

Enhancing Citizen Satisfaction in Smart Government Services: The Role of Perceived Ease of Use and Awareness in Malaysia

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Abstract

This study investigates the relationship between perceived ease of use and awareness in shaping citizen satisfaction with smart government services in Malaysia. A total of 834 valid survey responses were collected across all states, and the data were analysed using descriptive statistics, reliability testing, correlation, and regression analysis. The findings reveal that both perceived ease of use and awareness have significant positive effects on citizen satisfaction, explaining over 62% of the variance. These results underscore the importance of user-friendly service design and robust awareness campaigns in increasing citizen satisfaction. The study contributes to the growing literature on digital governance by highlighting the centrality of ease of use and awareness in Malaysia's public sector transformation. Policymakers are encouraged to prioritise intuitive platforms, expand digital literacy initiatives, and sustain trust-building measures to ensure long-term adoption and engagement.

Keywords: Smart government, perceived ease of use, awareness, citizen satisfaction, Malaysia

1. Introduction

Digital transformation in governance has accelerated globally, with governments increasingly relying on smart technologies to improve service delivery and public engagement. Smart government services utilise digital platforms, mobile applications, and online portals to simplify access, reduce bureaucracy, and improve citizen satisfaction (Almuraqab et al., 2021). In Malaysia, initiatives such as the MyGov Mobile application illustrate the government's commitment to citizen-centric digital services. Despite these developments, challenges such as low awareness, uneven digital literacy, and interface complexity persist.



Citizen satisfaction is widely regarded as a key performance indicator of successful digital governance (Triana Casallas et al., 2020). However, satisfaction depends not only on service outcomes but also on citizens' experiences in accessing and using these platforms. This study focuses on two critical determinants of satisfaction: perceived ease of use (PEOU) and awareness. Prior research has shown that ease of use encourages adoption and satisfaction, while awareness influences both perceptions and actual usage (Shamsudin et al., 2020; Mensah et al., 2021). Nevertheless, empirical studies exploring these relationships in the context of Malaysian smart government remain limited.

Consequently, this study investigates the effect of perceived ease of use and awareness on citizen satisfaction with smart government services in Malaysia. It adds to the literature by situating the analysis within a Southeast Asian digital transformation landscape, where cultural, infrastructural, and policy dimensions differ from Western contexts.

2. Literature Review

2.1 Citizen Satisfaction and Smart Government Services

Citizen satisfaction reflects the degree to which government services meet or exceed public expectations. In the digital era, citizens increasingly expect seamless, responsive, and transparent interactions (Shamsudin, Ishak, et al., 2020). High satisfaction has been associated with improved trust in government, stronger civic engagement, and greater likelihood of continued service usage (Hassan et al., 2020). Conversely, dissatisfaction undermines adoption and can erode legitimacy. Recent research emphasises that satisfaction in digital governance requires not only reliable service quality but also user-centred design and effective communication strategies (Susanti et al., 2023).

2.2 Perceived Ease of Use and Citizen Satisfaction

Perceived ease of use, rooted in the Technology Acceptance Model (TAM), refers to the degree to which citizens perceive government platforms as effortless and straightforward to use. Studies have consistently shown that ease of use positively influences satisfaction and adoption intentions in digital platforms (Shamsudin, Ramle, et al., 2020; Mensah et al., 2021). For example, user-friendly interfaces reduce cognitive burden, enhance perceptions of efficiency, and strengthen trust in service providers. In the smart government context, PEOU is especially critical because citizens may have varying levels of digital literacy (Albashrawi & Motiwalla, 2021). Recent research highlights that design simplicity and accessibility across devices are now central to driving citizen engagement (Aljarboa, 2023).

2.3 Awareness and Citizen Satisfaction

Awareness refers to citizens' knowledge of the existence, availability, and benefits of government digital services. A lack of awareness often limits adoption, even when services are technologically robust (Almuraqab et al., 2021). Awareness also shapes perceptions of transparency, accessibility, and service value, thereby influencing satisfaction. Awareness campaigns through social media, digital literacy workshops, and targeted communication



strategies have been found effective in boosting satisfaction and trust (Guenduez et al., 2020). More recent studies argue that awareness works synergistically with ease of use, as citizens must first know about services before they can appreciate usability (Leroux & Pupion, 2022; Reddick et al., 2022).

3. Methodology

This study employed a quantitative survey design to test the influence of PEOU and awareness on citizen satisfaction. A structured questionnaire was distributed to 1,500 Malaysian citizens via email, of which 404 usable responses were collected (response rate = 55.6%). Respondents represented all states, including Sabah and Sarawak, ensuring broad demographic coverage.

