

# The Citizen Satisfaction Towards E-Government in Sarikei town During Covid-19 Pandemic

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**Abstract:** *In March 2020 until we have reached the endemic phase, the Malaysian government and citizens are heavily dependent towards e-government during the COVID-19 pandemic. The government staff have been doing work from home and there is less interaction between the government staff and citizens. With the assistance of e-government, it eased the citizens to use the service and received massive usage since the implementation of Movement Control Order. However, there are problems that exist along the way. There are some of the citizens that still hold onto traditional method which is face-to-face interaction service, lack of trust towards the service, lack of trust and also less optimism on the government's capability. Thus, this research aims to determine the level of citizen satisfaction towards e-government in Sarikei, Sarawak during Covid-19 pandemic. Numerous literature reviews were used to build the conceptual framework for this study which proposes a relationship between e-government portals and citizen satisfaction during Covid-19 pandemic in Sarikei town. Quantitative method will be used in this study. Online questionnaire will be published in order to collect the data among the Sarikei citizens which specifically have the experiences in using e-government. Pilot study will be conducted to check the validity, reliability and accuracy of questionnaires. The discussion of this study can contribute to the knowledge on e-government. Policy makers, implementers and citizens can also gain vast benefits because all of them plays a huge role for the success of e-government. This can be useful for other researchers as well for future reference especially on remote areas in certain states and be an input in implementing the policy of digitalization to enhance and improve the implementation of services.*

**Keywords:** citizen, satisfaction, e-government, Covid-19 pandemic, government

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## 1. Introduction

E-government has been launched by Malaysian Government in 1997, as an initiative to reinvent the country with mechanism that can boost more efficiency. The e-government is also a strategy to bring Malaysia to be a well-developed country aligned with the information age. It was initiated with the establishment of Multimedia Super Corridor (MSC) in the year before which is 1996 (Shafie). E-government is one of the seven flagship that has been introduced in MSC itself. Among the objectives, it is to boost the growth of MSC, help to create high value jobs, embark competitiveness and enhancing MSC as a regional hub in our country. There are mainly seven projects which is the core of e-government applications which is Electronic Procurement (eP), Project Monitoring System (PMS), Electronic Services Delivery (eServices), Human

Resource Management Information System (HRMIS), Generic Office Environment (GOE), E-Syariah and Electronic Labour Exchange (ELX) (Shafie).

In the year of 2021, the government and citizens are heavily dependent towards e-government during the COVID-19 pandemic. The government staff have been doing work from home and there is less interaction between the government staff and citizens. With the assistance of e-government, it eased the citizens to use the service and received massive usage since the implementation of Movement Control Order. It allowed direct and swift services especially on access of information, payments and lodgements which shown that Malaysia has been on a positive trajectory to become an advanced digital nation. It seemed that the e-government modernise and enhance the service delivery. Plus, the Covid-19 pandemic has indirectly boosted the growth of digital economy in Malaysia (Prime Minister's Office of Malaysia, 2021). It has given advantage to the citizens on elevating matters related to digital skills. Thus, it eases the citizen in order to use the e-government. Our country has been on the positive trajectory of this digital nation which will later bring benefits to the citizens itself (Said, 2020).

Furthermore, e-government will improve the information flow and processes, improve the quality of policy development and improve the coordination and enforcement (Shafie). However, there are numerous challenges and issues that needs to be faced by government and e-government implementers in which can be a huge setback towards success. The problem for e-government in Malaysia includes technical infrastructure, financial, good coordination, security and privacy (Ramli, 2017). There are many challenges that can be a hindrance in the path of effective implementation in our country. However, there are measures that have been taken to tackle the issues. In this regard, there is still some space for improvement despite the tough times we are in. It can be a huge advantage in this pandemic to enhance the usage of e-government in order to be more effective.

