JOURNAL OF DIGITAL SYSTEM DEVELOPMENT

https://e-journal.uum.edu.my/index.php/jdsd

How to cite this article:
Mohd, H., Baharom, F., Mohamed, S. F. P., Yusuf, Y., Abai, N. H. Z., Barraod, S. O., & Ba-Quttayyan, B. (2025). Zakat Systems in the Kedah State: Assessment from a Quality-in-Use Perspective for Future Sustainability. *Journal of Digital System Development, 3* (1), 117-129. https://doi.org/10.32890/jdsd2025.3.1.10

USER SATISFACTION OF THE ZAKAT SYSTEM IN THE KEDAH STATE: FROM A QUALITY-IN-USE PERSPECTIVE

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Received: 9/3/2025 Revised: 15/4/2025 Accepted: 16/4/2025 Published: 28/4/2025

ABSTRACT

Lembaga Zakat Negeri Kedah (LZNK) has adopted two types of Zakat management systems: Jom Zakat and Zakat-on-Touch. The aim is to increase Zakat collection through online platforms. However, although Jom Zakat (adopted in 2018) and Zakat-on-Touch (adopted in 2019) have been in use for over five years, neither system has been evaluated from a Quality-in-Use perspective, which may impact user satisfaction. These evaluations are crucial to guarantee that the systems meet the necessary and established standards for quality in ISO/IEC 25010. Thus, the main objective of this study is to evaluate the Zakat systems' user satisfaction from the Quality-in-Use perspective. The study was carried out in three stages using the quantitative approaches, involving literature reviews, instrument development, and survey distribution to 53 respondents. The data was analysed using SPSS. In general, the respondents are satisfied with the Quality-in-Use of the Zakat systems. The findings indicate that the study is highly significant by illustrating the correlations between User Satisfaction with Efficiency (mean=4.2, r=0.933, p=0.001) and effectiveness (mean=4.1, r=0.902, p<0.001) of the zakat systems. The study supports LZNK decision-makers in formulating IT strategic plans, particularly on the long-term maintenance of the Zakat systems. It will also assist developers in making improvements to the systems. Most importantly, more related studies are necessary to create a comprehensive assessment model of the Zakat Systems to guarantee their sustainability.

Keywords: Kedah Zakat System, Quality-in-Use, User Satisfaction, Efficiency, Effectiveness.

INTRODUCTION

Zakat, derived from the Arabic word "zaka," meaning growth or purification, is a fundamental component of the Islamic economic system and holds great significance for Muslims (Zainolet al., 2021). Muslims are required to provide zakat, a type of charity, to the Muslim ummah who are less fortunate (Farah et al., 2019). The Zakat system has become an important source to ensure the Zakat collection can be distributed transparently for the stability of this ummah. Zakat is one of the five pillars of Islam, along with the statement of faith, prayer, Ramadan fast, and the pilgrimage to Mecca (Ganiyev, 2020). Zakat in Islam is a mandatory form of almsgiving intended to support those in need, promote social justice, and purify one's wealth (Owoyemi, 2020).

Lembaga Zakat Negeri Kedah (LZNK) has taken the initiative to digitalise zakat management in Kedah, recognising the importance of zakat obligations for all ummah. This initiative began in 2018 with the launch of Jom Zakat (Zakat Kedah Website, 2024), followed by Zakat on Touch in 2019 (Zakat Kedah Website, 2025). The Jom Zakat is a web-based system, whilst the Zakat-on-Touch is a mobile application. In this article, both system applications are called Zakat systems.

The literature review reveals that no one has evaluated the LZNK zakat systems from a Quality-in-Use perspective in over five years since their launch (https://www.zakatkedah.com.my/pelancaran-sistem-online-jom-zakat/). Most of the research focuses on the determinants of the success of zakat management and the process concerning the zakat collection and distribution (Jamaludin et al., 2025; Syed Yusuf et al., 2024; Judijanto et al., 2024; Komarudin et al., 2023; Purnomowati et al., 2022; Murwenie et al., 2021; Lubis & Azizah, 2018). Quality-in-Use is the degree to which particular users utilise a system or product to fulfil their needs and accomplish various goals, especially in usage contexts with effectiveness, efficiency, risk-free, and satisfied outcomes (ISO 25000, n.d.). Similarly, Quality-in-Use describes how effectively a software program satisfies user needs and expectations while offering a positive user experience.

