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## EVALUATING PERCEIVED QUALITY OF E-GOVERNMENT SERVICES IN URBAN MALAYSIAN COMMUNITIES

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### ABSTRACT

In Malaysia, e-government, or digital government services, are becoming more and more common, especially in urban regions. The non-probability convenience sampling approach was employed in this thesis to gather information from Kampung Baru, Kuala Lumpur, people. By digitising processes, documentation, and services, these services give citizens access to government data and services via web-based apps. The degree to which citizens' demands are met and these services are deemed efficient depends on how well they are viewed. The way the local populace views and uses these services, however, is deficient. There is a substantial correlation between the use of e-government services and the perceived quality of those services, according to a study that looked at the relationship between e-government service placement and consumer behaviour in Malaysian cities. The theory that was used is Theory Acceptance Model (TAM). The government should increase customer happiness, enhance the quality of the information provided, improve the usability of the services, safeguard users' private information, encourage more people to utilise e-government services, and keep an eye on the efficacy and quality of these offerings in order to raise the perceived level of quality of these services. A more transparent and responsible government as well as more citizen participation and public service delivery could result from putting these recommendations into practise.

### ARTICLE INFO

*Keywords :*  
*perceived quality,*  
*usage of e-government services,*  
*theory acceptance model*

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## 1.0 INTRODUCTION

E-government services, also known as digital government services, utilize modern technology to offer citizens public services, thereby improving access to government information and services through web-based applications. These services streamline procedures, documentation, and service delivery via self-service and automated processes, ultimately enhancing governance (Zhao, 2010). The Electronic Government Act of 2002 underscores the significance of data collection to assist local government officials in making well-informed decisions regarding policies and initiatives (Zhao, 2010). The adoption of e-government services has been increasing globally, including in Malaysia, particularly in urban areas (Husin et al., 2017).

The perceived quality of e-government services significantly influences the adoption and usage of these services (Rehman et al., 2012). Factors such as perceived usefulness, trust in the internet, previous experience with e-government services, and perceived ease of use have a substantial impact on individuals' intention to use e-government services (Khayun & Ractham, 2011). Various studies have identified factors affecting e-government adoption, including perceived usefulness, awareness, trust, service quality, ease of use, information quality, effectiveness, social influence, user satisfaction, and intention to use (Athmay et al., 2016).

Efforts to enhance e-government services in Malaysia have been ongoing since the inception of e-government under the Multimedia Super Corridor initiative in 1997 (Husin et al., 2017). However, challenges related to privacy, security, confidentiality, technological infrastructure, maintainability, and usability must be addressed to ensure the effectiveness of these services (Zhao, 2010). The Malaysian government is working to bridge the gap in local populations' perceptions and usage of e-government services to facilitate their successful implementation and improvement (Husin et al., 2017).

In conclusion, the quality of e-government services is a critical factor in driving citizen satisfaction, loyalty, and adoption of these services. Addressing issues related to service quality, security, and privacy is essential for the successful implementation and enhancement of e-government services, especially in countries like Malaysia where the adoption of such services is gaining momentum.

## 2.0 LITERATURE REVIEW

Malaysia has been actively working on enhancing communication with residents and organizations through e-government initiatives, utilizing modern connections to improve the quality of services, procedures, and systems by leveraging the Internet and multimedia technologies. Despite these efforts, challenges persist due to ongoing institutional and organizational deficiencies, particularly related to inequalities in computer access and Internet connectivity, leading to disparities that hinder effective e-information delivery, especially for individuals in rural and urban areas with limited financial resources. The Organization of American States defines e-government as the utilization of information and communication technologies (ICTs) to enhance citizen engagement, efficiency, and transparency in governmental processes. To address these challenges and improve public service delivery in the digital era, bridging the digital divide and tailoring government services to meet community needs are crucial aspects that need to be understood, especially in terms of how urban residents perceive and utilize e-government services.

