

E-Government Services In The Context Of Digital Society

ABSTRACT: This study explores the feasibility of e-payments and e-government system from every aspect. The paper will proceed with discussion of issues beleaguering the governments, followed by roles that should be undertaken by the governments in pursuing successful electronic government. It will also look into the need of standardization and integration of electronic payments and electronic government. Both findings have correlation in changing the perceptions of users despite various expectations.

KEYWORDS: E-governance, E-payment, E-business, ICT

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I. INTRODUCTION

The introduction of information technology and communication (ICT) has spurred the growth of e-commerce and other e-businesses. Because of the vast advantages that ICT has to offer, many organizations including governments are transforming their operations or services into electronic forms. Such phenomena can be supported by the emergence of e-payments and e-government systems.

Although the initial reception was slow for both e-payments and e-government systems, it is fast gaining momentum with the availability of the infrastructure, which is made cheaper to the consumers. Obviously, there are also efforts by the private organizations and the governments as well in promoting the use of e-payments and e-government.

Undeniably, there are also issues surrounding the implementation of these electronic delivery systems. Problems like lack of transparency, limited of cross-agency collaboration, internal politics and communication breakdown are the main contributors. These issues are best resolved if they would want to unleash the full potential of the e-government. The roles of governments are important in determining the success of an ICT as a whole. Enactment of rules and regulations, incentives and active participation by the government can steer the direction of the ICT development.

It is also essential that these electronic systems are standardized and integrated for consistency and ease of controlling. All these add up plus the intervention by the government could subsequently change the perceptions of users. Therefore, the ICT industry could see a healthier growth in the near future. A study was conducted by Krishnan et al. (2013) on significant relationship between (1) e-government maturity and corruption; and (2) e-government maturity, economic prosperity and environmental degradation through the mediating effects of corruption. The findings of the study suggest that while e-government maturity did not contribute to economic prosperity and environmental degradation, its value could be realized indirectly via its impacts on corruption.

II. RESEARCH PROBLEM

Nowadays, the use of electronic mechanism to perform daily activities is increasing day by day. Many companies and even governments are recognizing the importance of information technology and are gradually embracing the use of electronic mediums to carry out transactions, communication etc. Despite the significant advantages of going "digital", there are drawbacks or shortcomings that could render a project unsuccessful. The following are the summarized research problems:

- Lack of "corporate governance" in government departments
- Users' hostile mentality towards the use of e-payment and e-government due to security and privacy issues
- The need for standardization and integration of electronic payment

Research objectives

The objectives of the research are:

- To identify the roles of government to ensure successful e-government implementation
- To identify the cause of e-payment/e-government low receptions and to provide suggestions that could help to change the mindset of users
- To identify the strategies for standardized e-payment schemes (national and international level)

III. SCOPE OF STUDY

E-government and e-payment play vital roles in a country's development. Both have significantly changed how businesses, communications, transactions etc being conducted. As e-government and e-payment have been given much attention, which would be the trend of the near future, it is necessary to take on further research on the development and prospect. In this study, priority would be given to the research on environment of e-government and e-payment, mechanism of these electronic tools and various functions of governmental departments involved in the implementation.

IV. SURVEY OF LITERATURE

Economical value of a technology is unknown until corporations employ an appropriate form of business model Rezaei et al. (2016). Businesses face significant obstacles during their interaction with public administrations and governments, having to copy with bureaucracy and ambiguous procedures, a fact that makes e-government a necessity today. Inherent complexity of the e-government application domain is also reflected in the workflows of e-government service provision. A workflow is the automation of a business process, in whole or part, during which documents, information, or tasks are passed from one participant to another, according to a set of predefined rules (WfMC, 1996) where a business process is a set of one or more interconnected activities which collectively realize a business objective or policy goal, normally within the context of an organizational structure defining functional roles and relationships. E-government services are provided through complex multi-step – possibly fuzzy – workflows, involving exchange of administrative information and documents with increased security, privacy and time-critical requirements. Such workflows may cross multiple agencies and even span national borders, so that they come across different regulatory frameworks and cultural contexts. The framework can be encapsulated in the three following basic steps: workflow refinement of the initially identified service offerings that concludes in to a small number of basic workflow provisions, general enough to include and describe all possible cases with the use of some variations; identification of building blocks that encapsulate meaningful recurring segments of the basic workflow provisions that can be re-used; representation of the basic workflows using and binding the workflow blocks along with a connection logic. Usage of recurring workflow blocks to model e-government service provision presents important advantages. From a workflow modeling perspective, designs become more compact and better comparable, well-defined recurring blocks can be independently reengineered or optimized and modeling per se becomes easier or less prone to errors. From an e-government perspective, the idea is promoted of building on and contributing to good patterns for administrative service delivery, and this translates to facilitation of adopting best administrative practice. The research is limited to theoretical discussions and the potential of these workflows are yet to be exploited.