The Quality-in-Use describes how effectively a software program satisfies user needs and expectations while offering a positive user experience. Determining the features of any software product is essential for system applications' quality-in-use to meet the software quality standards set by ISO/IEC 25010/2011 (ISO25000 Software and Data Quality).

Quality-in-Use evaluation of software is an ongoing process, not a one-time event. To guarantee the sustainability of the zakat systems, LZNK should prioritise Quality-in-use assessments to exceed customer expectations, drive success, and stay competitive in the evolving digital landscape. "A development that meets the needs of the present without compromising the ability of future generations to meet their own needs" is the definition of sustainability (ISO/IEC25010). Numerous factors are involved in Quality-in-Use, which calls for a methodical approach, adherence to industry standards, and ongoing efforts for improvement (ISO/IEC 25010). These increase user satisfaction, trust, and success in promoting the Zakat principles. The assessment of the Quality-In-Use is essential and must be ongoing. This study aims to evaluate the Zakat systems introduced by LZNK from the Quality-in-Use perspective.

LITERATURE REVIEW

Quality-in-Use of the Zakat Systems

The evaluation of the LZNK-introduced zakat systems focuses on their Quality-in-Use, particularly user satisfaction, and their impacts on efficacy and efficiency. These systems enable users to fulfil their Zakat obligations. Ensuring that the systems are effective, efficient, and user-friendly is crucial for enhancing user satisfaction, which could lead to higher Zakat collections and support for the systems. Furthermore, improved satisfaction may foster user loyalty, trust, and adoption (Negmu, 2021), ultimately ensuring the application's long-term success (Ashiq & Hussain, 2024).

Numerous factors are involved in Quality-in-use, which calls for a methodical approach, adherence to industry standards, and ongoing efforts for improvement (ISO/IEC 25010). These increase user satisfaction, trust, and success in promoting the Zakat principles. Therefore, the continuous assessment of the Quality-In-use is essential.

Quality-in-Use Measures in ISO/IEC 25010

Previous studies have not explicitly assessed the quality of use of Zakat applications through a targeted Google Scholar scholar search strategy employing the keywords "quality-in-use," "effectiveness," "efficiency," and user satisfaction, along with "Zakat applications" and the publication years 2018 to 2025." Across the 160 articles generated, there was no mention or investigation into the Quality-in-Use of the Zakat applications. According to ISO/IEC 25010, Quality-in-Use assesses a system's or product's usability for specific users in meeting their needs and goals, focusing on effectiveness, efficiency, freedom from risk, and satisfaction. Thus, the following crucial elements from the Quality-in-Use ISO 25010 standard are used in this study to assess the Quality-in-Use of a Zakat application:

Effectiveness: It describes how effectively a software program fulfils its stated aims and delivers the expected user outcomes by assessing the accuracy and comprehensiveness of the software's features (ISO 25010).

Efficiency: The ability of a software program to perform operations using the minimum necessary time, memory, and processing power. It focuses on performance and resource optimisation to ensure tasks are executed effectively and promptly (ISO 25010).

Satisfaction: This measures the user's overall contentment and acceptance of the software product by considering usability, aesthetics, and user experience about their needs and expectations. High satisfaction signifies an easy-to-use system that meets user requirements (ISO 25010).

According to Purnomowati et al. (2022), contented users are inclined to stick with the Zakat app and participate in frequent charitable endeavours, promoting user integrity in several ways. Accurate reporting: Users are pleased with the Zakat systems due to the accuracy of the reports that the applications provide (Nurhayati et al., 2018). They believe the application is trustworthy and dependable, which may motivate them to continue fulfilling their Zakat obligations (Murwenie et al., 2021). A well-designed and user-friendly Zakat application can offer transparency in funds management and distribution. As a result, they are more likely to follow the Zakat principles and guidelines, ensuring integrity in reporting their income and wealth for the Zakat obligation (Sayuti & Zaimsyah, 2023). The integrity of the application is further reinforced by satisfied users who are more inclined to believe in its transparency and feel assured that their contributions are being used properly.

