UNIVERSITY OF Hull

The Acceptance and Use of Islamic Financial Technology (Islamic FinTech/IFT): Saudi Banks' Perspective

being a thesis submitted for the degree of
Doctor of Philosophy

By:

Saleh Abdullah A Alghamdi

HUBS, The University of Hull, United Kingdom

PhD Management

MSc Management, Manchester Metropolitan University

Postgraduate Diploma in Research Training, University of Hull

May 2024

Dedication

I dedicate this project to the **Almighty God,** my creator, my strong pillar, my source of inspiration, wisdom, knowledge, and understanding. He has been the source of my strength throughout this program, and only on His wings have I soared.

This work is also dedicated to my family members and many friends. A special gratitude goes to my loving parents, Abdullah, my father (May God have mercy on him), and my dear mum, **Sharifa.** My special dedication goes to **my wife** for her encouragement and her push for tenacity. I also gave it to my two sons, **Eyed and Elan**, who never left my side and continued to watch me toil. To my sons, know that you are exceptional.

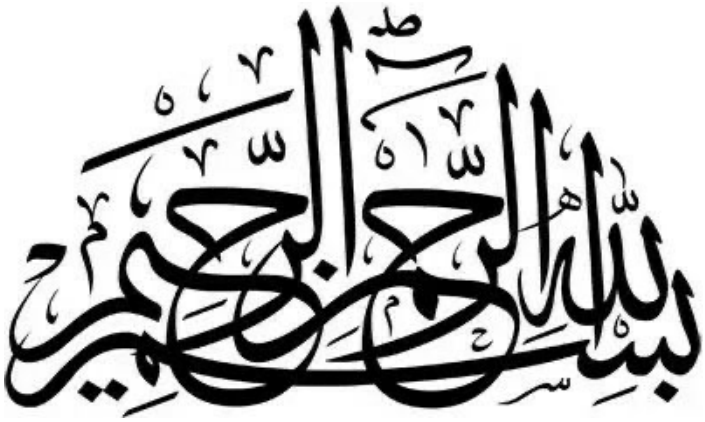
I also dedicate this dissertation to my government and educational institution, which have supported me throughout my education. I will always appreciate all they have done; thank you. My love for you all can never be quantified. God bless you.

Acknowledgement

First and foremost, I would like to honour and thank **God**, the Almighty, who allowed me to complete this thesis successfully. I express my sincere gratitude and appreciation to my supervisor, Dr Ashish Dwivedi**,** for his patience, positive criticism, passion to see me excel, and persistent guidance in preparing this thesis. Thank you so much for your patience since I decided to pursue my studies. May God Almighty continue to be gracious to us. I also recognise the support I got from the managers who allowed me into their organisations and spent their valuable time responding to the research questionnaires.

Lots of love and gratitude to all of you.

May God bless us.



Messenger of Allah (ﷺ) Saïd,

"The intentions consider the deeds, and a person will get the reward according to his purpose."

Abstract

This research seeks to establish a Saudi bank's perspective concerning the Acceptance and Use of Islamic Financial Technology (Islamic FinTech). This study aimed to evaluate models of acceptance and use and provide reasons for integrating them into search questions. The questions answer what, how, and under what conditions the behavioural intention is accepted. At the same time, Acceptance focuses on bridging the usage gap and pinpointing concepts related to Islamic FinTech use. The research uses a rigorous methodology that evaluates the relationship between usage models. Usage evaluates certain Islamic fintech use cases, and usage online assesses the questionnaire's reliability. Internal reliability assesses the consistency of results across response elements of 666 managers in Saudi banks. External reliability refers to how measures vary between acceptance and usage models.

The literature comprehensive review evaluates eight theoretical frameworks for acceptance and seven conceptual models for usage. These encompass the Technology Acceptance Models (TAMs), including the Motivational Model, the Theory of Reasoned Action, the Theory of Planned Behaviour, the Model of Personal Computer Utilisation. the Innovation Diffusion Theory and Social Cognitive Theory. This study also compares the two predominant models in the relationship between the Unified Theory of Acceptance and Use of Technology 1(UTAUT 1) and the Unified Theory of Acceptance and Use of Technology 2 (UTAUT 2). From a scientific perspective, the models of acceptance and usage are examined through two methodological approaches. Firstly, mediation is employed to investigate the acceptable interrelations among critical constructs, encompassing Effort Expectancy, Hedonic Motivation, Performance Expectancy, Habit, Social Influence, Price Value, Facilitating Conditions, Behavioural Intention, and Islamic FinTech Use (IFT Use). Secondly, moderation is applied to seven demographic variables, including Gender, Age, Experience, Religion, Language, Education, and Managerial Level.

The assessment delineated a pivotal distinction between the models. Each specified model underwent initial scrutiny through Exploratory Factor Analysis, followed by Confirmatory Factor Analysis. Notably, the investigation employed Partial Least Squares (PLS) methodology to evaluate the reliability and validity of the measurements rigorously. The measure was particularly pertinent given the numerous indirect effects inherent in the acceptance models, with PLS adeptly facilitating the direct exploration of usage complexities via path modelling. Path modelling elucidated that each explicative

factor significantly and directly influences the designated variables, validated at a 95% confidence interval. The primary aim of this evaluation was to dissect the efficacy of diverse methodologies in analysing acceptance dynamics within Islamic FinTech contexts. Moreover, an array of models was deployed to scrutinise the moderating effects. The analytical outcomes revealed that five of the seven investigated moderators substantially impacted the model.

The effects further uncover that **Gender** serves as a critical moderating variable in the nexus between Effort Expectancy and Behavioural Intention and modulates the relationships involving Facilitating Conditions, Habit, Behavioural Intention, and Islamic FinTech Use. Concurrently, **Age** emerges as a moderator in the linkage between Behavioural Intention and Islamic FinTech Use. Moreover, **Religion** appears to be a pivotal moderator, directly influencing the effect of facilitating conditions on Islamic FinTech use. Acting as a moderator, the **Language** variable distinctly shapes the interplay between Facilitating Conditions and Hedonic Motivations on Behavioural Intention. Lastly, the **Education** variable is found to moderate four specific relational dynamics, significantly passing the impacts of social influence and habit on behavioural intention and the influences of behavioural intention and facilitating conditions on Islamic FinTech use. Higher education has helped Islamic FinTech develop more effective strategies for promoting FinTech adoption and use, leading to enhanced managers' performance.