Governments worldwide have begun to recognize the potential opportunities offered by ICT to fit with citizens' demands, and have started to introduce information and transactions online in what is now called e-Government Colesca, S. E. (2015). Gulati and Garino (2000) postulated that the Internet has become an important component of the overall Customer Relationship Management (CRM) approach in that it can be used as an extension to the traditional business model whereby the Internet has become an additional channel, rather than a separate operating entity. Little is know about how consumers perceive and evaluate electronic service delivery. According to Reichheld and Schefter (2000), customer retention in e-service is particularly essential because of the low switching costs. Three existing theories are applicable in a technology context to the development of specific technology adoption approaches: Diffusion of Innovation (DOI) (Rogers, 1995), Technology Acceptance Model (TAM) (Davis, 1989) and service quality model. The combination of attitude-based and service quality-based approaches could be used to accurately measure variables associated with technology adoption. Previous models already captured the majority of the usage intention from the benefits perspective, but that substantial progressions will not be achieved unless the barriers to adoption are fully understood. Nine new or modified factors from the original studies are identified to be reliable measures for characterizing the attitudes towards online public service delivery. Cost, time and avoiding interaction are factors that link to relative benefits. In contrary, six of which are barriers to adoptions (experience, information quality, financial security, low stress, trust and visual appeal). Considering the overall factors identified, the potential adoption rate will be increased, avoiding the risk of actually spending more resources on running an underused dual channel service, rather than saving resources and directing this to the citizens with the most need. In consequence, by making better use of the resources, the government agencies will not only be able to better meet the electronic service delivery targets, but also be making better use of their overall resources. In conclusion, the research conducted by authors do not yield sufficient information on the age group influence, which could prove to be a vital factor, on the technology adoption. Furthermore, the authors do not elaborate on the impact of CRM in shaping the government e-services delivery development.

In the later part of the 1990s, governments have turn their attention to e-government, a set of technologies which promise a quantum leap in service quality, new services and reduced costs. The latest manifestation of attempts to improve quality in government is by means of implementation and application of

information and communications technologies (ICT) to the organization and operation of government Majidi, A (2015). The biggest difficulty with a public sector environment is being able to measure outcomes or even outputs in meaningful ways, and this places real restrictions on the capacity to apply concepts of quality derived from the private sector. Consequently, while the intention is still to improve quality standards, the way of doing so has increasingly shifted to other mechanisms such as explicit contracts, privatization, separating service provision agencies from policy and, most recently, e-government. As governments have become more conscious of the need to address service quality, a range of approaches has been adopted, including Total Quality Management (TQM). To date the most overarching of these approaches has been New Public Management (NPM). According to Mwita (2000), NPM by its very nature is a “contemporary, customer-focused approach, which aims at improving the delivery of public service quality.” Governments around the world advocated and implemented such measures as performance indicators, surveys of service quality, and other outlines derived from the private sector. E-government allows efficient communication with other organizations and provides better services and accessibility to people in remote areas. One of the great promises of e-government is availability at a convenient time and place”. E-government may enhance service quality from the perspective of two distinct groups of customers: other government agencies through information sharing, and citizens by offering services at a convenient time and place Majidi, A. (2015). Lastly, the research results should be treated with precaution because of small number of respondents and due to methodological limitations. A larger survey will be needed to gauge more universal results.

No attempt has yet been made to undertake a systematic literature review on the costs, opportunities, benefits and risks that influence the implementation of e-government Reddick, C. G. (2013). In New Zealand (NZ) there are plans afoot to create an e-government that will automate government-to-government and government-to-citizen interactions and allow anyone, anywhere to go online any time to obtain information, to complete transactions, and to communicate with their elected representatives, cheaply, quickly, and efficiently (Bingham and Thomas, 1998; Gostyla, 2000; NZ E-Commerce Strategy, 2000; Verton, 2000; Wood-Lewis, 1998). The issues surrounding the development of e-government in NZ could be addressed using the issues identified in the previous research in US. While NZ has a different governing system and a smaller economy and population, the same issues-set would apply in general to the NZ situation. The issues identified from the US scene that were judged to apply directly to the NZ e-government scene were: Worth (efficiency, e-procurement), Relationships (e-tailing), Protection (security, privacy) and Societal (cultural obstacles, social effects). Further investigation revealed that several of the key issues required modification for the NZ environment: Access (accessibility, digital divide, indigenous peoples), Relationships (consumer confidence, private sector, trust) and Regulation (taxation, legislation), and societal (the IT workforce). Apparently, study also revealed that there are local authorities not having an Internet presence. Reasons given were ranked: time commitment (reported by the greatest number of respondents); human resources; cost; lack of desire; no perceived benefit; software/technology and complexity. Authorities that intended to develop a Web site believed a Web presence was important for the following reasons: information accessibility (reported by approximately 37% of respondents); improved communication (31%); district promotion (11%); customer focus (7%); better services (4%); better customer service (2%); dynamic data (2%); extended business hours (2%); future proofing (2%); and reduced staff pressure (2%). This research has shown that NZ local authority Web sites have an inconsistency of good Web site design features and that most local authorities appear keener to provide information to citizens than they are to receive feedback from citizens. It is interesting that local authorities intending to develop a Web site did not mention improved e-democracy as a factor in their decision, although this may simply be a reflection of their current early stage of e-government evolution.