A satisfying application experience fosters trust, transparency, and commitment among users, leading to accurate reporting, increased community engagement, and the promotion of integrity in fulfilling Zakat obligations.

The following section discusses the relationship between Effectiveness and User Satisfaction and Efficiency and User Satisfaction to formulate the hypotheses.

1) Effectiveness and User Satisfaction

A high-quality Zakat application should satisfy user demands and expectations while providing a smooth and intuitive experience. The ISO 25010 standard and its effectiveness factor are crucial, as the Zakat systems' efficacy depends on their ability to satisfy users' changing demands and expectations. The effectiveness of the Zakat application strongly influences users' satisfaction and willingness to use it again for Zakat contributions (Omar et al., 2020; Salleh & Chowdhury, 2020; Nurhayati et al., 2018). Therefore, to ensure the Zakat application produces correct reporting, it can be evaluated using the Effectiveness factor. A top-notch Zakat application builds user integrity and confidence by meeting their needs, delivering a seamless experience, and ensuring accurate reporting. Consequently, this leads to the formulation of the following theory :

H^1: The effectiveness characteristics positively influence the User Satisfaction of the Zakat application in the Kedah state.

2) Efficiency and User Satisfaction

The efficiency of the Zakat application affects user satisfaction. Users are more satisfied with the application's speed and ease of use when it enables them to compute and submit their Zakat (Swandaru, 2019; Syed Yusuf, 2024). Furthermore, accurate information and precise computations in the Zakat application increase user satisfaction (Judijanto et al., 2024). Users are more satisfied with an application's efficiency when it guarantees accurate and dependable results (Komarudin et al., 2023). Prompt responses to user inquiries or support requests in the Zakat application contribute to user satisfaction with its efficiency. Providing timely and helpful support improves their satisfaction with the application's performance (Roziq, 2021; Cahyaningtyas & Fauza, 2023).

The explanation regarding Efficiency and User Satisfaction becomes the basis for formulating the following hypothesis:

H^2: The Efficiency characteristics positively influence the User Satisfaction of the Zakat application in the Kedah state.

The system's efficiency directly impacted user satisfaction by facilitating successful task completion, offering dependability, usability, error handling and prevention, and customisation possibilities. A system increases user engagement and pleasure when it successfully satisfies these requirements. Concurrently, the effectiveness of the Zakat application significantly influences customer satisfaction. User satisfaction with the overall effectiveness and efficiency of the Zakat collection increases when the program offers mobile accessibility, correct computations, a user-friendly interface, seamless integration with pertinent systems, timely responses, and time savings.

METHODOLOGY

The research procedure consists of three main phases: 1) Empirical Study, 2) Questionnaire Design, and 3) Data Collection and Data Analysis.

Empirical Study

A thorough literature review was conducted on the management system of Zakat. It focused on Quality-in-Use and its measurement, utilising the IEC/ISO 25010 Standard from the end-user perspective to support the empirical investigation. The empirical investigation identified the problems and shortcomings of the current Zakat systems and their link to LZNK's implementation. The findings are used to accomplish the first objective. To achieve the second, the subsequent step identifies Quality-in-Use sub-characteristics from the end-user's perspective.

Questionnaire Design

The following is the identification of Quality-in-Use measurement in the literature review. Based on IEC/ISO 25010:2011, Efficiency, Effectiveness, and User Satisfaction were pinpointed as sub-characteristics of Quality-in-Use. These characteristics and sub-characteristics were incorporated as questionnaire items and elaborated upon in the subsequent paragraph.

The questionnaire comprises two primary sections: Section A covers Demographics, while Section B focuses on Quality-in-Use. It employs a 5-point Likert scale, where 1 denotes 'Strongly Disagree,' 2 'Disagree,' 3 'Neutral,' 4 'Agree,' and 5 'Strongly Agree.'

Questionnaire Design of Quality-In-Use

According to ISO/IEC 25010, Quality-in-Use assesses how well-designated users employ a product or system to meet their needs and achieve specific goals. It includes effectiveness, efficiency, safety, and satisfaction within usage situations. The subsequent Quality-in-Use elements derive from this ISO/IEC 25010 standard.

