Universiti Utara Malaysia

THE ACCEPTANCE OF ISLAMIC-BASED MOBILE BANKING TOWARDS CASHLESS CAMPUS AT UNIVERSITIES IN MALAYSIA

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**MASTER IN ISLAMIC FINANCE AND BANKING
UNIVERSITI UTARA MALAYSIA
APRIL 2025**

THE ACCEPTANCE OF ISLAMIC-BASED MOBILE BANKING TOWARDS CASHLESS CAMPUS AT UNIVERSITIES IN MALAYSIA

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**Thesis Submitted to
Islamic Business School College of Business
Universiti Utara Malaysia,
in Partial Fulfilment of the Requirement for the
Master in Islamic Finance and Banking**

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ABSTRACT

Digital payments and the cashless society have grown rapidly over the past few years and have penetrated many sectors, including the university environment through the cashless campus initiative in Malaysia. However, although this country on the top position in Islamic financial services, the use of Islamic-based mobile banking less popular than e-money. Therefore, this study examines the acceptance of Islamic-based mobile banking at universities in Malaysia using the modified UTAUT model. This study uses a quantitative approach in the form of causal research. Data collection in this study used a Google Form questionnaire with a Likert Scale. The sample in this study was 128 people consisting of students, lecturers, and staff from five universities in Northern Malaysia. Sampling was carried out using the purposive sampling method. The data analysis method is Partial Least Squares Structural Equation Modeling (PLS-SEM) using SmartPLS 3 software. The results of this study indicate that performance expectancy and social influence affect behavioral intention. Meanwhile, effort expectancy, facilitating conditions, and intrinsic religiosity do not affect behavioral intention. As well as behavioral intention affects use behavior of Islamic-based mobile banking. Findings of this study provides valuable information to potential users of Islamic-based mobile banking and researchers who are interested on the area of acceptance mobile banking services.

Keywords: Acceptance, Islamic-Based Mobile Banking, Cashless Campus.

ABSTRAK

Pembayaran digital dan masyarakat tanpa tunai telah berkembang pesat sejak beberapa tahun lalu dan telah menembusi banyak sektor, termasuk persekitaran universiti melalui inisiatif kampus tanpa tunai di Malaysia. Namun, walaupun negara ini berada di kedudukan teratas dalam perkhidmatan kewangan Islam, perbankan mudah alih *(mobile banking)* perbankan Islam kurang popular berbanding *e-money*. Oleh itu, kajian ini mengkaji penerimaan *mobile banking* perbankan Islam di universiti di Malaysia menggunakan model UTAUT yang diubah suai. Kajian ini menggunakan pendekatan kuantitatif berbentuk kajian kausal. Pengumpulan data dalam kajian ini menggunakan soal selidik *Google Form* dengan Skala Likert. Sampel dalam kajian ini adalah seramai 128 orang terdiri daripada pelajar, pensyarah, dan kakitangan dari lima buah universiti di Utara Malaysia. Persampelan dijalankan menggunakan kaedah persampelan bertujuan *(purposive sampling)*. Kaedah analisis data ialah *Partial Least Squares Structural Equation Modeling (PLS-SEM)* menggunakan *software* SmartPLS 3. Hasil kajian ini menunjukkan bahawa jangkaan prestasi *(performance expectancy)* dan pengaruh sosial *(social influence)* mempengaruhi niat tingkah laku *(behavioral intention)*. Sementara itu, jangkaan usaha *(effort expectancy)*, keadaan yang memudahkan *(facilitating condition)*, dan religiositas intrinsic *(intrinsic religiosity)* tidak mempengaruhi niat tingkah laku. Serta niat tingkah laku mempengaruhi tingkah laku penggunaan (*use behavior) mobile banking* perbankan Islam. Dapatan kajian ini memberikan maklumat yang berharga kepada bakal pengguna *mobile banking* perbankan Islam dan penyelidik yang berminat dalam bidang penerimaan perkhidmatan perbankan mudah alih.

Kata kunci: Penerimaan, *Mobile Banking* Perbankan Islam, Kampus Tanpa Tunai.

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE

INTRODUCTION

1.1 Introduction

This chapter provides an explanation of the background of the study and problem statement, highlighting Malaysia's transition to a cashless society, including in the university environment through the cashless campus initiative. Rapid technological developments have led to an increase in the adoption of digital payments, but the level of acceptance of Islamic-based mobile banking among the academic community remains an interesting and relevant area that requires further exploration. Therefore, this study aims to identify and analyze the determinants of the acceptance of this technology at universities in Malaysia. Furthermore, this chapter outlines the key aspects of the study, including the formulation of the research questions and objectives, the significance and scope of the study, and the definition of key terms in this study. This chapter also provides an overview of the organization of this research paper, detailing what is discussed in each chapter.

1.2 Background of The Study

Digital payments have become an essential component of modern societies around the world. With the continuous advancement of technology, financial transactions have undergone a significant transformation, shifting from cash-based payments to digital systems. This shift is driven by the increasing accessibility of electronic devices such as smartphones, which allow users to conduct transactions with ease. The adoption of digital payments has increased

1

the efficiency of transferring funds for both individuals and businesses, reducing the reliance on physical cash. Various digital financial platforms and mobile banking applications have emerged to support seamless and secure digital transactions (Rahman et al., 2022).

Digital payments offer a variety of benefits, including convenience, security, and the ability to record financial transactions, which traditional cash payments cannot provide. The integration of technology into financial services allows users to make transactions seamlessly, reducing the risks associated with carrying physical cash. Digital payments can be made through a variety of instruments, offering greater flexibility and accessibility to users. Among these instruments are card-based payments, including physical and virtual cards, as well as digital platforms such as e-wallet applications and mobile banking. The widespread availability of these options has contributed to the rapid adoption of digital payments, changing the way people manage their financial activities (Putrevu & Mertzanis, 2024)..

In addition, the diversity of digital payment channels supports its acceptance across various segments of society, especially in an era of rapid technological advancement. Businesses, governments, and financial institutions are actively leveraging this innovation to promote financial inclusion and improve transaction efficiency (Sakib et al., 2024). This growing trend presents significant opportunities for the banking industry to expand its services, particularly in the development of digital banking solutions. Banking institutions can leverage mobile banking services to meet the needs of their consumers who

are looking for financial products that are in line with the concept of a cashless society. This also applies to Islamic banking institutions. By providing excellent mobile banking services, Islamic banks can increase customer trust and strengthen their position in the evolving financial landscape (Suhartanto et al., 2020).

Malaysia's rapid progress in digital payments is supported by continuous improvements in supporting facilities and infrastructure. The increasing adoption of smartphones has played a significant role in driving the shift to digital financial transactions. According to the Information and Communication Technology Usage and Access Survey by Individuals and Households 2023 conducted by the Department of Statistic Malaysia (DOSM), 97.6% of the total population of Malaysia are smartphone users. This high penetration rate allows for greater access to mobile banking, e-wallets and other digital payment platforms. With smartphones becoming an essential tool for financial activities, the digital payment ecosystem in Malaysia is expected to grow further.

In addition to smartphone usage, internet access in Malaysia has also reached a remarkable level, further facilitating the adoption of digital payments. The same report by DOSM stated that internet access in Malaysian households has reached 96.4%, enabling connectivity for online transactions. This wide internet coverage ensures that digital payment solutions are accessible to individuals across the region, both urban and rural. As a result, financial institutions, including Islamic banking, have the opportunity to expand their digital services to a wider audience. The combination of strong technology infrastructure and

high internet penetration provides a solid foundation for Malaysia's transition to a cashless society.

The concept of a cashless society refers to financial transactions conducted without the use of physical cash, becoming increasingly common across the world due to the widespread adoption of digital payments. This transformation is driven by advances in financial technology, which makes transactions more efficient, secure, and convenient for users. A cashless system not only speeds up economic activities but also reduces the risks associated with handling cash, such as theft and counterfeiting. In addition, the adoption of a cashless society promotes greater financial inclusion, allowing individuals from different socio-economic backgrounds to access banking and financial services more easily. This shift is especially beneficial for developing countries, as it supports economic growth and fosters a more inclusive financial ecosystem (Bhuiyan et al., 2024).

Malaysia is actively embracing this transition and aims to become a fully cashless society in the near future. Recognizing its significant benefits, the Malaysian government and financial institutions continue to promote cashless transactions across various sectors. According to the Visa Consumer Payment Attitudes Study 2023, Malaysia has set a target to achieve a cashless society by 2030, underscoring its commitment to digital economic transformation. This ambitious target is in line with the country's broader financial inclusion strategy, which ensures that digital banking and payment services are accessible to all citizens. As digital payment systems continue to develop, Malaysia's transition

to a cashless society is expected to accelerate, and financial technology will become more integrated into daily life (Balakrishnan & Shuib, 2021).

The digital payment trend has also extended to higher education through cashless campus initiatives. Universities in Malaysia are actively integrating digital payment systems into their campus environments to enhance convenience for the academic community. These initiatives enable seamless financial transactions within the university environment. By providing alternatives besides cash transactions, universities can create a more effective and efficient payment environment. In addition, the adoption of digital payments encourages students to develop financial literacy, equipping them with relevant skills in facing an increasingly digitalized financial ecosystem (Rui, 2018).

The initiative for cashless campuses is in line with Malaysia's efforts towards a cashless society. According to the Senior Director of Government Digitalization Division at Payment Network Malaysia, the education sector is a key focus in accelerating the adoption of digital transactions. Universities are a strategic environment to promote digital payment habits among the younger generation, who will continue to use this technology in the future. By fostering cashless payments in educational institutions, Malaysia aims to instill a long-term behavioral transformation towards digital financial practices. As more universities implement this initiative, the country is getting closer to achieving its cashless society agenda.

1.3 Problem Statement

The volume of digital payments in Malaysia continues to increase year-on-year, reflecting the popularity of cashless transactions. This upward trend is driven by the widespread adoption of technology services in the financial sector, which makes digital payments more accessible and convenient for users. In November 2024, the most widely used digital payment methods among Malaysians are mobile banking and e-money (e-wallet), as shown in the following table:

Table 1.1
Payment Instrument/Channel in Malaysia on November 2024

Payment Instrument/Channel	Volume (Million)
Credit Card (Face-to-Face)	44.5
Credit Card (Online)	35.6
Debit Card (Face-to-Face)	135.9
Debit Card (Online)	36.2
E-Money (E-Wallet)	453.3
ATM (Cash Withdrawals)	61.9
ATM (Financial Transactions)	3.8
Mobile Banking	303.1
Internet Banking (Individuals)	113.0
Internet Banking (Corporations)	52.6

Source: Malaysia Official Open Data Portal, 2025

The statistical data in Table 1.1 shows that, compared to digital payments made with electronic money (e-wallets), the transaction volume made through mobile banking is relatively lower. This shows that Malaysians prefer to use e-wallet platforms rather than mobile banking for their daily transactions. One of the main reasons for the popularity of e-wallets is their convenience, as they offer an attractive graphical user interface (Adrian & Griffoli, 2019). In addition, e-wallet services are accessible to a wider audience, including unbanked individuals, making them more inclusive compared to mobile banking, which requires users

6

to have an account with a particular bank. The widespread adoption of e-wallets highlights the shift in consumer preferences towards more flexible and easy-to-use financial solutions (Dobler et al., 2021).

The lack of use of mobile banking compared to e-wallets presents a challenge for the banking sector. Mobile banking is the face of online banking services, allowing customers to make transactions faster and easier. If the acceptance of mobile banking is less popular among the society, the inclusiveness of banking services may decline, limiting the ability of financial institutions to engage a wider customer base. This trend may also impact customer loyalty, as users may opt for more convenient alternatives that offer better accessibility and ease of use. In the long term, the decline in mobile banking adoption could pose risks to the competitiveness and sustainability of banking institutions (OECD, 2020).

Important to note that the data in Table 1.1 reflects the overall transaction volume through mobile banking services in the Malaysian banking sector, which includes both Islamic and conventional banking institutions. As a Muslim-majority country, Malaysia adopts a dual banking system that accommodates both banking models. Although Malaysia has been a global leader in Islamic finance for the past ten years (Dinar Standard, 2024), the market share of Islamic banking is still relatively lower than conventional banking. Based on statistical reports, Islamic deposits and investment accounts account for only 41.6% of the total existing market share (Association of Shariah Advisors in Islamic Finance, 2023). This suggests that the volume of digital payment transactions conducted

through Islamic-based mobile banking services may also be lower compared to conventional banking.

Given this condition, investigating the factors that influence the acceptance of Islamic-based mobile banking for digital payments becomes relevant research. Understanding these factors is crucial in the context of Malaysia's transition to a cashless society, where digital payments services play a significant role. This research is important to be conducted in universities that are drivers of the adoption of a cashless society. Many higher education institutions in Malaysia are actively promoting cashless campus initiatives, making the academic community an ideal demographic to analyze the acceptance of Islamic-based mobile banking. Therefore, exploring the determinants of Islamic-based mobile banking acceptance can provide valuable insights to enhance the role of Islamic banking in the country's digital economy.