Bonsón, E et.al, (2012) The search for new styles of governance which promote higher levels of transparency and the engagement of citizens is viewed as a way of improving citizens' trust in governments. Castell (1996) and Negroponte (1995) suggested that concepts such as information society, informational era or digital economy have emerged during recent years to define many social and political changes that have arisen due to the low transactional costs of sharing information and interacting between organizations and individuals. Where the local level of government is fragmented, as in Spain, collective action of institutional agents may conform a usual path to solve problems, moreover, whether human and material resources are lacking. Different sized municipalities had different types of Web sites. On one hand, the largest cities present more developed Web sites, thus interaction is prevalent over information. The extremely high number of municipalities in Spain introduces enormous problems for the smallest ones to create, develop and maintain Web sites. Generally in Madrid, and especially in the Basque Country, the action of networked governments and agents settled in the local area, but also, different levels of government, may probably provide for the smallest councils, the opportunity to access to e-government. Municipality web sites (mws) that are managed by other public administrations, at the provincial or regional level, but it was also observed that they usually give more general information about the municipality, focusing on the least strategic categories, in political and managerial terms. Municipality web sites are less complete in core dimensions and interaction with citizens is more difficult to

find. Types of information that governments make available on their Web sites can be grouped into: general information of the municipality; local buildings and entities; council - institutional and internal organization; services and functions of the council; and relational information. Spanish municipalities present an initial stage of Web site development and a low Web site orientation to citizens. In summary, the study does not analyze on the fact of how New Public Management (NPM) and ICT could help to spur the development of e-government.

Governments around the world have started committing substantial resources to creating the environment and infrastructures for doing business electronically with their citizens, businesses, and other government entities Linders. D(2012). However, to stay in tune with this internet technology, the skills and knowledge of their citizens and employees need to be continually updated and refreshed. Today's IT solutions incorporate more productive ways of providing education and training, either through eliminating paperwork and redundancy or integrating activities across longstanding organizational silos. The solutions must clearly articulate the value to both the citizen and the government, and provide for privacy and security that is critical to successful e-government. With the advances of IT over the past decades, computer technologies such as deductive reasoning, neural networks, and statistical analysis mechanisms can be used to develop intelligent tutoring or individualized learning tools to aid in e-learning. Network technologies are able to ensure real-time interaction in a synchronized e-learning session, and improve the quality of presentation services. Picolli et al. contended e-learning is the online delivery of information for purposes of education or training. The type of multimedia courses to harness the full potential of the internet and new media technologies, as well as the needs of the citizens and trainees are major factors to consider. Hirscheuhl et al. (2002) asserted E-learning content can be created with the aid of knowledge management (KM).

Skelcher (1992) asserted that since the mid-1980s the public sector has undergone something of a "service revolution". This statement is supported by Woolridge (2002) expressing that the change could be observed throughout the 1990s as it was gaining momentum and most intensified at that period of time. As Moulder (2001) pointed out, "regardless of the fate of the dot-coms, the number of dot-govs continues to increase".

Although there have been instances of very creative use of electronic government in the public sector, there have also been numerous significant failures in the delivery and improvement of public services Barrett, M et.al, (2015).. While improving the delivery of services to users and citizens is at the core of the reforming agenda, it is often in conflict with the dual focus of driving down costs. The government must bring about a fundamental change in the way IT is used. The business of government itself must be modernized to achieve joined up working among different parts of government and providing new, efficient and convenient ways for citizens and businesses to communicate with government and to receive services. The Internet and the World Wide Web in particular, are perceived as presenting a "key opportunity for government to provide higher quality services directly to citizens in innovative ways at lower cost." Bellamy and Taylor (1998) have also highlighted that liberating the power of new technology will drive down the costs of public services and, at the same time, help to rebuild relationships with government and their citizens. Some public sectors are "over-aware" of ICT's potential, believing that ICT can transform the business of government, and are indistinctly aware that information is something important. In consequence, the public sector becomes swamped in ICT-driven projects. As Hackney and McBride (1995) and others have pointed out, many such projects have proved spectacular failures; the change expected has not occurred and the systems have fallen into disrepute and disuse, amounting to a gross waste of scarce resources.

