An Assessment of States' Websites in Malaysia: An Evaluative Study

Nazreena Mohammed Yasin - Rohana Abdul Hamid - Normala Mohd Adnan

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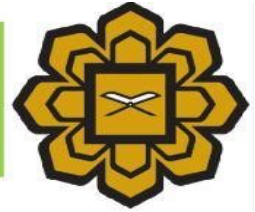Nazreena Mohammed Yasin[1], Rohana Abdul Hamid[2], Normala Mohd Adnan[3]

Abstract

Electronic Government (e-government) has been known as a significant tool in serving the Malaysian administration system. Since 1991, a lot of efforts and initiatives have been carried out in order to implement the system at the state level. As there are not many kinds of literature concentrating on the state website development, hence this study is crucial to show the progress of e-government implementation across the states. Therefore, this paper proposes a theoretical framework of e-government based on three levels of paradigms of public administration namely Old Public Administration, New Public Administration and New Public Service. This study employed a qualitative study by using content analysis method where all thirteen states websites serve as a unit of analysis. The results found that different states' websites performed with different scores over one another. Generally, this study found that most of the state's websites are in the second phase; New Public Administration. From the results collected, challenges to the effectiveness and efficiency of e-government are discussed based on several categories namely website visibility, website freshness, website establishment date and website usability.

Keywords: E-government, State websites, Old Public Administration, New Public Administration, New Public Service, and E-governance

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1. INTRODUCTION

E-government has emerged as one of the government agenda, and it has become part and parcel of Malaysia's government since its initiation in 1995. The implementation of e-government in Malaysia has started with the establishment of Multimedia Super Corridor (MSC) in 1996 which can give many benefits to the society (Muhamad Rais & Nazariah, 2003)[4]. Tun Dr Mahathir himself launched the e-government initiative in 1997 after the establishment of ICT. E-government is one of the seven flagships of the Multimedia Super Corridor (MSC) initiative (Sidek, 2012)[5] and it plays a role in improving the internal management of the government administration and communications (Azmizam et al., 2010)[6]. E-government aims to improve the quality of public service delivery by making it more effective and efficient and able to improve the excellent relationship with its citizens. All this will improve government system of information in a better way and fulfil Malaysia goal to be the knowledge-based society with advancement in technology (Silcock, 2001)[7]. Thus, it can transform the system of public administration into more responsive and open to public demands by being more citizen-centric. This is in line with Tun Dr Mahathir vision to make the e-government implementation in Malaysia a successful one. In one of his speeches, he did mention the importance of installing this new technology.

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[4] Muhammad Rais, A.K. & Nazariah, M.K. , E-Government in Malaysia: Improving Responsiveness and Capacity to Serve, 2013.

[5] Sidek, H. Transformasi Perkhidmatan Awam. Putrajaya: Unit Pemodenan Tadbiran dan Pembangunan Pengurusan Malaysia (MAMPU), 2012.

[6] Azmizam, A. R., Hamzah, J & Jalaluddin A. M. Enhancing Urban Governance Efficiency through the E-Government of Malaysia Local Authorities, 2010.

[7] Silcock, R. 'What is e-Government?, Parliamentary Affairs, 2001.

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"Electronic government implementation is very important as a preparations towards entering a new phase and facing challenges in the new era of informations technology as well as multimedia which keep on developing."

(Translated from the speech of Dr Mahathir Mohamad, 1997)

In the context of Malaysia, each of the 13 states has its official website in order to carry out their administration and to interact with people by providing various types of news and information as well as services. However, the level of progress of each state website might differ. Thus, this study is undoubtedly essential to ascertain the level of progress achieved by each state website. Besides, this study is significant as not many studies have focused on the contents of state government websites. Most of the existing literature in Malaysia, for instance, have been more interested in accessing people's satisfaction and acceptance towards e-government (Norshita et.al, 2010, Norazah & Ramayah, 2010)[8] and highlighted the factors that contributed to its failure among rural communities in Malaysia (Afiqah and Izza, 2016)[9]. This study aims to answer the question of how do the contents of the state websites reflect a different level of progress based on the proposed model of e-government and what are the challenges presented to states' official websites. Therefore, this study examines the state websites' contents based on the proposed model which serve as a guideline to analyse the contents and to observe whether the e-government has transformed its public service delivery. Besides that, this study objective is to analyse the obstacles faced by the government websites.

In this paper, the author will look at the level of e-government in each state website in Malaysia. Therefore, the three levels of the paradigm of public administration will be served as a framework for this study. Furthermore, the author also will address the challenges the government

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[8] Norshita, M. N., Halimah, B. Z., & Mohammad, T. S. T. Public User Assessment of Malaysia's e-Government Applications, 2010.

