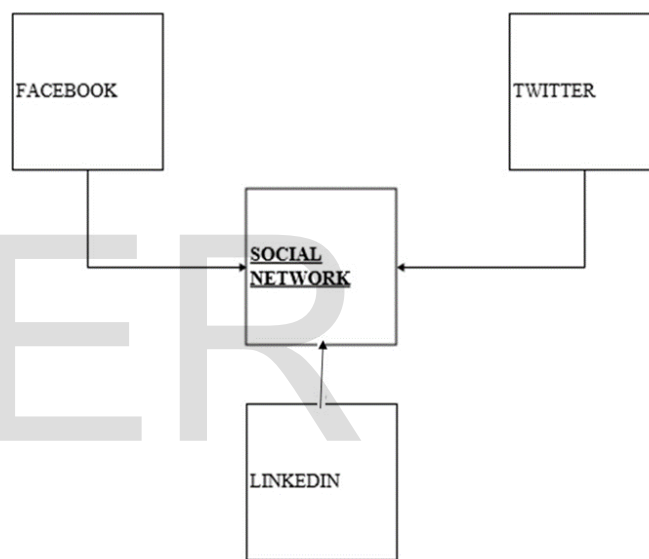Figure 1(d) - Description of Community

Figure 1(f) - Description of Social Network

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2.2 The Prototype Application

A prototype of the developed PIT framework uses a Client-Server Architecture. It consists of a client software, activated through a web browser, running on client machine, and a server software running on the server. A request is passed from Client to Server, and the Server responds same way. Client and server connections to the Internet are essential.

The PIT enlightenment system was tested, unit and system, to verify that all requirements were implemented correctly and to check for errors before the software is deployed. Testing was done to make sure the end-users requirements were met and the system was error free. The client-side software will run on any current standard computer with a browser.

2.2.1 Some Webpages

The Homepage provides links to five sections of the website, which are How to Pay, News, Frequently Asked Questions, Tax Payers Fora and Contact Us. Each of these provides access

to its own subsections. The 'How to Pay' webpage grants guided tours on tax payment. The News page presents interesting information, which includes tax benefits and update on tax policies, especially on PIT and recent tax development.

The Tax Fora page presents a list of Tax Chat Rooms, which includes Income Tax, Value Added Tax, Excise Tax, Company Tax, Pay As You Earn (PAYE) and Payroll Tax, and Business tax. Each chat room provides facilities for prospective and current tax payers to post and view posted comments or tweets. Any visitor could read posts but only signed in signup visitors could post comments. Frequently Asked Questions, which are as described, are provided answers to ease the tax payers the stress of going to find answers to them elsewhere. Information on key tax officers to contact for more detailed information about issues relating to the payment of PIT is also provided.

Figure 2 shows the Signup Page for prospective users who desires to post messages. A Confirm Password page is subsequently displayed in order to complete the signup process. Figure 3 displays the Administrator Sign-in Page. The administrator account is predetermined. Figures 4 to 6 are Tax Fora, Frequently Asked Questions and Tax Benefits Pages, respectively.

Figure 3 – Administrator Sign-in Page

Figure 4 - Tax Fora page

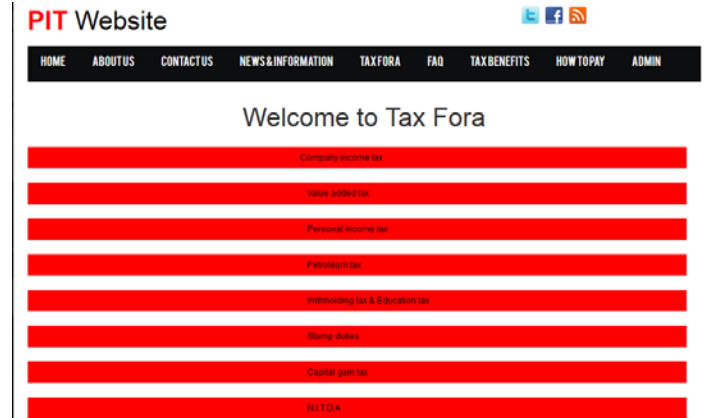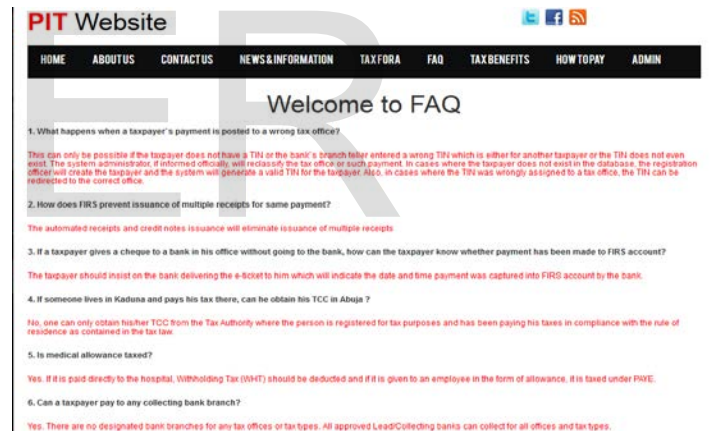Figure 2 – Signup Page