To test the acceptance of digital payments through mobile banking services, many previous study using the Unified Theory of Acceptance and Use of Technology (UTAUT) was initiated by Venkatesh et al. (2003). This model was developed by integrating several established theories related to technology adoption, making it a comprehensive framework for understanding user behavior. UTAUT is particularly effective because it combines internal factors, such as performance and effort expectancy, and external factors, such as social influence and facilitating conditions. By combining these elements, UTAUT provides a holistic approach to predicting the adoption of new technologies. However, despite its widespread use in various technological contexts, studies

applying the UTAUT model to analyze technology acceptance in Islamic banking and financial services are still relatively limited (Riza & Wijayanti, 2024).

Given this condition, this study aims to test a modified version of the UTAUT model to assess the acceptance of Islamic-based mobile banking among universities at Malaysia. Cashless campus initiatives have positioned universities as key players in promoting digital transactions, making them an appropriate environment to evaluate mobile banking adoption. Understanding how university students perceive and accept Islamic mobile banking services can provide valuable insights for financial institutions to improve their services. Furthermore, this study seeks to identify key determinants that influence user adoption, considering aspects in the UTAUT model and religious elements. In doing so, this study contributes to the broader discourse on the acceptance of digital financial services in the Islamic banking sector and Malaysia's transition to a cashless society.

1.4 Research Questions

Based on the background of the study and problem statement that have been explained previously, the research questions in this study are as follows:

1. Does performance expectancy affect behavioral intention to use Islamic-based mobile banking?

2. Does effort expectancy affect behavioral intention to use Islamic-based mobile banking?

3.   Does social influence affect behavioral intention to use Islamic-based mobile banking?

4.   Does facilitating condition affect behavioral intention to use Islamic-based mobile banking?

5.   Does intrinsic religiosity affect behavioral intention to use Islamic-based mobile banking?

6.   Does behavioral intention affect use behavior of Islamic-based mobile banking?

1.5   Research Objectives

To answer the existing research questions, the objectives of this study are as follows:

1.   To examine the effect of performance expectancy on behavioral intention to use Islamic-based mobile banking.

2.   To examine the effect of effort expectancy on behavioral intention to use Islamic-based mobile banking.

3.   To examine the effect of social influence on behavioral intention to use Islamic-based mobile banking.

4.   To examine the effect of facilitating condition on behavioral intention to use Islamic-based mobile banking.

5.   To examine the effect of intrinsic religiosity on behavioral intention to use Islamic-based mobile banking.

6.   To examine the effect of behavioral intention on use behavior of Islamic-based mobile banking.

1.6   Significance of The Study

There are both academical and practical benefits to this research. From an academic standpoint, this study helps to add the reference about the acceptance of digital financial services with a special focus on Islamic-based mobile banking, which is relatively under-researched compared to conventional mobile banking and e-wallet. Using a modified UTAUT approach, this paper reveals the acceptance factors of Islamic-based mobile banking in the university environment, thus providing new insights for the development of technology acceptance theory in Islamic financial services.

Practically, this study is useful for universities in Malaysia, Islamic banking institutions, and also government. For Universities in Malaysia, this study is an important for strengthening the cashless campus initiative. By knowing how the academic community accepts Islamic-based mobile banking technology, Universities in Malaysia can formulate more strategic policies for implementing a digital payment system that accommodates and supports Islamic financial services on campus. This research also helps Universities in Malaysia in understanding user needs and providing infrastructure that supports the digital payment transformation in the campus comprehensively.

For Islamic banking institutions, this research provides significant insights related to the intentions and behavior of Islamic-based mobile banking users, especially in higher education environments. Islamic banks can take advantage from this study to develop Islamic-based mobile banking services that are more suitable with the needs and characteristics of users among academics. This

research is also a reference for improving marketing strategies, education, and expanding the penetration of Islamic financial digital services, especially in the market segment of the young generation and educational institutions.

Meanwhile, for the government, this research is useful in designing policies that support the acceleration of digital transformation in the payment sector, especially in the development of a cashless society ecosystem using Islamic financial and banking services. The results of the study can provide insight into the factors that influence the acceptance of Islamic-based mobile banking, so that the government can formulate regulations that encourage wider inclusion of digital financial services. In addition, with the increasing adoption of Islamic-based mobile banking, the government can strengthen the Islamic banking sector as part of a national strategy in maintaining Malaysia's position as a global Islamic financial center. This study can also be a basis for designing digital financial literacy programs for the community, especially the younger generation, regarding the development of the digital economy. Thus, the policies made can be more targeted and effective in encouraging an inclusive and sustainable cashless society.

1.7   Scope of The Study

This study seeks to investigate the key variables influencing the acceptance of digital payments through Islamic mobile banking in universities in Malaysia using a modified UTAUT model with the addition of intrinsic religiosity variable. By examining the internal and external factors that shape behavioral intention and use behavior, this study aims to provide a comprehensive understanding of factors that influence Islamic-based mobile banking

12

acceptance. The modified UTAUT model allows for the integration of specific factors relevant to Islamic finance, ensuring that the analysis is aligned with the characteristics of Islamic banking.

1.8 Definition of Key Terms

There are several important terms that are the main keywords in this research as follows:

1. Acceptance: how much someone embraces and makes use of a certain technology, such as Islamic-based mobile banking.

2. Islamic-based mobile banking: one of the digital services offered by Islamic banks to their customers that allows them to conduct banking transactions via their mobile phones.

3. Cashless campus: campus environment that implements a cashless payment system, using digital methods such as e-wallets or mobile applications for financial transactions.

1.9 Organization of The Study

This paper comprises the following sections: Chapter One serves as an introductory section. This section presents the justification for the study, articulates the problem statement, outlines the research questions and objectives, and discusses the significance of the study, highlighting its benefits for the academic community and other stakeholders. The theory and literature review relevant to this study encompasses UTAUT and intrinsic religiosity, as discussed in Chapter Two. Chapter Three addresses the research methodology. Chapter Four presents the data analysis and the discussions of the study. This section

presents the comprehensive analysis and findings of the study. Chapter Five contains the conclusion, recommendation, and limitation of this study, as well as suggestion for future research.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This chapter provides a comprehensive explanation of the key terms and fundamental theories that form the basis of this research. This chapter also includes the formulation of the research framework, which is developed by integrating relevant theoretical perspectives to answer the research questions and achieve the research objectives. In addition, this chapter presents a review of previous studies that have explored similar topics, highlighting the variables used in the study. This literature review serves as a foundation for understanding the factors that influence the acceptance of Islamic-based mobile banking for digital payments. This chapter also presents the basis for developing research hypotheses, which are derived from the theoretical framework and previous research findings as a guideline for the analysis conducted in this study.

2.2 Cashless Society and Cashless Campus

Cashless society is a transformation in financial transactions, where payments are made through digital technologies, such as debit or credit cards, e-money or e-wallets or, and mobile banking. This shift is driven by rapid advancements in financial services technology and the widespread adoption of digital payment systems across sectors. The increasing use of digital transactions has changed consumer behavior, making cashless payments a preferred option for many individuals and businesses. In addition to ease and convenience, digital payments minimize the risks associated with carrying physical cash. This

behavior reflects a fundamental transformation in the method of financial transactions in the modern era (Rahman et al., 2020).

The transition to a cashless society is further strengthened by the active role of government agencies and financial institutions in improving digital infrastructure and promoting financial inclusion. Various policies and initiatives have been implemented to encourage businesses and individuals to adopt cashless payment methods, ensuring smooth and secure transactions. The various efforts made for digital transformation have accelerated the adoption of mobile banking and e-wallet services in Malaysia. These developments have not only modernized financial transactions but also contributed to a more effective and efficient economic system. With the advancement of technology and continued support, the vision of a completely cashless society is achievable (Munikrishnan et al., 2024).

The cashless campus initiative is an important step towards developing a digital financial ecosystem in universities, which is in line with the broader concept of a cashless society. With this concept, universities create a more advanced financial environment for the academic community. Many universities in Malaysia collaborate with digital financial service providers to facilitate cashless transactions for various purposes. This collaboration not only increases convenience but also encourages the adoption of digital payment solutions among the academic community. As a result, students become more accustomed to using digital financial tools, preparing them for an increasingly digital economy (Jing et al., 2024).

The implementation of a cashless campus also plays a significant role in improving financial literacy and inclusion among the academic community, especially for students. Exposure to digital financial services encourages students to understand and manage their finances more effectively, helping them develop responsible spending behaviors. In addition, cashless transactions offer greater transparency and security, thereby reducing the risks associated with cash. Integration of digital payments in universities also supports financial institutions in expanding their reach to younger demographics, thereby encouraging long-term relationships with potential customers. The cashless campus initiative is expected to grow and bring a better financial ecosystem in the academic environment (Rui, 2018).

2.3 Islamic-Based Mobile Banking

The rapid development of technology in financial services has encouraged the banking sector to continue to innovate in improving customer service. With the rapid adoption of mobile phones, banks now have a greater opportunity to expand their services beyond traditional banking practices. The increasing reliance on mobile devices for daily transactions has prompted the banking industry to develop mobile banking applications to facilitate various transactions for their customers. This development has significantly changed the personal banking landscape, making financial transactions more accessible, efficient, and user-friendly. As a result, many banking institutions have embraced mobile banking services to meet the expectations of modern consumers (Kwateng et al., 2019).

Digital services offered by banks enabling consumers to execute specific financial activities via their mobile phone are termed mobile banking or m-banking. The phrase "Islamic-based mobile banking" refers to the mobile banking services provided by Islamic banking entities. These services are accessible at any time via a mobile device and include bill payment, fund transfer, account management, and access to Islamic financial products. As digital services gain acceptance and society transitions to a cashless economy, Islamic-based mobile banking has a crucial role in providing straightforward, safe, and Sharia-compliant financial solutions (Raza et al., 2019).

2.4 Underpinning Theory and Supporting Theory

This study uses the Unified Theory of Acceptance and Use of Technology (UTAUT) developed by Venkatesh et al. (2003) to analyze the main factors that influence individual intentions and behaviors related to the acceptance and use of technology, including in the context of digital financial services such as Islamic mobile banking. By examining several aspects, namely performance expectancy, effort expectancy, social influence, and facilitating conditions, UTAUT provides a comprehensive conceptual framework as determinants of technology acceptance. In addition, this study uses the Theory of Religious Orientation developed by Allport & Ross (1967) as a supporting theory. This theory is used to explain the influence of religious values represented through intrinsic religious variables as factors that also influence individual intentions and behaviors related to the acceptance and use of technology in the context of digital services of Islamic financial institutions.

2.4.1 Unified Theory of Acceptance and Use of Technology (UTAUT)

The Unified Theory of Acceptance and Use of Technology (UTAUT), developed by Venkatesh et al. (2003), serves as a comprehensive framework for understanding the factors that influence technology adoption. The model is formulated by integrating several established theories, such as the Diffusion of Innovations Theory (IDT), the Theory of Planned Behavior (TPB), and the Technology Acceptance Model (TAM). By combining these theories, UTAUT provides a structured approach to examining how individuals accept and use new technologies. The model identifies four primary determinants of user intentions and behavior: performance expectancy, effort expectancy, social influence, and facilitating conditions. These factors help explain why individuals choose to adopt or reject a particular technology in different situations.