Keywords: Fintech acceptance, usage, Behavioural intention, Islamic FinTech and Saudi Banks

TABLE OF CONTENTS

LIST OF TABLES

TABLE OF CHARTS

LIST OF FIGURES

Chapter 1. Introduction and Research Background

1.1. Introduction

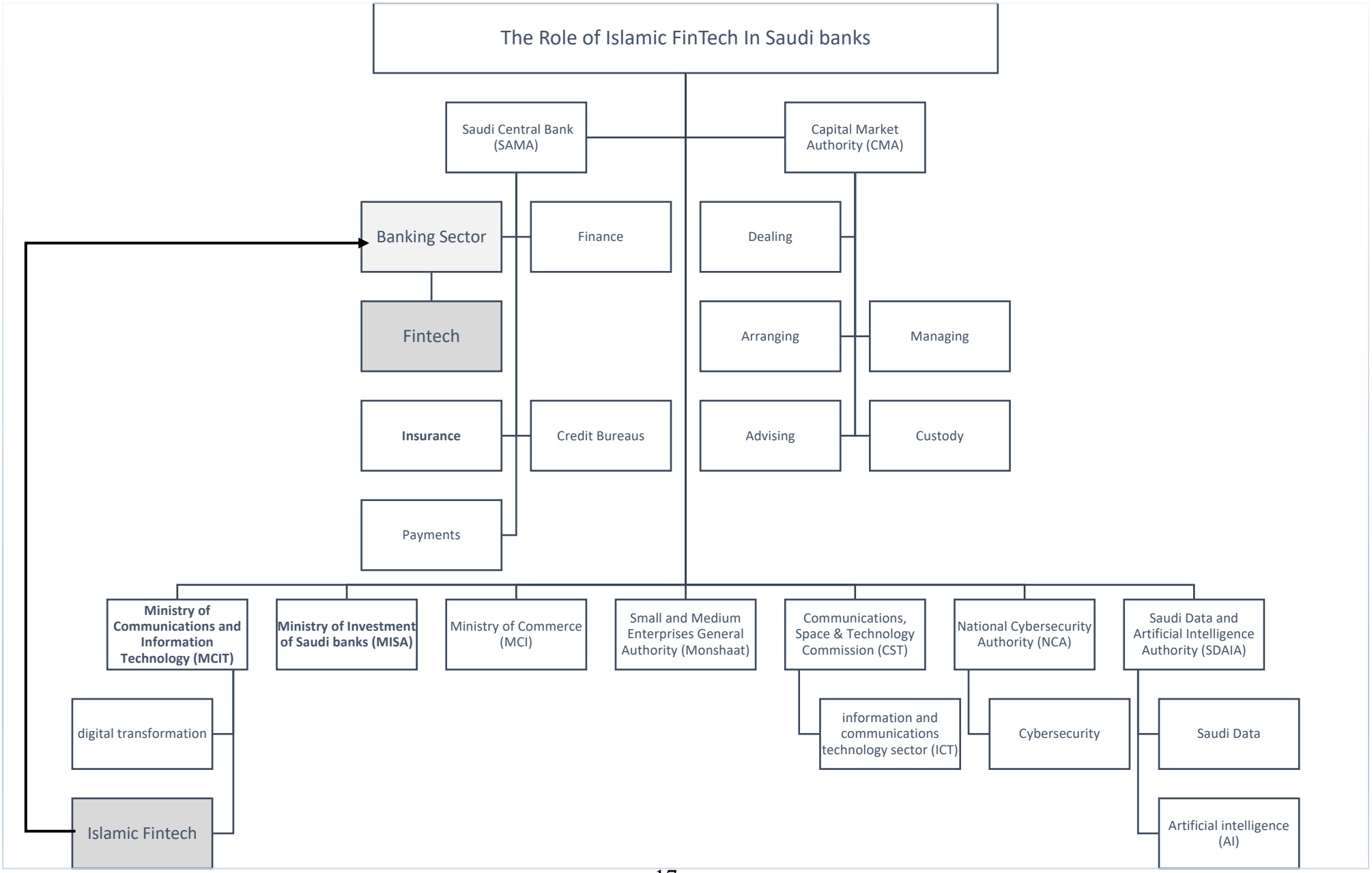
The acceptance and use of financial technology (FinTech) are complex processes that have been extensively studied, particularly in the context of Islamic financial technology (Islamic FinTech) (Firmansyah & Ramdani, 2018) . Understanding FinTech acceptance provides insights into the contexts for utilising Islamic FinTech.(Oseni & Ali, 2019; Standard, 2018). Specifically, accepted FinTech uses Islamic financial technology within Saudi banks. Saudi banks are under the regulatory oversight of two principal authorities: the Saudi Central Bank (previously known as the Saudi Banks Monetary Authority) and the Capital Market Authority, each responsible for a distinct array of financial services within their purview (Saudi, 2021). In the Saudi banking sector, the Ministry of Communications and Information Technology (MCIT) assumes stewardship of the Information and Communication Technology (ICT) sector, principally overseeing communications and information technology initiatives. Key responsibilities attributed to MCIT include facilitating digital transformation within the financial services sector (Saudi, 2021). In its strategic plan, FinTech aims to attract leading international companies specialising in emerging technologies (Odei-Appiah et al, 2022). In addition, it plans to promote technical and digital awareness and increase the proportion of local content in the banking sector. By promoting acceptance and usage for start-ups in the financial industry and providing an enabling environment, FinTech enhances coordination and cooperation between the public and private sectors, boosting digital national capacities (Liu et al, 2020; Rabbani et al, 2021; Shaikh et al, 2020). Islamic Fintech is part of Fintech's strategy to develop holding and advanced digital infrastructure that will speed up the digital transformation process, thus laying the background for the future of acceptance and playing a significant role in improving the Islamic banking sector (Abubotain & Chamakiotis, 2021). This move is in tandem with the direction of Saudi Arabia's Vision 2030, which anticipates an established digital society, government, and economy. The ultimate adoption should be to create an environment that seamlessly integrates Islamic Fintech into the fabric of acceptance or usage, where the acceptance and use of technology become a natural and integral part of educational operations and activities.

The Fintech acceptance focuses on two types of Islamic Fintech Use:

Fintech acceptance and Islamic Fintech Use are concepts often used in the context of acceptance or usage, deeply rooted in users' requirements. In the context of Islam, it refers to the stages of acceptance and type of adoption performed to ensure that a financial technology meets its users' needs, as they have far-reaching implications that span multiple domains(Firmansyah & Ramdani, 2018). Fintech has become increasingly important as the financial services industry undergoes rapid transformation driven by technological advancements(Gerlach & Lutz, 2019). Islam conditions it comes to evaluating models for facilitating innovation in education, so Here's an overview of the critical aspects of Islamic Fintech Use:

The Saudi Banks and government agencies were pivotal in spearheading **the initial acceptance of fintech**. In 1990, under the watchful eye of the Saudi Central Bank (SAMA), the Ministry of Finance introduced MADA as a national payment network. This network was introduced to reduce card payment fees, a significant move towards promoting fintech (Saudi, 2021). SAMA, on its part, launched SADAD, a payment system designed to streamline consumer bill payments, further enhancing the acceptance of fintech.

The **second acceptance of fintech use** started developing in the 2010s. In April 2018, SAMA launched Fintech Saudi, an initiative under the Financial Sector Development Program (FSDP), in collaboration with the Capital Markets Authority (CMA) to support the development of the fintech industry in the country. The Regulatory Sandbox Framework launched by SAMA acts as a 'safe space' where financial firms are given facilities to test new digital solutions. The CMA launched FinTech Lab with the intention of keeping pace with technological advancements in the capital market. Both bodies have been a catalyst for the development of the fintech industry. Since the launch of Fintech Saudi, there has been a 14.7 times increase in Fintech, and SAR 3.95bn has been invested in Fintech companies (Saudi, 2021). Therefore, the figure below shows the acceptance of financial technology in Saudi banks. It delineates the function of Islamic technology within the context of financial services, aligning with their strategic orientations.


