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Assesement of E-Government Models Through Information Systems Management in Business Organizations in Anambra State

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Abstract

Despite its increasing importance and beneficial outcomes, e-government still has not been fully implemented. Previous literature has scarcely been able to provide a holistic explanation for this research issue. In this study we identify drivers of and barriers to e-government implementation and empirically examine these aspects. This paper contributes to the e-government literature by presenting a comprehensive overview of drivers and barriers and providing empirical evidence thereof. Also, it represents a further step towards filling in the gap concerning our knowledge of the reasons for the lack of e-government implementation. Furthermore, we derive academic and managerial implications and provide suggestions for future research.

Introduction

The word electronic government (e-Government) may be interpreted in several ways. Gil-Gracia and Pardo (2005) describe it as the intensive use of information technology for providing public services which can contribute to improvement of managerial performance, promotion of democratic principles and the working structures. Ahmed, Alhadi, and Seliaman (2024) describe e-Government as the use of the information technology, and particularly the internet, to enhance the government services delivery to individuals, enterprises, and other government agencies. It can be described as the use of ICT to provide the public sector services to the person and enterprise. That implies the using of recent and advanced technologies like internet and cell technology to provide the citizen and company with enhanced better

and government services (Pardo & Tayi, 2017) & (Pardo & Tayi, 2017).

Information Technology (IT) has played crucial role in promoting corporate transformation efforts. EGovernment has been introduced in several countries as the most basic infrastructure for providing democratic services (Ahmed, Mehdi, Moreton & Elmaghraby, 2013). (Ahmed, Mehdi, Moreton & Elmaghraby, 2013). Currently, emerging nations are still trailing the developed countries and seeking to implement e-Governments schemes. Accordingly, e-Government efforts are becoming key priority of governments to transform and renovate governance in several developed countries (Al-Naimat, Abdullah, Osman & Ahmad, 2012). (Al-Naimat, Abdullah, Osman & Ahmad, 2012).

Government to Business (G2B) paradigm of e-governance revolves around a two direction relationship and trade between government and companies (Palvia & Sharma, 2017). (Palvia & Sharma, 2017). Sunday (2023) noted that government to business model is an online interface between the different levels of government with the commercial market community. These partnership and interactions are not linked with industrial industry but has the sole objectives of handing out business knowledge and advices on electronic-business operations. The basic aim of government to business model of e-governance is to establish a convenient and conducive atmosphere for business transactions, ensure the availability of crucial information that will assist the growth of companies and facilitate an internet-based contact through electronic-business (Sunday, 2023). Therefore, by utilizing internet transactions in any domain of the community, government operations are more automated, responsive and less reliant on human encounters. Thus, interconnecting different agencies, states, offices, enterprises, and individuals online, would mean that the mechanism of governance can be improved throughout the community.

Nigeria began a digital government initiative in 2003. A primary goal of this initiative has been to include all regardless of area, economic class, or Internet capability. It isAdditionally, growth of Jordan's economy and social structure is to be accelerated by e-government transformation into a dynamic, creative, and knowledge-based society (Al-Shboul, Rababah, Al-Shboul, Ghnemat & Al-Saqqa, 2023). This can be reached by combining government resources with greater interest in local economic growth and accessibility to community programmes, contributing to more community oversight of public data. It is important for social empowerment and growth for all people by using digital technology (Majdalawi, Almarabeh, Mohammad & Quteshate, 2024)

The e-government system's interoperability is greatly affected by administrative help, consistent policy, technical capabilities, protection and privacy, IT technology, and confidence. any reasons that stand in the way of government e-government delivery (Al-Shboul et al., 2023). When it comes to providing resources to consumers, you, the computer systems' interoperability is extremely critical to review. It is also critical to recognise any hurdles against e-government project implementation.

Concept of E-governance

E-governance is the implementation of Information and Communication technologies in industries with the ultimate goal of increasing citizen interest, as well as strengthening the connection between governments and people. According to the UN's 2008 e-government survey, ego management has only begun in the 21st century. At the beginning, e-government was like e-business in the public sector, which started with simple representation of a graphic user interface for certain customers who gave and took no reciprocal action. Mario et al. (2009) paid attention to the fact that e-governance benefited, leading some to the profession's emphasis on the functions that certain services might play in improving government services. Many think about it as a theory on governing. According to Sunday (April 2023), e-governance deals with the usage of information and communication technologies for openness, visibility, and the transparency of government.