In addition to these primary determinants, UTAUT considers the moderating effects of gender, age, experience, and voluntary use conditions on technology adoption. These demographic and contextual factors influence the extent to which users respond to each determinant, making the model adaptable across populations and domains (Venkatesh et al., 2003). Due to its robust predictive capabilities, UTAUT has become a widely accepted framework for studying the adoption of digital services, including mobile banking and other financial technologies. Researchers often use this model to analyze user behavior and identify strategies to increase technology acceptance. The UTAUT framework remains a relevant tool for assessing consumer adoption as digital financial services continue to develop. Figure 2.1 shows the UTAUT framework as follows:

19
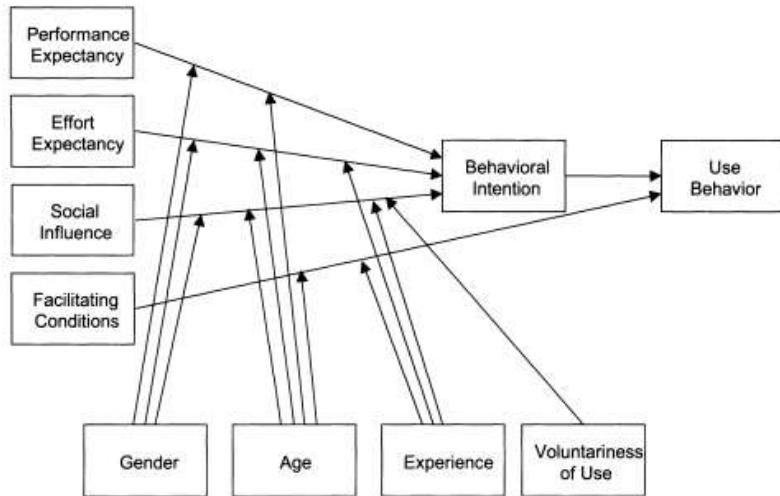
Figure 2.1
UTAUT Framework
Source: Venkatesh et al. (2003)

The UTAUT model can be adapted by integrating additional variables subject to the specific context of a study. Several researchers, such as Thaker et al. (2022) and Negm (2024), have applied the original UTAUT framework to analyze the acceptance of digital payments and mobile banking. While many others have extended the model by incorporating new constructs. For example, Ong et al. (2023) included perceived security as a determinant of digital payment acceptance, emphasizing the importance of user security in digital transactions. Similarly, Wu & Liu (2023) examined perceived risk as an influential factor in mobile banking adoption. Trust has also been identified as an important factor in digital financial services, as demonstrated by Riza & Wijayanti (2024), who explored how trust in banking institutions and the applications they provide affects the intention to adopt mobile banking. These extensions highlight the flexibility of UTAUT in capturing a variety of factors that influence technology acceptance in various existing research contexts.

2.4.2 Theory of Religious Orientation

In the context of the acceptance of Islamic-based mobile banking, the modification of the UTAUT model by including variables that reflect Islamic religious values is very relevant. This is in line with the recommendations of previous research by Riza (2021) which stated that religiosity also needs to be studied to complement the UTAUT model in shaping user acceptance of Islamic-based mobile banking. Religiosity in this case refers to an individual's commitment to religious beliefs, which can influence all of their decisions, including in terms of adopting banking services that are in accordance with Islam. Therefore, it is important to consider the religiosity factor when examining the behavior of Islamic-based mobile banking users. The integration of religiosity into the UTAUT framework enhances its application to Islamic financial service technology.

Research that extends the UTAUT model by including religious aspects is still relatively rare (Alkhowaiter, 2022). Although many studies have examined the role of UTAUT in predicting technology adoption, research on how religious beliefs interact with technology acceptance in the context of Islamic banking is still limited. Considering that religiosity influences consumer behavior in financial transactions, understanding its impact on the acceptance of mobile banking is very important to do. Thus, this study modifies the UTAUT model by incorporating intrinsic religiosity to provide a more comprehensive understanding of the factors driving the acceptance of Islamic-based mobile banking. This approach ensures that the model better reflects the unique characteristics of customers in using Islamic banking digital services.

21

Religiosity comes from the term religion, which signifies belief in God or a higher power that governs human existence. This concept is closely related to religious behavior, where individuals seek to strengthen their relationship with God through worship and obedience (Holdcroft, 2006). According to McDaniel & Burnett (1990), religiosity involves not only belief in God but also a commitment to follow His commands and teachings. This attitude affects various aspects of life, shaping individual values, decision-making, and interactions with society (Yousaf & Malik, 2013). Religiosity serves as a guide that directs people towards moral and ethical behavior in accordance with their beliefs (Abou-Youssef et al., 2015).

In a broader definition, religiosity encompasses various dimensions, including beliefs, rituals, lifestyles, and interpretations of human existence. Religiosity gives individuals purpose and direction, helping them navigate life's challenges with spiritual guidance (Karami et al., 2014). Religious practices, such as prayer, fasting, and charity, are manifestations of a person's commitment to faith. In addition, religiosity influences personal attitudes and behaviors, encouraging individuals to uphold values such as honesty, compassion, and social responsibility. Ultimately, religiosity plays an important role in shaping individual and societal identities (Bakar et al., 2013).

According to Theory of Religious Orientation developed by Allport & Ross (1967), religiosity is categorized into two forms, extrinsic and intrinsic. This theory is supported by Mokhlis (2008) who stated that religious motivation has

22

internal and external dimensions. Extrinsic religiosity refers to an individual's tendency to adopt religious practices as a means to establish identity and gain social support. People with extrinsic religiosity view religion as a means to achieve personal ambitions rather than as a genuine commitment to faith. Their religious involvement is often influenced by external factors such as social acceptance, status, or material gain. As a result, their involvement in religious activities may not always reflect deep spiritual beliefs but rather a response to social expectations.

Extrinsic religiosity also highlights the use of religion for self-serving purposes rather than genuine devotion. Individuals with this perspective may engage in religious practices primarily to gain recognition, build relationships, or achieve worldly gain. Their commitment to religious teachings is often conditional and subject to change based on their personal intentions. This means that religion, for them, serves more as a means to an end than as a fundamental part of their lives. As a result, their adherence to religious principles tends to be superficial and influenced by situational factors rather than a firm belief in God (Umair et al., 2024).

On the other hand, intrinsic religiosity is a religious attitude that comes from within the individual. It is characterized by a sincere and deeply rooted belief in religious teachings that affect all aspects of life. People with intrinsic religiosity embrace religion as a core part of their identity and follow its teachings with sincere commitment. They view religious values as important guidelines that shape their behavior, decisions, and interactions with others. Unlike extrinsic

religiosity, intrinsic religiosity is not driven by external rewards but by an internal desire to live according to their beliefs (Abror et al., 2023).

2.5 Research Framework and Hypothesis Development

This study aims to examine the factors that influence the acceptance of Islamic-based mobile banking by modifying the UTAUT model by including intrinsic religiosity. Intrinsic religiosity is included as an additional factor, considering its potential role in shaping consumer behavior, especially in the context of Islamic financial services. The research framework is designed to assess how intrinsic religiosity complements the core constructs of UTAUT, such as performance expectancy, effort expectancy, social influence, and facilitating conditions, in influencing behavioral intention and then influences use behavior. By integrating this new dimension, this study seeks to provide a more comprehensive understanding of the acceptance of Islamic-based mobile banking. This research framework can be observed as follows:
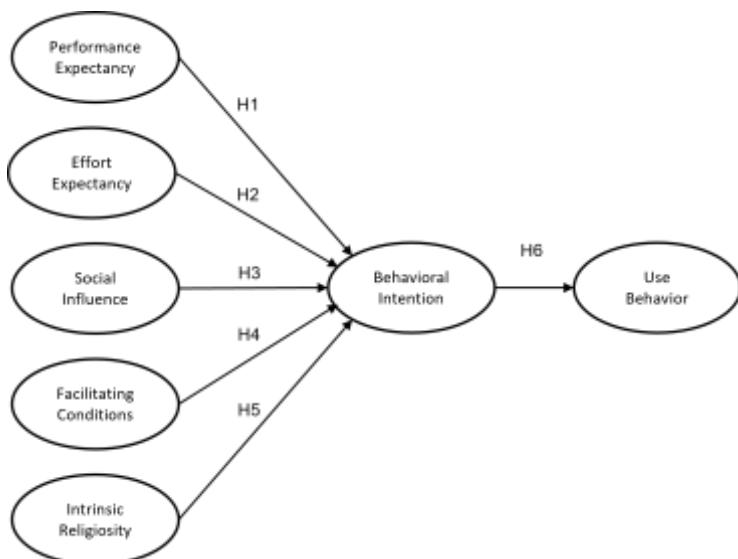
Figure 2.2
Research Framework

2.5.1 Behavioral Intention

Behavioral intention indicates a person's desire or passion to engage in a particular behavior, indicating their readiness to take action. In behavioral science, intention is defined as the tendency to perform a particular activity, which forms the basis for decision making. When individuals consider performing a particular action, the first step they take is to form an intention (Ajzen, 1985). In the UTAUT model, the intention to use a technology is referred to as behavioral intention, which plays a significant role in determining the actual use of a technology. This concept suggests that a person's decision to adopt a new technology is greatly influenced by their level of intention, whether positive or negative (Venkatesh et al., 2003).

The strength of behavioral intention is directly correlated with technology acceptance. When individuals have a strong tendency to use a technology, they will continue to accept the technology. Conversely, weak behavioral intention reduces technology acceptance, regardless of its accessibility or functionality. This concept highlights the importance of behavioral intention in shaping user behavior towards technology, including mobile banking. The higher the individual's behavioral intention, the higher the technology use behavior (Venkatesh et al., 2003).

2.5.2 Performance Expectancy

Performance expectancy, as defined by Venkatesh et al. (2003), refers to an individual's belief that using a particular technology will enhance their ability to complete a task effectively. This concept underscores the importance of technology adoption in enhancing productivity. Previous studies have

consistently shown that performance expectancy significantly influences behavioral intention towards technology adoption, particularly in the context of mobile banking (Gupta et al., 2019). When individuals perceive that mobile banking facilitates smooth and successful financial transactions, they are more likely to use the service. Thus, financial institutions should ensure that mobile banking applications deliver high levels of efficiency and reliability to attract users (Samsudeen et al., 2022).

Customers tend to prefer mobile banking services that offer superior performance and enhance their financial management experience. High performance in mobile banking is associated with fast transaction processing, user-friendly interfaces, and secure financial operations. If users perceive that Islamic-based mobile banking meets these expectations, they are more likely to adopt the technology (Nandru et al., 2023). This highlights the important role of performance expectancy in determining user acceptance of mobile banking services. Based on these insights, the following hypotheses are proposed:

H1: Performance expectancy affects the behavioral intention to utilize Islamic-based mobile banking.

2.5.3 Effort Expectancy

Effort expectancy refers to the level of ease associated with using a particular technology. This expectancy reflects an individual's perception of the effort required to operate the technology effectively (Venkatesh et al., 2003). This factor plays a significant role in realizing user acceptance, as simpler technology to use will increase the intention to use the technology. Studies have shown that low complexity in using mobile banking has a significant effect on behavioral

26

intention to adopt the service. When users perceive mobile banking as easy to use, they are more likely to integrate it into their daily financial activities (Wu & Ho, 2022).

Intuitive and user-friendly mobile banking eliminates potential barriers, thus encouraging widespread adoption. If consumers find mobile banking easy to use, they will be more likely to switch from traditional banking methods to digital banking (Abu-Taieh et al., 2022). A good digital banking experience increases customer satisfaction and increases the likelihood of continued use. Studies have shown that higher ease of use in mobile banking is correlated with increased intention to adopt the technology (Negm, 2024). Based on these insights, the following hypotheses are proposed:

H2: Effort expectancy affects the behavioral intention to utilize Islamic-based mobile banking.

2.5.4 Social Influence

Social influence refers to the extent to which individuals perceive that important figures in their social environment support the adoption of a particular technology (Venkatesh et al., 2003). This concept highlights the role of peer pressure, family opinion, and social norms in shaping technology acceptance. In the context of mobile banking, individuals are more likely to adopt the service if they observe that friends, colleagues, or family members are using and recommending it. The credibility and trustworthiness of this social environment further strengthen the decision to use the mobile banking service. Therefore, social influence plays a significant role in the actual behavioral intention towards mobile banking.

UTAUT identifies social influence as a significant external factor that motivates users to use a technology. Previous research has shown that individuals are more likely to adopt mobile banking when they perceive it as a widely accepted financial service in their community (Farzin et al., 2021). The influence of the social environment can be particularly strong among younger consumers, who are highly responsive to trends and peer recommendations. Studies have shown that the higher the perceived social influence an individual has for using mobile banking, the higher their behavioral intention to use it (Chetioui et al., 2023). Based on these insights, the following hypotheses are proposed:

H3: Social influence affects the intention to utilize Islamic-based mobile banking.

2.5.5 Facilitating Conditions

Facilitating conditions refer to the extent to which individuals believe that the necessary resources, support, and infrastructure are available to enable the use of technology (Venkatesh et al., 2003). In the context of mobile banking, these conditions include the availability of internet connectivity, mobile devices, and any necessary technical support. The presence of well-developed infrastructure reduces the likelihood of technical difficulties that may discourage users from adopting mobile banking. Facilitating conditions play a significant role in addressing technological literacy issues, especially for individuals who are less familiar with mobile banking applications. When users perceive that they have adequate support, such as customer service assistance or a user-friendly interface, their intention to use mobile banking increases.

Facilitating conditions serve as important determinants of behavioral intentions towards technology adoption. Previous research has shown that when users experience minimal technical challenges and have easy access to use mobile banking, they are more likely to prefer the service (Sobti, 2019). The availability of adequate facilitating conditions increases users' behavioral intentions towards mobile banking services. Therefore, efforts from related parties to improve digital payment infrastructure will strengthen users' desire to use mobile banking services (Alkhowaiter, 2022). Based on these insights, the following hypotheses are proposed:

H4: Facilitating conditions affect the behavioral intention to utilize Islamic-based mobile banking.