The instrument included scales for perceived ease of use (7 items), awareness (4 items), and citizen satisfaction (4 items), all adapted from prior validated studies. Reliability was assessed using Cronbach's alpha, with all constructs exceeding the threshold of 0.70 (PEOU = 0.939; awareness = 0.845; satisfaction = 0.967). Data were analysed using SPSS 25, employing descriptive statistics, correlation, and regression analysis.

4. Results

4.1 Reliability and Descriptive Statistics

Table 1: Reliability Analysis

Variable	No of Item	Cronbach's Alpha
Perceived ease of use	7	0.939
Awareness	4	0.845
Citizen Satisfaction	4	0.967

Reliability analysis confirmed strong internal consistency for all variables. The descriptive results showed moderate to high mean values: PEOU (M = 3.841, SD = 0.742), awareness (M = 4.146, SD = 0.737), and satisfaction (M = 4.062, SD = 0.819). This indicates that respondents generally perceived smart government services as user-friendly, were aware of their availability, and reported satisfaction with their use.

4.2 Correlation Analysis

Table 2: Correlation Analysis

	PEOU	Awareness	Citizen Satisfaction
PEOU	1		
Awareness	.373**	1	
Citizen Satisfaction	.769**	.330**	1

Correlation results revealed significant positive associations among the variables. PEOU was strongly correlated with satisfaction ($r = 0.769$, $p < 0.01$), while awareness was moderately correlated with satisfaction ($r = 0.330$, $p < 0.01$). This suggests that ease of use exerts a stronger influence on satisfaction compared to awareness.

4.3 Regression Analysis

Table 3: Regression Analysis

Coefficients	B	Std.	T-Value	P-Value
Ease Of Use → Citizen Satisfaction	0.878	0.044	18.781	0.000
Awareness → Citizen Satisfaction	0.388	0.064	5.826	0.000

Multiple regression analysis indicated that both PEOU ($\beta = 0.878$, $t = 18.781$, $p < 0.01$) and awareness ($\beta = 0.388$, $t = 5.826$, $p < 0.01$) significantly predicted citizen satisfaction. Together, they explained 62.4% of the variance in satisfaction, demonstrating their combined importance in determining positive experiences with smart government services.

5. Discussion

The findings confirm that ease of use and awareness are key drivers of citizen satisfaction in Malaysia's smart government services. The results align with earlier studies linking usability and awareness with satisfaction and adoption (Mensah et al., 2021; Shamsudin, Shabi, & Salem, 2018). Specifically, the strong effect of PEOU indicates that user-friendly design and simplified processes are paramount in enhancing satisfaction. Citizens accustomed to technology in daily life expect government services to match private sector standards of convenience, efficiency, and accessibility (Aljarboa, 2023).

Awareness also emerged as a significant, though weaker, predictor. This highlights that even well-designed services risk underutilisation if citizens are unaware of their availability or benefits. Awareness campaigns, through social media, education programs, and

collaboration with community groups, can strengthen visibility and encourage adoption (Reddick et al., 2022).

The study provides valuable insights for Malaysia's public sector digitalisation strategy under MyDIGITAL. By focusing on ease of use and awareness, policymakers can foster greater satisfaction, build trust, and promote active citizen engagement in digital governance.

6. Conclusion

This study provides clear evidence that perceived ease of use and awareness significantly contribute to enhancing citizen satisfaction with smart government services in Malaysia. The findings demonstrate that citizens place a high value on digital services that are intuitive, accessible, and easy to navigate. At the same time, awareness of the existence and benefits of these services remains crucial, as citizens must first be informed before they can fully appreciate usability and efficiency. The combined effect of these two factors illustrates that satisfaction is not shaped solely by design or accessibility but also by the extent to which governments succeed in reaching out and communicating effectively with their citizens.

For policymakers, the results carry important implications. The emphasis on user-centred design must be prioritised to ensure that digital services are simple, seamless, and inclusive, particularly for populations with varying levels of digital literacy. Equally important is the implementation of targeted awareness campaigns that communicate the value of digital services, increase adoption rates, and ensure equitable access across demographic groups. The findings also underscore the need to adopt mobile-first strategies, recognising that the majority of Malaysians now engage with government services primarily through smartphones and expect mobile platforms to deliver the same levels of convenience and efficiency as private-sector applications.

While this study highlights the central roles of ease of use and awareness, it also opens pathways for future research to examine other determinants of citizen satisfaction. Variables such as trust, service quality, and digital literacy may further enrich understanding of how citizens perceive and evaluate digital governance. Exploring these factors can provide deeper insights into how governments can build inclusive, transparent, and responsive digital ecosystems that foster long-term engagement and trust. In sum, the study affirms that satisfaction in smart government services depends on both technological design and citizen awareness. It calls for continuous innovation, communication, and inclusivity to achieve the goals of Malaysia's digital transformation agenda.

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