



EXPLORING QUALITY DIMENSIONS OF ZAKAT INSTITUTIONS' WEBSITE

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ABSTRACT

The purpose of this study is to examine the impact of system quality, service quality and information quality on the Zakat websites from the visitors' perspectives by utilising Delone and Mclean's information system success (ISS) model. This study collected data from 150 respondents who had prior experience visiting Zakat institutions' websites in Malaysia using an online survey technique. The data were analysed using the partial least square–structural equation modelling (PLS-SEM). The result shows the importance of system quality, service quality, and information quality in influencing the satisfaction

level among visitors of Zakat websites. The result also indicates that information quality is the most substantial factor in visitors' satisfaction compared to other quality dimensions. The results of this study can help Zakat institutions improve their service delivery by enhancing the quality dimensions of their websites, particularly on the information displayed about Zakat collection and distribution. An improvement in the quality of Zakat institution's website can promote accountability and transparency of the Zakat collection and distribution system in Malaysia and boost the potential of the Zakat system as a mechanism for society development.

Keywords: Information system success model, Quality dimensions, Website, Zakat institutions

INTRODUCTION

One of the key economic sources for Muslim countries is Zakat, one of Islam's five pillars. Zakat is a significant part of Muslim society since it aims to maintain economic and social fairness where the rich are obliged to contribute to society by paying at least 2.5% of their income to help the Asnaf, one of the seven categories in the society that is entitled to receive Zakat as defined in the Quran. Though poverty will always be there, Zakat would aid in helping most of the Asnaf get back on their feet.

Given the importance of Zakat to the economy and society, and Zakat being one of the pillars of Islam, Zakat institutions have been established in every state in Malaysia since the early days to facilitate the collection and distribution of Zakat in every state in Malaysia. These institutions are responsible for ensuring Zakat collection and distribution goals are met. As institutions that hold the public trust for their survival, Zakat institutions are exposed to the general assessment and judgement of the community. In return, Zakat institutions are insisted to be efficient and systematic as it can boost the potential of Zakat system as a mechanism for society development (Salleh & Chowdhury, 2020).

Zakat has several positive socio-economic impacts as a huge Zakat centralised collection fund can improve the quality of life of poor impoverished people (Asnaf) in rural or city areas. In addition, optimal usage of Zakat funds is essential to transform Zakat recipients into future Zakat payers and advance the potential of every Muslim. Zakat funds can be used as a grant to start small businesses and provides training for them to be successful. The administration of Zakat institutions thus needs to be strengthened so that Zakat recipients' welfare, can be significantly improved.

Success in managing Zakat institutions will spark a positive response from Zakat payers. This success lies very much on Zakat institutions' ability to portray a good and respected image, particularly in Zakat distribution transparency. Nasim and Romdhon (2014) suggested that better transparency and a good image of Zakat institutions can improve Zakat payer's confidence in individuals and businesses, thus leading to better motivation to pay Zakat to state Zakat institutions instead of paying them directly.

Evidence shows that websites can help public social institutions such as Zakat institutions promote accountability and transparency (Abidin, Saad & Muha'yuddin, 2014). Additionally, websites can provide a platform to integrate many online tools such as e-Payment and Zakat calculator to aid Zakat payers in determining their Zakat amount and easing the payment process. Furthermore, using websites and social media applications can provide opportunities for Zakat institutions to improve service delivery and obtain feedback from the public, especially Zakat payers. This research aims to investigate the factors that influence user satisfaction with Zakat institutions' websites.

LITERATURE REVIEW

Previous studies on Zakat institutions in Malaysia have focused on several issues. One of the issues is the inefficiency of Zakat distribution by Zakat institutions. Zakat collection had not been distributed to Zakat recipients immediately, especially to the needy and poor. On average, only 86% of the Zakat collection is distributed in the same period (Nadzri *et al.*, 2012). This happens especially at the end of the calendar year because of the high Zakat collection during the last week of the year. Thus, the Zakat collected could not be distributed in the same year due to time constraints and human power limitations. However, the Zakat is distributed in the following year. Besides, the information on the amount collected and distributed is always lacking (Nadzri *et al.*, 2012). Therefore, accurate time information is needed to show how the money collected is distributed by Zakat institutions.