2.5.6 Intrinsic Religiosity

Religion in an intrinsic orientation serves as a guideline in an individual's life, influencing their choices (Allport & Ross, 1967), including decisions in finance and economics. Individuals with strong intrinsic religiosity consistently try to align their actions with religious teachings, including in matters of financial transactions and banking. This explains why intrinsic religiosity plays an important role in determining a person's preference for Islamic banking services. They look for financial products that adhere to religious principles rather than just focusing on convenience or material benefits. Thus, intrinsic religiosity has a significant impact on a person's decision-making process, including in choosing religious-based financial services.

Research by Abror et al. (2023) found that religiosity influences individual perceptions of products offered by Islamic banking. This shows that the stronger a person's religious commitment, the more likely they are to trust and prefer financial services that are in line with Islamic principles. Likewise, research by Riptiono et al. (2021) shows a significant correlation between religious beliefs and the intention to use Islamic-based mobile banking. Consumers with high levels of religiosity tend to seek financial services that are in accordance with Islamic values, because they consider these services to be more ethical and in line with their beliefs. This shows that religiosity plays an important role in shaping consumer behavior in the Islamic finance and banking sector.

Furthermore, Alkhowaiter (2022) found that Islamic religious values significantly influence an individual's tendency to adopt Islamic-based mobile banking. This finding supports the argument that religious commitment influences financial decision-making, especially in choosing banking services that are in accordance with religious principles. When individuals feel that Islamic mobile banking is in line with their values, they are more likely to use it than conventional banking services. Integrating religiosity into the financial technology acceptance model can provide a deeper understanding of consumer behavior in Islamic banking. Based on these insights, the following hypotheses are proposed:

H5: Intrinsic religiosity affects behavioral intention to use Islamic-based mobile banking.

2.5.7 Use Behavior

Use behavior refers to how individuals interact with a technology after deciding to adopt it. This concept emerges after an individual forms an intention to use a particular technology and begins to incorporate it into their daily activities. This concept encompasses various aspects, such as frequency, duration, and consistency of use, which help determine the level of technology adoption. Once individuals perceive that a technology is beneficial to them, they are more likely to use it regularly. Therefore, use behavior is a key indicator of how successfully a technology is integrated into a user's life (Venkatesh et al., 2012).

In the UTAUT model, behavioral intention serves as the primary determinant of use behavior. A person's intention to use a technology reflects their willingness and commitment, which ultimately influences the frequency and consistency of actual use (Venkatesh et al., 2003). When individuals have strong behavioral intentions, they are more likely to actively engage with the technology, regardless of external factors. Although facilitating conditions can provide additional support, initial intentions remain the primary driver of technology adoption. Therefore, understanding behavioral intentions is critical in predicting and encouraging long-term use behavior.

Several previous studies have shown a strong correlation between behavioral intention and technology use behavior, including in the context of mobile banking (Kwateng et al., 2019; Bailey et al., 2022; Yaseen et al., 2022). Individuals with high levels of behavioral intention tend to use technology services consistently. This relationship suggests that an individual's willingness

to adopt technology has a significant impact on their actual usage. As a result, behavioral intention serves as a key predictor in technology acceptance models, including in UTAUT.

Behavioral intention is a construct that directly influences use behavior (Venkatesh et al., 2003). It encompasses an individual's decision to adopt a technology service based on internal and external factors that influence intention, then from that intention influences use behavior. Stronger behavioral intention often leads to higher levels of use behavior, which strengthens the acceptance of mobile banking services. Thus, analyzing behavioral intention is very important in predicting and shaping use behavior (Farah et al., 2018). Based on these insights, the following hypotheses are proposed:

H6: Behavioral intention affects use behavior of Islamic-based mobile banking.
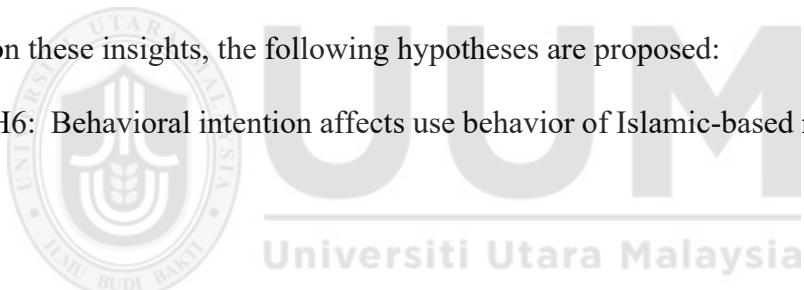
CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter outlines the type and approach of the study, which is summarized in the research design to provide a structured framework for the study. This chapter also explains the measurement of variables, including the development of questionnaire items that serve as research instruments. In addition, this chapter details the data collection process, which includes the research area, the methods used to collect data, and the selection of a sample that is representative of the target population. This chapter also explains the techniques used for data analysis, which ensure that the collected data is processed and interpreted systematically. Overall, this section provides a comprehensive overview of the methodology used to achieve the research objectives.

3.2 Research Design

This study is categorized as field research because it collects data directly from respondents who are part of the research population (Sujarweni, 2022). The survey method is used to obtain information about the factors that influence the intention and actual behavior of individuals to use Islamic-based mobile banking. The collected data are then processed and analyzed to test the proposed hypotheses. To achieve this, this study applies a quantitative statistical approach that ensures an objective evaluation of the relationship between variables. The use of this method allows for a systematic examination of the factors that influence the acceptance of Islamic-based mobile banking.

This study is a causal study, which investigates the cause-and-effect relationship between independent and dependent variables (Sugiyono, 2022). By using this approach, this study seeks to identify the determinants that drive the acceptance of Islamic-based mobile banking. This study is designed to explore how various elements, in the UTAUT model complemented by intrinsic religiosity, influence user acceptance of Islamic-based mobile banking. Users in the context of this study focus on the academic community in Malaysian universities. These findings are expected to contribute to a deeper understanding of the acceptance of Islamic-based mobile banking in a cashless campus environment.

3.3 Variables Measurement

This study adopts a modified UTAUT model to align with the context of Islamic-based mobile banking acceptance. The model is adjusted by including additional variables that are relevant to the research objectives, namely intrinsic religiosity. All variables in this study were measured using an adapted version of the questionnaire from previous studies. This modification ensures that the questionnaire items are in line with the specific factors that influence the acceptance of Islamic-based mobile banking. By using a validated instrument, this study can produce valid and reliable findings.

Table 3.1
Variables Measurement

Variable	Code	Item
Performance Expectancy	PE1	Islamic-based mobile banking is useful for my daily life
	PE2	Islamic-based mobile banking helps me complete payments faster
	PE3	Islamic-based mobile banking helps increase my productivity

	PE4	Islamic-based mobile banking allows me to manage my bank account at any time
	PE5	Islamic-based mobile banking helps me increase effectiveness in carrying out payment activities
Effort Expectancy	EE1	The use of Islamic-based mobile banking is easy to learn
	EE2	The use of Islamic-based mobile banking is easy to understand
	EE3	Islamic-based mobile banking is easy to use
	EE4	Islamic-based mobile banking is more flexible to use in payments
Social Influence	SI1	Family and friends think that I should use Islamic-based mobile banking
	SI2	People who are influential for me, think that I should use Islamic-based mobile banking
	SI3	The local community influenced me to use Islamic-based mobile banking
	SI4	My colleagues use Islamic-based mobile banking
Facilitating Conditions	FC1	I have the facility to use Islamic-based mobile banking
	FC2	I have the knowledge to use Islamic-based mobile banking
	FC3	Islamic-based mobile banking can be used via my smartphone
	FC4	My environment supports the use of Islamic-based mobile banking
Intrinsic Religiosity	IR1	Islam has answered many questions about my life
	IR2	I spent a lot of time learning to understand Islam
	IR3	Islamic values are a way of life and a guideline for me
	IR4	Islam influences everything in my life
	IR5	It is important for me to take time to pray to God
Behavioral Intention	BI1	I intend to use Islamic-based mobile banking
	BI2	I intend to frequently make payments using Islamic-based mobile banking
	BI3	I intend to choose to use Islamic-based mobile banking regularly
	BI4	I intend to use Islamic-based mobile banking in my daily activities

Use Behavior	UB1	I often use Islamic-based mobile banking	
	UB2	I am used to making payments with Islamic-based mobile banking	
	UB3	I prefer to use Islamic-based mobile banking to make payments rather than cash	
	UB4	I use Islamic-based mobile banking whenever I need to make payment transactions	

Source: Riza (2021), Nurhayati & Hendar (2020)

3.4 Data Collection

Given the broad scope of the study, this study will only focus on selected universities in the Northern Corridor Economic Region (NCER) of Malaysia. Due to resource constraints, this study tends to focus on the NCER region to ensure efficiency in data collection. By narrowing the research area, the researcher can more easily manage the research process. It also helps avoid excessive complexity in reaching respondents from too wide a region. Thus, the research can be conducted more efficiently to produce findings that remain relevant and applicable.

According to the Asian Development Bank (2017), NCER was established under the Ninth Malaysia Plan to promote equitable and balanced economic growth across the country. The region encompasses four northern states of Peninsular Malaysia: Perlis, Kedah, Pulau Pinang, and Perak. NCER is an ideal area for research on digital payment acceptance due to its diverse social and economic landscape. NCER, which consists of both urban and rural areas, allows for a comprehensive examination of how mobile banking adoption occurs across a

variety of environments. Therefore, this region provides valuable insights into the broader digital financial inclusion trend in Malaysia.

This study collected primary data through an online survey distributed via Google Forms. The use of an online survey platform allows for efficient data collection and wide reach across the various universities in the study area. The survey was conducted in February 2025 to collect data from the academic community regarding their acceptance of Islamic-based mobile banking. Respondents were selected from five universities in Northern Malaysia, namely Universiti Utara Malaysia (UUM), Universiti Sains Malaysia (USM), Universiti Pendidikan Sultan Idris (UPSI), Universiti Malaysia Perlis (UNIMAP), and Universiti Islam Internasional Tuanku Syed Sirajuddin (UniSIRAJ). These universities were selected because they have actively promoted and implemented cashless transactions in their campus environment.

The survey in this study used a Likert scale questionnaire, with response options ranging from 1 (strongly disagree) to 5 (strongly agree). This scale was used to measure respondents' perceptions of the acceptance of Islamic-based mobile banking services according to the variables used in the study. To ensure clarity and ease of understanding of the questionnaire given to respondents, the questions were presented in Malay. This step helps minimize language barriers thereby increasing the accuracy of the responses given.

The respondents in this study consisted of individuals who actively use Islamic-based mobile banking services at five selected universities. A total of 128

respondents were included in the sample, representing students, lecturers, and staff who met the research criteria. The sample size was determined based on the recommendation of Hair et al. (1998) which suggests that Structural Equation Modeling (SEM) requires a minimum sample size of between 100 and 200 respondents. In addition, Byrne (2001) supports this opinion by emphasizing that adequate SEM estimation requires at least 100 respondents. By adhering to this recommendation, this study ensures that the data is sufficient for proper statistical analysis.

The sampling process used a non-probability approach, specifically a purposive sampling technique. This method was chosen to target respondents who fit the research criteria, ensuring that only individuals who use Islamic-based mobile banking services are included in the data analysis. Purposive sampling allows the study to focus on users with relevant criteria, increasing the validity and reliability of the findings (Sugiyono, 2014). Since this study aims to explore the acceptance of Islamic-based mobile banking on campus, the respondents were determined to be academic communities from universities within the area of study. This targeted criterion captures meaningful data on factors influencing the acceptance of Islamic-based mobile banking among academic communities that implement cashless campus initiatives.

3.5 Data Analysis

Data analysis in this study used Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 3 software. PLS-SEM is widely used for hypothesis testing, especially in evaluating the relationship between several

research variables. This approach was chosen because of its effectiveness in analyzing latent variables, which are generally measured using questionnaires. Unlike traditional regression analysis, PLS-SEM allows the examination of direct and indirect relationships between research variables. This capability makes it a suitable method for exploring complex models involving several interconnected factors (Hair et al., 2011).

Another advantage of PLS-SEM is its flexibility in handling data without requiring strict assumptions, unlike the Ordinary Least Squares (OLS) method. PLS-SEM is very useful for analyzing small to medium-sized data sets, making it ideal for studies with limited sample sizes. In addition, this technique is very suitable for exploratory research, the main purpose of which is to understand the relationship between variables in a new construct rather than confirming a predetermined model (Hair et al., 2014). Thus, the use of PLS-SEM ensures appropriate and comprehensive data analysis in this study.