### 2.1 Usage Of E-Government Service

Malaysia has made significant progress in digitalizing its government services through the implementation of e-government initiatives. The My Government Portal serves as a centralized platform, offering a wide array of online services and integrated information from various government departments. This portal operates with a citizen-centric approach, focusing on specific life events and individual needs to enhance accessibility to government services. The introduction of the

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Multimedia Super Corridor (MSC) project in 1996 marked the government's transition to digital service delivery systems, known as e-government.

Various e-government services and systems were introduced to streamline government operations, such as the Electronic Document Management System for document management, e-Khidmat for frontline agencies, and e-Perolehan for government acquisitions. Additionally, comprehensive plans like the Public Sector Digitization Strategic Plan and Agency Strategic Plans have been developed to guide the adoption of digital technologies within government agencies.

The Malaysian government has also focused on enhancing user experience and accessibility through initiatives like the MyGovernment Portal and the Gallery of Malaysian Government Mobile Applications (GAMMA). These efforts aim to make government services more efficient, user-friendly, and citizen-focused.

In conclusion, Malaysia's e-government journey has been characterized by a concerted effort to digitalize government services, improve citizen access, and enhance operational efficiency. Through strategic planning, the implementation of various e-government systems, and a focus on user experience, Malaysia has been able to create a more accessible and citizen-centric government service delivery system.

## 2.2 Perceived Quality Of E-Government Services

Service of e-government are becoming increasingly necessary, as acknowledged by both citizens and corporations. These services give people access to government data and resources as well as a quick and simple means of communicating with government agencies. But the quality of e-government services varies widely across the country and across regions. The idea that people's perceptions of the quality of e-government services are important because they have the power to influence people's feelings of satisfaction, confidence, and intention to use e-government later on. An assessment is conducted, based on the user's perspective, regarding the perceived quality of e-government services. It is influenced by a variety of factors, such as how easy the services are to use, how accurate and trustworthy the information is, how responsive government agencies are, and how satisfied users are with their overall experience.

Service quality and perceived value have been shown to consistently increase users' intention to continue using a product or service (Chahal, H., & Kumari, N. (2011). Citizens will be discouraged from using the system again if they receive poor service and believe it is worthless or useless. Their responses have a direct impact on the viability of e-government infrastructure and programmes (Al-Hujran & M. Al-Debei, 2015). As a result, developers are working to find solutions to the issues that prevent users from reusing e-government services. The total of the characteristics and qualities that go into providing a specific public service (L. Baker, 2009) reflects the quality of an e-government service.

Adoption of e-government depends on citizens' acceptance of the services and degree of trust in the new services (Carter & Belanger, 2005). The success of initiatives taken by the Malaysian government to provide e-government services may depend on a number of factors, such as ease of use, trust and concerns about making transactions, the calibre of data and the degree of service provided by e-government portals. The calibre of the content has a major impact on citizens' satisfaction levels with e-government portals. System yield is quantified in terms of content quality, which includes the following dimensions (DeLone & McLean, 1992): objectivity, security, completeness, error-free, understandability, timeliness, relevance, and succinct presentation. Chutimaskul, Funikul, and Chongsuphajaisiddhi (2008) state that user satisfaction is positively correlated with the attributes of accurate, timely, relevant, precise, and comprehensive content quality in the context of e-government. Wang and Liao (2008) found that the information quality of the e-government website was the most important antecedent to public happiness, preceding both system and service quality. The relationship between customer happiness and service quality has been extensively studied in the marketing literature. The close relationship between clientele and service quality implies that particular client behaviour is influenced by service quality (Zeithaml et al., 1996). Similar conclusions were drawn by Iacobucci, Ostrom, and Grayson (1995), who argued that customer satisfaction and service quality are critical to advertising because the evaluation of a purchase influences the likelihood of a follow-up purchase and, ultimately, the success of the business. Rust and Zahorik (1993) assert that when customer satisfaction increases due to an improvement in service quality, perceived quality also rises. Zeithmal et al. (2002) distinguished five

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aspects in their conceptualization of e-service quality delivery: fulfilment, security and privacy, design and aesthetics, usability and simplicity of use, and information content and accessibility. Teo et al. (2008/9) discovered that website satisfaction in Singapore is positively correlated with the service quality of an e-government website. This has bearing on how satisfied people are with e-government portals. Furthermore, the quality of products and services offered through e-government portals is the best predictor of e-satisfaction in Jordan, according to Alawneh et al. (2013).