[9] Nur Afiqah Marzuki and Noreen Izza Arshad, Understanding the use of e-Gov Portal in Rural Areas in Malaysia: A Proposal Towards a Policy, 2016.
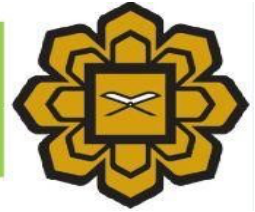
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needs overcome for a successful implementation of e-government at the state level. Therefore, this study could assist state governments to know their level of progress and to be aware that implementation alone is insufficient but effective ways are needed to make the websites more interactive. Also, it would also motivate the website administrators to produce a standardised structure of an efficient and effective website which could be adhered to systematically (Azizan and Fazli, 2010).[10]

E-government is very crucial in many developed and developing countries. Numerous literature discuss e-government from various aspects which include the importance of e-government and the obstacles to its implementation. For example, Ariwiati et al. (2016)[11], Rose et al. (2015)[12], Kettani & Moulin (2014)[13], McGuigan (2010)[14] and Kaliannan and Halimah (2010)[15] suggested that e-government could bring progress to the development of the public sector and improve its service delivery with high efficacy via the usage of IT. Besides that, according to Teerling and Pieterson (2011)[16], e-government promotes a two-way communication between the government and the public to enhance effective interactions whereas Asa'd M. et al. (2016)[17], T. Almarabeh and A. Abu Ali

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[10] Azizan, H. M. & Fazli A. H. E-Government and Malaysia: A Theoretical Consideration, 2010.

[11] Ariwiati, R. & Febriliantina, S. F. Z. The Study of e-Government Implementation in Improving The Quality of Public Services (A Study on Society in Bandung Region), 2016.

[12] Rose, J., Persson, J., Heeager, L., & Irani, Z. Managing e-Government: Value Positions and Relationship, 2015.

[13] Kettani & Moulin. E-Government for Good Governance in Developing Countries: Empirical Evidence from the eFez Project, 2014.

[14] McGuigan, B. "What is e-government?, 2010.

[15] Kaliannan, M., & Halimah, A. Adoption and Use of E-Government Services: A Case Study on E-Procurement in Malaysia, 2010.

[16] Teerling, M., & Pieterson, W. How to Improve e-Government use: An Empirical Examination of Multichannel Marketing Instruments, 2011.

[17] Asa'd M., B. Khazaei, B. Akhgar & Ja'far, A. Importance of Service Integration in e-Government Implementations, 2016.
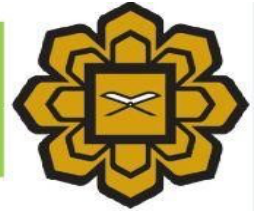
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(2010)[18] noted that e-government can promote service integration by providing all the services in one single website. According to Asa'd M. et al. (2016)[19], two factors contribute to the successful implementation of e-government namely availability and accessibility where services are given 24-hours to the people and in getting the services, no discriminations in the usage of services either by the urbanites or rural dwellers.

The model used in this study is an integration from several models such as Anderson and Henrikson Maturity Model (2006)[20] and United Nations Maturity Model (2012)[21] but with one more level of paradigm added in public administration known as new public service. This new model could represent all the paradigms of public administration by following the transition from old public administration to new public administration followed by new public service. In the past, it could be seen that government service delivery was used to be dominated by traditional paradigm or old public administration. This old paradigm was often characterised by cumbersome procedures, long queues and inefficiency in the government's working culture. Since the advent of ICT, the old paradigm shifted to a new public administration with efficiency in service delivery and the establishment of state websites. These official websites serve as a platform for information and services delivery to the public. Later, the progress shifted to another paradigm known as the new public service in order to garner a higher interaction and participation from the people. Thus this level of public administration serves as a vital tool to access the efficiency and effectiveness of the website.

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[18] Almarabeh, T., & AbuAli, A. General Framework For e-Government: Definition, Maturity, Challenges, Opportunities, and Success, 2010.

[19] Asa'd M., B. Khazaei, B. Akhgar & Ja'far, A. Importance of Service Integration in e-Government Implementations, 2016.

[20] Andersen, K. V., & Henriksen, H. Z. E-government Maturity Models: Extension Of The Layne and Lee Model. Government Information Quarterly, 23(2), 236–248, 2006.

[21] United Nation Model. United Nation Official Website, 2014.