E-government also aligned with Sarawak Digital Economic Strategy 2018-2022 which has been launched in December 2017, which goes hand-in-hand with Post-COVID-19 Development Strategy (PCDS) 2030. Sarawak Digital Economic Strategy 2018-2022 has a strategy in digitalisation which is to emphasize digitalising government services (Kong, 2020). In this regard, it can be a huge advantage to enhance and improve the usage of e-government to be more effective through this study. Plus, Sarawak aspiration is becoming a developed state with a thriving economy that will be driven by data and innovation especially in digital government by 2030. In addition, the target is to achieve 100 per cent digital government services under the aspiration of the Sarawak Economic Development Agenda (Kong, 2020). With this study, I can help to provide useful input about e-government in one of the parts in Sarawak which is Sarikei town.

## **2. Purpose of the Study**

Satisfaction of citizen is an important aspect in service delivery. Therefore, there are five determinants that will determine the contributing factor of citizen satisfaction which is citizen trust, perceived usefulness, perceived ease of use, service quality and information quality. It also enables us to find out which is the most likely to be the most important determinants and which is the least, which can be improved and enhanced in the future service delivery based on customer perspective. In addition, this study can contribute to the knowledge on e-government. Policy makers, implementers and citizens can also gain vast benefits because all of them plays a huge role for the success of e-government. For a little town like Sarikei, it is an interesting and distinctive place to conduct study about digitalisation unlike big city like Kuching and Miri

city that is advanced. This can be useful for other researchers as well for future reference especially on remote areas in certain states. Plus, it can be as an input in implementing the policy of digitalization in Sarawak towards e-government services which then serve to enhance and improve the implementation of services.

### **3. Literature Review**

In this chapter, there will be literature review and assessment on the citizen satisfaction towards e-government during Covid-19 pandemic. There will be the review about the theories and concepts of the determinants (i.e., citizen trust, perceived usefulness, perceived ease of use, service quality and information quality) as well related literature in order to provide more understanding on the research.

#### **3.1 Citizen Satisfaction**

E-government initiatives will fail if the citizen satisfaction towards e-government services is poor and unsatisfactory (Alkrajji, 2020). It is vital to count citizen satisfaction as an indicator for e-government initiatives because they are the ones that experience the service. The greater the quality of service from e-government, the higher the likeliness of the citizens to be satisfied. However, no studies emerged on the precise and exact measures to be used to assess citizen satisfaction with e-government services. The issue is that the citizen satisfaction has a multi-dimensional entity, because it counts many aspects and parts which is based on citizen's requirement and level of concern for them (Alkrajji, 2020). It may be different on other place, with different user experience and convenience. However, all the studies about e-government satisfactory will be applicable, because the objective is similar which is to measure the satisfaction of citizens. On the study from (Alkrajji, 2020), it is mentioned that the D&M model, the TAM and trust theory as the most cited theories in order to investigate the citizen satisfaction of e-government services.

According from the study (Saengchai, Sriyakul, & Jernsittiparsert, 2020) which conducted in Thailand, the government must conduct statistical and analytical research in order to achieve high level of service of e-government. In order for the citizens to be content, the overall quality must be enhanced which includes user satisfaction, system availability and the social benefits for the citizens. For example, the determinants which is citizen trust, perceived usefulness, perceived ease of use, service quality and information quality is the pillar for this study to measure citizen satisfaction. This can ensure the continuity and sustainability of usage from citizens to use e-government in the future because the overall quality has been beneficial for them. Plus, the data in e-government must be protected, safe and constantly updated in order to gain trust for the user. As a result, high-quality e-government will boost satisfaction and engage more in the future matters whereas low-quality service will have reverse consequences (Saengchai, Sriyakul, & Jernsittiparsert, 2020).

#### **3.2 Citizen trust**

The citizen trust is an important antecedent to the adoption of e-government which is agreed by many scholars. The trust for the e-government portals that it will perform as expected is critical for their success according to (Baharon, 2017). The similar situation for face to face interaction of government services, the expectation is high of the ability to help the citizen efficiently. Plus, it can also be implied to which citizen have the beliefs that the government can provide the service with integrity and capability. Thus, they felt safe and trustworthy especially in terms structures, regulations and legislation.

