

Exploring Stakeholder Perceptions and Motivations towards Adopting Waqf Blockchain: Waqif's perceived intentions

Mohammad Zulfakhairi Mokhtar^{1*}, Noraina Mazuin Sapuan²,

**Corresponding Author*

¹ Faculty of Business and Management, Universiti Teknologi MARA, Selangor, Malaysia

² Faculty of Industrial Management, Universiti Malaysia Pahang, Pahang, Malaysia

zulfakhairi@uitm.edu.my; noraina@ump.edu.my
Tel: +60195161887

Abstract

The study aims to gain insight into the adoption of waqf blockchain in Malaysia. In order to achieve this purpose, this study is conducted to examine factors influencing endowers perceived intention to adopt waqf blockchain in Malaysia. This study adopts UTAUT as the research framework and uses a survey research design. The sample for this study was collected using non-probability sampling as the sample frame is unknown, and data was collected through questionnaires distributed throughout Malaysia. The collected data were then analyzed using SmartPLS software. The main findings suggest that performance expectancy, social influence, and facilitating conditions play a positive role in explaining the perceived intention to adopt waqf blockchains among endowers in Malaysia.

Keywords: Perceived intention; blockchain; cash waqf.

eISSN: 2398-4287 © 2023. The Authors. Published for AMER and cE-Bs by e-International Publishing House, Ltd., UK. This is an open-access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>). Peer-review under the responsibility of AMER (Association of Malaysian Environment-Behaviour Researchers), and cE-Bs (Centre for Environment-Behaviour Studies), College of Built Environment, Universiti Teknologi MARA, Malaysia
DOI: <https://doi.org/10.21834/e-bpj.v8iS114.5060>

1.0 Introduction

The utilization of Internet banking in the cash waqf contribution approach marks the initial stage in the evolution of an innovative waqf model. This pioneering step has paved the way for the emergence of other financial technology advancements, including mobile banking, e-wallets, and QR payments (Abdul Rahim et al., 2021). These financial technologies are being used to enhance the collection of cash waqf funds by simplifying the process of making contributions. Besides the stated technology, one notable technology being employed in cash waqf contribution is blockchain. Initially created in 2008 for the cryptocurrency Bitcoin, blockchain is now being adopted in cash waqf collection methods (Yli-Huumo et al., 2016). Blockchain is a technology that allows users to have complete access to a database without relying on a third party. It treats all network nodes equally, ensuring fair and unbiased interaction between humans and computers (Marsal-Llacuna, 2018). Blockchain technology is believed to offer significant benefits in improving the collection and management of waqf through the implementation of smart contracts. These smart contracts, which are a vital feature of blockchain, can streamline and automate various aspects of the waqf process, enhancing efficiency and transparency (Mohsin, 2019). A smart contract is a computer protocol designed to execute the terms of a contract automatically. It can self-execute either partially or entirely (Muneeza et al., 2018). The contract's terms and conditions are encoded in the code itself, and it remains active until all the specified requirements are met. Additionally, regulatory authorities monitor all blockchain activities and transactions to deter fraudulent fundraising attempts (Niforos et al., 2017).

Finterra, a technology-based firm, introduced its Waqf Blockchain platform in Malaysia in 2019. The platform aims to simplify the establishment, authorization, and authentication of endowed waqf assets. Finterra specializes in developing blockchain-based Islamic applications to address global concerns. The company was founded in 2017 and has offices in Malaysia, Singapore, Hong Kong, the United Arab Emirates, and India. Finterra's plans involve expanding into Africa and the Middle East. Positioned as a "Social Solution for Blockchain," Finterra promotes community growth and advocates for the widespread adoption of blockchain technology. Their ecosystem comprises core banking, digital banking, and blockchain solutions, all designed to bridge the gap between customers,

merchants, and financial institutions (Finterra, 2019). To date, it has around 680 verified donors from all over the world (Finterra, 2020). It is a minimal number compared to the world population. This situation also shows that the waqf blockchain received less attention from the public despite the benefits discussed before. Therefore, to promote blockchain technology in cash waqf fund management, especially in Malaysia, a study must be conducted to identify the factors perceived by waqif that will contribute towards the intention to adopt blockchain technology in cash waqf collection.