According to Danfulani (2013), the scope of e-governance involves e-registration, distribution, taxes, discourse, schooling, and the review of financial statements (registers) Therefore, e-government is a network of governmental agencies, nonprofit organisations, and private enterprises that cooperate against a shared purpose one of the main reasons to implement e-governance in the affairs of the state is to encourage democracy, have a hand in economic governance, to participate in political process, and make transactions transparent E-governance emerged as a result of information and networking infrastructure

like the internet, cell phones, and automated applications The more these computers, gadgets, the easier knowledge and resources flowed into other parts of society (Danfulani, 2013). Willie believes that knowledge and communication technologies can lead to better society conformity (Radriankrishnam, 2006). in the opinion of Branen (2001), the central purpose of e-governance is to help people deal with stress Thus, only time-intensive procedures are followed at all costs. In the same manner, Bannister and Walsh (2022) assert that the e-governance definition empowers multiple governments and non-profit organisations to empower people to take part in administrative and political institutions on a regular basis. In other terms, the emphasis of egovernance is on the administrative and managerial phase. Palvia and Sharma (2017) also says that the primary objective of e- in government e-government is internal resource use, such as finance, human, and machinery, and knowledge assets.

Functionalities of Management Information System

Historically, managerial uses of management information system were focused in making internal operations faster, more accurate and more efficient. Today, the more exciting users of management information system are those that provide additional values for external customers. Those administrative office managers who find ways to bring additional values to their external customers with the firm management information system will gain additional market shares. Professor Robert J. of Carew school of business, Arizona State University explained the objectives of management information systems as the provision of information to all levels management at the most appropriate time at an acceptable level of accuracy and at an economical cost, such information is used in the decision making process for modifying the state of system by taking appropriate action. An essential requirement of MIS is feedback which is the process of communicating a system measured output to control system which generates effective control system. It is these factors which allow the state of a system to be modified. The elements of Management Information System are the inputs/outputs control, storage and process.

Input: This includes the keyboard, the data users, punch cards, computer operation and programmes.
Processing: Processing refers to the task performed before the input is generated into output. **Output:** This is the result generated after processing the input (data).
Storage: Storage refers to the main and auxiliary memory. The storing of data is the basis of the information system.
Control: This refers to the various measures taken to ensure timeliness, accuracy, and cost effectiveness. Bardhan and Whitaker (2006) said that information has many characteristics and can be classified in many ways. The following gives some examples of such classifications.
By sources: This relates to where the origination of such information emanates. It may be internal, external, primary, and secondary or government reports and so on.
By Nature: Here, information classification is viewed in the way in which its form is being seen. It can be quantitative, quantitative, qualitative, formal, or informal.
By time: This type of classification focuses attention on the question e.g. when was the information produced? Or the period it is needed. It can be historical, present, or future.
By use: This classification refers to the use the information can be put especially in management process, which can be planning, or controls of decision making.
By form: This classification explains the explicit pattern under which information is being gotten and made to flow (transfer from one location or one person to another) such information could be written, oral, visual, sensory etc.
Kenneth Hamlet (2022) said that effective management information system posses numerous qualities among which are the following:
Relevance: This type of information characteristics is of the truth. The verriding quality information must be relevant to the problem being considered; though information may take different forms. Exmples are: reports, messages, tabulation etc. the positive effect it are on the problem of needs at hand will mainly be the functions of its relevance otherwise. The absence of this quality relevant will make understanding of

the message difficult and may eventually cause frustration to the user.
Accuracy: Information should be sufficiently accurate for it to be relied upon by those in the management team and for the purpose for which it is intended. Even though absolute accuracy may not be obtainable, yet the level of accuracy must be related to the decision level involved. Also, accuracy should not be confused with precision. Information may be inaccurate but precise or vice-versa.
Time: Good information is that which is communicated in time to be used. The time of regular produced information is essentially important in this regards. In fat, information should be produced at a frequency which is related to the type of decision or actually involved.
Details: Information should contain the least amount of details consistent with effective decision making. The level of details usually varies with the level in the organization. Linda Banks (2003) proposed that successful implementation of MIS would possibly bring the following: possible clerical cost reduction, improved processing, demonstrated by more accurate result, intangible benefits such as customer relationship and improved work environment and job satisfaction.