Figure 5 - Frequently asked Questions page

Figure 6 - Tax Benefits Page

The PIT enlightenment website, whereby people can be enlightened, requires a lot of information gathering and analysis. It dictates deeply considering its intended Content, Commerce, and Community aspects. The Content aspect is made up of news and information, frequently asked questions and benefits of PIT. The Commerce aspect includes how to contact relevant authority, how to pay PIT, and statement about the relevant authority, among others. The Community aspect of the website offers a tax forum and the social networks. At the back-end, data mining techniques, data encryption, and filtering of targeted information were incorporated.

3 RELATED WORK

3.1 Information System

Data is a collection of facts such as numbers, words, measurements, observations or even just description of things. Data on its own is not really useful, but aggregated, indexed, and organized together into a database, data can become a powerful tool for businesses, suitable for communication, interpretation, or processing by human or an electronic machine [8], [9], [10]. Information is data that is accurate and timely, specific and organized for a purpose, presented within a context that gives it meaning and relevance, and can lead to an increase in understanding and decrease in uncertainty [11]. Information is a cognitive content related to the association of data and a relevant question, be it implicit or explicit [12]. Information is the processed data on which decisions and actions are based [10].

Systems involve the organization of things, logical and physical. Systems include data, processes, policies, protocols, skill sets, hardware, software, responsibilities, and other components that define the capabilities of an organization [13]. A system is a collection of components that interact together, collectively seen as undertaking a common purpose. Systems can be closed systems that have no interaction beyond themselves or open systems that interact with and change their environment (beyond their own boundary) [14]. All systems have inputs, processing, outputs and feedback mechanisms, that maintain an internal steady-state (called homeostasis) despite a changing external environment, display properties that are different than the whole (called emergent properties) but are not possessed by any of the individual elements, and have boundaries that are usually defined by the system observer [15].

An information system is an integrated and cooperating set of software directed information technologies used supporting individual, group, organizations or societal goals [13]. Information system can be said to be a distributed networked system that consist of components of varying quality that have been integrated to provide services for the end-user [16]. Types of information systems include Transaction Processing (computerized system that performs and records daily routine transactions necessary to the conduct of the business, e.g. payroll system), Management Information (provides information for managing an organization, extracts and summarizes data from Transaction Processing systems, allow managers to monitor and direct the organization, provides accurate feedback, and provides pre-specified reports on a scheduled basis), Decision Support system (interactive information system that provides information, models, and data manipulation tools to help make decisions in semi-structured and unstructured situations like supporting analytical work, simulation and optimization), Executive Information system (highly interactive system that provides a flexible access to information for monitoring results and general business conditions, uses both internal and competitive information and user-friendly interface) [17], and Electronic Commerce (buying and selling, extended to include other business transactions, using electronic data transmission) [7]. One of the oldest widely used systems for classifying information systems is known as the pyramid model [18]. An information system application is the software that helps organize and analyse data. The purpose of an information system is to turn raw data into useful information that can be used for decision making in an organization.

Information systems may differ in how they are used within an organization, but there are five components of information system which are hardware (such as processors, monitors, keyboard and printers), software (programs used to organize, process and analyse data), databases (data organized into tables and files), network (connecting different elements of the system), and procedures (describe how specific data are processed and analysed in order to get the answers for which the information system is designed). The first four components (hardware, software, database, and network) make up what is known as the information technology platform. Information technology personnel use these components to create information systems that provide technology services. A Government to Citizen (or Customer) Electronic Commerce framework and prototype website were developed, including Content, Community and Commerce, following a successful e-commerce model proposed by [7].