The Role of Islamic FinTech In Saudi banks
Saudi Central Bank (SAMA)
Capital Market Authority (CMA)
Banking Sector
Finance
Dealing
Fintech
Arranging
Managing
Insurance
Credit Bureaus
Advising
Custody
Payments
Ministry of Communications and Information Technology (MCIT)
Ministry of Investment of Saudi banks (MISA)
Ministry of Commerce (MCI)
Small and Medium Enterprises General Authority (Monshaat)
Communications, Space & Technology Commission (CST)
National Cybersecurity Authority (NCA)
Saudi Data and Artificial Intelligence Authority (SDAIA)
digital transformation
information and communications technology sector (ICT)
Cybersecurity
Saudi Data
Islamic Fintech
Artificial intelligence (AI)

FinTech Acceptance refers to establishing an inclusive and supportive learning environment that recognises the role of Islamic FinTech in general, with a part of it specifically focusing on the advantages derived from the acceptance and utilisation of Islamic FinTech(Gerlach & Lutz, 2019). Additionally, this encompasses the essential knowledge researchers should possess regarding the models of acceptance and usage. The concept of acceptance is accentuated concerning FinTech even before the introduction and use of Islamic FinTech. In scholarly inquiries, the concept of acceptance also emphasises the significance of Technology Acceptance Models (TAMs)] (Fishbein et al, 1980),. In the context of usage, eight established theories have been identified as pertinent in delineating the distinctions between the Unified Theory of Acceptance and Use of Technology 1 (UTAUT) and the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) (Bagozzi et al, 1992; Venkatesh et al, 2007; Venkatesh et al, 2003; Venkatesh et al, 2012). In research, FinTech acceptance is considered consenting to using the Islamic technology linked to intention. By reflecting on two concepts, this study investigates whether accepting FinTech affects Islamic FinTech use. One concept is known as "behavioural intention (BI)' whereas the other concept is known as 'use behaviour (UB)'. Theoretically, Islamic FinTech's adoption is shaped by utilisation aspects, encompassing the requisites for acceptance (Venkatesh & Davis, 2000). Definitions are discerned within the prevailing usage criteria for FinTech and Islamic FinTech. Therefore, the distinctions between FinTech and Islamic FinTech must be examined in greater detail.

Islamic Financial Technology (Islamic FinTech).

Islamic FinTech stands for Islamic financial technology and is simply a combination of three words: "*Islamic*," "*financial*," and "*technology*."

The first word, "Islamic," here means "Islam" and Islamic or " Religion." Islam is the comprehensive system for humans' commitment to one God, i.e., Religion. Islam implies an understanding of the Islamic way of living life (Firmansyah & Ramdani, 2018). The intention in Islam is provided according to specific criteria and principles of Islamic Finance.

The **second word,** 'financial,' in this context has several meanings. As a verb in this study, 'to finance' means to provide funding for Sharia-compliant entities (Hassan et al, 2017). Islamic finance generally refers to banking and financing activity that complies with

Islamic means of finance, including the concepts of *Mudarabah, Wadiah, Musharaka, Murabahah, and Ijara* (Hegazy, 2005).

Critique levied against Islamic finance often stems from the contention that certain aspects may not align with Islamic principles; for instance, the notion of 'finance' could be perceived as non-conforming to Islamic standards. The form of finance deemed non-Islamic finds broad acceptance across various Islamic societies, ethnicities, and geographical areas(Gerlach & Lutz, 2019). The acceptance of the underlying principles of such non-Islamic financial systems by Muslim individuals is considered erroneous and contrary to Islamic legal doctrines (Alam & Seifzadeh, 2020). Within this context, financial technology is delineated as a novel paradigm aiming to augment the adoption and application of Islamic FinTech (Suryono et al, 2019).

a) Financial Technology (FinTech)

Financial technology combines two words: '**Financial'** and '**Technology**.'.

The term **'Financial'** primarily denotes monetary aspects and encompasses the realm of currency and the discipline of managing wealth and assets, thus extending to finance. In the context of money, 'fintech' refers to aspects of monetary transactions, financial records, fiscal data analysis, the interpretation of numerical data, ratio analysis, and forecasting, all employed to assess financial risk(Firmansyah & Ramdani, 2018).

The term **'technology** ', a word of profound historical significance, refers to usage primarily developed for monetary purposes and its movements (Wu, 2017). This term is a fusion of two ancient Greek words: Techne, which encapsulates each individual's unique art, craft, or skills, and Logos, which translates to 'to speak of Use '. However, technology's impact is complex. While it can bring significant benefits, it can also have unintended consequences that must be carefully considered.

1.1.1. Islamic FinTech use

Islamic FinTech Use (IFT use) involves innovative and highly complex techniques and approaches (Ali et al, 2018). Its purpose is to provide a structure for examining how available technologies are employed, primarily through the intentions to use. The fundamental concept that FinTech employs is to innovate the dynamics of acceptance and use. Significantly, the acceptance within Islamic FinTech scrutinises the terms "Islamic" and "FinTech." In Islam, the focus is on the intention behind the use; hence, any

technological innovation is deemed permissible within Islamic jurisprudence as long as it aligns with Sharia principles.

Islamic FinTech represents a distinct and comprehensive evolution within the banking sector. FinTech innovation involves using FinTech to augment innovation and foster more tailored and accessible avenues through innovation, creation, and expansion. Here, innovation is conceptualised as the development, invention, or production emanating from intentional design, while creation signifies an escalation in the application of Islamic FinTech(Gerlach & Lutz, 2019). Specifically, innovation theories suggest that growth is fundamental to the application of Islamic FinTech (Rogers, 1995). The expansion aims to capture a larger share of innovation in FinTech and enhance acceptance and usage among Muslim populations globally. Specifically, the application of Islamic FinTech underscores the importance of acceptance and use in promoting the aforementioned anticipated usage behaviour (Muryanto et al, 2022). The usage of innovation in Islamic FinTech is projected to increase. This can be attributed to the increasing number of tech-savvy young Muslims who own mobile gadgets (Bank, 2020). Thus, Islamic FinTech use has a competitive advantage in usage and acceptance, which galvanises education (Bank, 2020; Oseni & Ali, 2019).

Most importantly, Islamic FinTech is a user-friendly platform that allows access to Islamic banking products (Za'aba et al, 2020). The researchers have confirmed that innovation is accepted and used in Islamic and non-Islamic countries. Therefore, Islamic FinTech can aid Islamic financial service providers in delivering Islamic financing and leveraging the concept of FinTech to address the usage gap in Islamic FinTech.

Recent research has delved into several issues that impact the use of Islamic fintech, including challenges like regulatory frameworks that impede acceptance and usage. The ***Riba*** concept, a fundamental aspect of Islamic finance, is pivotal in shaping the future of the Islamic FinTech industry (Oseni & Ali, 2019; Wilson, 2019; Za'aba et al, 2020). In this context, Islamic FinTech grapples with ***Riba's*** complex and nuanced topic (interest) and its implications, a discussion of significant depth and relevance, particularly for Muslim students and educational institutions.

FinTech acceptance in three ways:

The purpose of FinTech acceptance is multifaceted and can be viewed from various perspectives, including organisational, individual, and societal. Understanding the core purposes of FinTech acceptance is crucial for Islamic FinTech utilisation.