2.0 Literature Review

2.1 Cash waqf behavioral intention

The Cash Waqf behavioral intention studies began with Osman et al. (2013), who examined the intention of young intellectuals at the International Islamic University Malaysia towards cash waqf, using the Theory of Planned Behavior (TPB). They discovered that attitude, subjective norm, and perceived behavioral control were crucial factors in determining cash waqf behavioral intention. In a subsequent study, Osman (2014) introduced religiosity into the models and found a significant relationship between it and cash waqf behavioral intention. Later, Osman et al. (2016) expanded the model by incorporating trust and service quality, which also had a significant influence on cash waqf behavioral intention. In a study conducted by Shafawati in 2017, an extended Theory of Planned Behavior was used to measure the intention to contribute to cash waqf. The study found that variables such as injunctive norms, moral norms, and past behavior had a significant impact on determining participation in cash waqf. Yusoff et al. conducted a comparative study in 2017, focusing on the prediction of behavioral intention for cash waqf in Malaysia and Thailand. Their findings revealed that attitude, subjective norm, and perceived behavioral control were significantly related to the intention to perform cash waqf in both countries. Similarly, Ratnasari and Arifin conducted a similar study in Indonesia in 2018 and obtained the same results. They found that attitude, subjective norm, and perceived behavioral control were significant factors influencing the intention to participate in cash waqf in Indonesia.

Instead of general cash waqf contribution, several studies have examined the factors influencing the intention of Muslim millennials in Indonesia to donate to online waqf, a form of Islamic charitable contribution. Chaerunnisa and Kasri (2019) focused on the Theory of Planned Behavior (TPB) and found that attitude, subjective norm, and perceived behavior control significantly and positively influenced the intention to donate online waqf. Niswah et al. (2020) combined the Technology Acceptance Model (TAM) and TPB variables to investigate the intention of Indonesian Muslims to participate in cash waqf through fintech. They discovered that perceived usefulness, attitude towards usage, and perceived ease of use had a significant effect on behavioral intention. Faturohman et al. (2020) also used the TAM and found that its variables directly influenced user acceptance of online waqf applications. Fauzi et al. (2019) emphasized the substantial impact of technology on cash waqf givers, particularly among IT-savvy individuals, as evidenced by the increasing number of contributions facilitated by online platforms. The research indicates that greater and easier access to online services plays a vital role in promoting cash waqf donation.

Azizi et al. (2019) conducted a study on the factors influencing endowers' intention to re-contribute to cash waqf. They utilized the Extended Theory of Planned Behavior (TPB) and discovered that all three variables were significantly associated with endowers' intention to re-contribute to cash waqf. Building upon this research, Isfandayani (2020) employed the same TPB theory and arrived at a similar conclusion regarding cash waqf behavioral intention. In a subsequent study, Kasri and Chaerunnisa (2021) expanded the TPB framework by incorporating knowledge, trust, and religiosity. They focused on online cash waqf behavioral intention among Indonesia's millennials and found that the three additional variables positively influenced the intention to donate cash waqf online.

Research on cash waqf behavioral intention, apart from using the Theory of Planned Behavior (TPB), has also utilized the Theory of Reasoned Action (TRA). Pitchay et al. (2015) found a strong connection between attitudes, subjective norms, and the intention to donate to cash waqf through salary deductions among Muslim employees in the Klang Valley. Another study by Sakti et al. (2016) supported the use of TRA in investigating cash waqf behavioral intention. Consequently, TRA has been considered appropriate for determining the intention to contribute to cash waqf. Additionally, some studies have combined both TRA and TPB, such as Pitchay's (2015) research on the role of cash waqf in developing waqf assets in Malaysia. The findings of this study further emphasize the suitability of TRA and TPB in studying cash waqf behavior. Furthermore, Basary (2014) combined TPB and the Technology Acceptance Model (TAM) to examine the factors influencing the acceptance of establishing endowment institutions at Universiti Utara Malaysia. The combination of these two theories proved effective in determining the intention to give cash waqf.

