E-GOVERNMENT INITIATIVE: PORT PAPERLESS OPERATIONS IN GHANA

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Abstract - Ghana has two main seaports namely; Temaharbour and Takoradiharbour. As a developing country, it relies on these two ports for revenue, foreign exchange and employment. Over the past decades these ports have undertaken a lot of reforms all with the hope of ensuring that its operations become standardized with world operations in order to remain competitive and meet international standards that conform to world trade facilitation agreement. In view of this the government in 1st September, 2017, introduced the Port Paperless System (PPS) at its ports for the clearing of goods and also for all port related business. The introduction of this PPS was meant to improve the trade competitiveness of Ghana and also help avert challenges such as in explicable charges, delays, lack of transparency, bureaucracy and complexity in port operations that have been attributed to all past port reforms. However, barley after a year of its operations a lot of studies have revealed many challenges, ranging from stakeholders acceptance to issues related to information technology support. This paper attempts to delve into the PPS operations using a modified version of the UTAUT model in order to enhance its acceptability amongst all the stakeholders within the port sector of Ghana.

Keywords - Paperless System, Port, Ghana, UTAUT.

I. INTRODUCTION

Numerous governments all over the world have committed tremendous resources to boost electronic services provided by the government inorder to ensure productiveness and efficaciousness(Hung, Chang and Yu 2006; Sambasivan, Wemys and Che, 2010).E- government is an important pillar in the progression of any government, acting as a yard stick for good political practice, lucidity and responsibility, enabling the government to be goal centred, reliable and patriotic towards its citizenry; and ensuring an environment where individuals and organisations' can obtain assistance and news efficaciously and proficiently through the web and other medium of transmission. (Campeau & Higgins, 1995; Lin and Lu, 2011).

Almarabeh and AbuAli (2010) opine that e-government is the electronic variant of the legislature geared towards improving open administration activities of the government, with some unique features such as openness, responsibility and involvement. This definition emphatically makes it clear that e-government means relying on government electronic means to access a particular service or activity there by ensuring transparency, responsibility and involvement. Many scholars haveaslo identified three main types of e-government, whilst others acknowledge at least five. However, reading from literature and other scholarly works on e-government, eight different types can be identified in general and they are; Government to Citizens (G2C), Citizens to Government(C2G), Government to Business(G2B), Business to Government (B2G), Government to Government(G2G), Government to Employees(G2E), Government to Non-Profit (G2N) and Non-Profit to Government (N2G).The issue of e-government activity is getting tricky since its appropriation is covered by a great deal of limitations which cut overall length of life and this ought to be tended to and took care of by all nations contemplating over its selection (Alshehri, 2012).

Over the past years, the delivery and harbor division has experienced impressive change from containerization to digitalization and reconciliation energized through the appropriation of data innovation (IT) and data framework (IS), enabled through a significant level of computerization and streamlining in port procedures, bringing about a seriously serious commercial center (Heilig, Schwarze and Voβ 2017). Hence to stay serious in the transportation and harbor area, Ghana as a nation has set out on a great deal of port changes enthusiastically since 1990 using ICT and IS, all with the expectation of guaranteeing port framework worthiness and a generation of income. In the perspective on Mohammed, Ibrahim and Ithnin (2016), the nonappearance of a dependable ICT structure is one of the elements militating towards the acceptance of e-government in most developing nations. Research on ICT in seaports/terminals is obliged and research in recent times have been geared towards different perspective areas (Mondragon, Mondragon and Coronado, 2017).In the view of (Halaris,Mogoutas, Papadomichelaki and Mentzas, 2007; Torres, Pina and Acerete, 2005) e-government is an avoidable tool for any democratic governance structure. In spite of the huge investments made by governments all over the world in respect of making services available to its citizenry, the degree of acceptance has always been low (Halaris, et al, 2007).

The spot light of this study therefore is on Ghana's port paperless system which is a G2C government initiative, that is an initiative embarked on by the government of Ghana to make doing businesses at its ports less difficult with the ultimate aim of helping it to accrue more revenue. This research intends to utilise the UTAUT model developed by Venkatesh,

Morris, Davis and Davis (2003) which is an integration of various models with variables such as website quality and service quality that are germane to e-government projects to determine how it could influence the behavioural intentions of Ghanaians to accept and use its new port paperless system.