The first purpose of FinTech acceptance in organisations is to revolutionise financial services by providing education services with enhanced convenience and cost-effectiveness**.**(Bank, 2020; Za'aba et al, 2020). Effective FinTech adoption can allow organisations to differentiate their products or services, improve customer experience, and stay ahead of the competition.

The second purpose of FinTech acceptance in individuals is to facilitate users in resolving their conflicts amicably and reaching consensual agreements via processes enabled by Islamic FinTech utilisation. Concurrently, Islamic FinTech aims to eradicate the notion of *Riba* or usury within its scope (Bank, 2020). Islamic FinTech can enhance individuals' quality of education by providing access to information, communication, and services that improve their personal and social lives and those related to halal and haram.

The third purpose of FinTech acceptance in society or the way society interacts with and experiences, which is to enhance moderative enabling the age, Gender, and expertise, as Age is prominent in these two theories: the Unified Theory of Acceptance and Use of Technology 1 (UTAUT) and the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) (Venkatesh et al, 2003; Venkatesh et al, 2012). Gender utilises a process where both parties are aided in negotiating the intentions underscored in the Unified Theory of Acceptance and Use of Technology 1 (UTAUT1). Overall, the impact of FinTech on society is multi-faceted. Behavioural intention has effectively examined the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2), mainly focusing on usage behaviour. FinTech, as characterised within the context of acceptance of Islamic FinTech(Venkatesh et al, 2012). This acceptance is viewed as a movement of FinTech and Islamic FinTech alliances, indicating a shift towards more innovative finance practices.

1.1.2. Fintech vs Islamic Fintech

Fintech vs Islamic Fintech: The models explain the distinction between Financial Technology (FinTech) and Islamic Financial Technology (Islamic FinTech). FinTech's efficacy hinges primarily on Finance as a driving force behind behavioural intentions. Consequently, innovation within FinTech is pivotal for fostering performance. Islamic

FinTech must be augmented across all innovation dimensions to ensure holistic development. Islamic FinTech leverages innovative variables as mediators in representing individual variables, encompassing a range of responses from various usage scenarios (Gerlach & Lutz, 2019). These are organised within a moderation framework, critically evaluating the conditions influencing the acceptance or rejection of relationships between independent and dependent variables(Venkatesh et al, 2003; Venkatesh et al, 2012). This approach is essential for understanding the dynamics within Islamic FinTech, especially regarding how innovation impacts user acceptance and application (Rogers, 1995).

Islamic Fintech can be seen as similar to **the first Fintech**, with the primary distinction being adherence to the Sharia principle. Islamic FinTech is fundamentally grounded in Shariah (Islamic law), a stark contrast to conventional FinTech, which operates without experience such principles. Islam's adherence to Shariah principles in Islamic FinTech ensures that its use aligns with Islamic tenets, making it impermissible only when it explicitly contravenes Shariah principles(Gerlach & Lutz, 2019). Notably, within the Islamic framework, intentionality significantly influences the acceptance and use of Islamic FinTech.

The second concept of Fintech has been the subject of considerable debate and analysis in scholarly circles regarding the acceptance of Fintech and Islamic Fintech. Incorporating acceptance and use is at the heart of FinTech and Islamic FinTech. These concepts shape up 'behaviour intention' and enhance the attraction of FinTech products at a lower cost or lower education. Fintech has the potential to be used in five models, and the intentions can also be tapped into Islamic FinTech's acceptance and usage (Venkatesh, 2015). Consequently, FinTech can help the unbanked population learn about Islamic FinTech. On the contrary, innovators in the next phase can be served using behaviour intention for Islamic Fintech.

The Third concept of Fintech is dynamism, which is closely intertwined and plays a crucial role in various aspects of life; the vitality of Islamic FinTech acceptance and utilisation has garnered substantial scholarly attention recently, as evidenced by (Suryono et al, 2019). This burgeoning interest is attributable to Islamic FinTech's increasing significance, leading to its extensive examination (Za'aba et al, 2020). Concomitantly, the expanding tech-savvy Muslim demographic, coupled with technological advancements, has significantly propelled the acceptance and usage of Islamic FinTech

(Bank, 2020; Za'aba et al, 2020). The acceptance scrutinises the behavioural intention underlying the use of Islamic FinTech. It posits that behavioural intention is efficient, effective, and timely, particularly when juxtaposed with Islamic FinTech use.

Accepting and valuing FinTech without the constraints of acceptance and usage requires a multi-faceted approach involving individual and organisational efforts. So, a summarised difference in definition between FinTech and Islamic Fintech can be understood as influence emerges distinctly in the dichotomy between FinTech and Islamic FinTech, serving as a pivotal factor in their utilisation over time (Bank, 2020). FinTech's usage primarily concentrates on fostering the acceptance of intention; Islamic FinTech integrates the principles of Islamic banking into the acceptance framework (Miskam et al, 2019; Oseni & Ali, 2019; Schueffel, 2016; Shaikh et al, 2020).

FinTech is a moderator that amalgamates acceptance and usage within the usage. The usage paradigm is a crucial aspect to consider when discussing acceptance and valuation. Islamic FinTech's use has significantly instigated a transformative education in the FinTech sector, recalibrating acceptance and usage models (Bank, 2020; Standard, 2018; Suryono et al, 2019; Za'aba et al, 2020).

The evolution of Islamic FinTech has compelled financial institutions to integrate novel technological modes, encompassing intention and behaviour (Miskam et al, 2019; Schueffel, 2016). In essence, Islamic FinTech harnesses innovative technologies to enhance and automate financial service offerings, explicitly emphasising the importance of its acceptance and usage (Bank, 2020; Rabbani et al, 2020; Za'aba et al, 2020). According to Islamic FinTech, it would leverage financial technologies to address critical issues in the Islamic financial service spectrum, including the Islamic way of capital markets, Islamic banking, and Islamic insurance (Bank, 2020; Oseni & Ali, 2019). Adopting a holistic approach that addresses both individual and organisational mindsets and societal norms, acceptance and valuation without usage constraints can become a reality, fostering a more inclusive, equitable, and innovative landscape for individuals and organisations. However, the current acceptance and usage gap in Education can also be tapped through FinTech and Islamic FinTech (Venkatesh et al, 2012). This sparked the researcher to raise an important point about the significant impact that age and gender can have on behavioural intention and the perception of Acceptance and use of Islamic Fintech (Venkatesh et al, 2003).

1.2. Background

Islamic FinTech introduces the fundamental concepts underlying the methodology of acceptance and usage, as illustrated in Figure 1.1. Financial Technology is an amalgamation of two terms: Finance and Technology (Niswah & Legowati, 2019; Za'aba et al, 2020). In today's banking world, Islamic FinTech has become a popular tool for company owners and customers in Islamic banking management through financial technology systems (Shaikh et al, 2018; Stewart & Jürjens, 2018). It has become a more convenient, reliable, and user-friendly tool that presents new opportunities and challenges to the business sector worldwide (Alani & Yaacob, 2012; Bank, 2020; Za'aba et al, 2020). By acknowledging and addressing the nuanced relationships between Technology and Finance, Technology can work towards dismantling the restrictive paradigms that limit the recognition and valuation of individual expertise. This, in turn, can lead to more diverse, innovative, and inclusive acceptance and usage of FinTech that thrive on the richness of diverse perspectives and experiences (Venkatesh et al, 2003; Venkatesh et al, 2012).. So, researchers in past literature have yet to provide a proper definition of FinTech, which is universally acceptable, and no well-established research could guide the phenomenon and its theoretical footing for different contexts and contents of FinTech. The term, however, has been loosely described as a form of technology and innovation that seeks to compete with other Educational approaches to deliver financial services conveniently (Schueffel, 2016; Za'aba et al, 2020). It is imperative to approach FinTech not only through traditional means but also by considering its significance(Venkatesh et al, 2012). The Financial Technology of accepting and using paradigms and their underlying concepts is complex and far-reaching. Let's delve deeper into this in the following Figure.