Previous research on cash waqf behavioral intention has utilized theories such as the Theory of Reasoned Action (TRA), Theory of Planned Behavior (TPB), and Technology Acceptance Model (TAM). These theories have been extensively employed to study cash waqf behavioral intention and have yielded positive outcomes. The findings from these studies support the suitability of TRA, TPB, and TAM frameworks in examining cash waqf behavioral intention. However, there needs to be more studies incorporating the Unified Theory of Acceptance and Use of Technology (UTAUT), particularly in the context of online cash waqf behavioral intention. The existing literature reviewed only includes the application of TAM. As a result, there is a research gap that can be addressed by implementing UTAUT to assess online cash waqf behavioral intention.

2.2 The influence of effort expectancy

Effort expectation refers to the level of ease associated with using technology. It focuses on how simple or complicated it is for individuals to interact with and operate technological systems. Essentially, it reflects the anticipated amount of effort required to navigate and utilize technology effectively (Venkatesh et al., 2003). The simplicity with which anyone can understand and utilize technology becomes the determining element in whether or not they can accept it. The effort necessary to learn and comprehend how to utilize blockchain

technology to contribute to a cash waqf fund is described as effort expectancy in this study. It has also been suggested that effort expectations have a favorable influence on the desire to utilize and adopt the technology. The degree of ease associated with using a system inspired trust. The findings of various earlier investigations by Wadi and Nurzaman (2020), Du et al. (2020), and Li et al. (2018) support this. Thus, the following hypothesis is established:

H1. Effort expectancy has a positive influence on waqif's perceived intention to adopt waqf blockchain.

2.3 The influence of facilitating condition

Facilitating circumstances refer to the extent to which individuals perceive the availability of organizational and technical infrastructure to support breakthroughs. It is influenced by two factors: perceived compatibility and behavioral control. In the context of this study, "facilitating condition" pertains to the support and resources that influence a person's inclination to adopt a specific technology. While this aspect is often considered the most influential in determining actual technology usage, this study focuses on the perceived intentions regarding the adoption of Waqf Blockchain (Venkatesh et al., 2003). Some research has found that facilitating conditions have a positive influence on the decision to use technology and donate to online charities, for example, in digital zakat payment and crowdfunding by Kasri and Yuniar (2021), Li et al. (2018) and Choi et al., (2019). Thus, the following hypothesis is established:

H2. Facilitating conditions have a positive influence on waqif's perceived intention to adopt waqf blockchain.

2.4 The influence of performance expectancy

Performance expectancy is the perception or belief that using a particular system will enhance an individual's performance. It is the expectation that by utilizing the system, one can improve their effectiveness and achieve better outcomes (Venkatesh et al., 2003). In simpler terms, performance expectancy refers to the prediction of how well a system can enhance efficiency when carrying out tasks online. In this particular study, performance expectations are viewed as participants' beliefs about how much adopting the waqf blockchain system will boost their efficiency, particularly in payment-related aspects. In this regard, Wadi and Nurzaman (2020) found that performance expectancy has a positive impact on millennials' behavior toward digital waqf innovation in Indonesia. The same result was also discovered by Li et al. (2018) in China and Choi et al. (2019) in South Korea, where performance expectancy has a positive impact on the intention to use and accept technology. Thus, the following hypothesis is established:

H3. Performance expectancy has a positive influence on waqif's perceived intention to adopt waqf blockchain.