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2. METHODOLOGY

This study adopts a qualitative method of content analysis of the websites, where the samples of the study are taken from all the states' official websites in Malaysia. The time frame of the study was carried out from 12th October 2016 until 8th December 2016.

Content analysis

This study employed qualitative research by looking at the states' official websites in Malaysia as a case study. Content analysis was used in order to analyse the progress of the websites based on the features listed in the coding sheets which are in line with the level of paradigms in public administration. In this study, a content analysis technique was used to study the contents of the state websites systematically. There are many advantages of this content analysis. According to Stone et al. (1996)[22], "content analysis is any research technique for making inferences by systematically and objectively identifying specified characteristics within text", which in this study it involves the interactive features and non-interactive features of the websites. Krippendorff (1980)[23] characterised content analysis as context-sensitive and able to cope with a large quantity of data, and this is relevant to the present study that focuses on a large number of unit analysis with thirteen states websites. As this is study is an analysis of 13 states official websites regarding their interactive and non-interactive features, which incorporates a large number of units, content analysis is reliable. It can enable the

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[22] Stone, P., Dunphy, D., Smith, M., & Ogilvie, D. (With credit given to Dr Ole Holsti, *The General Inquirer: A Computer Approach To Content Analysis. Cambridge: MIT Press*, 1966.

[23] Krippendorf, K. Content analysis: An Introduction To Its Methodology. Sage Publications, London, 1980.
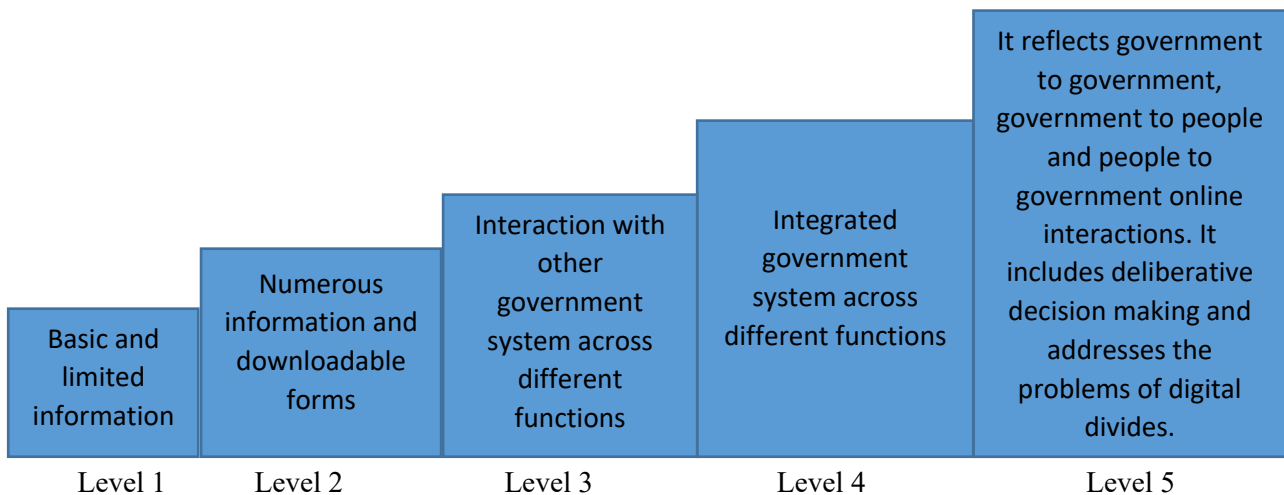
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researcher to classify the features into specific groups based on their similarities and differences and come out with categorisations in the coding sheets.

Coding technique

The criteria listed in the coding sheets are following the three levels of paradigms of public administration namely old public administration, new public administration and new public service. There are five levels altogether in the model proposed. Level one is in line with the old public administration, level two until level four are characterised as new public administration and level five is new public service. There are thirteen coding sheets, and each of the coding sheets is divided into five levels of categories. Each category will have features that need to be observed on every website of the state government. One mark (1) is given if the particular features are available in a particular state website. Otherwise, zero mark (0) is awarded. Overall scores given to each of the state website coding sheets and the final score has been interpreted to determine the level of each state website. The coding sheets consist of five levels namely Level 1, Level 2, Level 3, Level 4 and Level 5 which start from the primary level to the advanced level of public administration in the context of e-government. It was based on the model proposed in this study.

Level 1	Level 2	Level 3	Level 4	Level 5
Basic and limited information	Numerous information and downloadable forms	Interaction with other government system across different functions	Integrated government system across different functions	It reflects government to government, government to people and people to government online interactions. It includes deliberative decision making and addresses the problems of digital divides.