Another issue related to inefficiency is bureaucracy (Muhammad, 2019). Zakat collection is distributed to eligible recipients based on an application made to Zakat institutions' offices. However, not all poor and needy can reach the Zakat office to make the application. Thus, Zakat institutions cannot distribute the Zakat collection to everyone in this group. To overcome this problem, the Zakat institutions must find poor people proactively. The Zakat institutions can cooperate with other welfare agencies and non-profit organisations. The local community could also inform the Zakat institutions about the poor people in their community that need helps through a phone call, website or social media platform.

In Malaysia, Zakat is distributed monthly payments to eligible recipients to cover their cost of living. However, this has made the recipients too dependent on the Zakat money as their source of income (Ab Rahman *et al.*, 2012). The Zakat recipients should try to put on effort to find other sources of income, for example, by involving in small businesses and improving their education level. It is recommended that Zakat institutions assist these people by providing sufficient capital to set up and run their businesses and pay tuition fees. This recommendation will help poor people improve their standard of living and sustain with extra income (Ahmad Nadzri *et al.*, 2016). This will indirectly help the Zakat institutions to alleviate poverty among the poor in the long run.

A study by Ahmad *et al.* (2015) found that not all Zakat recipients were satisfied with the Zakat distribution. They claimed there is a lack of transparency and information about Zakat distribution. The findings show that Zakat recipients still rely on informal information by word of mouth and not the proper channel via the Zakat office to get the information. Thus, Zakat institutions need to create awareness among the recipients about Zakat institution's official website and social media as the primary communication channel.

Zakat institutions must be proactive in detecting and promoting Zakat collection among Zakat payers (Ab Rahman *et al.*, 2012). The Amil (i.e., Zakat collector) could not just wait at the counter for people to come and make the Zakat payment. A report by one of the Zakat collections centres in Kuala Lumpur, i.e., Pusat Pungutan Zakat/ Majlis Agama Islam Wilayah Persekutuan (PPZ/MWAIP), shows that only 160,000 out of 2 million Muslims (about 8% only) pay Zakat in Selangor in the year 2010. Therefore, a more extensive briefing and awareness campaign should be conducted by Zakat institutions. Zakat institutions should also develop a tracing system of the potential Zakat payers (Ab Rahman *et al.*, 2012). This system could be done via Zakat institutions' websites and social media platforms. Extensive use of Zakat institution's websites will increase the Zakat collection by the Zakat institutions and benefit more Zakat recipients.

Previous studies have examined factors influencing the quality and satisfaction among visitors of public institutions and government websites. Studies on the quality and satisfaction of government websites are an area that is well established (Alzahrani *et al.*, 2017; Weerakkody *et al.*, 2015, 2016). For example, Weerakkody *et al.* (2016) explored the antecedents of satisfaction with the United Kingdom's government website in a survey involving 1,518 respondents. They highlighted that information quality, system quality, trust and cost are significant factors that influence satisfaction level. In the Malaysian

context, government websites and applications have been studied extensively. For instance, Shuib, Yadegaridehkordi, & Ainin (2019) studied Malaysian adoption of e-Government applications and discovered that compatibility, relative advantage, image, trust, computer self-efficacy, and customer satisfaction have a significant impact on e-government application use. Another study involving Malaysian public institution websites found that e-government portals should have user-friendly Web features (Baharon *et al.*, 2017). Despite all Zakat institutions in Malaysia having their websites as early as 2002 (Jamaludin *et al.*, 2017), the current understanding of Zakat websites' quality and impact is limited. Many studies involving Malaysian Zakat institutions focused on financial technology (Fintech) (Yahaya & Ahmad, 2018; 2019) and e-Payment (Yaakub *et al.*, 2016). To the best of our knowledge, this is the first study that investigated Zakat institution's websites in Malaysia, particularly in the context of antecedents that influence website visitors' satisfaction.