"E-forecasting" as defined by Nikolopoulos et al (2003) is the ability of making forecasts by distance using the Internet, which is also getting more and more important each day. Forecasting is a crucial step in effective and efficient planning since it can help ensure that effective use of resources is being made (Waddell and Sohal, 1994; Newbold and Bos, 1994; Klassen and Benito, 2001). So far, most e-government activity has focused on publishing information via the Internet rather than actively interacting with citizens (G2C) or business enterprises (G2B). Forecasting is undoubtedly one of the key processes in operations management and is based on sufficient historic data Chang, F et.al, (2014). Thus, forecasting systems are more than necessary for an effective government. Poor forecasts lead to inefficient capital management. In particular, the opportunities created by the use of a new but more accurate forecasting method are plenty and at the same time substantial for improving the functionality of a company (Wacker and Sprague, 1998; Zhao et al, 2002). E-forecasting is based on the use of the Internet as the medium that is required for the delivery of the forecasting services to its clients/users. In the absence of globally accepted solution, the authors proposed the basic architectural elements of a forecasting system for e-government. An e-government online time series forecasting tool could be located, that is online web-interfaced extrapolation in governmental database management systems.

Han-yuh Liu and Peter Lai conducted a survey on major government departments/agencies in Taiwan, a world leader in e-service, to explore how process management can reduce service quality gaps. An effective government must work on improving relationships and services to its customers. Conventional administrative process mainly focuses on the convenience among departments/agencies, ignoring the truth that concentrating

on customer-oriented services generates the value of an organization. Implementation of CRM strategies and TQM will enable an e-government to improve services. Processes differ widely. The front-end system of customer interface must be periodically reviewed to improve the degrees of 'load' and 'repetition' in the service process. It is obvious that the CRM action plans could improve the service process tremendously. It also found that process design must start from the organization-wide strategy based on reducing the service gaps. Every department/agency has to pay attention on the development strategies of e-government/CRM/process to create loyal customers and to lift the level of satisfaction with government administration. Every CRM strategy affects the characteristics of process differently, and different characteristics have tight linkages with others. Thus the process design has to take the limited resources and budgets into consideration to segment and target customers, and then provide customized services. Overall, the research explored on how different characteristics of process affect the different quality gaps but did not demonstrate significant discriminator validity, which may require further study.

Ticoll et al (1998) has contended that a totally new environment is emerging where companies must work together to create online networks of customers, suppliers and value-added processes. Government, however, with few exceptions, have arrived late on the scene. Nevertheless the drive is now on for radical government change and Sprecher (2000) has suggested that the re-invention of government has been accelerated by the move towards online services. Reschenthaler and Thompson (1996) view the increasing use of IT in government as the latest in a series of great transformations that have refashioned government. In the 1990s many organizations take on major business process change (BPC) initiatives with varying degree of success. According to Kalakota et al (1999) any significant business process changes requires a strategic initiative where top managers act as leaders in defining and communicating a vision of change. The organizational environment, with a ready culture, a willingness to share knowledge, balanced network relationships, and a capacity to learn, should alleviate the implementation of prescribed process management and change management practices. Guha et al (1997) observed that, to be successful, a project aimed at changing the performance of the firm cannot be led by IT alone and that IT innovations must be backed by a sense of urgency in other business functions in the organization. There is a need of a strategic "stimulus" that triggers the undertaking of business process change. The stimulus alone is not necessarily a determinant of success. Incremental process change does work but appear to be appropriate due to the organization being risk-averse. The establishment of a cross-functional team assisted in ensuring success. The changes need to be implemented without barriers from functional managers. An important ingredient in the right cultural mix for a successful project is leadership from the top, together with an atmosphere of open communication and participation. IT plays a supportive but not always commanding role. Balanced consideration of the social, technical and business value elements should be maintained throughout the project. The major facilitators of success were identified as the need for a project champion, the need for senior executive support and a requirement to involve all sections of the organization. In summary, the findings of the research could only serve as fundamentals and to supplement further researches as it lack in-depth empirical data.

Schoeniger (2000) stated that more people are realizing the ease of doing business over the Internet and they are demanding the same level of service from the government that they have come to expect from the private sector. Society is served better by a system of modern information and communication technologies employed by Governments to improve the effectiveness and quality of Government services. The idea of the e-transformation of democracy is borne out of the digitization of the social interactions and the governance functions (Grossman, 1995; Hague and Loader, 1999, Friedland, 1996, Barrett, 1997).