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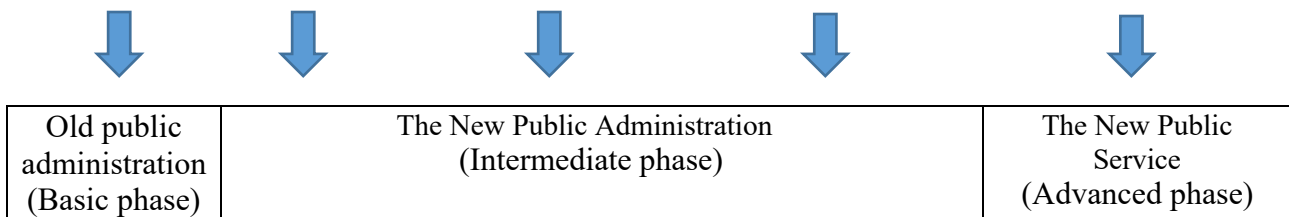| Old public administration (Basic phase)	The New Public Administration (Intermediate phase)	The New Public Service (Advanced phase)

Figure 1.1:E-Government Model
(Source: Adapted from United Nation Model (2014)

Level 1 will be under the old public administration, Level 2, Level 3 and Level 4 will be under the new public management, and level five will be under the new public service. Each level is divided into a few subcategories, which is in line with the requirements of each level. At Level 1, websites are described as very basic and providing limited information to the viewers. The information taken into account include the vision and mission of the website, historical background, organisational and other necessary information. In this study, based on the model proposed, a website is considered to be in Level 2 if a large amount of information is found and the websites provide downloadable forms to its viewers. For Level 3, a website is supposed to have interaction with other government agencies and can carry online transaction. Moving on, at Level 4, which is still in the intermediate phase, websites are supposed to carry out its function as able to integrate government system across different functions. Last but not least, at Level 5, described as the new public service, the website that will fit this level is supposed to play its role by reflecting government-to-government, government-to-people and people-to-government real-time online interactions. It includes deliberative decisions making and addresses the problems of digital divides. Level 5 is categorised as an advanced phase of public administration. The model of e-government which is adapted from United Nation Model (2014)[24] illustrated in Figure 1.1.

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[24] United Nation Model. United Nation Official Website, 2014.

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Unit of analysis

There are 13 states official websites which serve as units of analysis in this study. They are the official state websites of Perak, Selangor, Kedah, Perlis, Johor, Kelantan, Terengganu, Sarawak, Sabah, Pahang, Melaka, Negeri Sembilan, and Penang. Hence, this study investigates only the official states websites in Malaysia. Any other links or mobile website is excluded from the analysis because only the official websites are observed. In conducting the research, all the addresses of the state government websites are collected as in the table below. Addresses were taken by searching via Google and in Malaysian States Portals. Altogether, 13 states were included with their website links in Table 1.1.

Table 1.1: List of States Official Government Websites in Malaysia

States	Websites link
The official portal of the Perak government	http://www.perak.gov.my/
The official portal of the Selangor government	http://www.selangor.gov.my/
The official portal of the Kedah government	http://portal.kedah.gov.my/
The official portal of the Perlis government	http://www.perlis.gov.my/
The official portal of the Johor government	http://www.johor.gov.my/
The official portal of the Kelantan government	http://www.kelantan.gov.my/
The official portal of the Terengganu government	http://www.terengganu.gov.my/
The official portal of the Sarawak government	http://www.sarawak.gov.my/
The official portal of the Sabah government	http://www.sabah.gov.my/main/
The official portal of the Pahang government	http://www.pahang.gov.my/
The official portal of the Malacca government	http://www.melaka.gov.my/my
The official portal of the Negeri Sembilan government	http://www.ns.gov.my/main.php
The official portal of the Penang government	https://www.penang.gov.my/index.php/ms/

(Sources: Compiled by the authors)

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Data analysis

Data analysis in the coding sheets prepared by the authors was based on the integrated model above. Data obtained from the coding which was from the content analysis are analysed systematically through several stages. The data collected was based on thematic categorisation where each of the features in each category was analysed systematically and thematically in every website. Each level of the model was divided into several categories and sub-categories to get a systematic study. To conduct this study; firstly, 13 coding sheets were prepared, and each website was systematically studied. Each coding sheet consists of five levels. Each level has several categories in line with the proposed model. From the data collection; the scores collected from each of the websites present a particular challenge that hinders the successful implementation of e-government are discussed in below.

3. RESULTS AND DISCUSSION

The scores collected from Level one to Level five by assessing the different features are summarised in Table 1.2.