Theoretical Underpinnings

DeLone and McLean (2003) summarise prior research on information system success into a comprehensive framework for measuring the success of information systems. The information system success (ISS) model was based on Mason's information influence theory and a review of empirical research studies in management information systems. The ISS model is considered the most comprehensively tested framework for measuring and explaining the success, effectiveness and impact of various information system innovations and applications (Dwivedi *et al.*, 2017). The framework proposes that when an organisation implements a system, it is evaluated in terms of system quality, service quality and information quality. Better system quality, service quality and information quality are anticipated to lead to higher user satisfaction.

ISS model has been extended in numerous aspects and their interrelationships in prior research (Dwivedi *et al.*, 2017; Jeyaraj, 2020; Yakubu & Dasuki, 2018). Jeyaraj (2020) examined 53 prior studies published between 1992 and 2019 and suggested that ISS has captured and retained research and practice interest over multiple decades in many disciplines, such as e-Commerce, e-Learning, e-Government, Enterprise System, Cloud Computing and Mobile technologies. Three variables are highlighted as the most critical factor of information system user's satisfaction, i.e., system quality, service quality and information quality.

Hypotheses development

System quality refers to the system's overall quality and is evaluated by the user of the system using specific characteristics (DeLone & McLean, 2003). System

quality encompasses five items: adaptability, availability, reliability, response time and usability in performing tasks related to information and calculation. Prior research has found a positive relationship between system quality and user satisfaction in web-based services, such as learning management using social networking services. Al-Azawei (2019) confirmed that the system quality of social networking services leads to greater user satisfaction. Other research in different contexts, such as health information systems (Shim & Jo, 2020), social media search systems (Dang *et al.*, 2018) and social commerce systems (Lin *et al.*, 2019), shows the importance of system quality in influencing positive relationship with user's satisfaction. Thus, it is hypothesised that:

H1: System quality positively impacts the satisfaction of Zakat institution website visitors.

Service quality can be defined as the quality and level of support that the users receive from the system administrator in completing specific tasks using the system (Jeyaraj, 2020; Sharma & Sharma, 2019). Users feel satisfied if they receive a service better than their expectations. There are three dimensions of service quality, i.e., assurance, empathy, and responsiveness (Delone & McLean, 2003). Service quality is crucial to users, especially in e-commerce and website-based services, since they expect to receive the service online. Empirical evidence showed that service quality has positively influenced user satisfaction (Li *et al.*, 2021; Pham *et al.*, 2019). Therefore, it is proposed that:

H2: Service quality positively impacts the satisfaction of Zakat institution website visitors.

Information quality refers to the quality of the output generated from the information system and, in this context, the website of Zakat institutions. The website content should be personalised, easily understandable and secured so that the visitors feel safe to transact on the website. Information quality is measured using six items: accuracy, completeness, consistency, understandability, format and relevance (Delone & McLean, 2003). The importance of information quality to user's satisfaction has been well documented in prior research (Jeyaraj, 2020; Petter & McLean, 2009; Phuong & Trang, 2018). The following hypothesis statement is thus developed:

H3: Information quality positively impacts the satisfaction of Zakat institution website visitors.

RESEARCH METHODOLOGY

For this study, an online survey-based approach was adopted to document Malaysian citizens' views across the country. The online survey method is

considered appropriate during the pandemic to get quick results and various geographical locations are no longer a limit. The survey was constructed based on the significant influence of the literature and domain on e-government and user satisfaction in using information systems. It was circulated to the targeted participants through various online mediums (e.g., emails, Facebook, Whatsapp, Instagram). The targeted participants for this study comprised Malaysian citizens, especially those with prior experience using Zakat institution's website service and those who have browsed or visited the website. However, the participation among respondents was voluntarily. The users' identification was highly protected, and the respondents were ensured that they would remain anonymous.

There were 16 groups of leading questions to represent all the constructs. The related constructs questions were posted in the questionnaire with multiple-choice and closed-ended with 5-point Likert scale-type questions. The Likert scales ranged from 1 (strongly disagree) to 5 (strongly agree) for the main construct items. On the other hand, for the demographic questions, respondents were requested to provide their gender, age, education, income and preferred time to visit the Zakat institutions website. A total of 150 respondents have completed all the questions. All the questions then turned into the data that were refined and cleaned using Microsoft Excel software. A descriptive statistic is used to explain the quantitative data. After the measurement and structure models had been defined, the cleaned data were run into the PLS-SEM algorithm to be evaluated.