, Reversion of "introvert" orientation, failing to place emphasis on direct G2C and G2B service provision, Conception and deployment of a backbone IT infrastructure functioning as a "digital nervous system" (Gates, 1999), and Development, on top of this infrastructure, of several electronic interfaces for "customers" using modern as well as traditional ICT platforms (Web, facsimile, telephony). Overall, the research does not provide a concrete business strategy model that could be linked with effective operation of e-government.

According to Norris (2001), online government holds the promise of better and more effectively delivered public services, greater public understanding of government, and more transparency and accountability in government, in turn enhancing democracy. While attention initially focused on the Internet as the key platform for online public service delivery, digital television (DTV) may eventually become the platform of choice. Television's wider penetration and familiarity gives it an edge over the Internet. Although access to delivery technology and the platforms on which such services will be delivered is critical, it does not guarantee uptake and use of interactive services on the part of digital consumers. Many people are interested in having better access to advice and information on health and personal financial matters. Adoption of such public service television will require a revised mindset on the part of DTV viewers, through which television comes to be regarded as a transactional medium as well as an entertainment medium. With regard to DTV as a platform for effective delivery of online public services and of contact with central and local government, special attention must be paid to getting viewers as citizens' on-side in respect of the interactive functionality of DTV.

The "re-learning" that is required in relation to the use of DTV must not be undermined by a lack of consumer confidence caused by doubts about the technology. Interactive services on television must: meet consumers' needs; display navigational sophistication, but not tax users' patience; provide content that is relevant and easy to find and digest; be presented in a format that is appropriate to the nature of the transaction being undertaken; and ensure adequate and appropriate levels of security in regard to transactions that might involve personal information of a highly sensitive nature. Above all, DTV must come to be conceived as a natural aspect of everyday television use.

Comer et al (1980) suggested that governments have been recognized as important lateral partners of organizations. Small firms should use e-government as an information source to enhance their market intelligence and build revenues. IT suppliers should emphasize e-government services that link small firms to customers and collaborators, and facilitate access to key information resources. E-government may function as an extension of the market when government web sites provide consolidated information on sales opportunities. It is much convenient and time-saving for firms to search for sales opportunities, thus facilitating sales generation. On the other hand, electronic commerce also decreases intermediation costs (Bakos, 1997), labor and overhead costs (Strader and Shaw, 2000). Overall, this study is limited to the impact of e-government on small firms, whereas it is also essential to include research on implications of e-government to larger firms as well.

One reason for the slow adoption of electronic payment systems is that customers perceive that e-payment has a higher level of risk than other traditional payment methods. The major findings are: (1) Electronic Fund Transfer at Point of Sale (EFTPoS) has the lowest physical risk and highest financial risk, the credit card has the lowest psychological risk and highest time loss risk, while cash has the highest physical risk and lowest performance risk; (2) Physical risk, financial risk and time loss risk for cash payment are significantly higher when the purchase is large, while performance risk for EFTPoS and credit card payment is significantly higher when the purchase is small; and (3) users of EFTPoS have a significantly higher level of perceived financial and time loss risk than non-users, while non-users have higher level of psychological risk. Stone and Gronhaug (1993) indicated that risk perceptions in purchases vary between people and banking products. Research indicates that planners or suppliers have ignored or underestimated potential users' real-life needs and concerns. According to Ho (1985); (1991), some potential problems or barriers to EFTPoS adoption include: consumers' inherent resistance to change, loss of benefit of credit card float, unavailability of service when needed, fears of invasion of personal privacy, potential plastic card fraud and errors, lack of provision of leverage against a merchant or vendor in case of a dispute, and lack of adequate consumer awareness, education and participation. It may be for some of these reasons that many customers have a high perceived risk of the service and therefore seem rather reluctant to use EFTPoS. The research by Horne and Martin (1981) and Ho et al. (1989) showed that "Enjoyment of Using", "Easing of Personal Routine", and "Time Savings" all varied directly with willingness to use the EFTPoS, while "Financial Risk" and "Cost of Using" have an indirect relationship. Similar to earlier studies on ATM users, Ho et al.'s (1989) study on demographic characteristics of the EPS users in Hong Kong also showed that EPS adopters tend to be younger, better educated and with higher income. The success of new electronic payment services is not only the problem of technology feasibility, but also the problem of marketing and promotion efforts. The overall finding is that the risk profile of EFTPoS is similar to that of the credit card but significantly different from cash. In conclusion, this study focuses only on the present risk perception of consumers but has not touched upon the identification and evaluation of various risk reduction methods.