I. Effectiveness
Effectiveness is the accuracy and completeness with which users achieve specified goals.

Table 1

Effectiveness Scale

No.	Measures
EFV1	The zakat systems system can complete the task perfectly (Task completed).
EFV2	The zakat systems system can produce output as desired by the user (accuracy).

II. Efficiency

Efficiency is the resources expended on the accuracy and completeness with which users achieve goals.

Table 2

Efficiency Scale

No.	Measures
EFC1	The Zakat systems system can respond quickly.
EFC2	The Zakat systems system can deal with problems quickly.

III. Satisfaction

Satisfaction is the degree to which user needs are satisfied when a product or system is used in a specified context.

Table 3

Satisfaction Scale

No.	Measures
SAT1	The Zakat systems system can deal with problems quickly.
SAT2	I am satisfied with the accuracy of the Zakat systems system.
SAT3	I am satisfied with the accuracy of the Zakat systems system.
SAT4	I am satisfied with the accuracy of the Zakat systems system.
SAT5	I am satisfied with the accuracy of the Zakat systems system.
SAT	I am satisfied with the accuracy of the Zakat systems system.

Data Collection

A pilot test initiated the data collection to evaluate the instrument's validity, reliability, and feasibility. The study included respondents with at least one year of experience or prior use of the Kedah Zakat systems.

The pilot test involved 30 respondents. The collected data was then analysed using SPSS 26. The reliability test was to ensure the items in the instrument were reliable. Following the Hulin et al. (2001) acceptance rule, a Cronbach’s alpha value between 0.6 and 0.7 is acceptable, while a value exceeding 0.8 is considered very good. Cronbach's alpha coefficient measures the internal consistency or reliability of the survey items. According to general rules of thumb, a Cronbach’s alpha value above 0.7 indicates good reliability. Therefore, any item with a Cronbach’s alpha value greater than 0.7 was considered acceptable in this study.

After the pilot test, any item below 0.6 was removed while the rest were retained. The real data collection involved 53 respondents who fulfilled the characteristics mentioned above. It was performed using a self-administered questionnaire. A sample size of 250 respondents was determined based on purposive sampling, requiring respondents to have at least one year of experience using the Zakat systems by LZNK. It was challenging to get cooperation from the respondents, and it took approximately one year to get their feedback. After five follow-ups and due to the time constraint, only 53 respondents (21%) responded to the questionnaire. Table 3 shows the respondents' demographics.

Table 4

Respondents' Demographics

	Frequency	Valid Percent
Gender		
Male	28	52.8
Female	25	47.2
Total	53	100.0
Age		
21 – 30 years	3	5.7
31 – 40 years	13	24.5
41 – 50 years	21	39.6
Above 51	16	30.2
Total	53	100.0
Job		
Government	25	47.1
Statutory Body	17	32.1
Private	5	9.4
Self-employed	3	5.7
Unemployed	3	5.7
Total	53	100.0
Position		
Lectures	20	37.73
Clerk	6	11.33
LHDN/ICT Officer	4	7.55
Assistance Administrator	4	7.55
Teacher	4	7.55
Retired	3	5.67
Doctor	1	1.87
Managing Director	1	1.87
Manager	1	1.87
Engineer	2	3.77
Assistance Architect	1	1.87
Assistance Accountant	1	1.87
Others	5	9.43
Total	53	100.00

Results and Findings

Pilot Test

The pilot test involved 30 respondents, and the outcomes for all questionnaire items are detailed in Tables 5 and 6. The Cronbach's Alpha value is notably high at .975. This high value of Cronbach's Alpha is likely attributed to adapting the questionnaire items from an established standard: ISO 25010 – Software Quality Model.

Table 5

Results of Case Processing Summary and Reliability Test

		N	%	Reliability Test	
Cases	Valid	30	100.0	Cronbach's Alpha	N of Items
	Total	30	100.0	.975	7

a. Listwise deletion based on all variables in the procedure.