Table 1.2: Overall Scores for All Levels

States	Overall Scores						
	Level 1	Level 2	Level 3	Level 4	Level 5	Total (L-Level)	Percentage (%)
Perlis	7/8	7/17	6/11	3/4	2/5	25/45(L2)	56
Johor	8/8	7/17	8/11	4/4	3/5	30/45(L3)	67
Selangor	7/8	10/17	10/11	4/4	4/5	35/45(L3)	78
Sabah	5/8	11/17	7/11	3/4	2/5	28/45(L3)	62
Sarawak	8/8	12/17	9/11	4/4	5/5	38/45(L4)	84
Perak	8/8	12/17	8/11	3/4	4/5	35/45(L3)	78
Malacca	8/8	11/17	10/11	4/4	3/5	36/45(L3)	80
Kedah	8/8	12/17	10/11	3/4	4/5	37/45(L4)	82

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Terengganu	8/8	11/17	7/11	3/4	3/5	32/45(L3)	71
Penang	8/8	9/17	9/11	4/4	4/5	34/45(L3)	78
Kelantan	8/8	9/17	9/11	4/4	3/5	33/45(L3)	73
Negeri Sembilan	8/8	13/17	11/11	3/4	5/5	40/45(L4)	89
Pahang	8/8	12/17	9/11	4/4	4/5	37/45(L4)	82

(Source: By authors)

From Table 1.2, it can be seen that the state website with the highest score is Negeri Sembilan with 89 scores whereas the state with the lowest score is Perlis with 55 scores with a difference of 33 scores. Four of the states namely Sarawak, Kedah, Negeri Sembilan and Pahang fall under level four whereas eight states namely Johor, Selangor, Sabah, Perak, Melaka, Terengganu, Penang and Kelantan fall under level three and one state website that is Perlis falls under level two.

For level one, Sabah website was noted to score the lowest with five scores. However, this website managed to get overall scores with the total of 62 scores higher than Perlis. The Sabah website was unable to provide these features namely client charter, history of the state secretariat and background of the website.

For level two, only one state that is Negeri Sembilan managed to come out with all those 13 features. The lowest score recorded by Perlis and Johor with seven scores each respectively. From four categories in this level, Perlis and Johor were unable to provide most of the information in the "other information" category. For Perlis, this state website was unable to provide utility services details, facilities services details, calendar, state annual programmes information, frequently asked questions, awards, state secretariat bulletin, scholarships and archives. Whereas, for Johor, this website was unable to provide the ten features. However, the Perlis website provided a calendar on its website whereas Johor website did not have the sitemap on its website.

For level three, it was noted that Negeri Sembilan recorded the highest score with full scores of 11/11 and the lowest was Perlis with 6/11. It was found that Perlis was unable to provide these features namely 1AKSES, Open data, RSS, and two other features for online payment. In level four, it can be seen that all state websites scored full 4/4 except six states websites scored three namely

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Perlis, Sabah, Perak, Kedah, Terengganu and Negeri Sembilan. These websites did not provide a column for investment site. For level five which is under New Public Service, the highest scorers are Sarawak and Negeri Sembilan whereas the lowest scorers are Perlis and Sabah. It was recorded that Perlis was unable to provide these features namely polls, urban vs rural and accessibility barriers features.

From all these levels, Perlis scored the lowest compared to other states' websites in almost all levels except in level one which makes this state website gain the lowest overall scores. In comparison to Perlis, Negeri Sembilan scored highest scores in all levels which make this state website the highest regarding the overall scores. Besides, it was noted that none of the states' websites falls under the first level known as the basic phase. From the overall results, it can be concluded that most of the states' websites fall under the intermediate phase which is the paradigm of new public administration. However, none of the websites fit in the last level of the new public service which is level five, wherein this level, engagement of government with the people, is essential.

It was noted that based on the findings, some of the websites managed to fulfil most of the criteria in level 5, for instance, by providing facilities to address digital divides. However, it should be taken into account that in this study, a particular website will be categorised in Level 5 only if it has fulfilled the criteria needed in previous levels. Thus, some of the states might have fulfilled all the features needed in Level 5, but due to their inability to fulfil the features in new public administration, they might still be categorised in the lower levels. This case can be seen in both Sarawak and Negeri Sembilan as they lack several features in Level 2. Therefore, the results and analysis of each level might serve as indicators for the state websites to enable them to know their level because they might be successful in addressing features of new public service but lack regarding features in new public administration and vice versa. In short, none of the state websites managed to fulfil the features in all paradigms of public administration.