The explosive increase in the use of the Internet, and especially the World Wide Web, has seen the introduction of commercial services and pressures into what was previously a safe friendly medium for academia.. A user wants flexibility, ease-of-use, cost-effectiveness, reusability and universality. Overall, this research only focused on the online payment mechanisms while disregarding other types of e-payment like credit and debit cards.

Koh and Prybutok (2003) categorized e-government functions into informational, transactional and operational functions. Informational functions comprised online publishing and broadcasting. Transactional functions consisted of online procurement and payments. Operational functions refer to online customer services such as permit/license renewal, forums, voter and property registration and other internal government operations. The rapid development of the internet and of information technology has played a critical role in e-finance development. A general definition of e-finance is the provision of financial services, products and markets using electronic means, such as communication and computation devices (Allen et al., 2002). Salem (2003) argued that the blurred boundary between public e-government and private e-commerce should be clearly defined in order to promote cooperation and avoid competition. The expanded adoption of electronic payment instruments has brought significant changes to the business world and initiated innovations in business transactions, including e-commerce. Commensurate with this, there has been an increasing interest in transactions between governments and customers, the citizens. There are four pillars in the authors' new

framework: portal-based services, front-end interaction support, back-end office support and e-finance. Portal-based services components are also called a one-way website, which does not make any transactions. Public information can be shared with all stakeholders. Front-end interaction components allow the government to make purchases online and requests for bids or proposals to make contracts online.

E-government systems effectively deliver public services to citizens as well as improve productivity and reduce costs for government departments. Krol (1994) suggests that the most important aspect of the Internet is its ability to allow everyone to access the network. A survey has been conducted by the authors to identify and classify effectiveness criteria for Internet Payment Systems (IPS). The authors defined an IPS as any conventional or new payment system which enables financial transactions to be made securely from one organization or individual to another over the Internet. IPS is clearly a sub-type of the wider group known as electronic payment systems.

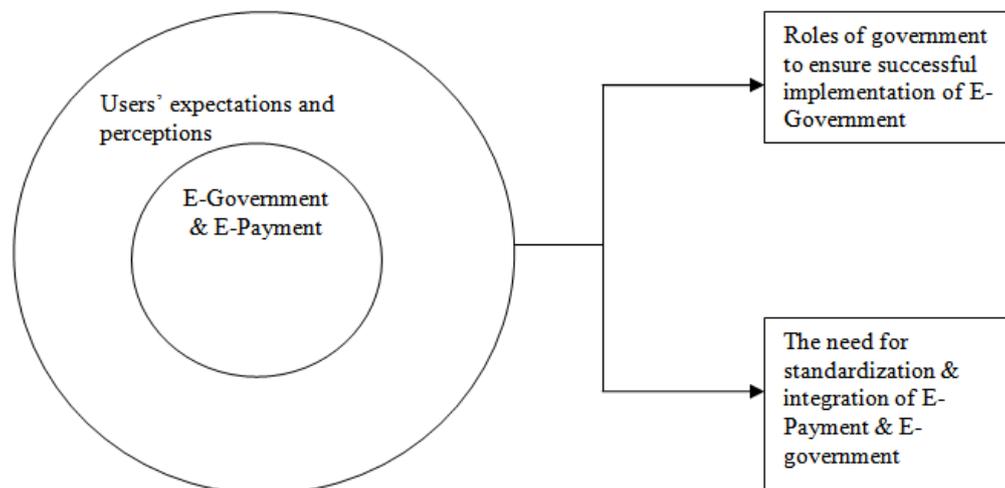
Despite the Internet rapid growth, it has been recognized as a difficult place to do serious business. Most current IPS already guarantee security of transactions by applying various technologies to the transmission of the financial message, some of them can even protect the customer's privacy. Bhimani (1996) argues that strong security for financial transactions should satisfy additional criteria, including confidentiality, authentication, data integrity and non-repudiation of the transaction. Six major parties directly involved with IPS are financial institutions including banks and non-bank financial institutions, IPS providers or manufacturers, merchants (vendors), consumers, regulators and network providers. Effectiveness indicators for IPS differ depending on a number of factors, such as what consumers are looking for and what kinds of payments are being made. Security and reliability appear to be the major effectiveness indicators for all involved parties. Financial institutions need to be able to authenticate individual transactions in terms of payer and payee, to avoid putting themselves at risk. IPS providers and manufacturer should be able to distribute the system to meet certain level of service provision for clients and to provide a system which can be widely accepted.