2.5 The influence of social influence

The concept of social influence involves how individuals are affected by the opinions and viewpoints of others when deciding to adopt or use a particular technology. Specifically, it pertains to how people interpret and assess the perspectives of others regarding the suitability or desirability of incorporating a specific technological advancement. In the context of cash waqf contribution using blockchain technology, social influence refers to the impact of friends, relatives, and significant individuals who influence someone's decision to utilize the blockchain platform for cash waqf. This study aims to investigate the number of individuals who believe that those around them encourage them to contribute cash waqf through the blockchain platform (Venkatesh et al., 2003). Previous research has also found a link between social elements and overall digital waqf innovation. Wadi and Nurzaman (2020) found that social influence had a beneficial impact on waqf technology adoption. Chaerunnisa and Kasri (2019), who researched the intention of Indonesian Muslim millennials to contribute via online waqf, discovered that social norms had a favorable impact on the intention to contribute via online waqf. However, research on the drivers of digital zakat payments in Indonesia by Kasri and Yuniar (2021) indicated it was minor in determining the desire to pay zakat through an online platform. As such, the proposed hypothesis is as follows:

H4. Social influence has a positive influence on waqif's perceived intention to adopt waqf blockchain.

3.0 Methodology

The study employed a survey research design, focusing on individuals in Malaysia who had made multiple cash waqf donations through online platforms. Survey research design is a method used to collect data from a specific group of individuals to gain insights into various aspects of a particular topic or phenomenon. It involves the systematic gathering of information through the administration of standardized questionnaires (Creswell, 2017). The individual was chosen as the unit of analysis, following the approach suggested by Yin (2018) for studies involving people. Non-probability sampling techniques were employed due to practical considerations, such as the need for a definitive population list, resource limitations, and time constraints. It is due to constraints in getting the complete list of endowers in Malaysia because it is considered classified information. Due to that, the purposive sampling method was utilized to select participants who met the research criteria. This method involved the researcher requesting the original subject to identify additional suitable subjects to be the respondent. Data was collected by distributing questionnaires across Malaysia through email and WhatsApp applications. The questionnaire encompassed demographic information and Likert-scale items measuring variables such as effort expectancy, facilitating condition, performance expectancy, social influence, and intention (refer to Table 1). 140 response was collected for this study, and the collected data were analyzed using Smart-PLS software to identify the relationship.

Table 1. Measurement Item

Construct	No. of Items	Source
Effort Expectancy	4	Adapted from Kasri & Yuniar (2021)
Facilitating Conditions	3	Adapted from Kasri & Yuniar (2021)
Performance Expectancy	3	Adapted from Kasri & Yuniar (2021)
Social Influence	3	Adapted from Kasri & Yuniar (2021) and Sulaeman (2020)
Intention	4	Adapted from Kasri & Yuniar (2021) and (Baber (2021)

4.0 Findings

4.1 The measurement models

Table 2 reveals that the AVE values surpass the recommended threshold of 0.5, providing strong evidence of satisfactory convergent validity (Fornell & Larcker, 1981). Moreover, the composite reliability values for all constructs substantially exceed the recommended threshold of 0.70 (Hair et al., 2017), indicating their high reliability. Additionally, Cronbach's alpha values for all constructs meet the minimum threshold of 0.60, further affirming the acceptability of the constructs.

Table 2. Reliability and Convergent Validity

Construct	AVE	Composite Reliability	R-Square	Cronbach's Alpha
Effort Expectancy	0.832	0.952	-	0.933
Facilitating Condition	0.915	0.970	-	0.953
Performance Expectancy	0.709	0.879	-	0.795
Social Influence	0.857	0.947	-	0.917
Intention	0.768	0.930	0.630	0.900

Table 3 illustrates that each item displayed loadings ranging from 0.70 to 0.95 on the construct it was designed to measure. Notably, there were no instances of items loading higher on constructs they were not intended to assess. These findings strongly support the convergent validity of the constructs.

