

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/390182718>

# Examining Factors Affecting the Acceptance of Islamic Mobile Banking Services in Indonesia: Insights into Technology, Customer Behaviour, and Shari'ah Compliance |

Article in ISRA International Journal of Islamic Finance · March 2025

CITATIONS

0

4 authors:



**Abdurrahman Syahrawi**

STMIK Bandung

10 PUBLICATIONS 101 CITATIONS

SEE PROFILE



**Yadi Janwari**

Sunan Gunung Djati State Islamic University Bandung

41 PUBLICATIONS 86 CITATIONS

SEE PROFILE

READS

11



**Mohamad Anton Athoillah**

Sunan Gunung Djati State Islamic University Bandung

42 PUBLICATIONS 180 CITATIONS

SEE PROFILE



**Asti Meiza**

Sunan Gunung Djati State Islamic University Bandung

26 PUBLICATIONS 104 CITATIONS

SEE PROFILE

# EXAMINING FACTORS AFFECTING THE ACCEPTANCE OF ISLAMIC MOBILE BANKING SERVICES IN INDONESIA: INSIGHTS INTO TECHNOLOGY, CUSTOMER BEHAVIOUR, AND SHARĪ'AH COMPLIANCE

Abdurrahman Abdurrahman

*Department of Information Systems, STMIK Bandung, Bandung, Indonesia*

Mohamad Anton Athaillah

*Department of Islamic Law, UIN Sunan Gunung Djati, Bandung, Indonesia*

Yadi Janwari

*Department of Islamic Law, UIN Sunan Gunung Djati, Bandung, Indonesia*

Asti Meiza

*Department of Mathematics, UIN Sunan Gunung Djati, Bandung, Indonesia*

Received

16 October 2024

Revised

7 December 2024

7 March 2025

18 March 2025

Accepted

19 March 2025

## ABSTRACT

**Purpose** — This study examines the main factors influencing the adoption of Islamic mobile banking (IMB) services in Indonesia, considering technology, customer behaviour, and Sharī'ah compliance. The integration of these factors in IMB adoption research remains notably limited. This research provides a comprehensive framework by integrating the Technology Acceptance Model (TAM) with the Theory of Planned Behaviour (TPB) and additionally incorporating Sharī'ah compliance.

**Design/Methodology/Approach** — The study utilises survey data collected from 1,161 IMB users in Indonesia. It uses the Partial Least Squares-Structural Equation Modeling (PLS-SEM) technique to examine the impact of antecedents on the intention to adopt IMB.

**Findings** — The results indicate that perceived usefulness (PU) and perceived ease of use (PEOU), as well as other pertinent behavioural factors such as attitude, subjective norms, and Sharī'ah compliance, positively and significantly influence the adoption of IMB services in Indonesia. However, the construct of perceived behavioural control (PBC) has not been found to impact customer satisfaction.

**Originality/Value** — This study contributes by integrating diverse theories to offer insights into the nature of technology adoption, specifically focusing on IMB.

**Research Limitations/Implications** — This study offers theoretical implications by introducing new insights into IMB adoption through the integration of technology, customer behaviour, and Sharī'ah compliance dimensions. Future studies can further build upon this research by incorporating additional dimensions.

International  
Journal of Islamic  
Finance and  
Sustainable  
Development  
(IJIFSD)  
Vol. 17 • No. 1 • 2025  
pp. 4–28

© Abdurrahman Abdurrahman, Mohamad Anton Athaillah, Yadi Janwari and Asti Meiza. Published in the International Journal of Islamic Finance and Sustainable Development by ISRA Institute, INCEIF University. This article is published under the Creative Commons Attribution (CC BY 4.0) licence. Anyone may reproduce, distribute, translate and create derivative works of this article, subject to full attribution to the original publication and authors. The full terms of this licence are available at: <http://creativecommons.org/licences/by/4.0/legalcode>

eISSN:  
3030-6442

DOI:  
[doi.org/10.55188/ijifsd.v17i1.924](https://doi.org/10.55188/ijifsd.v17i1.924)

**Practical Implications** — From a managerial standpoint, the study provides guidance for Islamic banks in developing IMB products, emphasising not only technological aspects but also focusing on customer behaviour and Sharī'ah compliance. Socially, the research highlights that IMB services are designed to uphold Sharī'ah principles, ensuring that customers' rights to receive services that align with their religious values are respected.

**Keywords** — Customer behaviour, Islamic mobile banking, Mobile banking, Sharī'ah compliance, Technology adoption

**Article Classification** — Research paper

## INTRODUCTION

In the age of technological advancement, the financial industry has undergone a significant digital transformation driven by the rapid development of information technology (Abdurrahman *et al.*, 2024). This shift has introduced technology-driven services designed to meet customers' evolving needs. To successfully implement digital transformation within the banking sector, digital services should be designed and implemented in a way that supports and fulfills the intended purpose of digital transformation and the performance objectives of the institutions involved (Abdurrahman *et al.*, 2024; Fernández-Portillo *et al.*, 2024). Consequently, developing a comprehensive strategy for creating digital products is essential for enhancing banks' competitiveness (Yushaeva, 2021; Abdurrahman, 2024).

To remain relevant in the digital economy, the banking industry must adopt and expand the penetration of digital services to increase market share. As such, it is crucial for banks to strengthen their capabilities in managing digital transformation, particularly in areas such as product innovation and ecosystem strategy development (Haki *et al.*, 2022; Abdurrahman *et al.*, 2023). Building a robust banking business ecosystem requires digital services that are supported by appropriate technology and are aligned with the value propositions offered to customers (Antai & Eze, 2023; Chen *et al.*, 2023). In response to these demands, many banking firms have embraced technology-based solutions to stay competitive and adapt to these rapid advancements (Dimitrova *et al.*, 2022). A key initiative of this transformation is mobile banking, a subset of electronic banking, which facilitates the delivery of banking services wirelessly (Ho *et al.*, 2020). Nearly all financial institutions have adopted mobile banking applications to better accommodate their customers' needs in the digital age (Abdurrahman *et al.*, 2023; Sebayang *et al.*, 2024).

This also applies to Islamic banks, which have implemented Islamic mobile banking (IMB) to provide quality customer service. IMB combines advanced technologies with business strategies and is rapidly becoming a transformative trend within Islamic banking institutions (Adewale & Ismal, 2020). According to a 2020 report by the Islamic Financial Services Board (IFSB), which surveyed 80 Islamic banks across 21 member countries, 93 per cent of these institutions identified mobile banking as their most widely adopted strategic initiative, highlighting the sector's growing reliance on technological innovations (Abdurrahman *et al.*, 2022).

However, despite these advancements, the transformation of Islamic banking through IMB faces several challenges, as highlighted in previous studies, mainly from cultural, technological, and economic viewpoints. In Indonesia, religiosity has been identified as a critical factor, with individuals who demonstrate more substantial religious commitment being more likely to adopt IMB services (Suhartanto *et al.*, 2020). In contrast, in countries such as Tunisia and Mauritius, a lack of consumer awareness about Islamic banking has emerged as a significant obstacle, as many potential users are unaware of the availability and benefits of IMB (Obeid & Kaabachi, 2016). Meanwhile, research in Palestine emphasised the importance of system quality, suggesting that improving the technological robustness of IMB platforms could increase adoption rates among Islamic banks' customers (Mansour, 2020). The impact of Shari'ah (Islamic law) compliance on the implementation of IMB demonstrates a significant trend, influencing both customer adoption and satisfaction. Compliance with Shari'ah principles plays a crucial role in shaping trust and acceptance among users, particularly in markets where religious beliefs strongly guide financial decisions (Fitri, 2021). Studies integrating the Technology Acceptance Model (TAM) and

religiosity behaviour have shown a crucial role in driving IMB adoption (Usman *et al.*, 2022; Abdurrahman, 2024).

The significance of this research lies in its potential to fill an important gap in the existing body of literature on the adoption of IMB. Previous studies have focused on isolated barriers to IMB adoption, such as technological limitations, cultural factors such as customer behaviour, or the influence of Shari'ah compliance. However, none have comprehensively explored how these three critical dimensions—technology, customer behaviour, and Shari'ah compliance—interact to shape the utilisation of IMB. Firstly, this research will explore how technology in IMB platforms can be optimised to support religiously compliant financial transactions while ensuring user-friendly and secure systems for customers. Secondly, customer behaviour represents a cultural dimension that significantly impacts IMB adoption (Wang *et al.*, 2023). Thirdly, Shari'ah compliance is the religious foundation that sets Islamic banking apart from conventional banking systems (Basit, 2023).