Table 6

Cronbach's Alpha Value for each item in the instrument

Items	No. of Items (N)	Cronbach's Alpha value	Comment (Accept/Reject)
Effectiveness	2	0.920	Accept
Efficiency	2	0.942	Accept
Satisfaction	6	0.985	Accept

Following the reliability test results (Cronbach's Alpha value), it is determined that all sub-characteristics of Quality-in-Use, including Effectiveness, Efficiency, and Satisfaction, are deemed acceptable.

Type of Zakat Systems

Types of Zakat systems familiar to the respondents are shown in Table 7.

Table 7

Type of Zakat systems used by respondents

Type of Zakat systems	Frequency	Percent
jomZakat	36	67.9
MyMajikan	10	18.9
Zakat On Touch	7	13.2
Total	53	100.0

Table 7 indicates that 36 respondents, constituting 67.9% of the total sample, are acquainted with the "jomZakat" system, which operates through a web-based platform. Furthermore, 10 respondents, representing 18.9% of the sample, are familiar with the "MyMajikan" system. Additionally, seven respondents, accounting for 13.2% of the sample, are knowledgeable about the "Zakat On Touch" system.

Regarding usage frequency, three respondents (5.7% of the total sample) have utilised the Zakat systems only once, while 26 respondents (49.1%) have used the system more than once a year. Moreover, 24 respondents (45.3% of the sample) have utilised the system once in a year.

Results of Quality-in-Use

The study results on Effectiveness, Efficiency, and User Satisfaction are presented in Table 8. The instrument utilised a Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

Table 8

Results of Quality-In-Use

Scale	1	2	3	4	5	% (Agree and Strongly Agree)
Effectiveness (Measures)						
1) The zakat systems system can respond quickly						
Frequency (%)	-	2(3.8%)	11(20.8%)	23(43.4%)	17(32.1%)	75.5%
2) The Zakat systems can handle problems quickly						
	-	2(3.8%)	9(17.0%)	25(47.2%)	17(32.1%)	79.3%
Efficiency (Measures)						
1) The zakat systems system can complete tasks perfectly						
	-	2 (3.8%)	4 (7.5%)	25 (47.2%)	22 (41.5%)	88.7%
2) The zakat systems applications is able to produce output as desired by the user						
	-	3 (5.7%)	7 (13.2%)	24 (45.3%)	19 (35.8%)	81.1%
Satisfaction (Measures)						
1) I feel safe and comfortable interacting with the zakat systems system						
	-	2(3.8%)	11(20.8%)	21(39.6%)	19(35.8%)	75.4%
2) I am satisfied with the accuracy of the zakat systems system						
	-	2(3.8%)	9(18%)	24(45.3%)	18(34%)	79.3%
3) I am confident that the zakat systems system can handle complaints user-friendly						
	-	2(3.8%)	9(13.2%)	23(43.4%)	19(35.8%)	79.2%
4) I have a good perception of the Zakat systems						
	-	2(3.8%)	7(11.3%)	26(49.1%)	18(34%)	83.1%
5) I will always use the Zakat systems						
	-	2(3.8%)	6(11.3%)	24(45.3%)	21(39.6%)	84.9%
6) I believe that the zakat systems system can be trusted						
	-	2(3.8%)	8(15.1%)	23(43.3%)	20(37.7%)	81.0%

Table 8 illustrates the Effectiveness of Zakat systems, with 43.4% of respondents in agreement and 32.1% strongly agreeing that the system can respond promptly. This combined percentage accounts for approximately 75.5% of respondents endorsing the statement. Furthermore, regarding the system's ability to address issues swiftly, 47.2% of respondents agree, and 32.1% strongly agree that the applications can deliver desired outputs, resulting in 79.3% supporting this notion. In summary, the Effectiveness of Zakat systems is reflected in their responsiveness to user actions and efficient problem-solving capabilities.

In the Efficiency aspect, 47.2% of respondents agree, while 41.5% strongly agree with the statement. 88.7% of respondents agree that the Zakat system can complete tasks perfectly. Furthermore, 45.3% somewhat agree, and 35.8% strongly agree that Zakat system applications can generate desired outputs, totalling 81.1% agreement. In summary, the Zakat systems are deemed effective in completing tasks flawlessly and delivering desired outputs as per user expectations.