4.2 Factor Loading and Cross-Loading

Table 3. Factor Loading and Cross-Loading

	Effort Expectancy	Facilitating Conditions	Intention	Performance Expectancy	Social Influence
EE1	0.906	0.649	0.625	0.660	0.501
EE2	0.895	0.596	0.477	0.493	0.353
EE3	0.921	0.602	0.560	0.534	0.557
EE4	0.925	0.646	0.664	0.618	0.633
FC1	0.676	0.956	0.628	0.497	0.471
FC2	0.637	0.959	0.627	0.549	0.478
FC3	0.652	0.954	0.609	0.519	0.529
INT1	0.612	0.588	0.901	0.659	0.539
INT2	0.624	0.632	0.908	0.716	0.567
INT3	0.487	0.520	0.843	0.669	0.38
INT4	0.523	0.526	0.853	0.601	0.478
PE1	0.569	0.443	0.672	0.849	0.493
PE2	0.512	0.535	0.684	0.901	0.345
PE3	0.536	0.391	0.536	0.770	0.259
SI1	0.506	0.467	0.428	0.387	0.902
SI2	0.547	0.509	0.582	0.416	0.945
SI3	0.534	0.452	0.561	0.435	0.931

Table 4 presents a comparison of the correlations among the constructs using the square root of the AVE. The analysis revealed that the square root of the AVE exceeded the inter-construct correlations, indicating strong discriminant validity for all constructs. Consequently, we can confidently conclude that all constructs demonstrated satisfactory discriminant validity.

4.3 Discriminant Validity

Table 4. Square Root of the AVE

	Effort Expectancy	Facilitating Condition	Intention	Performance Expectancy	Social Influence
Effort Expectancy	0.912				
Facilitating Condition	0.686	0.956			
Intention	0.646	0.65	0.877		
Performance Expectancy	0.639	0.545	0.755	0.842	
Social Influence	0.572	0.515	0.567	0.446	0.926

4.3 The structural model (Hypothesis testing)

We performed bootstrapping, which involved 500 samples, whilst our actual sample stood at 140. The SEM result is presented in Table 5.

Table 5. Hypothesis Testing

Hypothesis	Causal Path	Std Beta	Std Error	t-value	Supported
H1	EE – INT	0.042	0.100	0.409	No
H2	FC – INT	0.236	0.077	3.105	Yes
H3	PE – INT	0.512	0.057	8.928**	Yes
H4	SI – INT	0.202	0.055	3.650*	Yes

5.0 Discussion

In Table 2, it can be observed that the R² value is 0.63, indicating that the constructs of EE, FC, PE, and SI explain 63% of the variance in intention. Table 5 reveals that three beta path coefficients demonstrated a positive relationship with intention, aligning with our expectations. These coefficients were statistically significant at the p<0.01 and p<0.05 levels. Specifically, performance expectancy (β0.512, p<0.01), social influence (β0.202, p<0.05), and facilitating condition (β0.236, p<0.01) exerted a significant influence on the perceived intention to adopt waqf blockchain.

The strong positive correlation between performance expectancy and intention aligns with the research conducted by Sulaeman (2020) and Wadi and Nurzaman (2020). This correlation suggests that individuals who contribute to waqf believe that adopting waqf blockchain technology will be beneficial, particularly in terms of increasing their contribution time.

Similarly, the positive and significant relationship between social influence and intention is consistent with the findings of Latifa and Zakaria (2020), who discovered that close contacts of officers, such as colleagues and senior management, greatly influence their decision to use blockchain technology. Since endowers may have a limited understanding of blockchain technology and harbour doubts, the influence of others becomes crucial in building their confidence and shaping their intention to adopt waqf blockchain.

However, the positive and significant relationship between facilitating conditions and intention does not align with the findings of Latifa and Zakaria (2020). This discrepancy could be attributed to the increased awareness and preparedness of endowers. Endowers are now well-informed about the technological advancements of blockchain and the benefits it offers, leading to a significant relationship between their intention and the adoption of waqf blockchain.

In one beta path, it was discovered that there was no significant connection between effort expectancy and intention, which goes against the conclusions drawn by Kasri and Yuniar (2021). This inconsistency can be attributed to the fact that blockchain technology is still relatively recent, and numerous potential participants need to fully understand how it can be applied (Latifa & Zakaria, 2020). Consequently, respondents might need to fully grasp the usefulness of blockchain technology in cash waqf contribution, resulting in an insignificant relationship between effort expectancy and their intention to adopt waqf blockchain.