To achieve the objective of this research, the study will examine the adoption of IMB by Islamic banks' customers in Indonesia, taking various considerations into account. Indonesia is home to the largest Muslim population in the world, making it a key market for Islamic banking services (Adewale & Ismal, 2020). Moreover, Indonesia's Islamic banking sector is rapidly growing, driven by increasing demand for Shari'ah-compliant financial products (Fidhayanti *et al.*, 2024). Additionally, Indonesia's diverse cultural and economic landscape (Sebayang *et al.*, 2024), makes it an ideal setting to study the adoption of IMB. Aligned with the objectives of this research, the study will answer two key research questions:

RQ1. How do the aspects of technology, customer behaviour, and Shari'ah compliance impact customer satisfaction?

RQ2. How does this satisfaction influence the actual usage of IMB?

The research is organised into six main sections. The second section offers a literature review, focusing on the conceptual framework and the development of hypotheses. The third section outlines the research methods employed. The fourth section presents the results and their analysis. The fifth section discusses how the findings relate to the research questions. Lastly, the sixth section concludes with a summary of the key findings, addressing the research objectives and delineating the implications, limitations, and recommendations for future research.

## LITERATURE REVIEW

The acceptance of IMB in Indonesia, offers a unique opportunity to explore the interplay between technology, customer behaviour, and Shari'ah compliance within the broader framework of digital banking transformation. These three factors are key dimensions for analysing customer preferences when adopting IMB while also addressing the various challenges related to technology (Febriandika *et al.*, 2023), cultural and economic influences on customer behaviour (Ramjane & Salleh, 2023), and Shari'ah compliance as a representation of religiosity (Disli *et al.*, 2023). By identifying these diverse factors, the research reveals two significant insights. First, banks can leverage these dimensions—technology, customer behaviour, and Shari'ah compliance—to enhance IMB adoption, adjusting their strategies to the specific needs of the organisation (Marino-Romero *et al.*, 2024). Second, the combination of these dimensions provides fresh perspectives on mobile banking adoption, as there are no contradictions among the concepts; instead, they support

the overall goals of this research (Wallis, 2014). Cavalcanti *et al.* (2022) argued that integrating concepts from different dimensions improves the understanding of technology adoption and innovation, influencing the successful implementation of IMB.

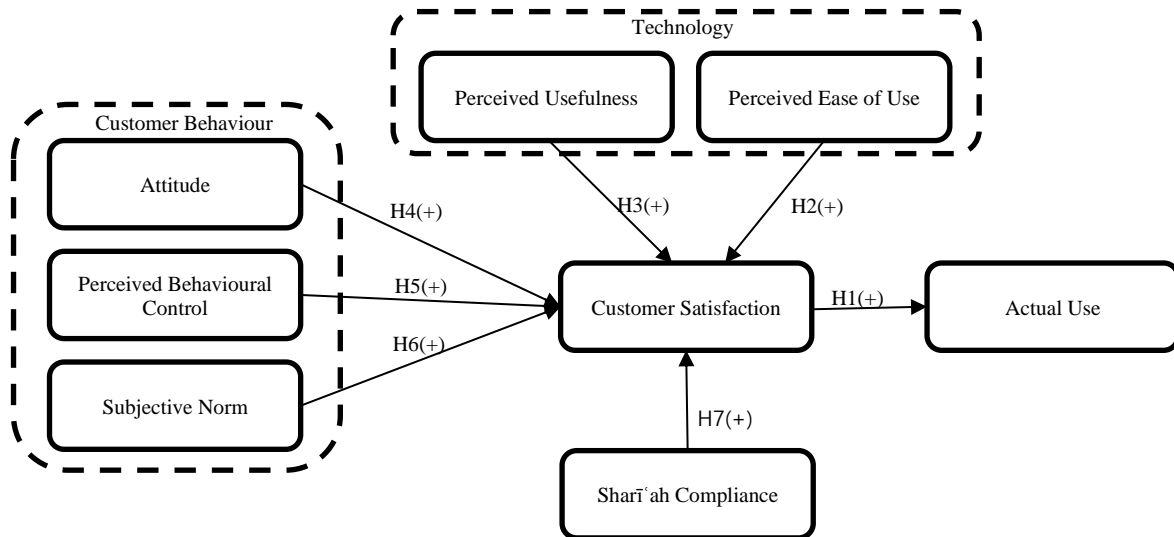
In terms of the technology dimension, the TAM (Davis, 1989) is frequently employed to explain user acceptance of new digital banking services, such as IMB. TAM identifies two key factors, Perceived Usefulness (PU) and Perceived Ease of Use (PEOU), determining whether users will adopt mobile banking platforms. PU reflects users' beliefs about how IMB can improve their banking experience, offering benefits such as convenience, accessibility, and enhanced financial management (Alnemer, 2022; Usman *et al.*, 2022; Purohit & Arora, 2023). PEOU, on the other hand, refers to how easily users can navigate and utilise the platform (Fahad, 2022; Usman *et al.*, 2022; Purohit & Arora, 2023).

The dynamics of digital banking transformation emphasise the importance of customer behaviour in driving IMB adoption. To understand customer behaviour, the Theory of Planned Behaviour (TPB) offers valuable insights. TPB, a widely recognised psychological model, explains how attitudes, subjective norms, and perceived behavioural control (PBC) collectively influence the decision to adopt new technologies (Hill *et al.*, 1977). This model has been successfully applied to various contexts, including mobile banking adoption (Jamshidi & Kazemi, 2020; Sasidharan & Venkatakrisnan, 2024).

Sharī'ah compliance is a critical feature that differentiates IMB from conventional mobile banking systems (Ilyas *et al.*, 2020; Jan & Ismail, 2023). IMB requires all financial transactions to adhere to Islamic principles, prohibiting interest (*ribā*), uncertainty (*gharar*), and gambling (*maysir*) (Jan & Ismail, 2023). Ensuring Sharī'ah compliance adds complexity to digital banking, as institutions must carefully design their products to avoid violating Islamic law while remaining competitive (Muflih *et al.*, 2024).

Based on the literature review of previous studies, this research proposes a conceptual framework, as illustrated in **Figure 1**. The conceptual framework aligns with the above-mentioned research questions of this study, assessing the impact of the three factors—technology, customer behaviour and Sharī'ah compliance—on customer satisfaction, which influences the actual usage of IMB.

**Figure 1: Conceptual Framework**



Source: Authors' own

## Customer Satisfaction and Actual Use

The relationship between customer satisfaction and the actual use of IMB from the customer's perspective can be understood through their usage patterns and satisfaction levels. Customers who use IMB frequently are more likely to be satisfied with the service. This satisfaction is reflected in their willingness to recommend the bank and continue using the service (Zouari & Abdelhedi, 2021). Additionally, satisfied users are less likely to switch to other banks and are more inclined to purchase other products or services offered by the bank (Zouari & Abdelhedi, 2021). In the context of IMB, understanding how customer satisfaction influences actual use is vital for assessing the adoption and utilisation of mobile banking services (Zouari & Abdelhedi, 2021).

Actual use refers to the real-world engagement with and utilisation of the technology. For IMB, even if the user expresses satisfaction with the service, factors such as ease of access, reliability, and system performance will determine whether they will engage with the platform regularly. Therefore, strong customer satisfaction with the service is expected to lead to higher levels of actual use (Anouze & Alamro, 2020; Shahid *et al.*, 2022). As users experience greater satisfaction with these aspects, they are more likely to use the platform more frequently and continue their engagement with the service. Drawing on these insights, the following hypothesis is proposed:

H1: Customer satisfaction with IMB has a positive and significant effect on its actual use.

## Technology Dimension

### *Perceived Ease of Use*

PEOU refers to the degree to which an individual believes that using a particular system or technology will be free of effort (Taylor & Todd, 1995). In the context of IMB, PEOU is a critical factor that influences the user's intention to adopt the service (Alnemer, 2022). When users

perceive that IMB is simple to navigate through, requires minimal effort, and provides a seamless user experience, they are more likely to form positive feedbacks on the service (Fahad, 2022).

The TAM suggests that PEOU plays a significant role in shaping an individual's satisfaction with technology adoption (Davis, 1989). If users find the IMB platform easy to use, they are more likely to develop positive attitudes towards adopting the service (Purohit & Arora, 2023). Furthermore, when the interface is intuitive and the functionality is straightforward, users feel more confident and motivated to use the system regularly (Usman *et al.*, 2022). Therefore, it can be hypothesised that:

H2: Perceived ease of use has a positive and significant impact on customer satisfaction.