### 2.3 Theory Acceptance Model (TAM)

The first goal of the Technology adoption Model (TAM) was to shed light on the mechanisms that underlie technology adoption. This allowed for the prediction of user behaviour and the provision of a theoretical framework for the successful application of technology. Its second practical goal was to provide practitioners with advice on what has to be done before a system is implemented. Davis (1989, 1993) detailed several critical measures that were followed in order to accomplish these goals. Davis laid forth the mechanisms that mediate the relationship between external factors—like the features of information systems (IS)—and the real use of these systems, which served as the impetus for the creation of the technology acceptance model. The Theory of Reasoned Action, which provided a psychological viewpoint on human behavior—a viewpoint conspicuously lacking in the information systems literature at the time—served as an inspiration for the model. We will gain a better knowledge of the beneficial relationship between usage of e-government service and perceived quality of e-government services.

#### Operational Framework



### 3.0 METHODOLOGY

This research examines the perceived quality of e-government service and usage of e-government services in Malaysian cities through a quantitative approach. To gather information about the audience, the study need 100 respondent, a 23-question survey is utilised. In urban Malaysian communities, the Likert scale is employed to gauge people's views and opinions regarding the use of e-government services. The study's objectives are to identify the perceived e-government service quality that are most important to malaysian communities and to identify the usage of e-government services towards urban malaysian communities. The study aimed to examine the relationship between e-government service placement and consumer behavior, focusing on Malaysian residents. The questionnaire was delivered in Malay and English, divided into a few sections. The research was informed by four key factors: age, gender, family structure, and income. Participants provided anonymous answers to questions about the effectiveness of e-government services in Malaysian cities and their acceptance in leisure programs. The study also included multiple-choice questions to aid in understanding the effectiveness of e-government service placement in Malaysian cities. The questionnaire took about five to ten minutes to complete. The non-probability convenience sampling approach was employed in this thesis to gather information from Kampung Baru, Kuala Lumpur, people. Using a random selection process, units are chosen for the sample according to factors like interest, availability, or proximity. The purpose of the study was to comprehend how E-Government services are used in Malaysian metropolitan neighbourhoods. The survey was sent via email, Telegram, WhatsApp, and other social media networks. It was completed online. The dates of the data collecting were October 16–19, 2023. However, the online method may lead to prejudice and unpredictable influences.

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The purpose of the study is to find out how participants in urban Malaysian communities perceive and use e-government services. When generalised to other populations, the findings lose some of their validity and relevance, but they are dependable in precisely describing the circumstances inside these particular societies. There were 100 participants in the anonymous survey, and 100 valid answers were received. IBM SPSS methodologies were used to analyse the results' dependability. Likert scale items are the main indicator of a questionnaire's consistency, and reliability tests employ Cronbach's alpha to calculate this. There were four Likert scale items and two parts in the questionnaire. The means of two unrelated groups on the same continuous and dependent variable are compared using the independent t-test. To find out if there are any statistically significant differences between the means of three or more independent (unrelated) groups, a one-way ANOVA was employed. Which study design groups differed from one another was revealed by the post hoc test. Every feasible combination of the independent variables was assessed using the least-significant difference (LSD). The likelihood that the scientific hypothesis will be incorrect in comparison to the null hypothesis is known as the P value, or Sig. (Significance).