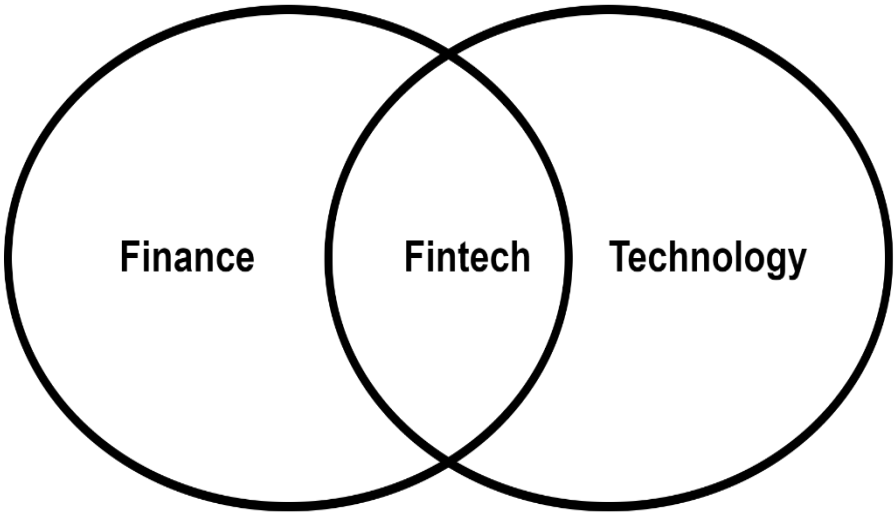


Figure 3.1.The basic concept of the Fintech (Irfan & Ahmed, 2019**)**

Thus, the **basic concept of Fintech** was able to apply other terms in FinTech, such as "Innovative Financial Technology," "FinTech Innovation," or "Financial Innovation Technology," which have also been applied by other researchers. Various authors have defined the term FinTech. According to Stewart & Jürjens (2018), "It is the use of platforms of technology and mobile devices to access transaction notifications, bank account and credit." According to (Kim et al, 2015), FinTech is an industry that uses information technology to improve the efficiency of the financial system. In terms of accepting Technology, deploying the Technology Acceptance Model (TAM) (Davis et al, 1989) alongside the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) (Venkatesh, 2015; Venkatesh et al, 2012) Technology does not culminate in a definitive negotiation advantage. Instead, adopting and applying usage models remains contingent upon the parties' agreement on acceptance and usage. Behavioural intention acts as a pivotal mediator, transitioning the acceptance derived from contributing factors to the actual utilisation of Islamic FinTech. This process is more comprehensively elucidated within the Unified Theory of Acceptance and Use of Technology 1 (UTAUT1) framework, offering a holistic understanding of the dynamics at play (Venkatesh et al, 2003)..

Previous research had ranked the significant effect of Islamic FinTech in Saudi banks behind Malaysia, UAE, and Bahrain, and Oman is coming in fifth position (Abubotain & Chamakiotis, 2021; Saudi, 2021). However, regarding the adoption of Islamic FinTech, recent research places Saudi banks way ahead of other Islamic nations, followed by the UAE (Khalid & Kunhibava, 2020; Shaikh et al, 2020). The progress of Saudi banks in

the realm of Islamic FinTech can be ascribed mainly to the proactive role of the Saudi banks in fostering a conducive environment that nurtures the acceptance and utilisation of Islamic FinTech. Nonetheless, an analysis of the existing scholarly literature reveals that embracing Islamic FinTech is relatively nascent (Oseni & Ali, 2019; Rabbani et al, 2020). The current state of Islamic FinTech's acceptability indicates that its integration into mainstream financial practices remains an evolving process. Existing research underscores the pivotal role of practitioners in guiding the adoption and utilisation of FinTech, with a particular emphasis on the Islamic variant (Hassan et al, 2017). Oseni & Ali (2019) argue for a deeper exploration into the adoption and acceptability of Islamic FinTech, which constitutes the primary focus of this research. Consequently, this study delves into various models instrumental in shaping intention towards accepting and using Islamic FinTech, examining how these models influence the overall integration process.

1.3. Research Model

Recent research posits that the distinction between the models of FinTech and Islamic FinTech is minimal. Within this framework, the Unified Theory of Acceptance and Use of Technology 1 (UTAUT1) and the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) are juxtaposed, mainly focusing on their implications in the realms of Behavioural Intention (BI) and Usage Behaviour (UB) (Venkatesh et al, 2012).

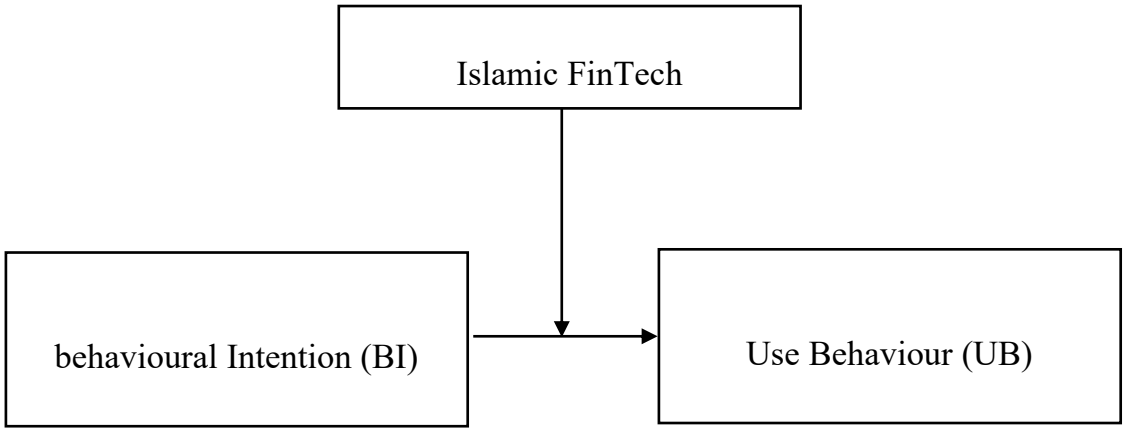


Figure 3.2. Research model (Venkatesh et al, 2012)

This study has applied Islamic FinTech as a framework to gauge the degree to which an individual perceives that embracing Islamic FinTech will augment its utilisation. Within this context, Islamic FinTech also serves to delineate the extent to which an individual

believes that the employment of FinTech will be seamless, thereby rendering it pertinent to models of acceptance (Venkatesh et al, 2012).

Behavioural intention (BI) is conceptualised in this study as the propensity to utilise Islamic FinTech, encapsulating elements of intention over an extended period (Oseni & Ali, 2019; Stewart & Jürjens, 2018). The study also employs the concept of acceptance to delve into the Unified Theory of Acceptance and Use of Technology (UTAUT) model, exploring its relevance and application within Islamic FinTech.