### *Perceived Usefulness*

PU refers to the degree to which a person believes that using a particular system or technology will enhance their performance or provide tangible benefits (Davis, 1989). In the context of IMB, PU captures how users feel in terms of IMB improving their banking experience by offering convenience, efficiency, and better access to financial services (Fahad, 2022).

According to the TAM (Davis, 1989), PU is a key factor influencing the level of customer satisfaction in technology adoption. When users believe that IMB will significantly benefit their day-to-day banking activities, such as enabling faster transactions, improving access to financial products, and providing Shari'ah-compliant financial solutions, they will be more likely to adopt the service (Fahad, 2022; Usman *et al.*, 2022; Purohit & Arora, 2023). The stronger the perception of usefulness, the greater the motivation to use IMB. Therefore, it can be hypothesised that:

H3: Perceived usefulness has a positive and significant impact on customer satisfaction.

## **Customer Behaviour Dimension**

### *Attitude*

In the TPB, attitude refers to an individual's overall evaluation or feeling about performing a particular behaviour (Hill *et al.*, 1977). In the context of IMB, attitude represents a user's positive or negative perception towards adopting IMB services (Abayomi *et al.*, 2020). A favourable attitude indicates that the individual believes that using IMB will bring beneficial outcomes, while an unfavourable attitude suggests that they view its use as less advantageous (Jamshidi & Kazemi, 2020).

Attitude plays a crucial role in influencing a customer's level of satisfaction vis-à-vis IMB services. If a person has a positive attitude towards IMB, believing it will enhance their banking experience by offering convenience, efficiency, and compliance with Shari'ah principles, they are more likely to form a strong intention to adopt the service (Sasidharan & Venkatakrishnan, 2024). Based on this, it can be hypothesised that:

H4: Attitude has a positive and significant impact on customer satisfaction.

### *Perceived Behavioural Control*

In the TPB, PBC refers to an individual's perception of the ease or difficulty of endorsing a particular behaviour (Hill *et al.*, 1977). It is closely linked to a person's confidence in their ability to use a system or technology. In the context of IMB, PBC reflects how much control users believe they have over the use of IMB services, considering factors like access to resources (e.g.,

smartphones, internet), technological proficiency, and the complexity of the system (Jamshidi & Kazemi, 2020).

When users perceive that they have sufficient control over the use of IMB, such as feeling confident in navigating the platform, having reliable access to the internet, and finding the technology easy to use, they are more likely to feel a strong satisfaction to the service (Sasidharan & Venkatakrishnan, 2024). Based on this, it can be hypothesised that:

H5: Perceived behavioural control has a positive and significant impact on customer satisfaction

### *Subjective Norm*

In the TPB, subjective norm refers to the perceived social pressure to perform or not to perform a particular behaviour (Hill *et al.*, 1977). It reflects the influence of other significant factors, such as family, friends, colleagues, and social or religious leaders, on an individual's decision-making process. In the context of IMB, subjective norm captures the extent to which users feel encouraged or discouraged to adopt IMB based on the opinions and expectations of those around them (Jamshidi & Kazemi, 2020).

When users perceive that important people in their lives, such as family members, friends, or religious leaders, endorse the use of IMB, they are more likely to develop a strong customer satisfaction with IMB services (Sasidharan & Venkatakrishnan, 2024). Based on this, it can be hypothesised that:

H6: Subjective norm has a positive and significant impact on customer satisfaction.

### **Shari'ah Compliance**

Shari'ah compliance involves the adherence or conformity of an Islamic bank to the principles of Shari'ah (Jan & Ismail, 2023). It serves as a tangible demonstration or confirmation of the commitment to upholding all Shari'ah principles within an institution, reflecting an Islamic bank's character, integrity, and credibility (Basit, 2023).

In essence, the primary role of Shari'ah compliance is to ensure that the operational activities of Islamic financial institutions follow the Shari'ah (Jan & Ismail, 2023). It is a proactive measure to instill public trust in Islamic financial institutions. In the context of use, it is crucial for the service to fully comply with Shari'ah principles as the core value of the Islamic banking model. Previous studies, such as Usman *et al.* (2022), have analysed the impact of adopting IMB on compliance with Shari'ah principles in Indonesia. Therefore, this study proposes the following hypotheses:

H7: Shari'ah compliance significantly influences customer satisfaction.

## **METHODOLOGY**

This study used a structured questionnaire to assess the factors influencing customer satisfaction and its impact on adopting IMB in the quantitative inquiry. The survey was conducted through the random distribution of questionnaires using Google Forms to IMB users, starting from September 1, 2023, to December 31, 2023. The IMB users are customers from Islamic commercial banks and Islamic business units from various regions in Indonesia, with a total of 1,161 respondents participating in this survey as displayed in **Table 1**.

**Table 1: Descriptive Statistics of Respondents**

Description	Category	Number	Percentage (%)
Age	17–25 years	330	29
	26–35 years	317	27
	36–45 years	305	26
	> 45 years	209	18
Job	Education	273	24
	Consultant	29	2
	Banking	177	15
	Finance non-banking	24	2
	Manufacture	7	1
	Government	259	22
	Tourism	8	1
	Home developer	12	1
	Contractor	22	2
	Others	350	30
Education	High School	302	26
	Diploma	76	6
	Bachelor's degree	655	57
	Master's degree	123	10
	Doctoral degree	5	1
Length of time using mobile banking	1–5 years	785	68
	6–10 years	222	19
	11–15 years	78	7
	> 15 years	76	7
Islamic bank type	Private bank	312	27
	State owned bank	415	36
	Regional development bank	434	37

Source: Authors' own

Responses were recorded using a 5-point Likert scale, with '1' denoting strongly disagree and '5' denoting strongly agree. The redesigned scale was subjected to the proper methods for validity and reliability evaluation (Sharma *et al.*, 2019). Smart Partial Least Squares-Structural Equation Modeling (PLS-SEM) software was used to evaluate structural and measurement models. Respondents were selected from several randomised districts, representing the entire Indonesian population due to the region's diverse demographic composition (Sarstedt *et al.*, 2020).

The statistics of respondents in this survey, as described in **Table 1**, are highly relevant for research on the adoption of IMB in Indonesia, as they reflect a broad and diverse sample of users, ensuring that the results are representative of various segments of the population. The age distribution shows a good representation across different life stages, with the majority of respondents (29%) in the 17–25 age range, followed by 27 per cent in the 26–35 range. These are likely to be more tech-savvy and frequent users of digital banking services. Additionally, the 36–45 age group (26%) and older age groups (18%) provide insights into adoption among a broader range of ages. The diverse range of occupations, including education (24%), banking (15%), government (22%), and other sectors (30%), indicates that the survey captures a wide spectrum of

customers, with particular relevance from those in the banking and finance sectors, who are more familiar with digital banking.

A significant portion of respondents (57%) holds a bachelor's degree, which is important for understanding the adoption of IMB among educated and potentially higher-income groups, while the presence of respondents with varying educational backgrounds provides a comprehensive view of how education influences adoption. The length of time respondents have been using mobile banking is also critical, with a large majority (68%) having used mobile banking for 1-5 years, offering insights into how adoption and usage evolve over time. Finally, the distribution of respondents across different types of Islamic banks—27 per cent using private banks, 36 per cent using state-owned banks, and 37 per cent using regional development banks—reflects the variety of banks offering IMB services in Indonesia, allowing for insights into how different bank types influence customer engagement with IMB.

### Common Method Bias

Common method bias (CMB) is often present as data originates from a single, specific source, leading to skepticism, particularly in quantitative studies relying on self-reported information (Spector, 2006). In research, two approaches are employed to mitigate the risk of CMB: meticulous design procedures and rigorous statistical monitoring (Reio, 2010). Various measures can be taken in the procedural design to alleviate CMB, such as ensuring respondents can provide anonymous responses, keeping the questionnaire concise, placing demographic inquiries towards the end, and conducting a pilot questionnaire test before the final data collection stage.

In designing the questionnaire, feedback from 15 customers who were not included in any survey group was solicited to assess question clarity and identify potential duplication. This feedback was used to improve sentence structure, refine meaning, and establish coherence in the relationship between questions. Two methods were employed for statistical control. First, Harman's one-factor test was used to calculate outer loadings and assess the potential presence of standard method bias (Fuller *et al.*, 2016). The second method involved collinearity testing, where Variance Inflation Factors (VIF), representing the extent of multicollinearity, were measured for all constructs.

### Measurement Model

In this research, diverse questionnaire items were employed to evaluate distinct constructs. The evaluation encompassed three actual use tests and four intentions to use for the dimensions of technology, customer behaviour, and Shari'ah compliance. **Table 2** explains the variables related to the adoption of IMB encompassing various dimensions crucial for understanding users' behaviour and perception.