Furthermore, the background information on state websites is crucial in accessing the progress of the state websites. For the first category, which is the state ruling party, based on the overall scores, the majority of states ruled by Barisan Nasional scored level 3 and level 4. However, this does not

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mean that all the states under Barisan Nasional perform good scores at par with the highest scorer, as Perlis, a Barisan Nasional ruled state, scored the lowest compared to other state websites. For opposition ruling parties, Kelantan, Penang and Selangor managed to be in level 3 which is in the Intermediate phase. Thus, the performance of the state websites cannot be looked at from the perspective of their ruling parties only. Moving on, the percentage of Internet users' distribution among states can be one of the indicators that may motivate the number of visitors accessing the websites. For example, Internet users of Perlis are 0.6 per cent, which is the lowest compared to other states. Based on Table 1.2, Perlis scored the lowest total number of visitors accessing the state websites with 12, 711. Therefore, it can be concluded that the percentage distribution of Internet users influence the total numbers of users accessing the state websites.

In short, some of the states' websites managed to fulfil all the features in level 5. However, some of the critical features in the previous level have been neglected. Thus, all the features in the previous levels needed to be addressed and implemented so that those particular state websites can be in line with the paradigms of public administration without only focusing on one paradigm only. By following these guidelines, the state website can monitor their level of progress and at the same time can be in line with the level of paradigms of public administration namely old public administration, new public administration and new public service.

4. CHALLENGES TO THE EFFICIENCY AND EFFECTIVENESS OF E-GOVERNMENT IN STATE LEVEL

Based on the results collected, several problems have been identified by the authors that hinder the successful implementation of e-government and divided into several categories namely website visibility, website freshness and website usability.

Website Visibility

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Website visibility is defined as the capability and potential of the website to 'organically' appear online in the results of search engines such as Google. The first thing that is needed to be considered in this study is to identify the existence of the state websites whether they are available via online or not. Thus, this should be done by assessing their visibility which is one of the essential initial indicators of e-government implementation (Janet, 2012)[25]. Only the official state websites were used as the units of analysis in this study. Specific keywords to identify each of the websites were entered on Google search engine. A state website is supposed to support both the accessibility of Google search on a PC and smartphone as well. This feature is to ensure that the website has a high degree of visibility.

Other than that, a website is supposed to have searching tools like Search Engines, Quicklinks and 1AKSES in its website for easy access to information such as information of ministries and departments (MAMPU Official Website). By providing links for the people to view what they are looking for, the website can act as a 'one-stop' gateway for government information delivery and access. Accoding to SEO (2017)[26], search engines are the most popular way to locate online information. Thus, search engines make the web a more valuable resource by providing an easy and free way to locate and access information. However, not all the state websites provided this function. The 1AKSES feature is used directly to connect users to other ministries and departments. However, the results showed that four state websites (Perlis, Sarawak, Pahang and Sabah) are void of 1AKSES. Only 69% or nine out of thirteen state government websites provide this feature. The 1AKSES is supposed to be provided in every state website to ensure seamless connectivity of every feature is accessible via the state website itself.

Other than that, it can be seen in level four; a more organised approach was done by one of the state websites which is Pulau Pinang, where 1AKSES link was provided. All the departments and agencies of the government have been listed on the website in both vertical and horizontal order. For

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[25] Janet Kaaya, Implementing E-Government Services in East Africa: Assessing Status Through Content Analysis of Government Websites, 2012.

[26] SEO, Retreived from: https://www.bigcommerce.com/blog/ecommerce-seo/, 2017.

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instance, links to ministries, state secretariats, departments and agencies are made available on the website. 1AKSES plays a significant role in the website by providing other government website links, reducing browsing time to reach other websites (MAMPU, 2015)[27]. This show that the degree of visibility of other government ministries, agencies and departments are relatively high on Pulau Pinang's website compared to other states.

Other than that, another form of website accessibility available is Quicklinks. Quicklinks is one of the initiatives made by the government on the website to reduce the browsing time for specific information (MAMPU, 2015)[28]. From the study, it was noted that all the states websites managed to come out with this feature on their website. For the QR Code feature, two out of thirteen websites or 16% namely Sabah and Penang failed to provide this service on their websites.

Website Freshness

According to Janet (2012)[29], one of the crucial features of website freshness is the date of "last update" of each website. According to La Porte et al. (2002)[30], assessment of the website's freshness is one of the crucial elements that need to be looked into due to its capability of showing how committed a government agency considers e-government services. A fresh website can be considered disseminating fresh content and frequent indexing made by the authority in charge. The more frequently a website is updated, the more frequently a search engine will stop by to visit these websites (La Porte et al.2016)[31]. When search engines look at the site more frequently, the website could achieve higher rankings based on the content provided. Therefore, to increase the chances of a website

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[27] MAMPU. Pekeliling Kemajuan Kerajaan, Jabatan Perdana Menteri, Malaysia, 2015.