RESULTS

Data analysis results are presented in this section. First, descriptive statistics are presented, followed by validity and reliability tests of the measurement model. The hypotheses were tested and analysed using the PLS technique implemented in the SmartPLS software. Path coefficients, t-values and p-values are used to determine the relationship path and the significance of the association between the constructs.

Descriptive Analysis

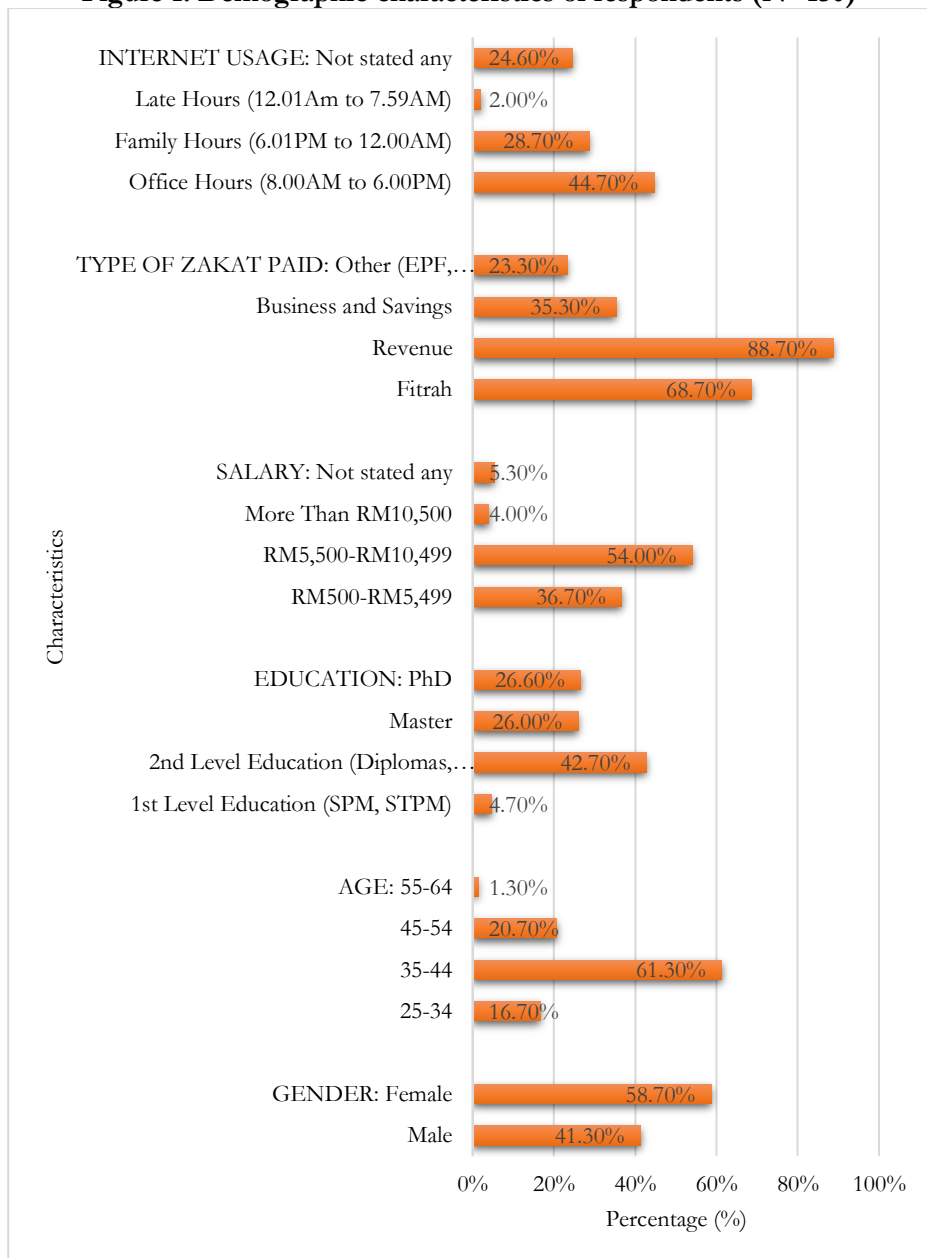
Figure 1 presents the respondents' demographic profiles. Males account for 39.74 per cent of total responders, while females account for 56.41 per cent. According to the data collected from respondents of various ages, the majority of the sample size (i.e., 75%) was comprised of younger generations under 45 years of age; nevertheless, close to 25% of the overall respondents were 45 years or older. In terms of educational qualifications, more than half (i.e., 50.6%) of the respondents obtained master to doctoral degrees, whereas about 41% of the