Problems of Implementing a Computer Based Management Information System: Dickson (2017) identified some major factors that determine whether the implementation of a new MIS will be resisted and to what event they are:
Disrupting of Established Departmental Boundaries: The establishment of a new MIS often results in change in several organizations unit.
Participation: In designing and implementing MIS features users should be made members of the MIS team operating administrative office managers, in particular, they should have a particular say in the item to be included. The entire information is possible job modification, if the entire design and implementation processes are taken over by technology. **Communication:** The aim and characteristics of the system should be communicatd to all members of the MIS team as well as the users.
Redefinition of Performance Measurement: A new MIS may modify administrative office manager's job to the point where old methods of performance evaluation no longer apply or is no longer applicable. For this reason, MIS call for proper evaluation.

Therefore, a new MIS may liberate middle administrative office mangers from many boring and routine task and may also give them the opportunity to use the information provided by the system in more creative and productive ways. Although, information system plays a vital role in modern organizations, they are not with their limitations; in particular, information systems have some basic limitations. Information system are expensive and difficult to develop and implement. Information systems are not suitable for tasks or problems. Information provided to administrative office managers may not be accurate, timely, complete or relevant as it appears. Admintrative office Managers may have unrealistic expectations of what information systems can do. The information system may be subject to sabotage, computer viruses or down time.

Theoretical Framework

Technology Acceptance Model (TAM) – Davis (1989)

Two factors TAM stresses as determining a person's acceptance of technology are perceived usability and perceived usefulness. The perceived value of a technology determines how much one feels it will increase performance or output. How fast a user thinks technology can be picked up and used defines perceived ease of use. In the framework of e-governance, perceived value might be related to the capacity of service base businesses to improve financial access, reduce transaction costs, increase efficiency, and improve general company and sector performance. Perceived ease of use may relate to elements such the availability of training and assistance and the simplicity and user friendliness of e-systems.

Purpose of the study

To identify the current usage of e-government models through information systems management.
To find the level of awareness about e-governance models
To identify the facilitating conditions for adoption of e-governance models in MIS

Research Questions

What is the current usage of e-government models through information systems management?
What is the level of awareness about e-governance models?
What are the facilitating conditions for adoption of e-governance models in MIS?

Hypotheses

There is no significant impact of the current usage of e-government models through information systems management
There is no significant impact of the level of awareness about e-governance models
There is no significant impact of the facilitating conditions for adoption of e-governance models in MIS.

Research Methodology

Research Design

This study employed the use of survey research design. The choice of this research design was considered appropriate because of its advantages of identifying attributes of a large population from a group of individuals. The design was suitable for the study as the study sought to examine subject matters using The Selected SME's as a case study.

The Study Area

This study was conducted in The Selected business firms in Anambra state. The choice of this study area was informed by its involvement in the subject matter in the state.

Population of the Study

The population of this study consisted of 5 selected Small and Medium Scale businesses in Awka.

Sample Size and Sampling Techniques

As a result of the inability of the researcher to effectively study the whole staff strength (population) of the organisations under study, a representative number was chosen as the sample size population. Fifty-Two(52) staff was used as the sample size.

Sources of Data Collection

Data were collected from primary and secondary sources. Primary data were obtained through questionnaire and personal interviews with both management and senior staff of the commission. This method was adopted to enable detailed and independent information not covered by the questionnaire to be expressed by the respondents. Secondary data were obtained from published reports, books, internet, journals, newspapers and magazines. For analytical comparison of facts and proper compilation of facts and figures, survey of existing documents was deemed necessary.

Instrument for Data Collection

Data were collected through questionnaire carefully designed and administered to the respondents, as well as through personal interviews. On the whole, the questionnaire constituted the major instrument for data collection. The questionnaire contains sections A and B. Section A contains personal information about the respondents. Section B is the main body of the questionnaire. This section contains seventeen (15) close ended questions using a four (4) point scale instrument through which the opinions of the respondents were expressed.

Validity of Research Instrument

The validity of the research instrument was assessed by the supervisor and other experts in the Faculty of Business Administration, University of Uyo. These experts assessed the relevance of each item in relation to the objectives of the study, the hypotheses to be tested as well as the comprehensibility of each item in

relation to the cognitive level of the respondents. They validated the instrument by effecting necessary corrections, examining the contents and ascertaining clarification of ideas as well as appropriateness of the items.