The rapid growth of substitutes for cash, particularly debit and credit cards, has led economists to predict the advent of the "cashless society" Feige, E. L. (2012). The cashless society, where clumsy and expensive-to-handle coins and notes are replaced by efficient electronic payments initiated by various types of plastic cards is a tantalizing prospect for the twenty-first century. Plastic payment cards can be categorized into three simple groupings: pay later cards; pay now cards and pay before cards. The major international card associations of Visa, Europay/ MasterCard, American Express, Diners Club and JCB all seek to have their payment cards accepted in the widest possible range of merchant outlets. By doing so, they reduce the need for consumers to carry cash in the local currency or traveler's cheques. Cash will, for the foreseeable future, be the premier method of payment in volume terms.

V. RESEARCH METHODOLOGY

Information and data gathered from these sources are secondary data. Thorough analysis will be deployed to produce in-depth report, solutions and suggestions that could be useful for the future development of the research.

Research framework



VI. DISCUSSION, ANALYSIS AND FINDINGS

The roles of government

As the world is constantly changing and improving in every aspects of life, it seems that there is a dire need for governments around the world to move along with the flow of change in order to become more efficient and effective. Inevitably, information technology and communications play a major role in facilitating this evolution for the better government. Therefore, it is important to look into the current situations and development of governments universally, from the conventional government to transformation into electronic government.

Many issues need to be resolved in order to achieve successful e-government. In general, some of the common issues beleaguering a typical government are:

- Transparency – most the government’s policies are not transparent to the citizens. Thus, it is difficult for the general public to assess the effectiveness of the government’s policies.
- Civil servants’ mentality – lackluster attitude causes delay, poor quality delivery and subsequently leads dissatisfied customers/clients. Therefore, civil servants should shed the “first world facilities but third world” mindset should the government intend to strive for efficiency.
- Communication – bureaucracy in the government departments leads to communication breakdown (e.g. delays, distorted information).
- Limited cross-agency collaboration and internal politics - joint-venture projects fail because of no clear-cut communication among departments conveying responsibilities and accountability that lead to the downfalls.

Other issues worth contemplating pertaining to e-government are:

- Lack of financial, technical and personnel resources
- Maintaining dedicated executive leadership
- Citizens’ consciousness and trust
- Accessibility
- “Digital divides Cyberspace regulations

As discussed, there are still many issues that need to be sorted out to ensure successful e-government implementation. E-government is considered as a large scale project; therefore tremendous effort is required to make it a success. Under normal conditions, citizens seldom question about the effectiveness of government bodies in carrying out their duties because of inadequate transparency. The trend seems to be shifting, where governments are more “open” to the public on issues relating to the government policies. Realizing the importance of including the general public in the policy-making, the government is able to get constructive feedbacks for effective evaluation. The government-to-citizens or citizens-to-government interaction is the best form of democratic communication.

Another worrying trend in the government departments is the “never mind” attitude of the civil servants. Although it is the duty of the government to serve the citizens, it seems that some civil servants still not taking their job seriously. Such attitude has caused governments to lose millions of dollars in tax-payers money every year. Governments nowadays has recognized this problem and urged all government departments to strive for efficiency. In this 21st century, governments cannot afford to have “first world facilities with third world mentality” mindset.

Issues like communication breakdown, limited cross-agency collaboration and internal politics are inter-related. Experience like telephone calls being transferred around departments, delays in service deliveries and distorted information are common complaints received from citizens. Owing to government’s bureaucratic structures has made inter-departments cooperation a daunting task, which leads to high percentage of failure. Any inter-agency collaboration should have pre-defined responsibilities and accountability to avoid miscommunication of duty in any phase of a project.

Besides enormous efforts, an e-government project requires very high initial capital investment. Governments have to make financial decision on the budget allocation for the e-government projects. In most real-life scenarios, governments always encounter limited financial resources for the electronic government projects because budgets are also allocated for other sectors or areas for development. Consequently, governments should streamline their processes; develop project management plan, project plan review, quality control, and criteria to evaluate the project. Governments should also consider out-sourcing some of their work processes to external vendors, which could save time, money and better quality deliveries.

An e-government project should have one or more leader of higher rank to act as the owner(s) and to spearhead the project. This leader must be committed throughout the project development and until the completion. In the absence of a leader, there would be no clear accountability. Despite the present of a leader, he

or she must ensure that project is attended to with high priority. It is important for the leader to provide vision and to monitor the progress of the project.

Governments should concentrate on providing education and training for citizens to raise their level of awareness and confidence on e-government services. But before that, general public must have access to information technology and communication facilities. In the current situation, there seems to be imbalance development of ICT between the rural and urban areas. One of the hottest issues surrounding the internet usage is regarding the protection of users against any unethical activities (e.g. privacy, spamming). Hence, it is very important to have laws to regulate the internet activities. With the enactment of laws, users' confidence would be greatly enhanced. Unfortunately, many issues pertaining to internet misuse are unable to be resolved due to different standards of law and jurisdiction problems.