respondents were undergraduates. Among the 156 respondents, more than half (i.e., 55.7%) earned a salary of more than RM5,500 monthly and 3.85% out of them are five-digit income earners. However, 35.2% earn a salary of not more than RM5,000. It is also worth noting that the most common Zakat paid are Fitrah Zakat and Revenue Zakat, with approximately 69% and 89%, accordingly. During office hours, the users' internet usage was high; and some (i.e., 27.6%) were comfortable surfing the Internet after office hours. In rare cases, users use the Internet during late hours (from 12.01 a.m. to 7.59 a.m.). It indicates that respondents prefer to access the Zakat institution's website during office hours to obtain information or engage in internet-based transactions.

Reliability, Validity and Fitness-of-Model Test

Reliability examines the internal consistency of items used in measuring the constructs to produce reliable results (Hair *et al.*, 2010). Reliability is assessed using Cronbach's Alpha and composite reliability scales calculated using SmartPLS software. Cronbach's Alpha coefficient value of above 0.90 is considered as strong reliability of the measurement of the construct used. Meanwhile, composite reliability scores are used to evaluate the constructs' reliability by considering the items' varying factor loadings (Hair Jr *et al.*, 2021). The reliability tests suggest that all constructs exhibit strong reliability as Cronbach's Alpha coefficient values are above 0.90, and the composite reliability values for all constructs shown in the PLS default report exceed 0.5 as suggested by Hair *et al.* (2010).

Figure 1: Demographic characteristics of respondents (N=150)



The validity for each construct was assessed using convergent and discriminant validity methods. The average variance extracted (AVE) value was used to test convergent validity for each component. The AVE is the grand mean value of the squared loadings of the items associated with the construct. A desirable AVE value must be greater than 0.50, since a lower value implies that the construct's variance explained is smaller than the error variance. In the initial analysis, all AVE values are more than 0.50, suggesting that each construct employed in the study has reasonable validity. Discriminant validity is a means of determining how unique a concept is in comparison to other constructs in a model (Gefen & Straub, 2005). The value of the square root of AVE is compared to the correlation of constructs compared to all other constructs in the model to establish discriminant validity (Gefen & Straub, 2005; Hair *et al.*, 2010). In the first test, the AVE value was higher than the item correlation, indicating that discriminant validity was present for all items. Table 1 shows the results of the discriminant validity test.

Table 1: Discriminant Validity Test Results

	Service Quality	System Quality	Information Quality	Website Visitors Satisfaction
Service Quality	0.900			
System Quality	0.537	0.880		
Information Quality	0.614	0.715	0.863	
Website Visitors Satisfaction	0.596	0.791	0.766	0.950

The coefficient of determination using the R² value is one of the most used estimates to evaluate structural model predictive accuracy (Hair Jr *et al.*, 2021). R² is the variation of a dependent variable in the model explains. The higher the R² value, the better the model explains the data. R² values of 0.75 are deemed a robust model (Hair Jr *et al.*, 2021). The result of the R² of 0.77 obtained in this study suggests a strong predictive power for website visitors' satisfaction.

Hypotheses Test Results

This section presents the results of hypotheses testing using the PLS-SEM technique and procedures implemented in SmartPLS software. The t-value is

used to determine the significance of the path coefficients using a bootstrapping technique with 200 resamples. In a one-tailed test, a t-value more than 1.96 is considered significant, whereas a t-value greater than 0.98 is considered significant. All hypotheses are significant as the t-values exceed the significance threshold. Table 2 summarises the results of hypotheses testing.