(Shuib, Yadegaridehkordi, & Ainin, 2018) studied about the factors that influenced the citizen's adoption of the e-government applications in Malaysia and the citizen's satisfaction is also analysed throughout this finding. The study has found that trust on government is one of the factors that was positively influenced which leads towards their satisfaction. Based on this finding, it shows that citizen trust plays an important role in determining their satisfaction on e-government in Malaysia especially trust in reliability, privacy and validity of an online application. Thus, implementation of the best strategy possible needs to be considered to retain to enhance the positive feelings of the citizen trust. In another study conducted by (Alkrajji, 2020), the research has been done to examine the cause of citizen satisfaction in relation to e-government services in Saudi Arabia. A questionnaire has been conducted towards 780 university students and the findings shows that trust in e-government is one of the significant predictors. However, this evidence somewhat contradicts that the citizen trust towards government is significant predictor with study conducted by (Baharon, 2017). The research that has been done to examine the factors that affects the satisfaction of citizen with e-government portals in Malaysia. According to the author, it may be resulted to different adoption stages of the service where there are many new users and has no trust yet during the time. It shows that citizen trust plays a vital role in influencing the initial step of e-government adoption especially on new technology.

### **3.3 Perceived usefulness**

Perceived usefulness had a huge effect on citizen acceptance towards e-government. Based on research by (Alkrajji, 2020), it is stated that the benefits that the citizen received from the required e-government services are strongly connected to citizen satisfaction. Perceived usefulness also largely linked with citizen trust in e-government which is one of the determinants of this study. The anticipated benefits that the citizen obtained from e-government based on relative usefulness can increase the citizen trust (Alkrajji, 2020). Furthermore, the feeling of trust would be diminished if there is limited sense of relative usefulness in e-government services. The more useful the service providence from e-government, the more confidence the citizen to utilize it. Therefore, the citizens expect the e-government services to be useful resources for them in order to do transactions effectively and efficiently. If they felt the e-government to be useful, they are more likely to do transaction by e-government rather than face-to-face interactions.

Past studies from also have shown that perceived usefulness in significant predictors on the continuance intention to use e-government. The study has been conducted on 543 citizens in Malaysia with different backgrounds. Based on the study, the author implies that they will be likely to continue to use the e-government service if the citizen considers it to be useful and improve their interaction with government. On a study conducted by researchers to measure the effect of Covid-19 pandemic towards the citizen's satisfaction with e-government services and applications for health in Al-Madinah region. The result shows that usefulness can be a predictor of their satisfaction on three models (Allam, Abuali, Ghabban, & Ameerbakhsh, 2021). This demonstrates that perceived usefulness is a significant component that can influence the citizen's satisfaction towards e-government.

### **3.4 Perceived ease of use**

Perceived ease of use can be implied as convenience experience which have contributed to better portal execution. Citizen will be more satisfied with e-government when the interface had high accessibility (Baharon, 2017). If the citizen felt satisfied and free of effort, there is high probability that they will refer and do transactions with e-government services. Use of technology will be more beneficial than face-to-face interaction if they are easy to use. An ease

of use proportional to the standpoint where less effort is required to perform a task by online services (Alkrajji, 2020). According to the study conducted by him, ease of use is one of the significant predictors in which the study has been done to examine the cause of citizen satisfaction towards e-government services in Saudi Arabia. This shows that ease of use is also an important element because it eases their connectivity to use e-government service. The study from (Allam, Abuali, Ghabban, & Ameerbakhsh, 2021) also emphasize that ease of use is the predictor for citizen's satisfaction towards e-government during Covid-19 pandemic. In the context of satisfaction with e-government portals, he stated that the citizens are satisfied with the service when there is slight effort is required to carry out the transactions.