**Table 2: Measurement Items**

Variable	Code	Item	Sources
Actual Use	AU 1	I use IMB services often.	Anouze & Alamro (2020)
	AU 2	I use IMB services more frequently than conventional banking.	Anouze & Alamro (2020)

Variable	Code	Item	Sources
	AU 3	I use IMB as my way of using banking services.	Anouze & Alamro (2020)
Customer Satisfaction	CS 1	I will recommend the bank providing IMB services to others.	Zouari & Abdelhedi (2021)
	CS 2	I am satisfied with the IMB services offered by my bank, so I will continue being its customer.	Zouari & Abdelhedi (2021)
	CS 3	I will not switch to another bank because I am satisfied with the IMB services provided by the bank where I am a customer.	Zouari & Abdelhedi (2021)
	CS 4	With the experience of using digital banking services, I will purchase other products and services offered by the bank where I am a customer.	Zouari & Abdelhedi (2021)
Perceived Ease of Use	PE 1	IMB is easy to use.	George (2018)
	PE 2	To become skilful in using IMB services is easy.	George (2018)
	PE 3	It would be simple to learn how to utilise IMB.	Lee (2009)
	PE 4	I believe that using IMB does not require much mental effort.	Lee (2009)
	PE 5	I use IMB without any help.	Lee (2009)
	PE 6	I use IMB without any problem.	Lee (2009)
	PE 7	In general, using IMB services is simple.	Anouze & Alamro (2020)
Perceived Usefulness	PU 1	Using IMB services allows me to complete my tasks more efficiently.	Anouze & Alamro (2020)
	PU 2	Using IMB services simplifies the process of completing my tasks.	Anouze & Alamro (2020)
	PU 3	IMB saves time.	George (2018)
	PU 4	IMB is available at any time.	George (2018)
	PU 5	IMB is less expensive.	George (2018)
	PU 6	In general, there are benefits from employing IMB services.	George (2018)
	PU 7	The use of IMB improves my banking operations.	George (2018)
	PU 8	Using IMB enhances my productivity.	Nouri & Soltani (2019)
	PU 9	IMB is useful in my living and working activities.	Nouri & Soltani (2019)

**Table 2: Measurement Items (Cont.)**

Variable	Code	Item	Sources
Attitude	AT 1	I believe that using IMB will give me access to more financial services, investment prospects, and goods.	Lee (2009)
	AT 2	Employing IMB can reduce transaction handling expenses while doing financial transactions.	Lee (2009)
	AT 3	IMB provides fulfilling and helpful services.	Nouri & Soltani (2019)
	AT 4	IMB is of high grade.	Nouri & Soltani (2019)
Subjective Norm	SN 1	Key people in my life advise me to use IMB services.	Lee (2009)
	SN 2	Those who have power over me advise me to utilise IMB services.	Lee (2009)
	SN 3	People whose viewpoints I respect advise me to utilise IMB services.	Lee (2009)
Perceived Behavioural Control	PBC 1	I am comfortable utilising IMB.	Anouze & Alamro (2020)
	PBC 2	Even with just the web tutorials as a guide, I feel confident in using IMB.	Anouze & Alamro (2020)
	PBC 3	If I could contact customer support for assistance in case I get stuck, I would feel comfortable utilising IMB.	Anouze & Alamro (2020)
Shari'ah Compliance	SC 1	IMB is run in line with Islamic principles.	Zouari & Abdelhedi (2021)
	SC 2	In IMB, no interest is paid nor taken on savings and loans.	Zouari & Abdelhedi (2021)
	SC 3	IMB provides Islamic products and services.	Zouari & Abdelhedi (2021)

Source: Authors' own

## RESULTS

Applying PLS-SEM involves a two-step process (Sarstedt *et al.*, 2022). First, the measurement model is evaluated to establish the relationships between observable variables and theoretical constructs. Then, the structural model is assessed to determine how well the proposed causal relationships fit the actual data.

### Measurement Model

The results of the measurement model in **Table 3** confirm the reliability, validity, and absence of multicollinearity for the constructs related to IMB adoption. All outer loadings exceed the threshold of 0.70, demonstrating that the observed indicators strongly represent their respective latent variables, such as actual use and customer satisfaction. The variance inflation factors (VIF)

values for all constructs are below 5, indicating no multicollinearity issues. Cronbach's alpha values are all above 0.70, ensuring good internal consistency, while composite reliability values are also high, further confirming the model's reliability. Additionally, the average variance extracted (AVE) values exceed 0.50 for all constructs, meaning that the indicators explain a large proportion of the variance, as seen with Shari'ah compliance, which has an AVE of 0.854.

**Table 3: Findings of the Measurement Model**

Variable	Code	VIF	Outer Loading	Cronbach's Alpha	Composite Reliability	AVE
Actual Use	AU 1	3.043	0.923	0.915	0.947	0.855
	AU 2	3.123	0.918			
	AU 3	3.556	0.933			
Customer Satisfaction	CS 1	3.719	0.911	0.924	0.946	0.815
	CS 2	4.876	0.936			
	CS 3	3.421	0.908			
	CS 4	2.314	0.855			
Perceived Ease of Use	PE 1	1.851	0.753	0.899	0.920	0.623
	PE 2	2.527	0.816			
	PE 3	2.940	0.854			
	PE 4	1.691	0.723			
	PE 5	2.021	0.763			
	PE 6	1.995	0.762			
	PE 7	2.514	0.847			
Perceived Usefulness	PU 1	3.276	0.838	0.944	0.953	0.692
	PU 2	3.823	0.868			
	PU 3	2.643	0.868			
	PU 4	2.092	0.821			
	PU 5	2.131	0.768			
	PU 6	3.215	0.769			
	PU 7	3.320	0.856			
	PU 8	3.268	0.851			
	PU 9	3.359	0.843			
Attitude	AT 1	3.024	0.898	0.925	0.947	0.817
	AT 2	3.306	0.907			
	AT 3	3.640	0.920			
	AT 4	2.892	0.890			
Subjective Norm	SN 1	2.806	0.918	0.916	0.947	0.856
	SN 2	3.576	0.926			
	SN 3	3.595	0.932			
Perceived Behavioural Control	PBC 1	2.580	0.908	0.877	0.924	0.803
	PBC 2	2.569	0.908			
	PBC 3	2.154	0.870			
Shari'ah Compliance	SC 1	3.458	0.932	0.914	0.946	0.854
	SC 2	3.199	0.918			
	SC 3	2.950	0.922			

Source: Authors' own

The Fornell and Larcker criterion analysis in **Table 4** confirms the discriminant validity of the constructs related to IMB adoption, such as actual use, attitude, customer satisfaction, PBC, PEOU, PU, subjective norm, and Shari'ah compliance. The results show that each construct is distinct from the others, with the diagonal values (square roots of the AVE) being higher than their correlations with other constructs. Notably, the strong correlation between customer satisfaction (0.861) and actual use supports the notion that satisfaction is a significant predictor of actual behaviour, aligning with the TPB. Additionally, attitude is highly influenced by PU (0.805), indicating that users' positive attitudes towards IMB are driven by their perception of its benefits, which is consistent with the TAM.

Similarly, the strong relationship between PEOU (0.812) and PU reinforces the idea that ease of use enhances the perceived value of IMB. Moreover, the significant correlation between subjective norm (0.753) and PBC highlights the role of social influence in shaping users' perceptions of their ability to use IMB, suggesting that family, peers, and community leaders play a critical role in influencing adoption. Shari'ah compliance, while important, shows more moderate correlations with other factors, indicating that while compliance with Islamic principles is necessary for building trust, it may not be the primary driver of adoption compared to technological factors such as PU and PEOU.

The results from the Heterotrait-Monotrait ratio (HTMT) analysis in **Table 5** confirm the discriminant validity of the constructs related to IMB adoption, such as actual use, attitude, customer satisfaction, PBC, PEOU, PU, subjective norm, and Shari'ah compliance. All HTMT ratios are less than 1.0, which suggests that the model's constructs measure distinct underlying concepts, supporting discriminant validity (Henseler *et al.*, 2016; Dash & Paul, 2021). The analysis shows that customer satisfaction has a strong correlation with actual use (0.876), highlighting the significant influence of intention on behaviour, which aligns with the TPB. Similarly, the strong relationship between perceived usefulness (0.756) and customer satisfaction suggests that users who perceive IMB as beneficial are more likely to intend to adopt it. Moreover, PEOU (0.878) is closely linked to PU, supporting the TAM that ease of use enhances the perceived benefits of using IMB.