Table 2: Hypotheses Test Results

Hypotheses	Path Coefficients	t-value	Acceptance
H1: System Quality has a positive and significant impact on Zakat institution website visitors.	0.473	2.993	Accepted
H2: Service Quality has a positive and significant impact on Zakat institution website visitors.	0.127	1.496	Accepted
H3: Information Quality has a positive and significant impact on Zakat institution website visitors.	0.484	2.693	Accepted

DISCUSSIONS

This research aims to investigate the satisfaction level among Zakat institutions website visitors. The ISS model (DeLone & McLean, 2003) was used to measure the impact of system quality, service quality and information quality on website visitors' satisfaction. The results revealed a significant positive relationship between the three constructs and the satisfaction level, implying that all hypotheses are supported. The findings show that system quality, service quality, and information quality positively and significantly impact Zakat institution website visitors' satisfaction levels in Malays.

The positive and significant impact of information quality and system quality on visitor satisfaction indicates that the higher the quality of the information provided through the Zakat institution website and the overall improved quality of the website, the higher the website visitor satisfaction with Zakat institution web services. Several studies using the ISS model to gauge public service satisfaction have also supported these associations (Al-Kofahi *et al.*, 2020; Mensah, 2019; Weerakkody *et al.*, 2016) and suggested that Zakat websites administrator should pay more attention to upgrading the quality of information and its presentation. Having an excellent team to design, implement and manage Zakat institution's website should be an essential focus to have good Zakat payers' satisfaction as satisfaction can lead to better trust in Zakat

institutions. The focus on system and information quality could be related to elements such as simplicity of use across all devices, easy access to high-quality data (such as prior website transactions), or the ease of comprehending its navigation layout. Khan *et al.* (2021) claimed that system quality and information quality on public institution websites is linked to their deeper and longer use.

Although all three variables were found to be the significant factors influencing website satisfaction, the results indicated information quality as the most substantial factor of website visitors' satisfaction compared to all predictors. The findings suggest that users of the Zakat institution's website strongly emphasise the quality of the information displayed. Such findings indicate that accurate, updated, and easily accessible information on the website is an important aspect that has to be focused on by the administrator as people nowadays access the Internet and perform financial transactions online. Zakat institutions should ensure that their websites are efficiently designed and can be accessed anytime and anywhere using all types of browsers. All the links on the web should be checked to ensure they work perfectly.

Implications for Theory and Practice

This study has added to the ISS model by testing in the context of Zakat institutions. This study explained the importance of information, system and service quality towards website visitors' satisfaction. As the use of online applications during the Covid-19 pandemic has risen rapidly, Zakat institutions must make an effort to strengthen their web presence. A reliable website is vital in developing trust towards Zakat institutions, especially for Zakat payers to calculate and pay their Zakat online. Findings from this research suggested that Zakat institutions should invest more in building attractive and secure websites for all. The focus should be more on strengthening mobile presence to maintain user satisfaction and trust towards Zakat institution websites.

Limitations and Future Research

First, this study solely gathered data from Malaysian respondents. Since such statistics cannot capture all types of Zakat payers worldwide, caution should be used when generalising the findings of this study to other countries. Second, the findings were examined solely based on Likert scales, which may not reflect the respondents' true feelings, which can be better explained through interviews. Future research should consider expanding the findings of this research through the lens of qualitative interviews. Another dimension worth exploring is the perception and trust of users towards Zakat institution's social media applications, as nowadays, social media is one of the essential tools that can

influence perception and create good sentiment among Zakat payers and recipients.

CONCLUSION

Zakat institutions in Malaysia have developed a website to deliver information about Zakat collection and distribution activity to zakat payers and recipients since 2002. However, the efficiency of Zakat institution's website is still unknown. This study examines the impact of system quality, service quality and information quality on website visitor' satisfaction with Zakat institutions in Malaysia. The study utilises the information system success (ISS) model developed by DeLone & McLean to measure the factors that influence the efficiency of Zakat institution's website from visitors' perspective. Data were collected from 150 respondents using the questionnaire survey and analysed using the Partial Least Square-Structural Equation Modelling. The findings show that system quality, service quality and information quality influence website visitors' satisfaction with Zakat institutions. The implication of the study suggests improvement in the quality of Zakat institution's website to promote accountability and transparency of the Zakat collection and distribution system in Malaysia.