[28] Ibid.

[29] Janet Kaaya, Implementing E-Government Services in East Africa: Assessing Status Through Content Analysis of Government Websites, 2012.

[30] La Porte, TM, Demchak, CC, and de Jong, M 'Democracy and bureaucracy in the age of the web' Administration and Society, Vol 34 No 4, pp 411-446, 2002.

[31] Ibid.

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getting a higher ranking, the website needs to be updated regularly and frequently so that a search engine will reassess the website's position on its index and will increase the chances of getting a higher ranking. Based on the demographic information collected, it was noted that all the websites informed the latest date the website was updated on the homepage site. Some of the websites have been updated regularly while some are not.

According to SEO (2017)[32], it is not necessary to make changes or additions or postings every hour or every day. However, a site that is updated once a day or at least two or three times a week is considered a frequently updated website. Furthermore, the fresh content of the website increases authority; users trust the information on that website compared to social media where the reliability is questionable. This study shows that eight of the websites or 57% (Sarawak, Melaka, Perak, Pahang, Terengganu, Negeri Sembilan, Penang and Sabah) updated their website regularly which is almost every day based on the date of the coding was taken. Thus, this should be done by assessing their visibility which is one of the essential initial indicators of e-government implementation. However, the problem is how far the websites have been updated and from which aspects each state governments are monitoring their website cannot be determined because some might update their website if there is any latest information or announcement to be posted such as a tender application or job vacancies. Thus, no details about the aspect of updating on the websites are given by the state website freshness.

Website Establishment Date

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[32] SEO, Retreived from: https://www.bigcommerce.com/blog/ecommerce-seo/, 2017.

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In this study, it was expected that the state website was able to provide the date of the website establishment in order to compare the level of progress in comparison to other websites. According to Ho (2002)[33], the establishment date of the website is one of the essential features as it will help to ensure the progress of the website since its early implementation up to the current time. This date is because as time has passed, the website will acquire more experience in dealing with the website to make it more sophisticated and interactive enough with higher stages of development in line with e-government objectives to deliver services to the people with high levels of efficiency and efficacy. However, it was observed that none of the state websites informed about the exact date of the website establishment date on the website.

Website Usability

According to Fagan (2001)[34], a website that can provide links to relevant bodies inside and outside of the government system can be categorised as a user-friendly website because it gives access to people to click to go to a particular website via the state website as they please. Hence, the more user-friendly the website is, that means the more the government is successful in establishing the usage of e-government system in that country (Fagan, 2001)[35]. Thus, the website is supposed to have contact information and emergency details, interactivity and able to address the language divide as well. All the explanations below are based on the categorisation made by the authors in this study.

(a) Contact and Emergency Details

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[33] Ho, Stakeholder Adoption of E-Government Services: Driving and Resisting Factors, 2002.
[34] Fagan, BD 'Citizens' access to online state legislative documents' Government Information Quarterly, Vol 18 No 2, pp 105-121, 2001.
[35] Ibid

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Contact information is one of the important attributes that a website must have to have a connection between the users and the government to lodge any inquiries (Janet, 2012)[36]. Thus, contact information must be in details and user-friendly. From the result collected from all the thirteen states websites, it was recorded that all the state websites provided information about the email of the website, address and contact number on their homepage.

For emergency contact details, it can be seen some of the state websites provided an emergency contact details column to enable users to find for it during an emergency. Only four of the state website managed to come out with this information. Those are Sabah, Penang, Pahang and Kelantan which contribute 31% of the overall percentage. Information and details of services can be posted on the website's homepage saving users time without the need to go to other pages which in an emergency will bring adversities. For instance, in Penang's state website, there is a column provided known as "Penang Alert" where all the current information about the flood, flash flood, fire and expected disasters that will take place has been made aware to the public.

Furthermore, people who need the latest information on the disasters which are expected to take place in certain places can register for 'SMS' notification from the state government thus they will be updated with the current incident expected to take place. It was such a good initiative made by this state government website.

Furthermore, all the emergency numbers were provided in the emergency references column. What is more interesting is that volunteer body organisations' contact numbers have also been inserted in the column. This effort is one of the most effective initiatives made by Penang state website where all the details have been structured systematically in the website; other states should make this as an example.

(b) Interactivity

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[36] Janet Kaaya, Implementing E-Government Services in East Africa: Assessing Status Through Content Analysis of Government Websites, 2012.