The SEM-PLS framework consists of two main components for data analysis, namely the outer model and the inner model. The outer model, also known as the measurement model, evaluates the relationship between the latent variables and their related indicators. This model ensures that the measurement items accurately represent the appropriate constructs in the study. In assessing the outer model, the PLS Algorithm in SmartPLS 3 is used to verify validity and reliability. Validity consists of convergent validity tested using the loading factor value and Average Variance Extracted (AVE) as well as discriminant validity tested using the Fornell-Larcker Criterion. While reliability is tested using the

Cronbach Alpha value and composite reliability. By confirming validity and reliability, the accuracy and consistency of the data can be ensured before proceeding with further analysis (Wong, 2019).

The inner model, also referred to as the structural model, examines the causal or cause-and-effect relationships between the latent variables. This model determines the extent to which the independent variables affect the dependent variable based on the research framework. To test the significance of this relationship, the bootstrapping method was applied in SmartPLS 3, by looking at the P value and t-value on the path coefficient for hypothesis testing. The predictive power of the structural model was assessed through the R-squared (R^2) and Q-squared (Q2) values. In this way, meaningful findings can be determined regarding the relationship between independent and dependent variables in the research hypothesis (Wong, 2019).
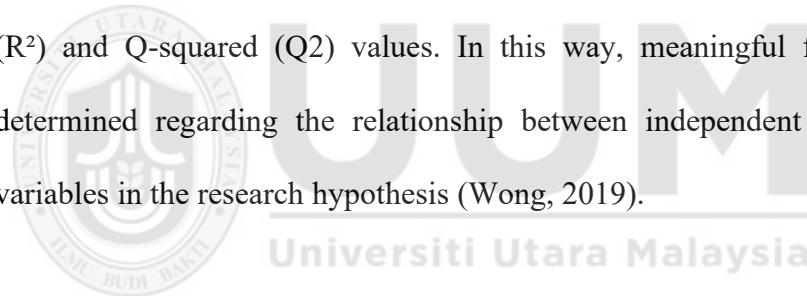
CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This chapter provides a comprehensive explanation of the respondents' profile detailing their demographic characteristics. In addition, this chapter outlines the data analysis process using the Partial Least Squares-Structural Equation Modeling (PLS-SEM) method, which was used to examine the relationships between variables and test the proposed hypotheses. Interpretation of the PLS-SEM results is also presented in this chapter, focusing on the measurement model to assess the validity and reliability of the constructs, as well as the structural model to evaluate the causal relationships between variables. Furthermore, this chapter discusses the main findings obtained from the analysis, comparing them with existing literature to highlight similarities and differences as well as theoretical and practical implications. This chapter closes with a discussion that serves as a basis for drawing conclusions and providing research recommendations.

4.2 Respondent Demographic Profile

The study involved a total of 128 respondents with diverse demographic characteristics, providing a comprehensive profile of individuals who use Islamic-based mobile banking services. Respondents were categorized based on various characteristics, including gender, age, education level, university affiliation, occupation, monthly income, and the Islamic banking institution they utilize. These demographics help in understanding the participants' backgrounds

and their potential influence on their acceptance of Islamic-based mobile banking. Analyzing these characteristics allows for deeper insights into the factors that may influence their acceptance of Islamic financial services technology. The demographic profile of the respondents in this research is outlined as follows:

Table 4.1
Respondent Demographic Profile

Characteristic	Description	Amount	Percentage
Gender	Male	59	46.09
	Female	69	53.91
Age (Years)	< 20	8	6.25
	20-30	93	72.65
	31-40	13	10.16
	41-50	13	10.16
	> 50	1	0.78
Educational Level	Undergraduate	82	64.06
	Master	23	17.97
	Doctoral	23	17.97
University	Universiti Utara Malaysia	75	58.59
	Unversiti Sains Malaysia	21	16.41
	Universiti Pendidikan Sultan Idris	16	12.50
	Universiti Malaysia Perlis	6	4.69
	Universiti Islam Antarabangsa Tuanku Syed Sirajuddin (UniSIRAJ)	10	7.81
Occupation	Student	103	80.47
	Lecturer	24	18.75
	Staff	1	0.78
Monthly Income (RM)	< 1,000	58	45.31
	1,000-2,000	28	21.88
	2,001–3,000	16	12.50
	4,001–5,000	2	1.56
	> 5,000	24	18.75
Islamic Bank	Bank Islam Malaysia	79	61.72
	Maybank Islamic	26	20.31
	CIMB Islamic	15	11.72
	Others	8	6.25

Source: Data processed, 2025

Table 4.1 presents the demographic distribution of the respondents, highlighting the main characteristics of the study sample. The majority of the respondents were female, accounting for 53.91% (69 respondents). Most of the respondents were aged between 20-30 years, accounting for 72.65% (93 respondents). Most of the respondents were undergraduates (64.06% or 82 respondents) and affiliated with Universiti Utara Malaysia (58.59% or 75 respondents). In addition, students constituted the largest portion of the respondents, accounting for 80.47% (103 respondents). Almost half of the respondents (45.31% or 58 respondents) earned less than RM1,000 per month. Furthermore, the most widely used Islamic banking service by the respondents was Bank Islam Malaysia, which was chosen by 61.72% (79 respondents), indicating a strong presence in the study area.

4.3   Data Analysis Result

4.3.1 Outer Model Test

The outer model test is conducted to assess the validity and reliability of the measurement of the latent construct model. The validity of a construct model can be evaluated through the analysis of the loading factor values of each indicator. A loading factor exceeding 0.7 is considered valid, while factors ranging from 0.50 to 0.70 may be retained if the average variance extracted (AVE) and composite reliability are satisfactory (Chin, 1998). Convergent validity refers to the validity of an indicator evaluated through the correlation between item scores and construct variables. To guarantee the validity of the

43

latent variables, the Average Variance Extracted (AVE) value should exceed 0.5

(Cheung et al., 2024).

Table 4.2
Convergent Validity Test Result

Variable	Code	Loading Factor	AVE	Result
Performance Expectancy	PE1	0.704	0.568	Valid
	PE2	0.748		Valid
	PE3	0.798		Valid
	PE4	0.753		Valid
	PE5	0.760		Valid
Effort Expectancy	EE1	0.821	0.593	Valid
	EE2	0.771		Valid
	EE3	0.727		Valid
	EE4	0.759		Valid
Social Influence	SI1	0.778	0.663	Valid
	SI2	0.854		Valid
	SI3	0.813		Valid
	SI4	0.810		Valid
Facilitating Conditions	FC1	0.824	0.563	Valid
	FC2	0.860		Valid
	FC3	0.578		Valid
	FC4	0.708		Valid
Intrinsic Religiosity	IR1	0.619	0.578	Valid
	IR2	0.595		Valid
	IR3	0.883		Valid
	IR4	0.889		Valid
	IR5	0.765		Valid
Behavioral Intention	BI1	0.593	0.542	Valid
	BI2	0.809		Valid
	BI3	0.805		Valid
	BI4	0.715		Valid
Use Behavior	UB1	0.847	0.595	Valid
	UB2	0.737		Valid
	UB3	0.685		Valid
	UB4	0.806		Valid

Source: Data processed, 2025

Table 4.2 demonstrates that most indicators exhibit a loading factor value

exceeding 0.7, while a few indicators fall within the range of 0.5 to 0.7 (FC3,

IR1, IR2, BI1, and UB3). Furthermore, all variables exhibit an AVE value

exceeding 0.5. In this condition, it can be asserted that all indicators and variables are valid.

The second validity test to be conducted is discriminant validity, which ensures that each latent variable is distinct from the others. Discriminant validity can be assessed using the Fornell-Larcker Criterion. This test demonstrates that discriminant validity is considered adequate when the square root of the Average Variance Extracted (AVE) for a construct is higher rather than its correlation with other latent variables (Fornell & Larcker, 1981). Table 4.3 demonstrates that the root of AVE for all variables exceeds the correlations of the constructs with other latent variables. Therefore, it can be concluded that all constructs exhibit sufficient discriminant validity.

Table 4.3
Fornell-Larcker Criterion Test Result

	BI	EE	FC	IR	PE	SI	UB
BI	0.736						
EE	0.487	0.770					
FC	0.460	0.625	0.751				
IR	0.349	0.432	0.383	0.760			
PE	0.601	0.599	0.547	0.330	0.753		
SI	0.493	0.502	0.363	0.178	0.547	0.814	
UB	0.718	0.578	0.436	0.299	0.629	0.615	0.771

Source: Data processed, 2025

Heterotrait-Monotrait Ratio (HTMT) is another method used to measure discriminant validity in PLS-SEM analysis. HTMT is considered more sensitive and reliable than methods such as the Fornell-Larcker Criterion in detecting discriminant validity problems. HTMT measures the ratio between the correlations between unrelated constructs (heterotrait) and the correlations between indicators within the same construct (monotrait). A lower HTMT value

indicates that the constructs in the model are more separate and do not overlap, indicating good discriminant validity. An HTMT value greater than 0.85 demonstrates discriminant validity problems, indicating that the constructs are too similar to each other (Hamid et al., 2017). Table 4.4 demonstrates that the HTMT value for all variables less than 0.85. Therefore, it can be concluded that all constructs exhibit good discriminant validity.

Table 4.4
Heterotrait-Monotrait Ratio Test Result

	BI	EE	FC	IR	PE	SI	UB
BI							
EE	0.640						
FC	0.646	0.810					
IR	0.438	0.525	0.477				
PE	0.742	0.748	0.701	0.401			
SI	0.594	0.616	0.453	0.197	0.661		
UB	0.792	0.747	0.557	0.382	0.794	0.771	

Source: Data processed, 2025

To assess the reliability of the variables, one can refer to the Cronbach Alpha and Composite Reliability values, which are considered reliable if they exceed 0.7 (Cheung et al., 2024). Table 4.5 demonstrates that all variables are reliable.

Table 4.5
Reliability Test Result

Variable	Cronbach Alpha	Composite Reliability	Result
Performance Expectancy	0.810	0.868	Reliable
Effort Expectancy	0.771	0.853	Reliable
Social Influence	0.831	0.887	Reliable
Facilitating Conditions	0.736	0.835	Reliable
Intrinsic Religiosity	0.814	0.870	Reliable
Behavioral Intention	0.722	0.823	Reliable
Use Behavior	0.771	0.854	Reliable

Source: Data processed, 2025

4.3.2 Inner Model Test

The inner model or structural model explains the relationships or magnitudes of estimates among latent variables or constructs derived from theoretical foundations. The inner model serves as a structural framework for predicting causal relationships between latent variables.

The first inner model test is R Square utilized to assess the value of the coefficient of determination. The interpretation of the R Square value aligns with its interpretation in linear regression, specifically regarding the extent to which the dependent variable is influenced by the independent variables employed in the analysis. The R Square criteria are categorized into three classifications: values greater than 0.67 demonstrate a strong relationship, values between 0.33 and 0.67 demonstrate a moderate relationship, and values less than 0.33 demonstrate a weak relationship (Chin, 1998).

Table 4.6
Coefficient of Determination Test Result

	R Square
Behavioral Intention	0.436
Use Behavior	0.605

Source: Data processed, 2025

According to Table 4.6, the independent variables have an influence on behavioral intention with a determination coefficient value of 0.436 (43.6%), which indicates that these variables can be quite a determinant of behavioral intention. Likewise, behavioral intention has an influence on use behavior with a determination coefficient value of 0.605 (60.5%), which indicates a stronger

relationship than the determinants of behavioral intention, but still in the same category, namely moderate relationship.

The next inner test is F Square (effect size) which is used to measure the magnitude of the influence of each independent variable construct on the dependent variable construct in the structural model. The F Square value shows how much a variable contributes to the increase in the R Square value of the dependent variable. Thus, the F Square Test helps researchers understand the strength of the influence of each construct in explaining the model as a whole. Based on the guidelines from Cohen (1988), the F Square value is categorized into small (≥ 0.02), medium (≥ 0.15), and large (≥ 0.35).

Table 4.7
Effect Size Test Result

	Behavioral Intention	Use Behavior
Performance Expectancy	0.215	
Effort Expectancy	0.021	
Social Influence	0.153	
Facilitating Conditions	0.023	
Intrinsic Religiosity	0.025	
Behavioral Intention		0.529

Source: Data processed, 2025

Based on Table 4.7, it can be seen that the effort expectancy, facilitating condition, and intrinsic religiosity provide a small effect size on the behavioral intention. While the performance expectancy and social influence provide an effect size in the medium category on the behavioral intention. Meanwhile, the behavioral intention provides a large effect size on the use behavior.