#### 4.0 FINDINGS AND DISCUSSION

##### Descriptive

Table 1 show the percentage of demographic

ITEMS	LIST OF ITEMS	PERCENTAGE
<b>Gender</b>	Male	49%
	Female	51%
<b>Level of education</b>	PhD Degree	1%
	Master Degree	6%
	Bachelor Degree	62%
	Diploma	20%
	SPM	9%
	Others	2%
<b>Age</b>	Less than 20 years old	6%
	20 -30- years old	74%
	30 - 40 years old	9%
	40 - 50 years old	8%
	Above 50 years old	3%
<b>Occupation</b>	Government	10%
	Non Profit Sector	1%

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	Student	52%
	Private	29%
	Others	8%
<b>Race</b>	Malay	97%
	Chinese	1%
	Indian	2%
<b>Yeas of Use Internet</b>	1 - 2 years	2%
	3 - 5 years	7%
	More than 5 years	91%

Table 1, Part A of the demographic question looked at how Malaysian urban women perceived the use of e-Government services based on the table above, by gender. Table 1 indicates that women make up 51% of Malaysian urban users, with men making up the minority audience (49%). Among Malaysian urban e-Government service users, bachelor's degrees (62%) and diplomas (20%) were the most common forms of education, followed by Sijil Pelajaran Malaysia (SPM) (9%). Over 50% of the respondents selected all of these options. The demographic inquiry looked at Malaysian urban residents' ages in relation to how they perceived the use of e-Government services, as seen by the table above.

It can be concluded that 74% of Malaysian urban users are between the ages of 20 and 30; 9% of respondents are between the ages of 30 and 40; 8% of respondents are between the ages of 40 and 50; 6% of respondents are under the age of 20, and the remaining respondents are over 50. Students make up the majority of Malaysian urban respondents (52%), followed by the private (20%), government (10%), others (8%) and nonprofit sector (20%). Over 50% of the respondents selected all of these options. The demographic question looked at how Malaysian urban residents of different races perceived the use of e-Government services, as seen in the above table. It may be inferred that 97% of Malaysians who use metropolitan areas are Malay, with the remaining percentage being Chinese and Indian. Over five years is the longest period of internet use for Malaysian urbanites (91%), followed by three to five years (7%), and one to two years for the remaining years.

## Reliability

*Table 2 show the cronbach's alpha*

ITEM	CRONBACH'S ALPHA	N OF ITEM
<b>Perceived Quality of E-Government Services</b>	.914	5
<b>Usage of E-Government Services</b>	.937	3

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A reliability test that looks at the dependability of each statement in a scaled question, such as Cronbach's alpha, is a useful tool for assessing the internal concept consistency of Likert scale inquiries (Goforth, 2015). Table 2 displayed the data result, which was the five Likert scale questions' reliability. The five Likert scale questions have a Cronbach's Alpha coefficient of .914, indicating a comparatively "excellent" level of internal consistency. Stated differently, the four questions examined the efficacy of the perceived quality of e-government services. The results showed that the samples' internal consistency and dependability were quite good. Furthermore, it indicates that the community in our study finds the e-government to be of excellent quality. The degree to which the items on the scale are related to one another is indicated by Cronbach's alpha. Greater internal consistency among the items is shown by a higher alpha score, which suggests that the items accurately measure the same concept. For this kind of research, a Cronbach's alpha value of more than 0.5 is usually regarded as appropriate. A Cronbach's Alpha coefficient of .937 was found for three Likert scale items, indicating a rather "excellent" degree of internal consistency. Put another way, the three questions looked at how effective it is to use e-Government services. The samples' dependability and internal consistency were demonstrated to be fairly high by the results, which is the application of electronic governance, demonstrates a Cronbach's alpha of 0.937. Furthermore, it indicates that the community in our poll is using e-government. The degree to which the items on the scale are related to one another is indicated by Cronbach's alpha. Greater internal consistency among the items is shown by a higher alpha score, which suggests that the items accurately measure the same concept.

**Correlation**

Table 3 show the correlation between variable independent and dependent variable

**Correlations**

		PerceivedQuality	Usage
PerceivedQuality	Pearson Correlation	1	.720**
	Sig. (2-tailed)		<.001
	N	100	100
Usage	Pearson Correlation	.720**	1
	Sig. (2-tailed)	<.001	
	N	100	100

\*\* . Correlation is significant at the 0.01 level (2-tailed).