### **3.5 Service quality**

In terms of affecting the citizen satisfaction, the service quality has been thoroughly studied in marketing literature. Based on (Baharon, 2017), the link between service quality and high number of customers indicate that service quality influences the citizen or the consumer behaviour. He added that the service quality and customer satisfaction are hugely critical in advertising since the appraisal of one purchase determines the likeliness of a second purchase which influence an organization's success. In addition, a change in service quality leads to an increase in perceived quality, which affects the customer satisfaction even more. The five dimension that has been mentioned is information availability and content, privacy, ease of use, graphic style and fulfilment. Past studies have shown that there is insignificant relationship which shows that service quality is not influencing the citizen adoption and satisfaction.

### **3.6 Information quality**

According to (Shuib, Yadegaridehkordi, & Ainin, 2018), the citizen's perception and attitude towards the usage of e-government services can be strongly influenced by information quality. The authors also stated that the citizen's satisfaction is largely determined by the quality of information that has been adopted, which then leads to regular adoption. Furthermore, the citizen's perception whether the e-government is reliable or not depends on how well the information provided in order to complete the transaction (Alkrajji, 2020).

### **3.7 E-government portals**

E-government has had undeniably a significant impact on developing countries especially our country. It can be seen as a huge opportunity to improve the quality of public service delivery which is through the e-government (Ramli, 2017). It has been more than twenty years since e-government established which surely should be up to a good standard. The government and citizens have received the widest array of benefits from the usage of this. According to study conducted by the Economist Intelligence Unit, Malaysia ranked 24<sup>th</sup> among all 43 countries in Government E-Payment Adoption Ranking (GEAR) (Shuib, Yadegaridehkordi, & Ainin, 2018). It shows that Malaysia is progressing but still in the early stages to become more advanced on utilization of e-government. Study must be conducted to observe current level of satisfaction of the citizens. Improvement can be made through the factors and determinants that will be identified. There are also number of studies from developing countries that has been using e-government such as adoption of e-government in Africa, familiarity on the citizen's intention in Jordan and factors that influence the adoption whether directly or indirectly in India (Shuib, Yadegaridehkordi, & Ainin, 2018). Therefore, more study must be conducted to measure the effectiveness on e-government and needs to be more explored especially in our country, Malaysia. It is important as e-government success is connected to the perceptions of citizens on how satisfied they are with the service.

Concerned about the importance of risk communication during this Covid-19 pandemic, the Malaysian government relies heavily on e-government in order to provide their services. There are also provision of information and measures to promote safety measures. The e-government is undeniably important as it is a way for a faster of delivery of information. The most obvious example is a mobile application called MySejahtera which monitor health progress and update the check-in locations. This e-government helps to gather information which was proven to be swift and effective in terms of information delivery. (Mat Dawi, et al., 2021). On a study conducted by (Mat Dawi, et al., 2021), the result suggests that e-government has positively resulted to the positive attitude towards their protective behaviour engagement. It shows that the e-government brings good effect which in context, deemed as effective. In other study conducted by (Baharon, 2017), the satisfaction of the citizen with Malaysia e-government portals is positive with majority of the predictors are significant. It can provide an insight on the factor that will satisfy citizens and can be used as indicator for improvement in the future. The citizen's satisfaction is a vital indicator which can foresee whether it is effective or not effective. It also will give a general idea as how far has the government has transformed their services especially in this Covid-19 pandemic, accordance to what the Malaysian citizens needs (Alias, Mohd Idris, Ashaari, & Kasimin, 2011).

(Shuib, Yadegaridehkordi, & Ainin, 2018) studied about the factors that influenced the citizen's adoption of the e-government applications in Malaysia. Plus, the citizen's satisfaction is also analysed throughout this finding. The authors collected the data by using a Likert-scale questionnaire in a total of 801 Malaysian urban poor citizens with a household monthly income of RM3,800 or less as their participants. Found that compatibility, relative advantage, image, computer self-efficacy and trust on government was positively influenced which leads towards their satisfaction. Meanwhile, the perceived usefulness, perceived ease of use and perceived information quality resulted to be insignificant by the citizens. This evidence shows that the citizen preferred the to use e-government that is compatible to use. Plus, the advantage that the e-government offered which is fast and precise which is the citizens felt relevant to their needs and preferences. The factor that also influenced citizens is the image that government brought which uplifts the trust and belief among them. It is important to maintain the positive feelings to stay on utilizing the e-government. Last but not least, the usage of applications which is convenient for every citizen at all levels. This shows that e-government must continuously improve on the factors that influenced them to adopt in order to create satisfaction and more effective e-government in Malaysia.