**Table 4: Fornell and Larcker's Criterion for Discriminant Validity**

	Actual Use	Attitude	Customer Satisfaction	Perceived Behavioural Control	Perceived Ease of Use	Perceived Usefulness	Subjective Norm	Shari'ah Compliance
Actual Use	0.925							
Attitude	0.678	0.904						
Customer Satisfaction	0.861	0.721	0.903					
Perceived Behavioural Control	0.620	0.744	0.654	0.896				
Perceived Ease of Use	0.633	0.693	0.650	0.645	0.790			
Perceived Usefulness	0.696	0.805	0.718	0.709	0.812	0.832		
Subjective Norm	0.646	0.703	0.659	0.753	0.601	0.677	0.925	
Shari'ah Compliance	0.547	0.585	0.602	0.558	0.458	0.530	0.514	0.924

Source: Authors' own

**Table 5: HTMT Analysis for Discriminant Validity**

	Actual Use	Attitude	Customer Satisfaction	Perceived Behavioural Control	Perceived Ease of Use	Perceived Usefulness	Subjective Norm
Attitude	0.714						
Customer Satisfaction	0.876	0.764					
Perceived Behavioural Control	0.676	0.824	0.717				
Perceived Ease of Use	0.668	0.756	0.703	0.723			
Perceived Usefulness	0.730	0.861	0.756	0.777	0.878		
Subjective Norm	0.693	0.761	0.699	0.838	0.660	0.726	
Shari'ah Compliance	0.574	0.635	0.618	0.622	0.503	0.571	0.559

Source: Authors' own

### *Assessment of Structural Fit of the Model*

The test results in **Table 6** validate the appropriateness of the measurement tool by showing that the model for each idea inside each latent variable is different from the other variables. The estimated model, which represents a more limited form of the fit measure, follows a total effect scheme and includes the model structure. This method can give a view of the model fit of discriminant validity (Kumar *et al.*, 2020). The Standardized Root Mean Square Residual (SRMR) is the difference between the existing correlation matrix that the model proposes. It can compute the average difference between actual and predicted correlations as an absolute measure of model fit. SRMR values below 0.10 indicate satisfactory suitability (Dijkstra, 2010). The test results indicate that the SRMR result value is below 0.10, specifically at 0.043. The assessment of the overall model fit involved examining chi-square values and testing the discrepancies between the sample and the covariance matrix in the model. The comparison of chi-square to degrees of freedom provides a clear perspective, where a CMIN/df value of 5 or less is considered indicative of suitable model suitability (Hair *et al.*, 2021). This aligns with the model test results, revealing an average value of 4. The Normed Fit Index (NFI) is calculated as one minus the Chi<sup>2</sup> value of the recommended model divided by the Chi<sup>2</sup> value of the null model. With a specific value of 0.891, the NFI result, ranging from 0 to 1, indicates a better fit and suggests that the model aligns well with the study's findings (Hair *et al.*, 2021).

**Table 6: Model Fit for Discriminant Validity**

Measure	Saturated Model	Estimated Model
Standardized Root Mean Square Error (SRMR)	0.039	0.043
Chi-Square	4296.259	4350.640
Normed Fit Index (NFI)	0.891	0.889

Source: Authors' own

### **Hypotheses Testing**

The study's hypothesis results are determined by examining t-statistics and p-values from conducted tests and validated by replicating calculations through bootstrapping as described in **Table 7**. Bootstrapping is employed for normality testing. It assesses the significance level between latent variables without relying on a minimum number of samples (Sarstedt *et al.*, 2022). An instrument for measuring the importance of the independent variable on the dependent variable

is the t-statistics value. When the t-statistics value exceeds the crucial value from the t-table (1.97), significance is considered attained. Additionally, the hypothesis is considered acceptable if the p-values are below 0.05.

The results from **Table 7** and the analysis of T-coefficients provide a comprehensive understanding of the factors influencing the adoption of IMB. Most hypotheses regarding IMB adoption are supported, with the exception of the relationship between PBC and customer satisfaction. The strong and significant relationship between customer satisfaction and actual use (H1), with a T-coefficient of 62.076, indicates that customer satisfaction is the primary predictor of actual use. This highlights the importance of developing strategies that enhance user intention through effective marketing and customer engagement. Additionally, PEOU (H2) significantly influences customer satisfaction (T-coefficient of 2.915), suggesting that users are more likely to adopt IMB if the platform is easy to navigate. This underscores the need for banks to create user-friendly interfaces that simplify the banking experience.

The positive impact of PU (H3) on customer satisfaction (T-coefficient of 3.445) further emphasises the need to communicate the practical benefits of IMB, such as convenience and efficiency, to potential users. Similarly, attitude (H4) has a significant effect on customer satisfaction (T-coefficient of 2.961), indicating that users with favourable attitudes toward IMB are more likely to adopt it. However, the non-significant relationship between PBC (H5) and customer satisfaction (T-coefficient of 0.702) suggests that users' perceived control over using IMB does not strongly influence their adoption intentions. This implies that other factors, such as ease of use or social influence, may play a more significant role in shaping customer decisions.

Subjective Norms (H6), with a T-coefficient of 4.194, show that social influence, such as the opinions of family, friends, and peers, has a moderate but significant impact on a user's intention to adopt IMB. Finally, Sharī'ah compliance (H7), with a T-coefficient of 6.188, demonstrates a strong and significant influence on customer satisfaction, underscoring the importance of religious adherence in the decision to adopt IMB services.

**Table 7: Hypotheses Testing**

Relationship	Hypothesis	Original Sample (O)	T-Statistics ( O/STDEV )	Standard Error	P-Values	Decision
Customer Satisfaction → Actual Use	H1	0.861	62.076	0.013870	0.000*	Supported
Perceived Ease of Use → Customer Satisfaction	H2	0.204	2.915	0.069983	0.004*	Supported
Perceived Usefulness → Customer Satisfaction	H3	0.173	3.445	0.050218	0.002*	Supported
Attitude → Customer Satisfaction	H4	0.203	2.961	0.068558	0.003*	Supported
Perceived Behavioural Control → Customer Satisfaction	H5	0.030	0.702	0.042735	0.483	Not Supported
Subjective Norm → Customer Satisfaction	H6	0.123	4.194	0.029328	0.000*	Supported
Sharī'ah Compliance → Customer Satisfaction	H7	0.213	6.188	0.034421	0.000*	Supported

Note: \* means significant at 10%, 5% and 1% level of significance respectively

Source: Authors' own

## DISCUSSION

To address RQ1, the study explores how technology, consumer behaviour, and adherence to Shari'ah compliance influence the adoption of IMB. The findings indicate that PU and PEOU have a positive and significant effect on customer satisfaction, as demonstrated through the application of the TAM. These results align with previous research on the general adoption of mobile banking services using TAM (Alnemer, 2022; Fahad, 2022; Usman *et al.*, 2022; Purohit & Arora, 2023).

From the perspective of analysing customer behaviour using the TPB, both attitude and subjective norms have a significant and positive impact on IMB adoption, consistent with earlier findings (Jamshidi & Kazemi, 2020; Sasidharan & Venkatakrishnan, 2024). However, while PBC shows a positive influence on customer satisfaction, it lacks statistical significance, which contrasts with the results of the two previous studies (Jamshidi & Kazemi, 2020; Sasidharan & Venkatakrishnan, 2024).

The study's findings align with previous research, showing that Shari'ah compliance has a positive and significant impact on the acceptance of IMB (Usman *et al.*, 2022). Additionally, to address RQ2, the study reveals that customer satisfaction significantly influences actual use of IMB, consistent with prior studies (Zouari & Abdelhedi, 2021).

## CONCLUSION

This study explores several key factors within the dimensions of technology, customer behaviour, and Shari'ah compliance that influence the adoption of IMB in Indonesia. The research aims to fill a gap in the existing literature by integrating these three dimensions, offering a more holistic view of the factors that drive IMB adoption in the Indonesian context.

The study identifies that perceived benefits, ease of use, customer attitudes, subjective norms, and Shari'ah compliance have significant and positive impacts on customer satisfaction. Perceived benefit refers to the advantages customers believe they will gain from using IMB, such as convenience, time-saving, and financial efficiency, which are essential for adoption. Ease of use highlights how user-friendly and accessible the technology is, ensuring that customers can interact with the IMB platform without difficulties. Attitudes towards IMB play a crucial role, as customers who view the service positively are more likely to adopt it. Subjective norms, which refer to the influence of peers, family, or societal expectations, also play a key role in shaping customer behaviour and their decisions to use IMB.