II. PREFATORY COMMENTS ON PORT PAPERLESS SYSTEM (PPS)

PPS refers to the processing and clearance procedure that enables traders using the ports of Ghana to submit all import, export and transit information required by regulatory agencies via a single electronic gateway, instead of submitting and processing the same information numerous times to different government entities. The PPS was launched in Ghana on 1st September, 2017 to be the official software to be used at its two seaports for clearing of goods and all other port related activities. It was designed by experts in the shipping and harbour sector from Antwerb, Dubai and Singapore. It basically incorporates all the manual processes of clearing goods at the ports of Ghana that is right from presentation of documents to the dispatch of goods at the ports. According to the Vice President of Ghana, his Excellency Dr. AlhajiBawumia, the PPS was introduced to change the face of operations at the ports of Ghana to meet international standards and improve the trade competitiveness of Ghana. In explicable charges, delays, lack of transparency and complexity in the operations of the ports were all to be offset by the introduction of this new PPS and above all the new PPS was also meant to reduce clearing time of goods at the ports of Ghana from 3 days under the Ghana Community Network (GCNet) to 24 hours. In the perspective ofAmanfu (2010), the port paperless framework was intended to deflect issues identifying with palm-lubing, unscrupulous dealings, adulteration of reports, port deferrals and un necessary paper work and thus increase government revenue. Nonetheless,barley a month of its presentation and execution, a great deal of difficulties have been recognized. Agbozo (2017) numerated seven difficulties related with Ghana's port paperless framework.These issues go from data innovation backing to partners' cooperation.Subsequently, there is the need to dig further into the port paperless activities in Ghana so as to draw home the requirement for partners inside the port area to completely bolster its execution, particularly since it has the capability of expanding the income of the administration and furthermore advance estimates that can upgrade its use, inclusion, accessibility, speed and openness which are all IT related.

III. TECHNOLOGY ADOPTION

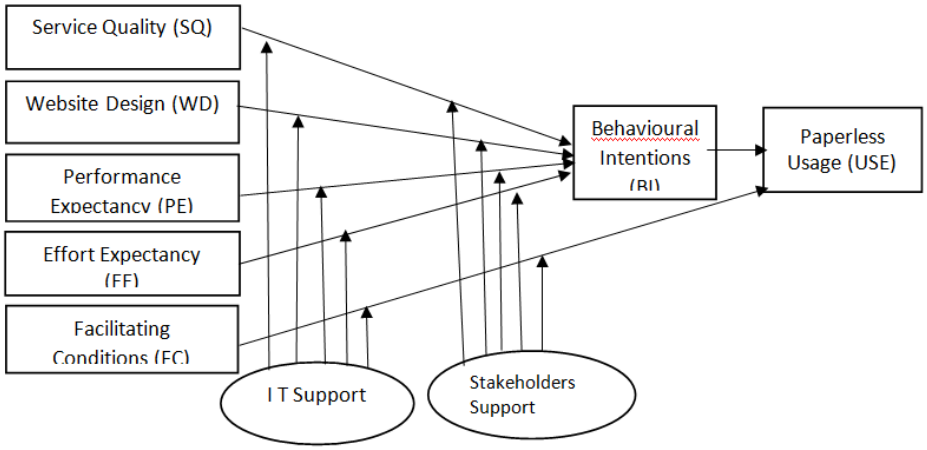
UTAUT is a common abbreviation given to a model fully known as the Unified Theory of Acceptance and Use of Technology. This theory was propounded by Venkatesh et al, (2003) and has currently become one of the most commonly used framework in technological research and research works related to management and other disciplines of study. Like prior acknowledgment models, it intends to disclose client goals to utilise an IS and further the utilisationbehaviour. Venkatesh et al (2003) made this integrated model to display a more complete image of the acknowledgment procedure than was conceivable with any past individual models. Eight models recently utilised in the IS field were converged in an incorporated model, all of which had their roots in sociology, psychology and communications. These models are the Theory of Reasoned Action (TRA), Theory of Planned Behavior (TPB), Technology Acceptance Model (TAM), Technology Acceptance Model 2 (TAM 2), Social Cognitive Theory (SCT), Motivation Model (MM) and Model of PC Utilization (MPCU). Each model endeavors to anticipate and clarify client behaviourutilising an assortment of free factorsA solidified model was created rely on the theoretical and genuine similarity's athwart these eight models. The theory holds that four key forms (Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI) and Facilitating Conditions (FC)) are quick determinants of client goal and conduct (Venkatesh, 2003).Gender, age, experience and voluntariness of use are posits in the model as moderators to moderate the four key constructs and dependent variable. The UTAUT model has the capacity to be able to predict higher user acceptance or intention as compared to any of the eight above mentioned theories, besides it has a higher degree of freedom thus making it possible to be more generalized to other population, settings and contexts. The robustness of the UTAUT theory also allows it to be able to predict user intention or acceptance under any situation or circumstance because it has the strength and capacity to do so. This explains why the researchers are adopting the UTAUT model with some modifications to explain the port paperless situation in Ghana.