6.0 Conclusion & Recommendations

This study investigated the relationship between the UTAUT construct, including effort expectancy, facilitating conditions, performance expectancy, and social influence on perceived intention to adopt waqf blockchain. The model used scored an R² value of 0.63, suggesting that these constructs explain 63% of the variance in intention, while another 37% can be attributed to other factors to be explored in future research. By surveying 140 endowers in Malaysia regarding their perceived intention to adopt waqf blockchain, the study discovered that these constructs, namely performance expectancy, social influence, and facilitating conditions, significantly contribute to their intention to adopt waqf blockchain. The positive and significant relationships between performance expectancy, social influence, and facilitating conditions with intention align with previous studies, indicating that individuals perceive the benefits and are

influenced by others in adopting waqf blockchain. However, the lack of a significant relationship between effort expectancy and intention suggests that participants may need to fully understand the usefulness of blockchain technology in cash waqf contribution. This discrepancy could be attributed to limited awareness and understanding of blockchain technology among potential endowers. The waqf management institution should seriously consider these findings to enhance waqf development in Malaysia with the implementation of new technology. However, it is essential to note that while this study identified three constructs, its findings cannot be generalized to the entire population of Malaysia. Therefore, future research should replicate this study using a larger sample from a broader geographical area to establish findings with a higher degree of accuracy and generalizability. Additionally, it is crucial for future research to explore more variables related to the UTAUT framework.

Paper Contribution to Related Field of Study

The paper contributes to technology adoption and behavioral economics.

References

- Anam, B. H. C. (2015). Penentu wakaf tunai di Malaysia. In S. Alma'amun, M. A. Ismail, M. A. Mohd Noor, M. R. Moi, A. R. Mohd Shaary, & M. H. Mohd Shafiai (Eds.), *Prosiding persidangan kebangsaan ekonomi dan kewangan Islam 2015 (CMIEF2015) Ekonomi Halal* (pp. 230–235).
- Azizi, N. D., Shukor, S. A., & Sabri, H. (2019). Determinants of repeated endowers' donation intention in cash waqf: A case study in Majlis Agama Islam dan Adat Melayu Perak (MAIPk). *Jurnal Manajemen Bisnis*, 10(2). <https://doi.org/10.18196/mb.10175>
- Baber, H. (2021). Examining the intentions to use crowdfunding platform – an extended technology acceptance model. *International Journal of Services, Economics and Management*.
- Basary, N. F. (2014). The acceptance of waqf institution establishment in UUM. Universiti Utara Malaysia.
- Bodó, B. (2021). Mediated trust: A theoretical framework to address the trustworthiness of technological trust mediators. *New Media and Society*, 23(9), 2668–2690. <https://doi.org/10.1177/1461444820939922>
- Chaerunnisa, S. R., & Kasri, R. A. (2019). Indonesian Muslim millennials' intention to donate via online waqf: Theory of planned behavior approach. In *Challenges of the Global Economy: Some Indonesian Issues*.
- Choi, S., Kim, H., Chung, M., & Lee, S. Y. (2019). Online Donation Experiences, Donation Awareness, and Intention of Future Donation Among Teenagers in South Korea. *Journal of Social Service Research*, 45(5). <https://doi.org/10.1080/01488376.2018.1487363>
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- Du, L., Li, X., Chen, F., & Feng, Y. (2020). Evaluating participants' customer citizenship behaviors using an Internet charity platform. *Social Behavior and Personality*, 48(6). <https://doi.org/10.2224/sbp.9098>
- Faturohman, T., Hassandi, I., & Yulianti, Y. (2020). User Acceptance of Online Waqf Application: Evidence from Indonesia. *Journal of Islamic Monetary Economics and Finance*, 6(3), 503–530. <https://doi.org/10.21098/jimf.v6i3.1117>
- Fauzi, M. H., Yahya, S., Haron, M. S., & Abu Zahrin, S. N. (2019). The Role of Online Facility in Cash Waqf Contribution: Experience of Bank Muamalat Malaysia Berhad (BMMB). *Southeast Asia Journal of Contemporary Business, Economics and Law*, 19(2), 46–55.
- Finterra. (2019). *Waqf Chain*. <https://finterra.org/waqfchain/>
- Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 18(1). <https://doi.org/10.2307/3151312>
- Habib, F., & Ahmad, A. U. F. (2019). Using Blockchain and Smart Contracts for Waqf Institutions. <https://doi.org/10.4018/978-1-5225-9183-2.ch013>
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. Second Edition. In California: Sage.