The need for standardization and integration of e-payment and e-government

The lack of standardized and integrated e-payment and e-government systems has hindered mass implementation. Instead of providing convenience to the users, they may become confused and find that using these systems to be mentally taxing, which defeats the purpose of electronic delivery systems. Although some service providers have the same objective of providing the same services, the existence of various standards makes users go through a re-learning process all over again if they encounter a whole new different system.

It is much cheaper to maintain a standardized and integrated system rather than having multiple similar sub-systems that serve the same purpose. In order to stay competitive, it is essential to cut costs especially on the operating costs. By having a single system, organizations and governments are able to save their resources in terms of time, money and manpower. The saved resources could be channeled to other areas. All these could be realized by allowing economies of scale by reducing the cost per transaction.

Furthermore, "one system" means consistency, which in turn allows ease of learning and shorter learning curve for users. From the providers' point of view, it leads to better control and monitoring.

The line between e-payment and e-government is becoming blurred as the service industry is advancing. At present, many e-payment providers like banks let users to pay for summonses, bills etc. On the other hand, governments too have integrated some of the e-payment capabilities into their e-government websites. Therefore, it is advisable that both systems merge to be one for the sake of uniformity and convenience for the users.

Users' expectations and perceptions

As a user, of course, he or she would wish for a system that performs the tasks required with ease and convenience. Unfortunately, it is almost impossible to satisfy the requirements of all users. Due to many uncertainties like privacy and security issues, have largely contributed to the slow adoption of e-payment and e-government systems. The objective of a service delivery system is to minimize risks of the users as much as possible.

Basically, a user would expect a service delivery system to include criteria like: Flexibility, User-friendliness, Cost-effectiveness, Universality, and Safety, Privacy and Trustworthiness. There are other reasons that impede the reception of these e-services such as IT illiterate, physically challenged (e.g. blind) and conservative people who still prefer the touch and feel way of conducting transactions.

Users' risk perceptions are normally based on the weightage of the transaction being conducted. For instance, a user will perceive less risk if a transaction involving a small amount of monetary value. Users' perception on electronic service delivery system would be greatly altered if majority of the issues discussed above are resolved, especially privacy and security issues. The governments play an important part in promoting the use of these electronic services. Measures like drafting new rules and regulations on internet usage, providing education to the public and offering incentives are critical in encouraging the acceptance and development of e-service delivery systems.

Limitations

The study has several limitations that should be acknowledged. Secondary data used for the hypothesis are gathered from the previous researches. The outcomes of the analysis tend to be biased towards developed countries with information technology and communication infrastructure well in place. Because of the methodological limitations of the research, however, it is evident that a larger survey will be needed to provide more general results. Thus, future research should also include countries from the third-world and the developing ones into consideration.

Moreover, it is important to note that as e-government and e-payment develop over time; their impact on the public is also likely to evolve. Future tests and refinements of the proposed framework will be extremely helpful to advance knowledge on the citizens' impact of e-government and e-payment initiatives.

VII. CONCLUSIONS

It is undeniable that government has a big part to play in the information technology and communication development, especially e-government and e-payment. Despite many issues still surrounding the realization of e-government and e-payment, efforts could be taken to expedite the process of acceptance and implementation.

Internet security has long become a crucial issue in any internet application. As a centre of personal data, business information, as well as government information, e-government and e-payment programs will no doubt become one of the biggest targets for hackers. Some security measures need to be taken. Routine checks of the systems, use of firewalls, and use of encryption techniques, training of users and employees, and law enforcement are all useful security measures.

Evolved from e-commerce and e-business, e-government employs the latest in information technology, internet technology and e-commerce practices to provide the many stakeholders involved with government activities easier access to information, service availability and delivery, procurement needs, and means of payment of taxes, fees or charges. E-government can facilitate more efficient and effective conduct of business transactions between citizens, government, employees, businesses and government agencies.

Getting support from the top management is important when making any changes happens with the use of IT and getting support from the public becomes crucial when implementing e-government programs. The success of an e-government project can simply be measured by the extent of citizens it is able to reach. If the government focuses only rural area development, urban people interests would be left out and the gap between them would be widen further. Hence, the government should strike balance between the rural and urban areas.

Last but not least, rules and regulations governing internet usage should be reviewed on timely basis to catch up with the ever changing internet environment. The pace in which government will move from early to more advanced stages of e-government will depend on how effectively agencies handle these challenges.

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