Use Behaviour (UB) is based on discussing the effects that lead people to use Islamic FinTech (Venkatesh et al, 2012). Previous researchers have explored the concept of FinTech using various models, including TAM. (Shanab, 2005), for instance, extended the original TAM (Bank, 2020; Hussain et al, 2016; Za'aba et al, 2020; Zhang & Wen, 2017) model to explain the intention and usage by integrating acceptance and use of Islamic FinTech. This usage was found to outperform the models adopted by previous researchers (Oh & Yoon, 2014; Tamilmani et al, 2021). The multifaceted and sometimes contradictory aspects of FinTech usage are elucidated by evaluating the importance of specific applications and juxtaposing them with the broader intentions underpinning their use, thereby reconceptualising the scope of FinTech applications. Concurrently, destabilisation has been explored in the context of intention acceptance within the Islamic FinTech (Hussain et al, 2016; Tamilmani et al, 2021; Za'aba et al, 2020). Thus, it becomes imperative to deepen research into Islamic FinTech by intensively examining the predictive efficacy of existing usage models. This approach is particularly vital, given that these models are imprecise and lack conclusive insights regarding the application of Islamic FinTech.

The first concept of *Islamic FinTech use* is considered a focal point in articulating and discussing the meaning of usage, more so for technology adoption. The intention can also be attributed to other subsidiary and peripheral meanings. In this regard, researchers have pointed out the contribution of intentions in describing the factors that influence Islamic FinTech as a possible form of FinTech acceptance (Tamilmani et al, 2021; Yang & Yen, 2007).

The second concept of "*usage of Islamic FinTech*" refers to a continuous commitment to the product's "level of use" that, in turn, patterns the "product use." On the other hand, a central goal is to guarantee its use, where Islamic FinTech is deemed a keeper and trustee for *behaviour* (Venkatesh et al, 2012)

.

The third concept is the "*usage behaviour (UB)*" of service through the intention and usage of theoretical concepts (Dranev et al, 2019; Tsoutsoura, 2004). Based on the innovation system, Islamic FinTech has been used as a prototype to reflect the attributes of Islam (Tsoutsoura, 2004). However, the usage adaptation for "IFT USE" in the model is a critical requirement for understanding the theoretical model for this study. Therefore, Islamic FinTech, as a usage model of FinTech, should consider updating by integrating IFT USE because of their socialisation during use (Dranev et al, 2019).

The fourth concept of "Intention to Use (ITU)" in Islamic FinTech is intricately tied to a multi-layered aggregation, often conceptualised as a suite of technologies. This aggregation prompts critical inquiries into the specifics of ITU within Islamic FinTech, including its nature, mechanisms, purposes, stakeholders, timing, and contexts. This accumulation encapsulates various elements such as practices, tools, narratives, metaphors, paradigms, cognitive styles, terminologies, and dialects .(Cowan et al, 2005; Johnson & Lundvall, 1994). In contrast, Islamic FinTech primarily focuses on improving FinTech offerings. Accordingly, the usage model in this domain is designed to foster enhanced collaboration, connectedness, sharing, listening, learning, creativity, and practical application (Rabbani et al, 2021).

The fifth concept, "*usage (U),*" encompasses actions or operations perceived as individual behaviours. Within the realm of Islamic FinTech, these actions are not merely mechanical but are imbued with a social dimension, justifying their application. This social action underpins the rationale for utilising systems within Islamic FinTech. Central to Islamic FinTech is the pursuit of significant objectives, warranting a thoughtful consideration of the usage model (Venkatesh et al, 2003). This approach aligns with the overarching goal of Islamic FinTech, emphasising the strategic application of these systems to realise specific, socially oriented objectives (Venkatesh et al, 2012). This corresponds with the analyses above, emphasising that the usage model emerges as the optimal approach for fostering acceptance. Despite prevailing notions positing Islamic FinTech as primarily a vehicle for developing marketable designs, it is imperative to delve into the multifaceted interactions inherent at various levels within the Islamic FinTech framework. Such exploration is crucial, particularly in understanding the nuanced dynamics that influence the conception and marketability of Islamic FinTech solutions.

1.3.1. Usage Model in FinTech

The main focus of the usage model is to provide Shariah-compliant financial products and services that adhere to the principles of Islamic finance (Gerlach & Lutz, 2019). Islamic FinTech is a rapidly growing sector that applies Islamic principles and values to financial products and services (Firmansyah & Ramdani, 2018). Some common categories of Islamic FinTech include options such as

1. *Murabaha* (cost-plus-profit financing).
2. *Ijara* (leasing).
3. *Musharaka* (profit-loss sharing).
4. *Qard Hassan* (benevolent loans).
5. *Sukuk* (These Islamic bonds comply with Sharia law by avoiding interest-bearing debt).
6. *Islamic Banking* (Banking products and services that adhere to Islamic principles, such as profit-and-loss sharing, asset-backing, and prohibition of interest).
7. *Takaful* (Islamic insurance based on the concept of mutual assistance and risk sharing, rather than conventional insurance.
8. *Islamic Microfinance* (Small-scale financial services provided to individuals and businesses in a Sharia-compliant manner, often serving unbanked or underbanked communities).
9. *Halal Investments* (Investments that are deemed permissible under Islamic law).

Usage models include an "Islamic Fintech use" feature, which automatically displays FinTech acceptance based on the values in the "Islamic Fintech" usage(Venkatesh et al, 2003; Venkatesh et al, 2012). The FinTech is formatted according to custom settings, making visualising and analysing the data easy (Firmansyah & Ramdani, 2018). This study explores adjusting the formulas and formatting to match the specific values and requirements of the models (Al Rubaiai & Pria, 2022). Additionally, this study adds new FinTech categories or modifies existing ones to meet the needs of Saudi banks (Firmansyah & Ramdani, 2018).

These products outline the use of Islamic FinTech from the perspective of Saudi banks. The usage model products illustrate how users interact with the services and define the advantages of acceptance (Gerlach & Lutz, 2019). This research has utilised six

constructs to accept and use Islamic FinTech. It's important to note that the use of Islamic FinTech is more responsive and quicker with modern banks (MBs), traditional banks (TBs), Islamic banks (IBs), financial services (FSs), financial institutions (FIs), and commercial banks (CBs). However, modern banks have seen a shift in their operations, which deviates from traditional operations concerning technology applications (Odei-Appiah et al, 2022). The potential spectrum of use by Islamic banks is expected to offer financial services, making Islamic banks an essential part of financial services. Commercial banks have also witnessed new technology for financial institutions (Gerlach & Lutz, 2019). Thus, Fintech can only be used with an intermediary. In this view, the latest technology trend cannot be separated from all intermediate networks that can be transacted through the acceptance and use of Islamic Fintech (Firmansyah & Ramdani, 2018). Figure 1.3 presents the types of Saudi banks that use financial technology.