In addition, to assess the predictive power of the structural model in explaining the influence of independent variables on dependent variables, a predictive

relevance test can be conducted by examining the Q Square value. If the Q square value > 0 then it can be said that the model has good observations, while if the Q square value < 0 then it can be stated that the observation model is not good. Based on Hair et al. (2011), the predictive relevance value is obtained by the formula: $Q^2 = 1 - (1 - R^2_1)(1 - R^2_2) \ldots (1 - R^2_n)$. Using this formula, the results of the predictive relevance calculation are as follows:

$Q^2 = 1 - (1 - R^2_1)(1 - R^2_2)$

$Q^2 = 1 - (1 - 0.436)(1 - 0.605)$

$Q^2 = 1 - (1 - 0.436)(1 - 0.605)$

$Q^2 = 1 - (0.564)(0.395)$

$Q^2 = 0.7772$

The Q^2 value = 0.7772 indicates that the model has a very strong predictive relevance in explaining the dependent variable. This means that the independent variables are able to make a large contribution to the prediction of the dependent variable, so that the model can be relied on in further analysis. With a high Q^2 value, this model shows very good predictive ability.

In the inner model, hypothesis testing involves comparing the T statistics to the T table of 1.96 at a significance level of P = 0.05. If the T statistics is higher than the T table, independent variable significantly affects the dependent variable (Kock, 2016).

Table 4.8
Hypothesis Test Result

Hypothesis	Original Sample	T Statistics	P Value	Result
H1 (Performance Expectancy _> Behavioral Intention)	0.354	3.086	0.002	Accepted

49

H2 (Effort Expectancy _> Behavioral Intention)	0.037	0.244	0.807	Rejected
H3 (Social Influence _> Behavioral Intention)	0.215	2.270	0.024	Accepted
H4 (Facilitating Conditions _> Behavioral Intention)	0.113	0.703	0.482	Rejected
H5 (Intrinsic Religiosity _> Behavioral Intention)	0.134	1.338	0.181	Rejected
H6 (Behavioral Intention _> Use Behavior)	0.778	17.811	0.000	Accepted

Source: Data processed, 2025

The T statistics and P value within the inner model were rigorously analyzed to determine whether the hypothesis was accepted or rejected. The findings of the hypothesis testing are displayed in Table 4.8. At a significance level of 0.05, H1, H3, and H6 demonstrated a statistically significant effect, suggesting that the hypotheses are accepted. In comparison to H2, H4 and H5 did not exhibit a significant effect, suggesting that the hypotheses are rejected. Thus, the findings of this study indicate that performance expectancy and social influence affect behavioral intention. Meanwhile, effort expectancy, facilitating conditions, and intrinsic religiosity do not affect behavioral intention. In addition, behavioral intention affects the use behavior of Islamic-based mobile banking at universities in Malaysia.

4.3.3 Indirect Effect Test

This study does not intend to test the indirect effects between research variables. However, the results of the indirect effect test appear together with the hypothesis test (direct effect test) in the data analysis process. The indirect effect test is used to determine the indirect effect of the independent variable on the

dependent variable through the mediating variable. This test is important to understand how the mediating variable can bridge the relationship between constructs in a structural model. Similar to the direct effect test, the significance of the indirect effect can be seen in the bootstrapping output of the SmartPLS 3 software, namely by looking at the T Statistics and P Values. If the test results show a significant value, it can be concluded that there is a mediating effect in the relationship between variables.

Table 4.9
Indirect Effect Test Result

Item Test	Original Sample	T Statistics	P Value	Result
Performance Expectancy _> Behavioral Intention _> Use Behavior	0.275	3.145	0.002	Significant
Effort Expectancy _> Behavioral Intention _> Use Behavior	0.029	0.251	0.802	Not Significant
Social Influence _> Behavioral Intention _> Use Behavior	0.167	2.065	0.039	Significant
Facilitating Conditions _> Behavioral Intention _> Use Behavior	0.088	0.703	0.483	Not Significant
Intrinsic Religiosity _> Behavioral Intention _> Use Behavior	0.104	1.389	0.166	Not Significant

Source: Data processed, 2025

The results of the item testing are displayed in Table 4.9. At a significance level of 0.05, performance expectancy and social influence to use behavior through behavioral intention demonstrated a statistically significant effect. In

51

comparison to effort expectancy, facilitating conditions, and intrinsic religiosity to use behavior through behavioral intention did not exhibit a significant effect. Thus, the results of the data analysis indicate that performance expectancy and social influence affect use behavior through behavioral intention. Meanwhile, effort expectancy, facilitating conditions, and intrinsic religiosity do not affect use behavior through behavioral intention. These results strengthen the research findings stating that performance expectancy and social influence influence behavioral intention, and behavioral intention influences use behavior. While effort expectancy, facilitating conditions, and intrinsic religiosity do not influence behavioral intention, although behavioral intention influences use behavior of Islamic-based mobile banking.

4.4 Discussion

4.4.1 The Influence of Performance Expectancy on the Intention to Use Islamic-Based Mobile Banking

The findings from the data analysis demonstrate that performance expectancy significantly influences the behavioral intention to utilize Islamic-based mobile banking, leading to the acceptance of hypothesis (H1). This demonstrates that as the anticipated benefits of utilizing Islamic-based mobile banking increase, so does the intention to adopt it. If individuals perceive that utilizing mobile banking services rooted in Islamic principles will streamline transactions, conserve time, and offer additional practical advantages, they are likely to intend to adopt it. This finding aligns with the UTAUT framework, highlighting that performance expectancy serves as the primary influence on user intentions to adopt technology. Previous study by Tan & Lau (2016) it was also noted that

52

performance expectancy stands out as the most significant predictor of the intention to adopt mobile banking.

This study highlights that the academic community believes Islamic-based mobile banking will drive the efficiency and effectiveness of their financial transactions. The growing recognition of the long-term advantages of Islamic-based mobile banking, particularly the ease of cashless transactions, has led the academic community to anticipate that this service will enhance their campus experience. Therefore, they will be inclined to utilize the service within the campus.

This finding shows the importance of Islamic banking institutions to improve Islamic-based mobile banking and promote the benefits of using them at universities. Continuous efforts are needed to inform the academic community about the various features and benefits offered by Islamic-based mobile banking, and how this service can improve the effectiveness and efficiency of transactions. This can encourage them to continue to have a stronger intention in adopting the service. Thus, it will beneficial to the achievement of the use of Islamic-based mobile banking towards a cashless campus in Northern Malaysia.

4.4.2 The Influence of Effort Expectancy on the Intention to Use Islamic-Based Mobile Banking

The hypothesis (H2) posited that effort expectancy influences the behavioral intention to utilize Islamic-based mobile banking; however, the findings demonstrate an insignificant result, leading to the rejection of H2. The findings

align with the study by Yaseen et al. (2022), which demonstrated that effort expectancy has an insignificant effect on the behavioral intention to use Islamic-based mobile banking. This suggests that while ease of use is a significant consideration, it is not the primary factor in technology acceptance. This demonstrates that individuals may overlook the complexities associated with Islamic-based mobile banking, provided that the service offers them benefits.

This factor may also be due to the fact that the academic community in Northern Malaysia is generally accustomed to the use of digital services in the daily activities. With a relatively high position of digital literacy, they feel no significant difficulty in using Islamic-based mobile banking services, even if the service has more complex features or interfaces. Their focus is on the performance or real benefits of the service, rather than the ease or technical difficulties they may encounter when using it.

The lack of a significant effect of effort expectancy on behavioral intention suggests that other factors, particularly performance expectancy, may exert a more substantial influence on the intention to utilize Islamic-based mobile banking. In this context, Islamic banking institutions must highlight the benefits and relevance of their services in alignment with user needs, as the academic community is well-versed in technology and prioritizes effectiveness over convenience.

4.4.3 The Influence of Social Influence on the Behavioral Intention to Use Islamic-Based Mobile Banking

This study's findings demonstrate that social influence significantly affects the behavioral intention to use Islamic-based mobile banking, thereby supporting the acceptance of hypothesis (H3). This aligns with the UTAUT theory, which suggests that somebody is more inclined to adopt technology when they experience significant social support. The results suitable with findings of Iqbal et al. (2023), which demonstrates that social influence significantly affects behavioral intention among Islamic banking customers. This reflects that the decision to adopt Islamic-based mobile banking services is affected by social environmental factors.

Social influence is a key determinant of behavioral intention towards the use of Islamic-based mobile banking. The academic community frequently allows their social groups to influence decision-making processes, including the selection of digital financial services. In Malaysian universities, social influence may originate from friends, family, prominent individuals, the community, and colleagues who express favorable opinions about the utilization of Islamic-based mobile banking services. Enhancing awareness of Islamic finance within the academic community can bolster social influence, as a greater comprehension of the significance of Islamic financial services may elevate the intention to utilize Islamic-based mobile banking.

The findings suggest that social factors should be integrated into Islamic-based mobile banking services. Islamic banks may partner with educational

institutions to enhance the social influence on the Islamic-based mobile banking acceptance within the academic community at Malaysian universities. The establishment of an ecosystem that facilitates Islamic financial services and enhances user experience may significantly influence the usage of Islamic-based mobile banking, contributing to the transition towards a cashless campus in Malaysia.

4.4.4 The Influence of Facilitating Conditions on the Behavioral Intention to Use Islamic-Based Mobile Banking

The results demonstrate that the behavioral intention to utilize Islamic-based mobile banking is not influenced by facilitating conditions, leading to the rejection of hypothesis (H4). The findings align with the study by Farah et al. (2018), which demonstrated that facilitating conditions have an insignificant effect on mobile banking acceptance. This suggests that while facilitating conditions, including access to technology and infrastructure support, are typically regarded as significant in technology acceptance, they do not appear to be the primary influence on the intention of the academic community in North Malaysia to utilize it. The academic community possesses sufficient access to mobile devices and reliable internet networks, resulting in minimal perceived obstacles to accessing Islamic-based mobile banking services.

In addition, the absence of a significant effect of facilitating conditions also demonstrates that the academic community may prioritize the direct benefits of Islamic-based mobile banking rather than looking for physical or technical conditions that support the use of the service. This means that although factors

such as a stable internet network, device availability, or technical support can improve the user experience in using mobile banking, the academic community tends to focus on the functionality of the service itself, namely the effectiveness and efficiency of transactions, rather than on external factors such as facilitating conditions.

This suggests that the academic community is already acquainted with current mobile banking services, thus requiring minimal additional resources to commence usage. The academic community demonstrates a significant acceptance of technology and a reliance on smartphones and internet access, resulting in minimal dependence on external conditions or technical support for the utilization of mobile banking services. While facilitating conditions normally significant in technology acceptance, this study found that such factors did not significantly influence the intention to use Islamic-based mobile banking within the academic community in Malaysia.

4.4.5 The Influence of Intrinsic Religiosity on the Behavioral Intention to Use Islamic-Based Mobile Banking

The results demonstrate that intrinsic religiosity does not significantly influence the behavioral intention to utilize Islamic-based mobile banking, leading to the rejection of hypothesis (H5). Despite possessing a strong intrinsic religiosity and a commitment to Islamic values in daily life, individuals' intentions to utilize Islamic-based mobile banking services remain unaffected. This study identifies performance expectancy and social influence as factors affecting the acceptance of Islamic-based mobile banking.

Individuals exhibiting a high degree of intrinsic religiosity may prefer Islamic banking services; however, they do not feel obligated to utilize Islamic-based mobile banking. Individuals may prefer transaction methods via alternative platforms, such as e-wallets, due to the associated convenience. Consequently, the convenience associated with digital payment systems may outweigh the influence of individual religiosity in the adoption of Islamic-based mobile banking.

The results suitable with previous study by Daudshah & Yetti (2022) which show that religiosity insignificant on the behavioral intention to use Islamic-based mobile banking. Individuals often prioritize pragmatic factors, including effectiveness, service features, and social support, over intrinsic religiosity alone. Therefore, Islamic banks aiming to enhance the adoption of Islamic-based mobile banking should focus on highlighting the practical advantages of the service. The religious aspect is a significant component in branding Islamic financial services; however, emphasis should be placed on factors more pertinent to users to enhance the adoption of Islamic Mobile Banking within the academic community, facilitating a cashless campus in Malaysian universities.

4.4.6 The Influence of Behavioral Intention on the Use of Islamic-Based Mobile Banking

The study's findings demonstrate that behavioral intention significantly affects use behavior regarding Islamic-based mobile banking in Malaysian colleges, hence supporting hypothesis (H6). This suggests that a personal intention to utilize Islamic-based mobile banking correlates positively with their actual usage

of the service in daily activities. This discovery aligns with UTAUT, which posits that behavioral intention is the primary determinant of use behavior in technology acceptance. This suitable with previous study by Farzin et al. (2021), which asserts that behavioral purpose affects use behavior.