Table 8 also shows high User Satisfaction with the Zakat systems. Regarding feeling safe and comfortable interacting with it, 39.6% agreed, and 35.8% strongly agreed. The agreement was even higher for the system accuracy, with 45.3% agreeing and 34.0% strongly agreeing, totalling 79.3%. Additionally, respondents felt positive about the system's user-friendly complaint handling, with 43.4% agreeing and 35.8% strongly agreeing. Table 7 further emphasises positive views, with 83.1% (49.1% agree, 34.0% strongly agree) of respondents expressing satisfaction. Notably, 84.9% of respondents consistently expressed a willingness to use the Zakat system in the future. A detailed breakdown also revealed that 81.0% expressed trust in the system. Overall, User Satisfaction with the Zakat systems can instil a sense of security during interactions, contentment with accuracy, confidence in user-friendly complaint handling, and a positive perception. These factors contribute to the intention for continued use and build trust in the system.

Results of Hypothesis Testing Using ANOVA

Hypothesis testing was performed using Analysis of Varian (ANOVA) and Linear Regression towards the following hypotheses:

H^1: The Effectiveness characteristic is significantly influenced by the User Satisfaction of the Zakat systems in the Kedah state.

Before the hypothesis testing, a normality test identified one outlier, which was subsequently excluded from the ANOVA and Linear Regression Tests.

Table 9

Results of Hypothesis Testing, H^1

	ANOVA				
User Satisfaction					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	26.696	6	4.449	40.884	<.001
Within Groups	5.006	46	.109		
Total	31.702	52			

	Correlations		
User Satisfaction	Pearson Correlation	User Satisfaction	Effectiveness
	Sig. (2-tailed)	1	.902**
	N		<.001
Effectiveness	Pearson Correlation	52	52
	Sig. (2-tailed)	.902**	1
	N	<.001	
		52	52

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

H^2: The Efficiency characteristic is significantly influenced by the User Satisfaction of the Zakat application in the Kedah state.

Table 10

Results of Hypothesis Testing, H^2

ANOVA					
User Satisfaction					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	28.136	5	5.627	74.152	<.001
Within Groups	3.567	47	.076		
Total	31.702	52			

Correlations			
User Satisfaction	Pearson Correlation	User Satisfaction	Effectiveness
	Sig. (2-tailed)	1	.933**
	N		<.001
Effectiveness	Pearson Correlation	52	52
	Sig. (2-tailed)	.933**	1
	N	<.001	
		52	52

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

The ANOVA analysis revealed a significant difference in User Satisfaction based on the hypothesis testing. The correlation between User Satisfaction and Effectiveness (H1) and User Satisfaction and Efficiency (H2) are highly significant at the 0.01 level, indicating a strong positive relationship between the two variables consecutively (H1 and H2).

Based on the results of the hypotheses testing (H1 and H2), both hypotheses were accepted.

CONCLUSION

The assessment questionnaire in this study was developed based on the Quality-in-Use framework outlined in ISO/IEC 25010, focusing on the factors of Effectiveness, Efficiency, and User Satisfaction. The study evaluated two Zakat systems, Jom Zakat (web-based application) and Zakat-on-Touch (mobile application), implemented by LZNK in 2019 and 2018, respectively. The findings suggest that these systems in the Kedah state effectively complete tasks, meet user expectations, respond promptly to issues, and provide a secure and comfortable user experience. Users expressed satisfaction with the systems' accuracy, complaint handling, and user-friendliness. Respondents reported positive perceptions, indicating trust in the systems and a willingness to continue using them.

Furthermore, the study found strong positive correlations between Effectiveness and User Satisfaction (H1, R= 0.902, p<0.001) and between Efficiency and User Satisfaction (H2, R= 0.933, p<0.001). These strong correlations highlight the importance of effectiveness and efficiency in driving user satisfaction. The study recommends future research involving regular, comprehensive assessments of the Zakat Management System to ensure its long-term sustainability.

ACKNOWLEDGMENT

The authors gratefully acknowledge the support from the research grant awarded by Lembaga Zakat Negeri Kedah (SO Code 14273), monitored by the Institute of Zakat, Universiti Utara Malaysia.

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