IV. THE CONCEPTUAL FRAME WORK

The conceptual frame work for this study is an adaptation of the UTAUT model with some modifications. Additionally, the colour, speed, updates, instructions, attractiveness, security and availability of the PPS is very essential since it is an online activity, on the basis of this website design is adopted as one of the independent variables to be included in the conceptual frame work for the study of the PPS in Ghana. The prompt response to customers request and the confidence instill in them is very essential to attract their regular usage and subsequent adoption of the port paperless system, hence service quality is also adopted as one of the

independent variables included in the conceptual model to study the PPS in Ghana.

The role or participation of stakeholders in the port and harbour sector is very unique in leading to acceptance of any port reforms. A lot of studies have opined that because stakeholders are normally excluded from the introduction of any port reforms or new technology they tend to oppose any new reform introduced at the ports (Stratton 2012; Frear 2014). According to Burchell (2011) the role of IT is been advanced as one of the biggest factor that can necessitate authentic transformation.Subsequently, this study adopts stakeholders and information technology supports as moderators to examine how they can effectively influence the UTAUT variables together with the adopted variables to enable Ghanaian importers and exporters change their behavioural intentions to accept the usage of Ghana's PPS. If Ghanaian importers and exporters find any gains in using the new PPS, then they will also be willing to change their behavioural intentions and subsequently adopt its usage, therefore there is the need to inculcate the performance expectancy variable associated with the original UTAUT model. Also, the ease of use associated with the new PPS has a big influence in determining whether Ghanaians will accept its usage or not. When Ghanaians do not find any difficulty associated with the usage of the new PPS then they will be encouraged to regularly use it for their port activities which eventually change their behavioural intentions and thus subsequently lead to its usage. On this note it is necessary to also include the effort expectancy variable in the conceptual frame work of this study. The organisational and technical infrastructure put up by the government of Ghana and the authorities of Ghana ports (GPHA) is very necessary to influence the usage of the port paperless system and subsequently its adoption. In view of this, this study inculcates facilitating conditions as a variable from the UTAUT model to help explain the acceptance and usage of the new PPS in Ghana. Finally, the study adopts five variables as the independent variables and they are; website design, service quality, facilitating conditions, performance expectancy and effort expectancy. The dependent variables are behavioural Intention and usage. Information technology support and stakeholders support and are the moderators. All these are captured in the framework as shownbelow.



The oddity or uniqueness of this theoretical casing work is that every relationship in the casing work of this flow look into originates from the speculations which was figured dependent on the aperture in the writing. Along these lines this present system coordinates all the aperture found in the writing into one model and the advancement of the structure was through the conclusion procedure.

V. METHODOLOGY

Three types of research designs have been identified; exploratory, descriptive, and explanatory (Bhattacherjee, 2012). Thus this present study relent itself to the explanatory research design, since it will involve describing the relationships between independent variables and dependent variables with some variables projecting as moderators in order to test hypothesis or extend and improve the UTAUT model. This study involves the use of standardized questionnaires to collect data. Survey research is less expensive and a commonly used method with more scope and coverage. It allows and urges the scientist to accumulate data from various respondents to measure various factors in the examination and to test distinctive hypothesis (Neuman, 1997).

Thus in this situation the survey method is deemed appropriate for the study, since it will involve collecting data from the two main ports in Ghana. Cross sectional field survey will be used for this study since the study relies on using a single questionnaire to measure the independent and dependent variables at the same time and also collect data once (Bhattacherjee, 2012). The main advantage of using a cross- sectional study is that it is more economical and does not take much time like a longitudinal study. Cronbach Alpha and Smart-PLS will also be used in computing the reliability and

relationships between the variables and the hypotheses of the study.

EXPECTED OUTCOME

The researchers expect all the antecedents in the conceptual frame work to successfully influence the behavioural intentions of Ghanaians to use the port paperless system and also the two moderators to effectively moderate the relationship between the antecedents and the behavioural intentions of Ghanaians to influence use of the PPS.

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