Shari'ah compliance is another important factor that influences customer satisfaction, as many Indonesian customers prioritise services that align with Islamic principles. The research shows that when customers perceive IMB to be in compliance with Shari'ah principles, it enhances their trust and satisfaction with the service, increasing the likelihood of adoption.

Furthermore, the study finds that actual usage of IMB is positively and significantly affected by customer satisfaction. Customers who are satisfied with their IMB experience are more likely to continue using the service regularly. While PBC—reflecting customers' confidence in their ability to use the service effectively—also has a positive impact on customer satisfaction, its influence is not as strong as the other factors. Nevertheless, it remains an important factor, as users who feel they have control and the ability to navigate through the IMB platform are more likely to be satisfied and engaged.

## Theoretical Implications

The findings make significant theoretical contributions to the literature on IMB adoption by integrating technology, customer behaviour, and Shari'ah compliance. From a technological perspective, the study confirms that PU and ease of use substantially impact the intention to adopt IMB, as shown through the TAM.

Furthermore, the study extends the application of the TPB by showing that attitude and subjective norms play a significant role in influencing customer satisfaction. This emphasises the importance of customer behaviour, especially regarding social influence and users' attitudes towards technology. However, the study also finds that perceived behavioural control, while positively affecting intention, lacks statistical significance, suggesting that external factors like ease of use and social influence may be more influential in shaping user intentions than perceived control.

The study also contributes to the understanding of Shari'ah compliance in IMB adoption. Shari'ah compliance's significant role in accepting IMB underscores the importance of religious and ethical considerations in adopting Islamic financial technologies. By integrating Shari'ah compliance into established frameworks such as TAM and TPB, the study provides a more comprehensive model for analysing user behaviour in religiously compliant digital banking systems.

In addition, the study addresses key gaps in previous research by examining the relationship between technology, customer behaviour, and Shari'ah compliance in IMB adoption. Earlier studies that combined TAM with Shari'ah compliance did not consider customer behaviour (Usman *et al.*, 2022), while other research focused on TAM without including Shari'ah compliance (Alenizi, 2022; Alnemer, 2022). By addressing these gaps, this study offers a more holistic understanding of the factors influencing IMB adoption, making an important theoretical contribution to mobile banking research.

## Managerial Implications

The findings offer valuable insights for Islamic banks regarding the factors that most significantly influence the adoption and usage of IMB. The strongest impact is from customer satisfaction on actual usage, indicating that banks should prioritise strategies that strengthen customers' intention to adopt the platform. This can be achieved through targeted marketing, showcasing the benefits of IMB, and offering incentives to encourage usage.

PEOU ranks second, highlighting the need for banks to invest in creating user-friendly, intuitive interfaces for their mobile banking platforms. Providing tutorials or customer support can further enhance user confidence and satisfaction. Shari'ah compliance also plays a key role, meaning Islamic banks must ensure all services adhere to Islamic principles, and this compliance should be prominently communicated to build customer trust.

Attitude towards IMB has a notable influence, suggesting that banks should focus on cultivating positive perceptions of their mobile banking services by emphasising security, convenience, and reliability. Enhancing the overall user experience will help foster favorable attitudes. While PU ranks slightly lower, it still impacts customer satisfaction, so banks should clearly communicate the practical benefits of IMB, such as saving time and improving accessibility. Lastly, subjective norms show that social influence plays a role in adoption, albeit

less significant. Banks can leverage peer recommendations and endorsements from community leaders to promote the use of IMB. By focusing on these key areas—ease of use, Shari'ah compliance, usefulness, and social influence—Islamic banks can significantly increase customer engagement and boost IMB adoption.

### Limitations and Future Research Directions

Some limitations are acknowledged in this study. First, while independent variables like attitude, PU, PEOU, PBC, subjective norm, and Shari'ah compliance may improve the accuracy of usage prediction, they are not examined in combination with demographic characteristics. Important demographic variables, including age, gender, employment, and degree of education, are not considered in the theoretical or structural models. The omission of key demographic variables from the theoretical or structural models is recognised as a limitation of this study for several reasons. Primarily, the research is centered on behavioural and psychological determinants—such as attitude, perceived usefulness (PU), perceived ease of use (PEOU), perceived behavioral control (PBC), subjective norms, and Shari'ah compliance—which serve as the primary predictors of usage behaviour. Introducing demographic variables could divert attention from these core constructs, increasing analytical complexity and potentially diminishing the clarity of the findings. Convenience sampling is employed in the study, which may not be the optimal method to represent the target population accurately; the population was chosen through random sampling. Another constraint lies in using data collected from IMB users in Indonesia, thus rendering it unfeasible to generalise the findings to IMB adoption in other nations, given potential variations in characteristics and complexities across different contexts of IMB adoption.

This research presents various avenues for future research. The findings can be tested and validated in other countries with social and demographic structures similar or different to Indonesia to enhance the understanding of users' IMB adoption behaviour. Further investigations may involve examining and validating the theoretical framework through empirical methods. Future conceptual and empirical research should explore additional variables, such as compatibility, service quality, technical readiness, and risks, to understand their relationship with consumers' propensity to use mobile banking. Since the study primarily focuses on technology, customer behaviour, and Shari'ah compliance in IMB adoption, future research might incorporate constructs related to monetary transactions. Additionally, future studies may explore the impact of demographic factors as mediating or moderating variables on the inclination to adopt mobile banking. Finally, a longitudinal study design in later research might offer a more thorough comprehension of the relationships and causality between the variables.

### REFERENCES

- Abayomi, O.J., Zhang, X., Peng, X. & Zhao, S. (2020), 'How do institutional pressures and behavioural intentions affect mobile services adoption?', *ACM SIGMIS Database: The Database for Advances in Information Systems*, Vol. 51 No. 2, pp. 82–100, <https://doi.org/10.1145/3400043.3400049>
- Abdurrahman, A. (2024), 'Investigating the impact of digital business ecosystem in enhancing Islamic mobile banking adoption through the TOE framework', *Digital Business*, Vol. 4 No. 2, <https://doi.org/10.1016/j.digbus.2024.100096>

- Abdurrahman, A., Gustomo, A. & Agus, E. (2024), 'Impact of dynamic capabilities on digital transformation and innovation to improve banking performance: a TOE framework study', *Journal of Open Innovation: Technology, Market, and Complexity*, Vol. 10 No. 1, <https://doi.org/10.1016/j.joitmc.2024.100215>
- Abdurrahman, A., Gustomo, A. & Prasetyo, E.A. (2023), 'Enhancing banking performance through dynamic digital transformation capabilities and governance, risk management, and compliance: insights from the Indonesian context', *The Electronic Journal of Information Systems in Developing Countries*, July, pp. 1–20, <https://doi.org/10.1002/isd2.12299>
- Abdurrahman, A., Gustomo, A. & Prasetyo, E.A. (2024), 'Exploring barriers, drivers, and routines of dynamic capabilities in Indonesian digital banking transformation: a qualitative study based on the TOE framework', *The Electronic Journal of Information Systems in Developing Countries*, March, pp. 1–21, <https://doi.org/10.1002/isd2.12329>
- Abdurrahman, A., Gustomo, A., Prasetyo, E.A. & Rustiadi, S. (2022), 'Designing an open innovation framework for digital transformation based on systematic literature review', *Journal of Information Systems Engineering and Business Intelligence*, Vol. 8 No. 2, pp. 100–108, <https://doi.org/10.20473/jisebi.8.2.100-108>
- Abdurrahman, A., Gustomo, A., Wibisono, D. & Prasetyo, E.A. (2023), 'Designing a performance management system for the digital transformation of the Indonesian banking industry', pp. 655–671, <https://doi.org/10.46254/na07.20220187>
- Adewale, A.A. & Ismail, R. (2020), 'Digital transformation in Islamic banking', *IFSB Working Papers*, December, pp. 12–38.
- Alenizi, A.S. (2022), 'Understanding the subjective realities of social proof and usability for mobile banking adoption: using triangulation of qualitative methods', *Journal of Islamic Marketing*, Vol. ahead-of-print No. ahead-of-print, <https://doi.org/10.1108/JIMA-03-2022-0096/FULL/XML>
- Alnemer, H.A. (2022), 'Determinants of digital banking adoption in the Kingdom of Saudi Arabia: a technology acceptance model approach', *Digital Business*, Vol. 2 No. 2, <https://doi.org/10.1016/j.digbus.2022.100037>
- Anouze, A.L.M. & Alamro, A.S. (2020), 'Factors affecting intention to use e-banking in Jordan', *International Journal of Bank Marketing*, Vol. 38 No. 1, pp. 86–112, <https://doi.org/10.1108/IJBM-10-2018-0271>
- Antai, I. & Eze, N.L. (2023), 'Impact of the COVID-19 pandemic on business-to-business relationships in digital ecosystems: an African perspective', *Information Technology and People*, Vol. 36 No. 8, pp. 69–93, <https://doi.org/10.1108/ITP-05-2022-0346>
- Basit, A. (2023), 'Issues in Shariah governance framework of Islamic banking institutions', *Shariah Governance in Islamic Banking Institutions*, Taylor and Francis, pp. 110–130, <https://doi.org/10.4324/9781003324836-7/ISSUES-SHARIAH-GOVERNANCE-FRAMEWORK-ISLAMIC-BANKING-INSTITUTIONS-ABDUL-BASIT>
- Cavalcanti, D.R., Oliveira, T. & de Oliveira Santini, F. (2022), 'Drivers of digital transformation adoption: a weight and meta-analysis', *Heliyon*, Vol. 8 No. 2, <https://doi.org/10.1016/j.heliyon.2022.e08911>