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REFERENCES

- Abidin, S., Saad, R. A. J., & Muhaiyuddin, N. M. M. (2014). Evaluating Corporate Reporting on the Internet: The Case of Zakat Institutions in Malaysia. *Jurnal Pengurusan*, 42, 19-29.
- Ab Rahman, A., Alias, M.H., & Omar, S.M.N.S. (2012). Zakat Institutions in Malaysia: Problems and Issues. *Global Journal al-Thaqafah*, 1(2), 35-41.
- Ahmad, R. A. R., Othman, A. M. A., & Salleh, M. S. (2015). Assessing the satisfaction level of zakat recipients towards zakat management. *Procedia Economics and Finance*, 31, 140-151.

- Al-Azawei, A. (2019). What Drives Successful Social Media in Education and E-Learning? A Comparative Study on Facebook and Moodle. *Journal of Information Technology Education*, 18, 253 - 274.
- Al-Kofahi, M. K., Hassan, H., Mohamad, R., Intan, T. P., & Com, M. (2020). Information systems success model: A review of literature. *International Journal of Innovation, Creativity and Change*, 12, 397 - 419.
- Alzahrani, L., Al-Karaghoul, W., & Weerakkody, V. (2017). Analysing the critical factors influencing trust in e-government adoption from citizens' perspective: A systematic review and a conceptual framework. *International Business Review*, 26(1), 164–175.
- Baharon, B. M., Yap, C. S., Ashar, S. F. E., Hanafi, M. H. H. M., & Hazmi, M. S. R. M. (2017). Citizen Satisfaction with E-Government Portals in Malaysia. *International Journal of Business and Information*, 12(3), 289–309.
- Dang, M. Y., Zhang, G. Y., & Chen, H. (2018). Adoption of social media search systems: An IS success model perspective. *Pacific Asia Journal of the Association for Information Systems*, 10(2), 55-78.
- Delone, W. H., & McLean, E. R. (2003). The DeLone and McLean Model of Information Systems Success: A Ten-Year Update. *Journal of Management Information Systems*, 19(4), 9–30. <https://doi.org/10.1080/07421222.2003.11045748>
- Dwivedi, Y. K., Rana, N. P., Janssen, M., Lal, B., Williams, M. D., & Clement, M. (2017). An empirical validation of a unified model of electronic government adoption (UMEGA). *Government Information Quarterly*, 34(2), 211–230.
- Gefen, D., & Straub, D. (2005). A practical guide to factorial validity using PLS-Graph: Tutorial and annotated example. *Communications of the Association for Information Systems*, 16, 91 - 109.
- Hair, J. F., Anderson, R. E., Babin, B. J., & Black, W. C. (2010). *Multivariate data analysis: A global perspective*. Upper Saddle River, NJ: Pearson.
- Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2021). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage Publications.
- Jamaludin, N., Wahab, N. A., and Hamed, A. B. (2017). Muslim Perception on Online Zakat Usage in Kuala Lumpur. *Journal of Muamalat and Islamic Finance Research*, 14(1), 55 - 71.
- Jeyaraj, A. (2020). DeLone & McLean models of information system success: Critical meta-review and research directions. *International Journal of Information Management*, 54(102139), 1 - 15.