Reliability of the Instrument

Reliability in this context refers to the measure of consistency of the instrument used in eliciting relevant and desirable responses from respondents so that the objectives can be reliably and meaningfully achieved. In order to determine the reliability of the instrument used in the study, the corrected questionnaire was administered randomly on selected staff of The Selected SME's. This approach was repeated with the same group after a two – month's period and the results obtained from the first and second pre-test were consistent, therefore, the instrument is reliable.

Administration of the Instrument

The questionnaire were personally administered by the researcher to the respondents during official hours at the office. The exercise was done with the help of head of operations of the organization. This enhanced return rate of above 70%.

Method of Data Analysis

Tables and simple percentage was used as technique of analyzing the research questions while chi-square was used to test the research hypotheses. All the tests were conducted at 0.05 level of significance.

ANALYSES

Hypotheses Testing

Hypothesis One: There is no significant impact of the current usage of e-government models through information systems management

Table 1: One-Sample T-Test analysis of impact of the current usage of e-government models through information systems management

Variable	Test Value = 1					
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
impact of the current usage of e-government models	112.092	50	.000	5.296	5.19	5.40

Source: Author's computation (SPSS Version 20.0 IBM)

*Significant at 0.05 level; N= 52; $\mathbf{T_{crit}}$ 1.96

Table 1 presents the obtained t-value as 112.092. This value was greater than critical t-value (1.96) at 0.05 level of significant with 50 degree of freedom. This observation indicates that there is no significant impact of the current usage of e-government models through information systems management was rejected.

Hypothesis Two: There is no significant impact of the level of awareness about e-governance models

Table 2: One-Sample T-Test analysis of the impact of the level of awareness about e-governance models

Variable	Test Value = 1					
	T	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
impact of the level of awareness about e-governance models	101.097	50	.000	6.229	6.12	6.34

Source: Author's computation (SPSS Version 20.0 IBM)
*Significant at 0.05 level; N= 52; $\mathbf{T_{crit}}$ 1.96

Table 2 presents the obtained t-value as 101.097. This value was greater than critical t-value (1.96) at 0.05 level of significant with 50 degree of freedom. This observation indicates that there is significant impact of the level of awareness about e-governance models. Hence, the null hypothesis three which assumed no significant difference was rejected.

Hypothesis Three: There is no significant impact of the facilitating conditions for adoption of e-governance models in MIS

Table 3: One-Sample T-Test analysis of impact of the facilitating conditions for adoption of e-governance models in MIS

Variable	Test Value = 1					
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
impact of the facilitating conditions for adoption	101.097	50	.000	4.588	4.51	4.67

Source: Author's computation (SPSS Version 20.0 IBM)
*Significant at 0.05 level; N= 52; $\mathbf{T_{crit}}$ 1.96

Table 3 presents the obtained t-value as 114.730. This value was greater than critical t-value (1.96) at 0.05 level of significant with 50 degree of freedom. This observation indicates that there is no significant impact of the facilitating conditions for adoption of e-governance models in MIS. Hence, the null hypothesis three which assumed no significant difference was rejected.

Discussion of Findings

The first hypothesis which stated that there is no significant impact of the current usage of e-government models through information systems management was rejected. The obtained t-value 112.092 was greater than critical t-value 1.96 at 0.05 level with 50 degree of freedom. This result implies that there is significant impact of the current usage of e-government models through information systems management. The significance of the result caused the null hypothesis to be rejected while the alternative one was accepted.

The two hypotheses which stated that there is no significant impact of the level of awareness about e-governance models were rejected. The obtained t-value 101.097 was greater than critical t-value 1.96 at 0.05 levels with 50 degree of freedom. This result implies that there is significant impact of the level of awareness about e-governance models. The significance of the result caused the null hypothesis to be rejected while the alternative one was accepted.

The third hypothesis which stated that there is no significant impact of the facilitating conditions for adoption of e-governance models in MIS was rejected. The obtained t-value 101.097 was greater than

critical t-value 1.96 at 0.05 levels with 50 degree of freedom. This result implies that there is significant impact of the facilitating conditions for adoption of e-governance models in MIS. The significance of the result caused the null hypothesis to be rejected while the alternative one was accepted.

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