- Hansen, J. M., Saridakis, G., & Benson, V. (2018). Risk, trust, and the interaction of perceived ease of use and behavioral control in predicting consumers' use of social media for transactions. *Computers in Human Behavior*, 80. <https://doi.org/10.1016/j.chb.2017.11.010>
- Heidari, H., Mousakhani, M., Alborzi, M., Divandari, A., & Radfar, R. (2017). Evaluating the Factors Affecting Behavioral Intention in Using Blockchain Technology Capabilities as a Financial Instrument. In *Journal of Money and Economy* (Vol. 13, Issue 2).
- Isfandayani, P. P. (2020). Planned behavior theory in paying cash waqf. *Journal of Humanities and Social Studies*, 4(1). <https://doi.org/10.33751/jhss.v4i1.1901>
- Johari, F., Alias, M. H., Shukor, S. A., Wahab, K. A., Aziz, M. R. A., Ahmad, N., Zulkefli, Z. K., Hussin, F. A., & Ibrahim, P. (2015). Factors that influence repeat contribution of cash waqf in Islamic philanthropy. *Malaysian Accounting Review*, 14(2).
- Kasri, R. A., & Chaerunnisa, S. R. (2021). The role of knowledge, trust, and religiosity in explaining the online cash waqf amongst Muslim millennials. *Journal of Islamic Marketing*. <https://doi.org/10.1108/JIMA-04-2020-0101>
- Kasri, R. A., & Yuniar, A. M. (2021). Determinants of digital zakat payments: lessons from Indonesian experience. *Journal of Islamic Accounting and Business Research*. <https://doi.org/10.1108/JIABR-08-2020-0258>
- Latifa, M. I., & Zakaria, Z. (2020). Factors Determine the Behavioural Intention in Adopting Blockchain Technology by Malaysian Public Sector Officers. *Journal of Advanced Research in Business and Management Studies*, 20(1), 34–43. <https://doi.org/10.37934/arbms.20.1.3443>
- Li, Y. Z., He, T. L., Song, Y. R., Yang, Z., & Zhou, R. T. (2018). Factors impacting donors' intention to donate to charitable crowdfunding projects in China: a UTAUT-based model. *Information Communication and Society*, 21(3), 404–415. <https://doi.org/10.1080/1369118X.2017.1282530>
- Mas'ud, A., & Umar, M. A. (2019). Structural effects of trust in e-filing software on e-filing acceptance in the services sector. *International Journal of Enterprise Information Systems*, 15(2), 76–94. <https://doi.org/10.4018/IJEIS.2019040105>
- Mohammed, S. (2020). Can Smart Contracts Redefine 'Trust'? *Finterra.Org*. <https://finterra.org/can-smart-contracts-redefine-trust/>
- Niswah, F., Mutmainah, L., Hadyantari, F., Nurwahidin, N., & Huda, N. (2020). Do Indonesian Muslims Have Intention to Participate in Cash Waqf Through Fintech? <https://doi.org/10.4108/eai.6-11-2019.2297262>
- Osman, A. F. (2014). an Analysis of Cash Waqf Participation Among Young. 9th International Academic Conference, April, 572–584.
- Osman, A. F., Mohammed, M. O., & Amin, H. (2013). An Analysis of Cash Waqf Participation Among Young Intellectuals. *Proceedings of World Universities' Islamic Philanthropy 2013*, 7–20.
- Osman, A. F., Mohammed, M. O., & Fadzil, A. (2016). Factor Influencing Cash Waqf Giving Behavior: A Revised Theory of Planned Behavior. *Journal of Global Business and Social Entrepreneurship (GBSE)*, 1(2).
- Pitchay, A. A. (2015). The role of cash waqf in the rejuvenation of Malaysia waqf assets. *Universiti Islam Antarabangsa Malaysia*.
- Pitchay, A. A., Meera, A. K. M., & Saleem, M. Y. (2015). Factors influencing the behavioral intentions of Muslim employees to contribute to cash-waqf through salary deductions. *Journal of King Abdulaziz University, Islamic Economics*, 28(1). <https://doi.org/10.4197/Islec.28-1.3>
- Ratnasari, R. T., & Arifin, M. H. (2018). Theory of Planned Behavior in Intention to Pay Cash Waqf. <https://doi.org/10.5220/0007087206410644>
- Saberee, A. (2019). WAQF Chain — A Blockchain Solution for Organizations to Help Customers Give Traceable Charity.pdf. *Finterra.Org*. <https://finterra.org/waqf-chain-a-blockchain-solution-for-organizations-to-help-customers-give-traceable-charity/>
- Sakti, M. R. P., Hassanuddin, M. T. T., Qoyum, A., & Qizam, I. (2016). Determinants of cash waqf contribution in Klang Valley and Selangor: A SEM approach. *Journal of Islamic Monetary Economics and Finance*, 2(1). <https://doi.org/10.21098/jimf.v2i1.593>
- Sanmukhiya, C. (2020). A PLS –SEM Approach to the UTAUT Model: The Case of Mauritius. *Annals of Social Sciences & Management Studies*, 6(1). <https://doi.org/10.19080/asm.2020.06.555677>