3.2 Taxation

Tax is a compulsory payment required of individuals, companies, and cooperate bodies, by the government or governmental agency for the public use. It is a means by which the government raises revenue to meet its expenditure. It may also be used as a means of influencing or controlling the economy. Tax has been defined as a monetary charge imposed by the Government on persons, entities, transactions and properties to yield revenue [5]. Taxes are the enforced proportional contributions from persons and properties levied by the state by virtue of its sovereignty for the support of government and for all public need. A tax "is not a voluntary payment or donation,

but an enforced and compulsory contribution, exacted pursuant to legislative authority" and is "any contribution imposed by government", whether under the name of duty, custom excise, levy or other name. Features of a good tax system includes neutrality, visibility, fairness, simplicity, convenience, administrative convenience, and productivity [19].

3.2.1 Tax System in Nigeria

The Nigeria tax system is based on customs and traditions, statutes and case laws. In pre-colonial era, there was one form of tax or the other in Nigeria for security and communal services. These were between the kings/Emirs and their subjects. These taxes were ranging from community to family taxes, and were imposed basically to help community to wage against external invasion and some kind of evils. In the Western region, there were some forms of developed system of taxation in Oyo and Benin empires. Three important native states had reached the stages of semi-organized native administration under paramount rulers. They were the Yoruba's in Oyo empires, the Benin and the Igbo's [20]. In the Eastern region, the Igbo's lived in community of small family, and in most instances, without a particular ruler. Tax in the east was the least developed due to the customs and traditions of the Igbo's, as the type of respect giving to Kings and Emirs was almost absent in Igbo land. The Northern region of Nigeria had system of taxation, chiefly influenced by Islam, which was far more definite, organized, sophisticated and established than any other part of the countries. When Nigeria was colonized, a lot of reforms took place in taxation harmonization.

The objective of a good tax system is to promote fiscal responsibility and accountability, to facilitate economic growth and development, to provide the government with stable resources for the provision of public goods and services, to address inequalities in income distribution, to provide economic stabilization, and to correct market failures or imperfections [5], among others. The Nigerian tax system is expected to contribute to the well-being of all Nigerians, and taxes, which are collected by the government, should directly impact on the lives of the citizens. This can be accomplished through proper and judicious utilization of the revenues collected by government. This is not clearly the case, and citizens should be more participatory and demand transparency.

Some benefits of tax, through proper and judicious utilization of the revenues collected by government, include Providing sustainable finance and funding for governance, public and social services and economic development, Giving taxpayers the moral and legal right to demand for (thereby engendering) a culture of accountability, and Tax compliance enables law abiding citizens to avoid the consequences, penalties and sanctions of non–compliance [1].

The components of a tax system are Tax policy, Tax Legislation, and Tax Administration. Tax policy forms the basis for tax laws. The National Tax Policy is a document which sets broad parameters for taxation and ancillary matters connected with taxation [5]. Tax legislation refers to a whole body of enacted acts of legislation, and in the aspect of taxation, it de-

scribes the legal implications of taxation. Tax administration is the implementation of the tax laws. Administration of taxation in Nigeria is vested in the various tax authorities depending on the type of tax under consideration. Broadly, there are three categories of tax authorities, namely Federal Inland Revenue Service, State Internal Revenue Service, and the Local Government Revenue Committee. The enabling law in respect of each type of tax will normally contain a provision as to the body charged with the administration of the tax. Each of the above mentioned tax authorities has its distinct composition, powers and functions [5]. In Nigeria, PIT is collectible by State Governments

The Nigeria tax system is beset by a myriad of challenges, some of which are Non-availability of tax statistics, poor tax administration, tax multiplicity, corruption, complexity of tax laws [21], tax avoidance, and tax evasion [22]. Public enlightenment would definitely play a major role in turning things the proper way.

3.2.2 Nigeria E-Tax Pay Platform

A payment system is a medium for enabling the transfer of funds between parties [23]. An e-commerce online payment system facilitates the acceptance of electronic payment for online transactions. E-commerce online payment systems have become increasingly popular with wide-spread use of the Internet.

Nigeria E-tax pay is an online self-service tax payment system which gives taxpayers the opportunity to pay their taxes through their banks' online payment portals. It is an initiative of FIRS in collaboration with Nigerian Interbank Settlement System (NIBBS). It is meant to facilitate payments of taxes from the comfort of taxpayers' offices or homes. Taxpayers can pay using the electronic channels provided by their bankers such as banks' internet banking platform, branches and mobile banking platforms [1]. The benefit of E-tax pay payment system to tax payers are convenience, ease of access, accuracy, speed, and economy.

4 CONCLUSION

The developed PIT enlightenment website framework would serve as a frame for improvement and a guide to develop a more robust and appropriate website for such purposes. The PIT enlightenment website proposes to improve PIT knowledge and understanding, and also help bridge a gap and encourage transparency between the Government and the tax payers thereby improving understanding and collaboration between both parties.

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