An individual's intention to utilize mobile banking will directly influence their actual use behavior. Once the goal is established, behavioral engagement will manifest when users utilize the technology for their financial activities. The research conducted by Riza & Wijayanti (2024) demonstrates that a person's behavioral intention correlates positively with their usage of Islamic-based mobile banking. Individuals with a robust purpose to utilize Islamic-based mobile banking will engage with the service more frequently across diverse transactions. With more frequent use, they will become more familiar with the service, which eventually demonstrates their devotion to Islamic digital banking services.

This study's results demonstrate that to enhance the adoption of Islamic-based mobile banking within the academic community, Islamic banking must reinforce the factors affecting behavioral intention. Enhancing the performance of Islamic-based mobile banking to improve user experience and introducing innovative features aligned with user needs can facilitate the shift from intention to actual usage of Islamic-based mobile banking services.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATION

5.1 Introduction

This chapter presents the conclusions drawn from the findings of this study, summarizing the key insights related to the adoption of Islamic mobile banking among university communities. Additionally, it provides recommendations for relevant stakeholders, including universities, Islamic banking institutions, and the government, to enhance digital financial services and promote broader acceptance of Islamic banking. The discussion also highlights the limitations encountered in this study, such as sample constraints and methodological challenges, which may have influenced the results. Furthermore, this chapter outlines suggestions for future research, encouraging further exploration of emerging trends, broader sample coverage, and alternative analytical approaches. These recommendations aim to support the continuous development of Islamic banking and its integration into the evolving digital financial landscape.

5.2 Conclusion

This study investigates the acceptance of Islamic-based mobile banking in Malaysian universities utilizing the modified UTAUT model. This study employs a quantitative methodology characterized by causal analysis. This study employed a Google Form questionnaire with a Likert Scale for data collection. Sample of this study comprised 128 individuals, including students, teachers, and staff from five universities in Northern Malaysia. Sampling was conducted

with the purposive sampling approach. The data analysis technique using Partial Least Squares Structural Equation Modeling (PLS-SEM) through SmartPLS 3 software.

Based on the results of the data analysis, several hypotheses were accepted while others were rejected. The findings of the study indicate that performance expectancy and social influence have a significant impact on behavioral intention. Consequently, hypotheses H1 and H3 are accepted, which confirm that individuals' expectations of improved performance and the influence of their social environment play an important role in their intention to use Islamic-based mobile banking. These results indicate that users are more likely to adopt the service if they perceive it as useful and if their peers, family, or colleagues support its use. This highlights the importance of promoting awareness and emphasizing the functional benefits of Islamic-based mobile banking to increase user adoption.

On the other hand, this study revealed that effort expectancy, facilitating conditions, and intrinsic religiosity did not significantly affect behavioral intention. Consequently, hypotheses H2, H4, and H5 are rejected, which indicate that ease of use, external support systems, and personal religious commitment do not affect individuals' intention to use Islamic-based mobile banking. This suggests that although these factors are important, users do not consider them as the main drivers in the decision-making process in their intention to use Islamic-based mobile banking services. It is possible that users have adapted to mobile banking technology. So, that ease of use is not a major issue. As well as the

external support and religious awareness are no longer considered a crucial factor in their process of accepting this technology.

For the last hypothesis (H6), the results of data analysis reveal a significant of behavioral intention on the use behavior of Islamic-based mobile banking. Consequently, the hypothesis is accepted. The study's results demonstrate that the effect of behavioral intention on use behavior is more significant than the influence of the factors affecting behavioral intention within the research framework. This supports the theory that behavioral intention is the primary predictor of technology acceptance, including in the context of Islamic-based mobile banking.

5.3 Recommendation

Based on the findings of this study, universities can play an active role in encouraging the acceptance of Islamic-based mobile banking as an effort to realize an inclusive cashless campus. Therefore, universities need to implement digital payment systems in various campus facilities that accommodate the use of Islamic-based mobile banking. Universities also need to collaborate with Islamic banks in providing various benefits that can encourage the academic community to use Islamic-based mobile banking services.

Islamic banking institutions must enhance the performance of their Islamic-based mobile banking by developing features to improve the user experience, especially for students as the younger generation. Islamic banks must ensure that their Islamic-based mobile banking services provide convenience, speed,

and security in transactions. Islamic banks may collaborate with universities to enhance the academic community's awareness of their services. Enhanced features and an effective partnership strategy can position Islamic-based mobile banking as a viable solution for facilitating cashless payments within the campus area.

The government needs to provide various supports needed to encourage the implementation of cashless campuses and the inclusion of Islamic financial services across universities. Improving technological infrastructure such as stable internet networks and strong cybersecurity systems across the region is essential to ensure that cashless campus initiatives run smoothly in both urban and rural areas. The government can also campaign to the public, including the academic community, about the benefits of using digital services from Islamic financial institutions such as Islamic-based mobile banking in daily transactions. By providing support and a good ecosystem for digital payments through Islamic-based mobile banking, the government can encourage campuses to play a pivotal position in the national digital transformation towards a cashless society and maintain the country's throne as a top player in the field of Islamic financial services at the global level.

5.4 Limitation and Suggestion for Future Research

This study has several limitations that should be considered when interpreting its findings. One major limitation is the relatively small sample size, consisting of only 128 respondents from five selected universities in Northern Malaysia. As a result, the study may not be fully representative of the entire academic

community in Malaysia, thus limiting the generalizability of the findings. Furthermore, the study focused only on university students, lecturers, and staff, without considering other potential user groups of Islamic-based mobile banking services. A larger and more diverse sample could provide deeper insights into the factors influencing the acceptance of Islamic-based mobile banking in higher education.

Another limitation is that the study relies solely on the UTAUT model with the inclusion of intrinsic religiosity as an additional variable, without examining other relevant factors that may influence behavioral intentions to use financial technology and banking services. Variables such as trust, perceived security, and perceived risk may play an important role in shaping users' decisions to adopt Islamic-based mobile banking. Future research should incorporate these additional factors to develop a more comprehensive understanding of user behavior. In addition, the use of a mixed methods approach, which combines qualitative and quantitative data, can provide broader insights into user acceptance of Islamic-based mobile banking.

To address the limitations of this study, future research should consider expanding the sample size and include respondents from more universities in Malaysia. A larger and more diverse sample will increase the representation of the findings and provide a more comprehensive understanding of the factors influencing the acceptance of Islamic-based mobile banking. In addition, future research can include participants from individuals who work outside the academic community, such as traders and shop owners in campus environments

to capture a broader perspective. By including a wider group of respondents, researchers can increase the generalizability of the results and provide insights that are more applicable to a wider population. This approach will strengthen the findings of future research.

Furthermore, future research should integrate additional factors such as trust, perceived security, and perceived risk to gain a more holistic understanding of the determinants of mobile banking adoption. These variables are critical in influencing users' intentions and behaviors to use mobile banking services, including Islamic-based mobile banking. A mixed-methods research approach, which combines quantitative surveys with qualitative interviews, can also be used to gain deeper insights into users' acceptance of this technology service. With these aspects, future research can offer a more comprehensive analysis of the factors driving the acceptance of Islamic-based mobile banking.
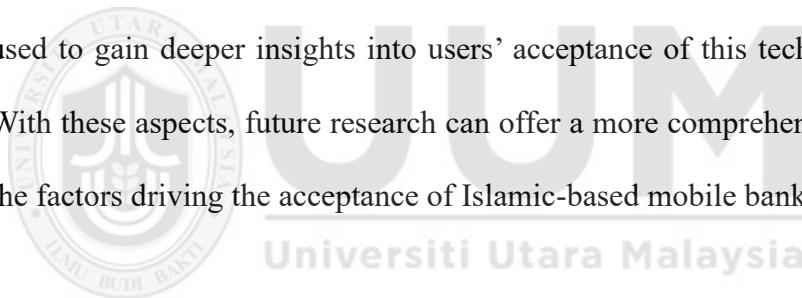
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70

APPENDIX

Appendix A - Data Collection Letter

ISLAMIC BUSINESS SCHOOL
UUM COLLEGE OF BUSINESS
UNIVERSITI UTARA MALAYSIA
06010 UUM SINTOK
KEDAH DARUL AMAN
MALAYSIA

UUM
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Faks (Fax): 604-928 6653
Laman Web (Web): www.ibs.edu.my

No. Rujukan : UUM/COB/IBS/A-4/1
Tarikh : 19 Januari 2025

KEPADA SESIAPA YANG BERKENAAN

Tuan,

PERMOHONAN KEBENARAN UNTUK MENJALANKAN KAJIAN AKADEMIK

Dengan segala hormatnya saya merujuk kepada perkara di atas.

2.   Adalah dimaklumkan bahawa pelajar berikut sedang giat menjalankan kajian penyelidikan seperti berikut:

Nama	RIZKY ANDREAN
No. Matriks	833441
Kursus	MASTER IN ISLAMIC FINANCE AND BANKING (MIFB)
Fakulti	PUSAT PENGAJIAN PERNIAGAAN ISLAM (IBS) UNIVERSITI UTARA MALAYSIA
Tajuk Kajian	THE ACCEPTANCE OF ISLAMIC BASED MOBILE BANKING TOWARDS CASHLESS CAMPUS AT UNIVERSITIES IN MALAYSIA
Penyelia Kajian	DR. WAHIDAH BT. SHARI

3.   Sehubungan dengan itu, saya memohon agar pihak tuan dapat memberi kebenaran kepada pelajar ini untuk menjalankan kajian akademik beliau seperti yang dipohon. Semua maklumat dan data-data yang diperolehi adalah dianggap **SULIT** dan hanya akan digunakan bagi tujuan akademik sahaja.

4.   Sekiranya pihak tuan ingin mendapat maklumat lanjut tentang perkara ini, sila hubungi dengan **Rizky Andrean** di talian +6281327944527 atau e-mel rarizkyandrean@gmail.com/ rizky_andrean@cob.uum.edu.my

Segala maklumbalas serta maklumat data berkaitan kajian ini amat dialu-alukan dan kerjasama tuan dalam menjayakan kajian ini amatlah dihargai dan didahului dengan ucapan terima kasih.

Sekian.

"MALAYSIA MADANI"
"BERKHIDMAT UNTUK NEGARA"
"KEDAH SEJAHTERA-NIKMAT UNTUK SEMUA"
"ILMU BUDI BAKTI"

Saya yang menjalankan amanah,

DR. MOHD FIKRI BIN SOFI
Penyelaras Program MIFB & MIBS
Pusat Pengajian Perniagaan Islam
Universiti Utara Malaysia

Universiti Pengurusan Terkemuka
The Eminent Management University

Appendix B - Research Questionnaire

BORANG SOAL SELIDIK KAJIAN "PENERIMAAN MOBILE BANKING PERBANKAN ISLAM TERHADAP KAMPUS TANPA TUNAI DI UNIVERSITI DI MALAYSIA"

Assalamualaikum warahmatullahi wabarakatuh

Salam sejahtera, semoga kita senantiasa berada dalam lindungan Allah. Izinkan saya memperkenalkan diri saya, nama saya **Rizky Andrean**. Saya seorang pelajar **Master in Islamic Finance and Banking, Islamic Business School, Universiti Utara Malaysia**. Pada masa ini saya sedang mengusahakan **research paper (kertas penyelidikan)** sebagai salah satu syarat untuk menamatkan pengajian saya, yang bertajuk **"Penerimaan Mobile Banking Perbankan Islam terhadap Kampus Tanpa Tunai di Universiti di Malaysia"**. Dengan segala kerendahan hati, saya meminta pihak tuan/puan sudi meluangkan masa untuk mengisi borang soal selidik kajian saya ini, terima kasih.

Wassalamualaikum warahmatullahi wabarakatuh

*Mobile Banking Perbankan Islam merujuk kepada perkhidmatan perbankan mudah alih yang boleh digunakan secara dalam talian untuk pelbagai tujuan transaksi dan pembayaran yang disediakan oleh institusi perbankan Islam.

PROFIL RESPONDEN

Jantina

☐ Lelaki

☐ Perempuan

Umur

☐ Kurang dari 20 tahun

☐ 20 - 30 tahun

☐ 31 - 40 tahun

☐ 41 - 50 tahun

☐ Lebih dari 50 tahun

Pendidikan terakhir

☐ Undergraduate

☐ Master

☐ Doctoral

Universiti

☐ Universiti Utara Malaysia

☐ Universiti Sains Malaysia

☐ Universiti Pendidikan Sultan Idris

☐ Universiti Malaysia Perlis

☐ Lainnya

Di universiti, saya adalah seorang

☐ Pelajar

☐ Pensyarah

☐ Kakitangan

Anggaran pendapatan bulanan (dalam RM)

☐ Kurang dari 1,000

☐ 1,000 - 2,000

☐ 2,001 - 3,000

☐ 3,001 - 4,000

☐ 4, 001 - 5,000

☐ Lebih dari 5,000

Muslim?