- Shafawati, N. B. B. (2017). Using an Extended Theory of Planned Behaviour to Measure Intention to Contribute to Cash Waqf. A Dissertation Submitted in Fulfillment of the Requirement for the Degree of Master of Science in Marketing Kulliyah of Economics, June.
- Shanmugam, M., Sun, S., Amidi, A., Khani, F., & Khani, F. (2016). The applications of social commerce constructs. *International Journal of Information Management*, 36(3). <https://doi.org/10.1016/j.ijinfomgt.2016.01.007>
- Sulaeman, S. Y. N. (2020). Analyzing the Behavioral Intention Factors in Using Zakat-Based Crowdfunding Platform in Indonesia. *International Journal of Zakat*, 5(3), 1–19. <https://doi.org/10.37706/ijaz.v5i3.267>
- Sulaiman, M., & Zakari, M. A. (2015). Efficiency and effectiveness of waqf institutions in Malaysia: Toward financial sustainability. *Access to Finance and Human Development*. In *Access to Finance and Human Development — Essays on Zakah, Awqaf and microfinance* (Vol. 1). <https://doi.org/10.1007/s13398-014-0173-7.2>
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly: Management Information Systems*, 27(3). <https://doi.org/10.2307/30036540>
- Wadi, D. A., & Nurzaman, M. S. (2020). Millennials' Behaviour towards Digital Waqf Innovation. *International Journal of Islamic Economics and Finance (IJIEF)*, 3(3). <https://doi.org/10.18196/ijief.3232>
- Yin, R. K. (2018). *Case study approach and applications design and methods* (6th ed.). SAGE Publications, Inc.
- Yusof, M. A., Ab. Aziz, R., & Johari, F. (2013). The relationship between the level of income and willingness of the Muslim community to contribute to Islamic Waqf Bank. *The 5th Islamic Economic Sytem Conference (Iecons, 2013)*, 36–89.
- Yusoff, R., Abd Rahman, S. A., Wan Mohamed, W. N., Benrit, P., & Darus, F. (2017). Predicting the Behavioural Intention for Cash Waqf: Evidence from Malaysia and Thailand. Conference on