There is a strong (.720) association between the use of e-government services and the perceived quality of those services. This demonstrated that urban Malaysians concur on the e-government services' perceived quality. Table 2 presents the perceived quality of e-government services and demonstrates the high association between e-government service utilisation and perceived quality. Additionally, it demonstrates that the correlation's significance is at the 0.01 level. We will receive a correlation matrix in the output, which displays the correlations and accompanying p-values between the variables we have chosen. The correlation coefficients are expressed as follows: 0 denotes no correlation, and the ranges from -1 (perfect negative correlation) to 1 (perfect positive correlation).

Table 4 show the percentage of agree for all the questions

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ITEM	QUESTION	PERCENTAGE OF AGREE
<b>Perceived Quality of E-Government Services</b>	E-government services provide accurate information	43%
	E-government services provide reliable information	49%
	E-government services provide relevant information	53%
	E-government services provide easy-to-understand information	45%
<b>Usage of E-Government Services</b>	I have a positive attitude towards using e-government services	53%
	I use/intent to use e-government services	53%
	I often use/intent e-government services	44%

From the research result in table 4, as many as 43% Malaysian urbanites agree e-government services provide accurate information. Besides, as many as 49% Malaysian Urbanites agree e-government services provide reliable information. Moreover, as many as 53% agree e-government services provide relevant information. Lastly, as many as 45% urbanites agree e-government services provide easy-to-understand information. From research results in table 4, as many as 53% Malaysian Urbanites agree to have a positive attitude towards using e-government services. Next, as many as 53% Malaysian Urbanites agree to use/intent to use e-government services. Lastly, as many as 44% Malaysian Urbanites agree toward often use/intent e-government services.

## 5.0 CONCLUSION

In conclusion, Malaysia has seen a rise in the use of e-government services, especially in urban regions. The Malaysian government has worked hard to improve the calibre of e-government services and digitise service delivery methods. Nonetheless, issues including security and privacy worries, technical barriers, infrastructure, maintainability, and usability still need to be resolved. Public satisfaction with and loyalty to e-government services are significantly influenced by the perceived quality of these services. There is a substantial correlation between the use of e-government services and the perceived quality of those services among urban Malaysians, according to a study on the subject of e-government service

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usage and perceived quality in Malaysian cities. The survey also determined the use of e-government services by urban Malaysian communities and the perceived quality of e-government services that matters most to Malaysian people.

The following suggestions can be made to raise the opinion of e-government services' perceived quality, first is to boost customer satisfaction and trust, improve the information supplied through e-government services in terms of correctness, dependability, relevance, and clarity. This can be accomplished by making sure that the data is current, simple to comprehend, and pertinent to the needs of the user. Second is to make e-government services more comfortable and easy to use for all users, including those with disabilities, make them more user-friendly and accessible. This can be accomplished by creating e-government services that are simple to use, clear to understand, and open to all users. Third is to safeguard users' private information and stop cyber attacks, e-government services should bolster their security and privacy protocols. This can be accomplished by putting strong security mechanisms in place to guarantee that user data is protected, such as firewalls, multi-factor authentication, and encryption.

Fourth is to encourage more individuals to use e-government services and benefit from them, raise awareness and educate the public about them. This can be accomplished by starting awareness efforts and giving users the assistance and training they need to utilise e-government services efficiently. Last is maintain a close eye on the efficacy and quality of e-government services to spot opportunities for development and make sure they live up to users' changing demands. This can be accomplished by regularly holding feedback sessions and surveys to get input from users and pinpoint areas that need work. By putting these suggestions into practise, the government may raise the standard of e-government services, which will ultimately result in enhanced citizen participation and engagement, more effective and efficient public service delivery, and an open and responsible government. The government may improve the calibre and application of e-government services, which can result in improved citizen participation and engagement, more effective and efficient public service delivery, and ultimately, a more open and accountable government.

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