- Khan, S., Umer, R., Umer, S., & Naqvi, S. (2021). Antecedents of trust in using social media for E-government services: An empirical study in Pakistan. *Technology in Society*, 64 (101400), 2 - 10.
- Li, F., Lu, H., Hou, M., Cui, K., & Darbandi, M. (2021). Customer satisfaction with bank services: The role of cloud services, security, e-learning and service quality. *Technology in Society*, 64(101487), 2 - 11.
- Lin, X., Wang, X., & Hajli, N. (2019). Building E-commerce satisfaction and boosting sales: The role of social commerce trust and its antecedents. *International Journal of Electronic Commerce*, 23(3), 328–363.
- Mensah, I. K. (2019). Factors influencing the intention of university students to adopt and use e-government services: An empirical evidence in China. *SAGE Open*, 9(2), 1 - 19.
- Muhammad, I. (2019). Analysis of Zakat System in high-income Islamic countries. *The Journal of Muamalat and Islamic Finance Research*, 16(2), 1–11.
- Nadzri, F. A. A., AbdRahman, R., & Omar, N. (2012). Zakat and poverty alleviation: Roles of zakat institutions in Malaysia. *International Journal of Arts and Commerce*, 1(7), 61–72.
- Nasim, A., & Romdhon, M. R. S. (2014). Pengaruh transparansi laporan keuangan, pengelolaan zakat, dan sikap pengelola terhadap tingkat kepercayaan muzakki. *Jurnal Riset Keuangan Dan Akuntansi*, 2(3), 550 - 561.
- Petter, S., & McLean, E. R. (2009). A meta-analytic assessment of the DeLone and McLean IS success model: An examination of IS success at the individual level. *Information & Management*, 46(3), 159–166. <https://doi.org/https://doi.org/10.1016/j.im.2008.12.006>
- Pham, L., Limbu, Y. B., Bui, T. K., Nguyen, H. T., & Pham, H. T. (2019). Does e-learning service quality influence e-learning student satisfaction and loyalty? Evidence from Vietnam. *International Journal of Educational Technology in Higher Education*, 16(1), 1–26.
- Phuong, N. N. D. & Trang, T. T. D. (2018). Repurchase intention: The effect of service quality, system quality, information quality, as customer satisfaction as mediating role: A PLS approach of e-commerce ride hailing service in Vietnam. *Marketing and Branding Research*, 5, 78-91.
- Salleh, M. C. M., & Chowdhury, M. A. M. (2020). Technological transformation in Malaysian zakat institutions. *International Journal of Zakat*, 5(3), 44-56.
- Sharma, S. K., and Sharma, M. (2019). Examining the role of trust and quality dimensions in the actual usage of mobile banking services: An empirical investigation. *International Journal of Information Management*, 44, 65–75.
- Shim, M., & Jo, H. S. (2020). What quality factors matter in enhancing the perceived benefits of online health information sites? Application of the

- updated DeLone and McLean information systems success model. *International Journal of Medical Informatics*, 137(104093), <https://doi.org/10.1016/j.ijmedinf.2020.104093>
- Shuib, L., Yadegaridehkordi, E., & Ainin, S. (2019). Malaysian urban poor adoption of e-government applications and their satisfaction. *Cogent Social Sciences*, 5(1), 1565293, 1 - 18.
- Weerakkody, V., Irani, Z., Lee, H., Hindi, N., & Osman, I. (2016). Are UK citizens satisfied with e-government services? Identifying and testing antecedents of satisfaction. *Information Systems Management*, 33(4), 331–343.
- Weerakkody, V., Irani, Z., Lee, H., Osman, I., & Hindi, N. (2015). E-government implementation: A bird's eye view of issues relating to costs, opportunities, benefits and risks. *Information Systems Frontiers*, 17(4), 889–915.
- Yaakub, N. A., Ramli, N. M., Muhamed, N. A., & Muhammad, I. (2016). Analysis of E-Payment Applications: A Case Study of One of the Zakat Institutions in Malaysia. *Journal of Techno Social*, 8(2), 9 - 17.
- Yahaya, M. H., & Ahmad, K. (2018). Financial Inclusion through Efficient Zakat Distribution for Poverty Alleviation in Malaysia: Using FinTech & Mobile Banking. *Proceeding of the 5th International Conference on Management and Muamalah 2018 (ICoMM 2018)*, 15 - 31.
- Yahaya, M. H., & Ahmad, K. (2019). Factors Affecting the Acceptance of Financial Technology among Asnaf for the Distribution of Zakat in Selangor-A Study Using UTAUT. *Journal of Islamic Finance*, 8, 35–46.
- Yakubu, M. N., & Dasuki, S. (2018). Assessing eLearning systems success in Nigeria: An application of the DeLone and McLean information systems success model. *Journal of Information Technology Education: Research*, 17, 183–203.