On a study conducted by (Baharon, 2017), the research has been done to examine the factors that affects the satisfaction of citizen with e-government portals in Malaysia. The data were collected by using convenience sampling procedure to collect a number of 111 respondents by using face-to-face questionnaire survey. There are four determinants that has been used as predictors in this study by the authors. However, three out of four determinants are the significant predictors which is service quality, perceived ease of use and content quality. The trust towards government is not the significant predictors that leads toward citizen's satisfaction towards e-government. This evidence somewhat contradicts that the citizen trust towards government is significant predictor in a study conducted by (Shuib, Yadegaridehkordi, & Ainin, 2018). This reason may be attributed towards different set of location, different timeline or different adoption stages of e-government services. This adds to the idea that not majority of citizen trusts the usage of e-government. However, it is an important to measure this now especially in the midst of COVID-19 pandemic which is unpreventable to use.

In another study conducted by (Alkraiiji, 2020), the research has been done to examined the cause of citizen satisfaction in relation to e-government services in Saudi Arabia. A questionnaire has been conducted towards 780 university students and the findings show that perceived system quality, perceived usefulness and trust in e-government is the significant predictors in the likes of perceived information quality and perceived ease of use. This finding has the similarity with the study conducted by (Shuib, Yadegaridehkordi, & Ainin, 2018) which perceived usefulness and put trust towards government which caused their satisfaction. Despite both studies has different location, but they have same input of idea which I can use for my study.

#### **4. Objectives of the study**

- i. To determine the level of citizen satisfaction towards e-government in Sarikei according to the factor
- ii. To investigate the relationship between the citizen trust, perceived usefulness, perceived ease of use, service quality and information quality of e-government with the levels of citizen satisfaction in Sarikei
- iii. To identify the main factor that impact the citizen satisfaction towards e-government

#### **5. Research Questions**

- i. What is the level of citizen satisfaction towards e-government in Sarikei according to the factor?
- ii. Is there a relationship between the determinants and the levels of citizen satisfaction in Sarikei?
  - a) Does the citizen satisfaction towards the usage of e-government influenced by perceived usefulness?
  - b) Does the perceived ease of use have a significant impact towards citizen's satisfaction on the usage of e-government portals?
  - c) Does the citizen feel satisfied on the service quality of e-government services?
  - d) Does the citizen feel satisfied on the information quality of e-government services?
  - e) Does the citizen trust have a direct significant impact on citizen satisfaction towards e-government?
- iii. Which of the factor significantly impacted the citizen's satisfaction towards e-government?

#### **6. Methodology**

Quantitative method will be used in this study. Survey questionnaires will be published in order to collect the data among the Sarikei citizens which is the target group. My target group would be specifically for the Sarikei citizens that have experience in using e-government. The data will be collected from publication of an online questionnaires and face-to-face approach through stages. The data collection for face-to-face approach will be collected through phases with different location. The sample size for this study is 382 citizens of Sarikei town. Likert-Type Scale format will be used to indicate their perception towards the determinant factors of e-government. Plus, pilot test will be conducted to check the validity, reliability and accuracy of questionnaires.

## 7. Conclusion

By assessing citizen's satisfaction with the utilisation of e-government, the study provides more insight towards the research adoption of e-government services. The objective of this study is to determine the level of citizen's satisfaction towards e-government in Sarikei according to the factors. Therefore, the findings will be done in the future to meet its objectives. Furthermore, the findings will definitely add the delivery enhancement and provides more knowledge towards the literature on e-government services.

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