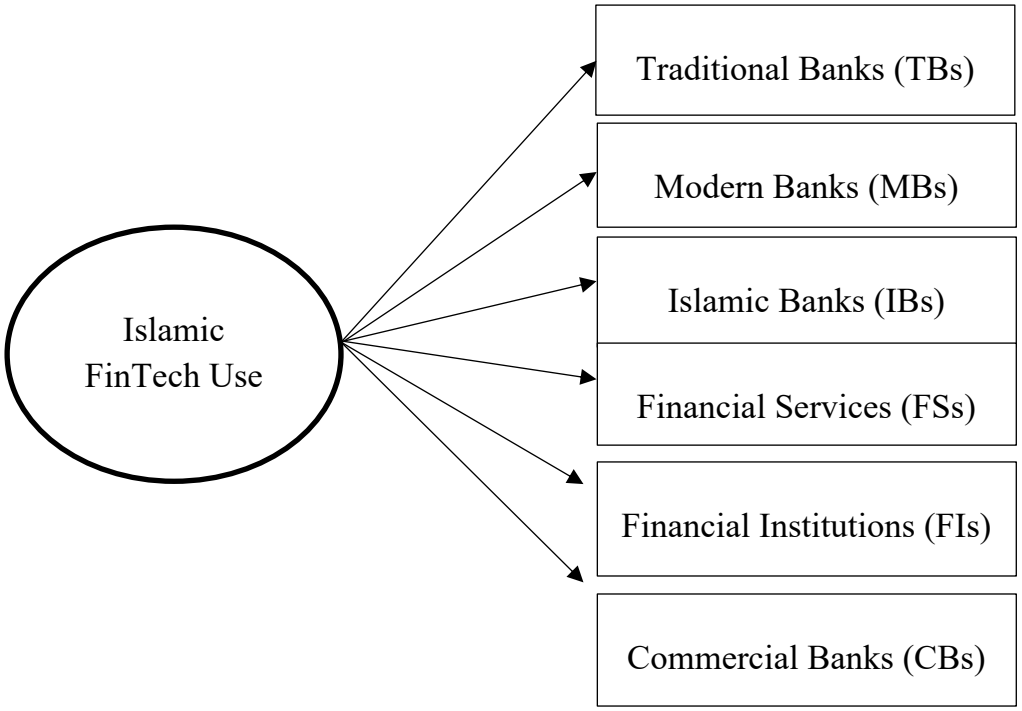


Figure 3.3. Islamic FinTech uses Saudi banks.

Islamic FinTech has become the leading player in Islamic banks, financial services, and traditional banks (Al Rubaiai & Pria, 2022). Modern banks are also becoming competitive because acceptance and usage are prompting all users within financial institutions and commercial banks to use Islamic FinTech concepts.

The first stage of usage focused on the rise of FinTech in the 1950s, which majored in three types: technology, finance, and innovation. Because of this, Islamic FinTech was

first introduced in Saudi banks to facilitate financial services. By this time, FinTech was already a form of traditional bank (Lee et al, 2018). These two concepts have drawn the attention of researchers, and recent studies indicate that Islamic FinTech significantly affects the philosophy of acceptance and use (Oseni & Ali, 2019; Tamilmani et al, 2021).

The second stage started in 1967 and was characterised by FinTech, which aimed to introduce some financial transactions. According to Oseni & Ali (2019), the concept's origin could be traced to those who wanted to earn money without the typical practice. Islamic banks, therefore, use equity innovation systems to earn more money and offer financial services to their clients (Oseni & Ali, 2019). On this premise, the Saudi Arabian Monetary Authority (SAMA) launched Modern Banks in the financial sector (Ajouz et al, 2020). This concept further progressed through the 1980s with the advent of mainframe computers that revolutionised the delivery of financial services. There was a shift in the technology industry that moved toward a full-fledged business model. For example, when a bank lends money to a company, the company repays the loan without interest and instead gives the modern banks a percentage of the company's income. Only four 12 locally approved modern banks were deemed Islamic FinTech during this time(Al Rubaiai & Pria, 2022).

The third stage in the evolution started in the 1990s with Tadawul, the first **Islamic bank** registered with the Saud Stock Exchange. It was founded in 2007 as a joint-stock company, and the sole body was approved to operate as a securities exchange (Ramayah & Lee, 2012). In 2007, Islamic banks recorded transactions made in cryptocurrency, another emerging concept that requires maintenance across several computers (Baber, 2020) or what is commonly known as an electronic currency. Technological acceptance of mobile phones in the form of smartphones significantly changed how clients access financial services(Al Rubaiai & Pria, 2022). Using smartphones has helped clients avoid complicated processes and access the banking service faster and easier. As a result, technology has given rise to almost every use of commercial banks and is now known to be one of the industry's most creative and exciting concepts (Baber, 2020).

The fourth stage involved a review of the evolution in the second and third stages as market demography changed. This generation is unparalleled in the use of technology. The portmanteau of the use and availability of technology pushes **financial services** to use new technology(Odei-Appiah et al, 2022). The aim was to improve and automate acceptance and utilisation. The acceptance was evaluated based on trust in technology

and how they accessed the highest levels of FinTech (Irfan & Ahmed, 2019). Trust was identified as a mechanism to predict an outcome.

The fifth stage is the creation and dissemination of Islamic FinTech, employing a diverse, penalising approach to achieve the objectives of these stages. This entailed the development of a superior financial system designed to leverage technology from multiple perspectives. FinTech represented financial institutions' collective talents, ideas, and experiences in this context. However, these institutions lacked confidence in expressing these elements (Rabbani et al, 2020). Consequently, it became essential to regulate FinTech, recognising its dual role in constraining and facilitating social interactions and practical applications.

The sixth stage of Islamic FinTech includes accurately handling articulated management items of commercial banks. In this case, handling involves requesting clarification on activities, implementing financial goals, and incorporating new technology in the workplace (Rabbani et al, 2020). **This stage** focuses on the accuracy of the data and analysis by integrating an approach of acceptance and use of Islamic FinTech. Therefore, the first term is "accept technology," while the second term is taken as "Usage." Mediation-related studies in this context have reported two types of models of acceptance and use of Islamic FinTech. In this regard, Islamic FinTech assists in predicting dependent variables while implementing different variables of FinTech acceptance (Rabbani et al, 2020). In this research, the Technology Acceptance Model (TAM) has been utilised, as both the Unified Theory of Acceptance and Use of Technology 1 (UTAUT1) and Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) models primarily emphasise the ease of use in Islamic FinTech (Venkatesh et al, 2003; Venkatesh et al, 2012). Consequently, usefulness is employed as a metric to gauge the intention towards productivity, expanding concerning the evolving needs and demands of individuals inclined to accept and utilise Islamic FinTech.

1.4. Research Context

This comprehensive investigation into the acceptance and usage of Islamic FinTech has been conducted within a thoroughly structured design, which not only frames but also validates the outcomes and insights derived from the research(Venkatesh et al, 2003; Venkatesh et al, 2012). The proposed model, therefore, consists of determinants falling under three perspectives, namely exogenous variables (i.e., Effort Expectancy,

Performance Expectancy, Social Influence, Hedonic Motivation, Facilitating Conditions, Habit, Price Value), mediators (Behavioural Intention), and the endogenous variable (i.e., use of Islamic FinTech). The *acceptance and use of Islamic FinTech* can generally be evaluated at different levels.

These levels can be categorised as **low-level, middle-level, and top-level**.