- Chen, A., Lin, Y., Mariani, M., Shou, Y. & Zhang, Y. (2023), 'Entrepreneurial growth in digital business ecosystems: an integrated framework blending the knowledge-based view of the firm and business ecosystems', *Journal of Technology Transfer*, Vol. 48 No. 5, pp. 1628–1653, <https://doi.org/10.1007/s10961-023-10027-9>
- Dash, G. & Paul, J. (2021), 'CB-SEM vs PLS-SEM methods for research in social sciences and technology forecasting', *Technological Forecasting and Social Change*, Vol. 173 August, <https://doi.org/10.1016/j.techfore.2021.121092>
- Davis, F.D. (1989), 'Perceived usefulness, perceived ease of use, and user acceptance of information technology', *MIS Quarterly: Management Information Systems*, Vol. 13 No. 3, pp. 319–339, <https://doi.org/10.2307/249008>
- Dijkstra, T.K. (2010), 'Latent variables and indices: Herman Wold's basic design and partial least squares', *Handbook of Partial Least Squares*, pp. 23–46.
- Dimitrova, I., Öhman, P. & Yazdanfar, D. (2022), 'Barriers to bank customers' intention to fully adopt digital payment methods', *International Journal of Quality and Service Sciences*, Vol. 14 No. 5, pp. 16–36, <https://doi.org/10.1108/IJQSS-03-2021-0045>
- Disli, M., Hatam, A.K. & Jalaly, S. (2023), 'Faithful finance: unlocking banking Islamization in Afghanistan', *Economies*, Vol. 11 No. 7, pp. 1–15, <https://doi.org/10.3390/economies11070189>
- Fahad, M.S. (2022), 'Exploring the determinants of adoption of Unified Payment Interface (UPI) in India: a study based on diffusion of innovation theory', *Digital Business*, Vol. 2 No. 2, <https://doi.org/10.1016/j.digbus.2022.100040>
- Febriandika, N.R., Harun, Hakimi, F. & Masrizal. (2023), 'Determinants of consumer adoption of Islamic mobile banking services in Indonesia', *Banks and Bank Systems*, Vol. 18 No. 4, pp. 30–43, [https://doi.org/10.21511/bbs.18\(4\).2023.04](https://doi.org/10.21511/bbs.18(4).2023.04)
- Fernández-Portillo, A., Ramos-Vecino, N., Ramos-Mariño, A. & Cachón-Rodríguez, G. (2024), 'How the digital business ecosystem affects stakeholder satisfaction: its impact on business performance', *Review of Managerial Science*, <https://doi.org/10.1007/s11846-023-00720-2>
- Fidhayanti, D., Mohd Noh, M.S., Ramadhita, R. & Bachri, S. (2024), 'Exploring the legal landscape of Islamic fintech in Indonesia: a comprehensive analysis of policies and regulations', *F1000Research*, Vol. 13, <https://doi.org/10.12688/F1000RESEARCH.143476.1>
- Fitri, W. (2021), 'Shari'ah compliance in micro waqf bank business activities: a study of protection of consumer's spiritual rights', *Law Reform: Jurnal Pembaharuan Hukum*, Vol. 17 No. 1, pp. 107–120, <https://doi.org/10.14710/lr.v17i1.37556>
- Fuller, C.M., Simmering, M.J., Atinc, G., Atinc, Y. & Babin, B.J. (2016), 'Common methods variance detection in business research', *Journal of Business Research*, Vol. 69 No. 8, pp. 3192–3198, <https://doi.org/10.1016/j.jbusres.2015.12.008>
- George, A. (2018), 'Perceptions of Internet banking users: a structural equation modelling (SEM) approach', *IIMB Management Review*, Vol. 30 No. 4, pp. 357–368, <https://doi.org/10.1016/j.iimb.2018.05.007>
- Haki, K., Blaschke, M., Aier, S., Winter, R. & Tilson, D. (2022), 'Dynamic capabilities for transitioning from product platform ecosystem to innovation platform ecosystem', *European Journal of Information Systems*, pp. 181–199, <https://doi.org/10.1080/0960085X.2022.2136542>

- Henseler, J., Hubona, G. & Ray, P.A. (2016), 'Using PLS path modeling in new technology research: updated guidelines', *Industrial Management and Data Systems*, Vol. 116 No. 1, pp. 2–20, <https://doi.org/10.1108/IMDS-09-2015-0382>
- Hill, R.J., Fishbein, M. & Ajzen, I. (1977), 'Belief, attitude, intention and behaviour: an introduction to theory and research', *Contemporary Sociology*, Vol. 6 No. 2, <https://doi.org/10.2307/2065853>
- Ho, J.C., Wu, C.G., Lee, C.S. & Pham, T.T.T. (2020), 'Factors affecting the behavioural intention to adopt mobile banking: an international comparison', *Technology in Society*, Vol. 63, <https://doi.org/10.1016/j.techsoc.2020.101360>
- Ilyas, M., Razak, A., Akma, N., Dali, M. & Dhillon, G. (2020), 'Fintech in Malaysia: an appraisal to the need of Shariah-compliant regulation', *Pertanika Social Sciences & Humanities*, Vol. 28 No. 4, pp. 3223–3233.
- Jamshidi, D. & Kazemi, F. (2020), 'Innovation diffusion theory and customers' behavioural intention for Islamic credit card: implications for awareness and satisfaction', *Journal of Islamic Marketing*, Vol. 11 No. 6, pp. 1245–1275, <https://doi.org/10.1108/JIMA-02-2018-0039/FULL/HTML>
- Jan, S. & Ismail, M. (2023), 'Shariah governance in Islamic banking institutions', *Shariah Governance in Islamic Banking Institutions*, Taylor and Francis, pp. 1–180, <https://doi.org/10.4324/9781003324836>
- Joseph F. Hair, Hult, G.T.M., Ringle, C.M., Sarstedt, M., Danks, N.P. & Ray, S. (2021), *Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R*, <https://link.springer.com/book/10.1007/978-3-030-80519-7>
- Kumar, A., Dhingra, S., Batra, V. & Purohit, H. (2020), 'A framework of mobile banking adoption in India', *Journal of Open Innovation: Technology, Market, and Complexity*, Vol. 6 No. 2, p. 40, <https://doi.org/10.3390/JOITMC6020040>
- Lee, M.C. (2009), 'Factors influencing the adoption of internet banking: an integration of TAM and TPB with perceived risk and perceived benefit', *Electronic Commerce Research and Applications*, Vol. 8 No. 3, pp. 130–141, <https://doi.org/10.1016/j.elerap.2008.11.006>
- Mansour, M.M.O. (2020), 'Acceptance of mobile banking in Islamic banks: integration of DeLone and McLean IS model and unified theory of acceptance and use of technology', *International Journal of Business Excellence*, Vol. 21 No. 4, pp. 564–584, <https://doi.org/10.1504/IJBEX.2020.108552>
- Marino-Romero, J.A., Palos-Sánchez, P.R. & Velicia-Martín, F. (2024), 'Evolution of digital transformation in SMEs management through a bibliometric analysis', *Technological Forecasting and Social Change*, Vol. 199 March 2022, <https://doi.org/10.1016/j.techfore.2023.123014>
- Muflih, M., Zen, M., Purbayati, R., Kristianingsih, K., Karnawati, H., Iswanto, B. & Juniwati, E.H. (2024), 'Customer loyalty to Islamic mobile banking: evaluating the roles of justice theory, religiosity, satisfaction and trust', *International Journal of Bank Marketing*, Vol. 42 No. 3, pp. 571–595, <https://doi.org/10.1108/IJBM-03-2023-0187/FULL/XML>
- Nouri, B.A. & Soltani, M. (2019), 'A hybrid model of factors affecting adoption of mobile banking technology between customers of Iranian banks', *Serbian Journal of Management*, Vol. 14 No. 1, pp. 49–75, <https://doi.org/10.5937/sjm14-13429>