☐ Ya

☐ Tidak

Saya menggunakan perkhidmatan Perbankan Islam (Contoh: Bank Islam Malaysia, Bank Muamalat, Maybank Islamic, Hong Leong Islamic, dan sebagainya)

☐ Ya

☐ Tidak

Perbankan Islam yang digunakan

☐ Bank Islam Malaysia

☐ Bank Muamalat Malaysia

☐ Maybank Islamic

□ Hong Leong Islamic

□ Affin Islamic Bank

□ CIMB Islamic

□ Lainnya

SOALAN BORANG SOAL SELIDIK KAJIAN

Performance Expectancy (Jangkaan Prestasi)							
Keyakinan bahawa penggunaan Mobile Banking Perbankan Islam akan membantu memperolehi faedah atau prestasi yang lebih besar dalam transaksi/pembayaran							
No.	Kod	Soalan	Jawaban				
			STS	TS	KS	S	SS
1	PE1	Mobile Banking Perbankan Islam berguna untuk kehidupan seharian saya					
2	PE2	Mobile Banking Perbankan Islam membantu saya menyelesaikan pembayaran dengan lebih cepat					
3	PE3	Mobile Banking Perbankan Islam membantu meningkatkan produktiviti saya					
4	PE4	Mobile Banking Perbankan Islam membolehkan saya mengatur akaun bank saya pada bila-bila masa					
5	PE5	Mobile Banking Perbankan Islam membantu saya meningkatkan keberkesanan dalam menjalankan aktiviti pembayaran					
Effort Expectancy (Jangkaan Kemudahan)							
Kemudahan yang diperoleh seseorang apabila ia menggunakan Mobile Banking Perbankan Islam							
No.	Kod	Soalan	Jawaban				
			STS	TS	KS	S	SS
6	EE1	Penggunaan Mobile Banking Perbankan Islam adalah mudah dipelajari					
7	EE2	Penggunaan Mobile Banking Perbankan Islam adalah mudah difahami					
8	EE3	Mobile Banking Perbankan Islam mudah digunakan					
9	EE4	Mobile Banking Perbankan Islam lebih fleksibel untuk digunakan dalam pembayaran					
Social Influence (Pengaruh Sosial)							

		Bagaimana orang lain mempengaruhi keputusan seseorang untuk menggunakan Mobile Banking Perbankan Islam					
No.	Kod	Soalan	Jawaban				
			STS	STS	STS	STS	STS
10	SI1	Keluarga dan teman berpendapat bahawa saya perlu menggunakan Mobile Banking Perbankan Islam					
11	SI2	Orang yang berpengaruh bagi saya, berpendapat bahawa saya harus menggunakan Mobile Banking Perbankan Islam					
12	SI3	Komuniti setempat mempengaruhi saya dalam menggunakan Mobile Banking Perbankan Islam					
13	SI4	Rakan-rakan saya menggunakan Mobile Banking Perbankan Islam					

Facilitating Condition (Keadaan yang Memudahkan)
Keadaan yang memudahkan seseorang, dalam bentuk alat atau pengetahuan boleh menyokong penggunaan Mobile Banking Perbankan Islam

No.	Kod	Soalan	Jawaban				
			STS	STS	STS	STS	STS
14	FC1	Saya mempunyai kemudahan untuk menggunakan Mobile Banking Perbankan Islam					
15	FC2	Saya mempunyai pengetahuan untuk menggunakan Mobile Banking Perbankan Islam					
16	FC3	Mobile Banking Perbankan Islam boleh digunakan melalui telefon pintar saya					
17	FC4	Persekitaran saya menyokong penggunaan Mobile Banking Perbankan Islam					

Intrinsic Religiosity (Keagamaan Intrinsik)
Kesucian hati dan kefahaman tentang makna agama yang terdapat dalam diri seseorang individu

No.	Kod	Soalan	Jawaban				
			STS	STS	STS	STS	STS
18	IR1	Islam telah menjawab banyak persoalan tentang kehidupan saya					
19	IR2	Saya banyak menghabiskan masa untuk belajar memahami Islam					
20	IR3	Nilai-nilai Islam menjadi cara hidup dan pedoman buat saya					
21	IR4	Islam mempengaruhi segala-galanya dalam hidup saya					
22	IR5	Adalah penting untuk saya meluangkan masa untuk berdoa kepada Allah					

Behavioral Intention (Niat Tingkah Laku)							
Minat atau keinginan untuk menggunakan Mobile Banking Perbankan Islam							
No.	Kod	Soalan	Jawaban				
			STS	STS	STS	STS	STS
23	BI1	Saya mempunyai niat untuk menggunakan Mobile Banking Perbankan Islam					
24	BI2	Saya mempunyai niat untuk sering membuat pembayaran menggunakan Mobile Banking Perbankan Islam					
25	BI3	Saya mempunyai niat untuk memilih menggunakan Mobile Banking Perbankan Islam untuk setiap pembayaran					
26	BI4	Saya mempunyai niat untuk menggunakan Mobile Banking Perbankan Islam dalam aktiviti harian saya					
Use Behavior (Tingkah Laku Penggunaan)							
Tingkah laku sebenar dalam menggunakan Mobile Banking Perbankan Islam							
No.	Kod	Soalan	Jawaban				
			STS	STS	STS	STS	STS
27	UB1	Saya sering menggunakan Mobile Banking Perbankan Islam					
28	UB2	Saya terbiasa membuat pembayaran dengan Mobile Banking Perbankan Islam					
29	UB3	Saya lebih suka menggunakan Mobile Banking Perbankan Islam untuk membuat pembayaran daripada cash (tunai)					
30	UB4	Saya menggunakan Mobile Banking Perbankan Islam setiap kali saya memerlukan transaksi pembayaran					

Appendix C - Construct Diagram in SmartPLS
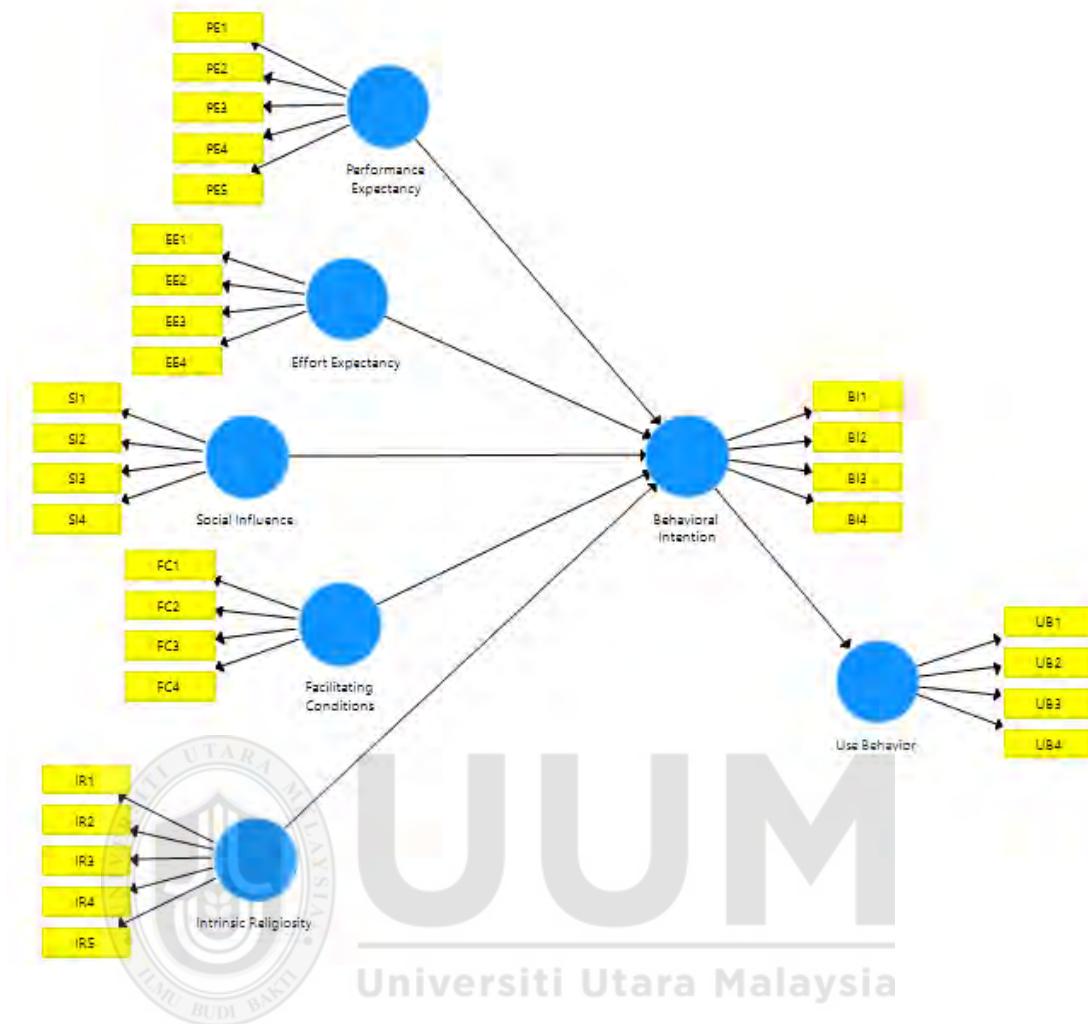
Appendix D - PLS Algorithm Diagram
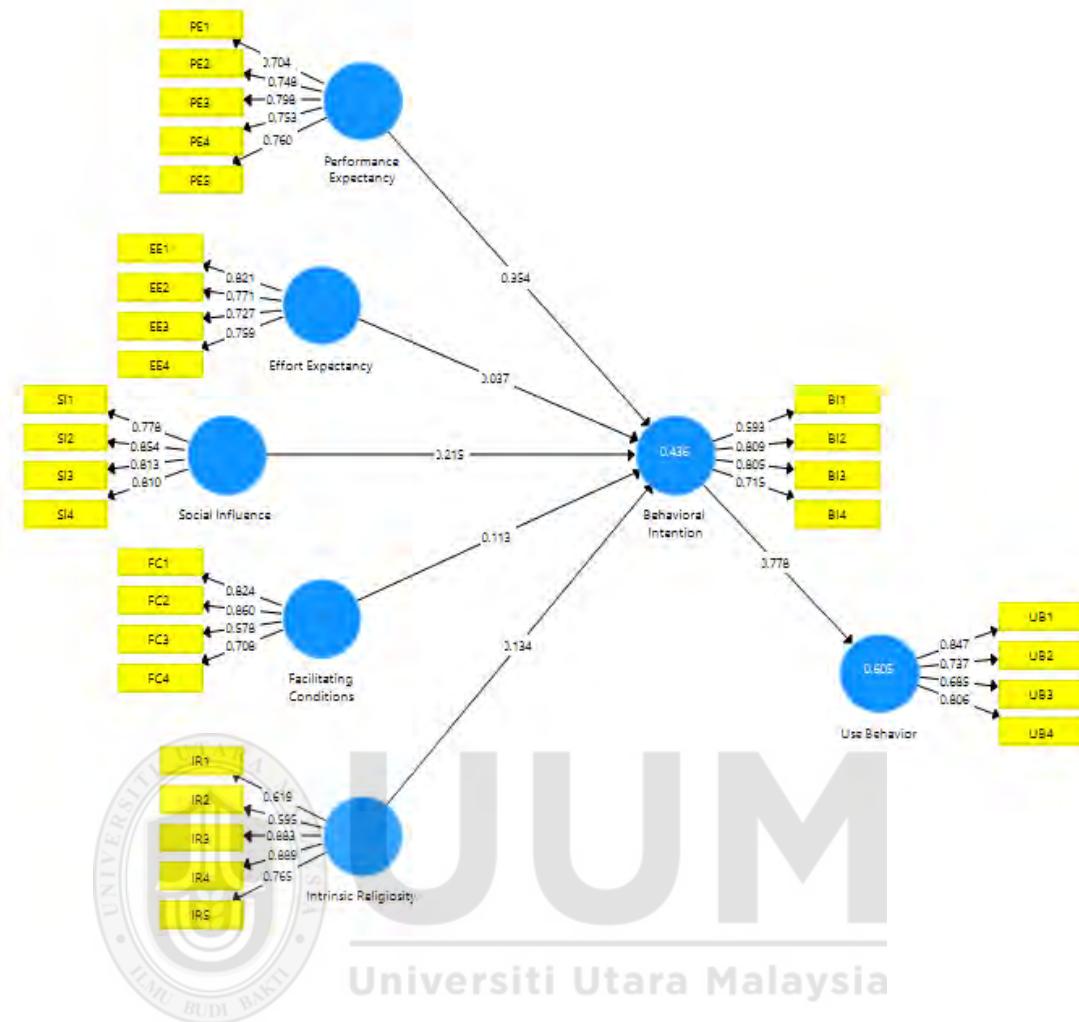
Appendix E - Bootstrapping Output Diagram