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The website is supposed to show two-ways communication between government agencies and users such as downloadable materials and feedback forms. According to Janet (2012)[37], by having this feature, the government implementing it could advance to a higher phase regarding connection with the people in delivering services. Based on the collected data and analyses, some of the websites are still lacking regarding its service delivery. In other words, some of the services are still made manually despite their online convenience. There are various types of interactivity provided by the website.

The first one is downloadable forms. It was suggested that e-government should have downloadable forms to give excellent services to the people which can be settled in a short period. However, based on the collected data, it was observed that 69% or nine out of thirteen states official websites have downloadable forms in "pdf" format. However, from all these websites, only five states or 38% provided downloadable forms for the people to access and print out namely Sabah, Kelantan, Perlis, Perak and Sarawak, whereas two of the state websites provided downloadable forms but for staff only, not accessible for the people. At this level, the government is supposed to be able to give services to the people, but from the score, the implementation is not comprehensive. For instance, there are links for downloadable forms but are available for the staff seen on Pahang's website such as forms about leave application, promotion, training and others. The implementation is not comprehensive enough because only some people have access to the forms while others are denied, they have to go to the counter of any departments and ministries to settle their errands.

None of the websites made a clear division of downloadable forms except for Negeri Sembilan's website where there is a clear division between government official forms and for the people to use known as 'for staff use' and 'for public use'. Further instructions should be given on how to fill in the form so that there is no redundancy where forms are available without guidelines to fill them. In this stage, people are required to download the form and print on their own without the

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[37] Janet Kaaya, Implementing E-Government Services in East Africa: Assessing Status Through Content Analysis of Government Websites, 2012.

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need to go to any department to request the form. However, since there are no clear guidelines given, people tend to go to the office to seek for how to fill in the form.

Another type of interactivity that is supposed to be provided by the state websites is polls and feedback surveys. Interactive columns such as polls and feedback survey are crucial to know the public's level of satisfaction from the usage of the website. It was found that all the websites have an interactive column site which is the feedback site and polls column except for two states websites namely Terengganu and Malacca constituting 15%. However, no such information indicating what the government is going to do next with the results and what are the improvements which have been made to overcome specific issues based on the people's vote.

(c) Languages divide

According to Janet (2012)[38], another feature that is crucial to be noted under website usability is languages used. This need is because the website is supposed to represent the language understood by the majority of the people in that particular country, for example in Malaysia both Malay and English languages are needed on the website. However, based on the data collected, nine states websites constituting of 69% managed to come out with two languages options namely Malay and English languages. Those who provided only one language either Malay or English are Pahang, Sabah, Kelantan and Perlis website which constitute 31% of the overall scores. In the context of Malaysia, the researcher is in the view that the website should provide both Malay and English as the official language of Malaysia is 'Bahasa Melayu' and the second language used is English. Furthermore, the English language needs to be provided by all the websites because some of the information is required by tourists, investors from other countries, people in business and international organisations from other countries.

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[38] Janet Kaaya, Implementing E-Government Services in East Africa: Assessing Status Through Content Analysis of Government Websites, 2012.
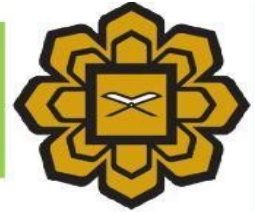
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5. CONCLUSION

From the overall results, it was found that the states occupied a different level of paradigms of public administration. None of the state websites falls under level one which is the old public administration phase. However, one state falls under level two, that is Perlis signifying that the state website is still lacking regarding numerous information and lacking in various types of downloadable forms. Eight of the state falls under level four, which constitutes 62%, whereas other states fall under level three with 31% of the overall scores and one state website under level 2. It can be concluded that most of the state websites fit in level four of the model known as new public administration. This reality means that many future efforts need to be addressed by the accountable personnel gradually to move to higher phase known as New Public Service.

Based on the study conducted, few limitations have been noted. It was observed that there is no exact establishment date of the state website which can help this study in order to know the progress achieved by the website since its initiation. Secondly, due to time constraints, the observation cannot be carried out for a few times to study the development of website from time to time using the same coding sheets to see the changes regarding the website progress. Future researchers may conduct this study by conducting the longitudinal study by assessing the progress of websites yearly. Furthermore, as this study is focusing more on supply-side of e-government, future researchers can take the initiative by carrying out survey research in order to study the behaviour of e-government users at the state level. By upgrading and improving the contents of the state websites from time to time, Malaysia's target to be a digital government can be accomplished gradually.

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