- Obeid, H. & Kaabachi, S. (2016), 'Empirical investigation into customer adoption of Islamic banking services in Tunisia', *Journal of Applied Business Research*, Vol. 32 No. 4, pp. 1243–1256, <https://doi.org/10.19030/jabr.v32i4.9734>
- Purohit, S. & Arora, R. (2023), 'Adoption of mobile banking at the bottom of the pyramid: an emerging market perspective', *International Journal of Emerging Markets*, Vol. 18 No. 1, pp. 200–222, <https://doi.org/10.1108/IJOEM-07-2020-0821/FULL/HTML>
- Ramjane, S. & Salleh, A.L. (2023), 'Adoption of Islamic banking in Mauritius', *Contributions to Management Science*, Part F1060, pp. 801–812, [https://doi.org/10.1007/978-3-031-27296-7\\_72](https://doi.org/10.1007/978-3-031-27296-7_72)
- Reio, T.G. (2010), 'The threat of common method variance bias to theory building', *Human Resource Development Review*, Vol. 9 No. 4, pp. 405–411, <https://doi.org/10.1177/1534484310380331>
- Sarstedt, M., Nitzl, C. & Howard, M.C. (2020), 'Beyond a tandem analysis of SEM and PROCESS: use of PLS-SEM for mediation analyses!', *International Journal of Market Research*, Vol. 62 No. 3, pp. 1–12, <https://doi.org/10.1177/1470785320915686>
- Sarstedt, M., Ringle, C.M. & Hair, J.F. (2022), 'Partial least squares structural equation modeling', *Handbook of Market Research*, [https://doi.org/10.1007/978-3-319-57413-4\\_15](https://doi.org/10.1007/978-3-319-57413-4_15)
- Sasidharan, A. & Venkatakrishnan, S. (2024), 'Intension to use mobile banking: an integration of theory of planned behaviour (TPB) and technology acceptance model (TAM)', *KSII Transactions on Internet and Information Systems*, Vol. 18 No. 4, pp. 1059–1074, <https://doi.org/10.3837/tiis.2024.04.013>
- Sebayang, T.E., Hakim, D.B., Bakhtiar, T. & Indrawan, D. (2024), 'What accelerates the choice of mobile banking for digital banks in Indonesia?', *Journal of Risk and Financial Management*, Vol. 17 No. 1, <https://doi.org/10.3390/jrfm17010006>
- Shahid, S., Islam, J.U., Malik, S. & Hasan, U. (2022), 'Examining consumer experience in using m-banking apps: a study of its antecedents and outcomes', *Journal of Retailing and Consumer Services*, Vol. 65, <https://doi.org/10.1016/j.jretconser.2021.102870>
- Sharma, P.N., Sarstedt, M., Shmueli, G., Kim, K.H. & Thiele, K.O. (2019), 'PLS-based model selection: the role of alternative explanations in information systems research', *Journal of the Association for Information Systems*, Vol. 20 No. 4, pp. 346–397, <https://doi.org/10.17005/1.jais.00538>
- Spector, P.E. (2006), 'Method variance in organizational research: truth or urban legend?', *Organizational Research Methods*, Vol. 9 No. 2, pp. 221–232, <https://doi.org/10.1177/1094428105284955>
- Suhartanto, D., Dean, D., Ismail, T.A.T. & Sundari, R. (2020), 'Mobile banking adoption in Islamic banks: Integrating TAM model and religiosity-intention model', *Journal of Islamic Marketing*, Vol. 11 No. 6, pp. 1405–1418, <https://doi.org/10.1108/JIMA-05-2019-0096/FULL/XML>
- Taylor, S. & Todd, P.A. (1995), 'Understanding information technology usage: a test of competing models', *Information Systems Research*, Vol. 6 No. 2, pp. 144–176, <https://doi.org/10.1287/isre.6.2.144>

- Usman, H., Projo, N.W.K., Chairy, C. & Haque, M.G. (2022), 'The exploration role of Shariah compliance in technology acceptance model for e-banking (case: Islamic bank in Indonesia)', *Journal of Islamic Marketing*, Vol. 13 No. 5, pp. 1089–1110, <https://doi.org/10.1108/JIMA-08-2020-0230/FULL/XML>
- Wallis, S.E. (2014), 'Existing and emerging methods for integrating theories within and between disciplines', *Journal of Organisational Transformation and Social Change*, Vol. 11 No. 1, pp. 3–24, <https://doi.org/10.1179/1477963313z.000000000023>
- Wang, X., Zhou, W. & Zhou, F. (2023), 'Influencing factors of environmental behaviours of leisure agriculture operators-based on integrating theory of planned behaviour and norm activation model', *Polish Journal of Environmental Studies*, Vol. 32 No. 6, pp. 5411–5423, <https://doi.org/10.15244/pjoes/168904>
- Yushaeva, R.S.-E. (2021), 'Digital transformation of the banking system: digital technologies and digital banking models', *European Publisher*, pp. 75–79, <https://doi.org/10.15405/epsbs.2021.03.11>
- Zouari, G. & Abdelhedi, M. (2021), 'Customer satisfaction in the digital era: evidence from Islamic banking', *Journal of Innovation and Entrepreneurship*, Vol. 10 No. 1, <https://doi.org/10.1186/s13731-021-00151-x>

## ABOUT THE AUTHORS

**Abdurrahman Abdurrahman, PhD, M.T.**, serves as an associate professor in Information Systems at STMIK Bandung. He obtained his Doctorate in Electrical Engineering and Informatics from the Bandung Institute of Technology (ITB) in 2009. In 2024, he completed a Doctorate in Management Science at ITB and a Doctorate in Islamic Law, specialising in Islamic economics at UIN Sunan Gunung Djati Bandung, Indonesia. Dr. Abdurahman is the corresponding author and can be contacted at: [abdurrahman@stmik-bandung.ac.id](mailto:abdurrahman@stmik-bandung.ac.id)

**Mohamad Anton Athaillah, PhD, M.M.**, is a professor in Islamic economics at UIN Sunan Gunung Djati Bandung, Indonesia. He is a seasoned academic, researcher, and practitioner, specialising in hadith studies and Islamic economics, with over three decades in higher education at UIN Sunan Gunung Djati Bandung. He earned a Doctorate in Tafsir-Hadith from UIN Syarif Hidayatullah Jakarta in 1999 and a Doctorate in Management Science from Padjadjaran University in 2015.

**Yadi Janwari, PhD, M.A.**, is a professor of Islamic law at UIN Sunan Gunung Djati Bandung. He earned his Doctorate in Islamic Law from UIN Syarif Hidayatullah Jakarta in 2010. His scholarly contributions have significantly advanced the fields of Islamic jurisprudence, Shariah economics, and contemporary Islamic thought.

**Asti Meiza, PhD, M.Si.**, serves as an associate professor of Mathematics at the Faculty of Science and Technology, UIN Sunan Gunung Djati Bandung. She earned her Doctorate in Mathematics from the Bandung Institute of Technology in 2015.

## **DECLARATION**

### **Credit Authorship Contribution Statement**

- Abdurrahman Abdurrahman: Conceptualisation, Write up, Methodology, Interviews, Project overview, Presentation of findings, Analysis, Review and editing.
- Mohamad Anton Athaillah: Conceptualisation, Write up, Methodology, Presentation of findings, Analysis, Review.
- Yadi Janwari: Conceptualisation, Write up, Methodology, Presentation of findings, Analysis, Review.
- Asti Meiza: Conceptualisation, Write up, Methodology, Presentation of findings, Analysis, Review.

### **Declaration of Competing Interest**

The authors disclose no potential conflict of interest.

### **Acknowledgement**

We express our gratitude to all the participants who have devoted their time to participate in this research survey.

### **Ethical Statement**

We declare that we understand the Ethical Guidelines and have adhered to all the statements regarding ethics in publishing. We confirm that this paper is original and has not been published in any other journal nor is under consideration by another publication.

### **Use of Generative AI and AI-Assisted Technologies in the Writing Process**

We disclose the use of AI and AI-assisted technologies in the writing process which have been only used to improve the readability and language of the work and not to replace key authoring tasks such as producing financial and economic insights, drawing conclusions, or providing recommendations.

### **Data Availability**

None

### **Disclaimer**

The views and opinions expressed in this article are those of the authors and do not necessarily reflect the official policy or position of any affiliated agency of the authors.