Islamic FinTech's Low Level deals with acceptance models that provide a theoretical construct for controlling and overseeing the entire theory as it depends on Islamic FinTech's intention (Venkatesh et al, 2012). The middle level, on the other hand, always relates to a specific community of Islamic FinTech. The top level may be used differently in organisations.

The first level of Islamic FinTech involves capitalising on innovation by accepting FinTech(Venkatesh & Davis, 2000). Islamic FinTech innovation here is rated using two or more scales concerning appropriate use levels of Islamic FinTech (Rogers, 1995). **The second level of Islamic FinTech** encompasses verbal advancements integrated into the domain. This stage initiates with the legacy of prior accumulations, subsequently allowing for the quantification of anticipated usage (Venkatesh et al, 2012), particularly in scenarios where the existing environment falls short of established business norms(Venkatesh et al, 2003). **The third level of Islamic FinTech** concerns the implementation of its foundational principles. This stage prioritises the articulation and practical application of concepts related to acceptance and use, illustrating their tangible utility(Venkatesh et al, 2012). Researchers recognise context as pivotal and have advocated its employment in evaluating user engagement across various organisational levels (Oseni & Ali, 2019). In this vein, Islamic FinTech is poised to identify and leverage tools and behaviours that amplify the potential for effective action. **The fourth level of Islamic FinTech** involved a review of the developments observed in the preceding two stages, particularly in response to shifts in market demographics that manifested unaddressed usage needs (Venkatesh et al, 2007; Venkatesh et al, 2003; Venkatesh et al, 2012). This phase's objective was to integrate Islamic FinTech solutions with a range of financial services, thereby shaping new technologies geared towards enhancing and streamlining the processes of acceptance and use.

The highest levels of **Islamic FinTech** innovation are hence classified into three categories:

- **The first category** of **Islamic FinTech** innovation can be seen as a gathered resource that supports capabilities, enabling the creation of compelling business opportunities. Based on the theory of innovation diffusion, opportunities for action are accumulated, which this study refers to as adoption competencies (Rogers, 1995).
- **The second category** of Islamic FinTech innovation is a structural framework that limits and enables innovative endeavours, effectively guiding specific actions (Fishbein et al, 1980). At the same time, the theory of reasoned action has been used to measure individual competencies within the FinTech sphere.
- **The third category** of Islamic FinTech innovation can be seen as an innovative product (Ajzen, 1985). Category can be used to understand and predict consumer behaviour towards different products by applying the Theory of Planned Behaviour framework.

1.5. Accepting Financial Technology

The acceptance and use of FinTech have expanded dramatically with the advent of computer hardware and software, particularly in recent years with widespread access to many more methods due to user-friendly interfaces with technology-delivered knowledge (Rogers, 1995). Researchers initially relied on technology and its use to understand data and relationships (Venkatesh et al, 2007; Venkatesh et al, 2003; Venkatesh et al, 2012). Applying more sophisticated multivariate data analysis methods is increasingly necessary to comprehend more complex relationships associated with current research directions in Islamic FinTech.

This research argues that intention is the belief in usage, even if it is difficult to understand the technology. Islamic FinTech has been considered and is profoundly becoming acceptable. Each technology, therefore, presents vital contributions towards use. Thus, it is envisaged that the existing understanding of acceptance and use models be increased before they are adopted. Moreover, in the literature, several existing theories and research-based models are applied to explain the acceptance and use of technology. These include but are not limited to the diffusion of innovation theory (DOIT) (Rogers, 1995), theory of planned behaviour (TPB) (Ajzen, 1985), theory of reasoned action (TRA) (Fishbein et al, 1980), technology acceptance models (TAM) (Venkatesh & Davis, 2000) social cognitive theory (SCT) (Brown, 1999; Thompson et al, 1991). model of personal computer utilisation (MPCU), and motivational model (Rondan-Cataluña et al, 2015).

These theories are applicable in examining and explaining the elements of usage. Accepting in this context is believed to explain the mechanism and conditions under which the factors affect Islamic fintech use.

This study uses the UTAUT2 model to explain the elements of usage (Venkatesh et al, 2003; Venkatesh et al, 2012). The acceptance and usage of FinTech and Islamic FinTech have reached a pivotal threshold, fostering the emergence of benefits for behavioural intentions. The notion of innovation is inferred as being acknowledged through usage behaviour patterns. These fundamental intentions are posited to lay the groundwork for establishing a connection with usage, with Islamic FinTech being entrenched in this paradigm. Nevertheless, the development of a comprehensive innovation system remains imperative.

1.6. Operational Definition of Terms

This section presents the operational definitions of all the variables. These definitions illustrate Islamic FinTech research's fundamental innovation and potential.

a) Acceptance and Usage (A&U)

Acceptance and Use (A&U): The terms acceptance and use are essential to this research.

- **Acceptance Models** refer to the embracement of mediation variables (e.g., BI – Behavioural intention, EE – Effort expectancy, FC – Facilitating conditions, HM – Hedonic motivations, HT – Habit, PE – Performance expectancy, PV – price value, SI – Social influence, Use – Islamic FinTech use).
- **Usage Models** imply the Moderation variables of Islamic FinTech use (e.g., gender (GDR), age (AGE), experience (EXP), religion (REG), language (LAG), education (ED), and management level (ML).

b) Islamic Financial Technology (Islamic FinTech) is described as "Shariah-compliant financial technology (FinTech) with Islamic beliefs" (Rahim et al, 2019). Islamic FinTech growth requires emerging techniques and incorporating any soft the incorporation technology that provides financial services (Chen et al, 2019; Liu et al, 2020; Röller & Waverman, 2001). Hence, Islamic FinTech is used directly to diversify acceptance and use. Islamic FinTech is also defined as integrating digital financialisaton, including new financing modes, that might result in new financial models, technology, procedures, or commodities (Afthanorhan, 2013). This definition of FinTech explains how Islamic FinTech may help expedite the implementation of

Islamic financing, with further emphasis on its use and potential to enhance efficiency.

Table 3.1. Definitions of FinTech via Islamic FinTech from the year 2001 to 2020

No.	Definition	Authors
1	"FinTech" is an abbreviation for "financial technology", and Islamic FinTech combines financial services with modern technologies.	(Dorfleitner et al, 2017)
2	"FinTech is a financial technology that brings technological solutions and innovations to the financial sector by providing more effective financial products and services for Islamic FinTech."	(Drasch et al, 2018)
3	"FinTech-based firms attempt to enter into various areas of services through the introduction of Islamic FinTech."	(Ng & Kwok, 2017)
4	"FinTech is a new term in the financial sector that encompasses all of the innovation used in financing to ease trading."	(Shim & Shin, 2016)
5	"FinTech is an emerging concept in the finance sector."	(Shim & Shin, 2016)
6	"FinTech is a term used in the macroeconomic sector to describe organisations that utilise technology to improve the efficiency of the Islamic FinTech system."	(Čižinská et al, 2016)
7	" FinTech refers to a wide range of goods and services offered via Islamic FinTech."	(Narsalay & Patrao, 2016)
8	“FinTech is a word used to describe companies that provide Islamic FinTech innovation in financial services.”	(Saksonova & Kuzmina-Merlino, 2017)
9	“FinTech is a start-up project that implements Islamic FinTech and makes financial services more efficient.”	(Ignatyuk et al, 2020)
10	FinTech has been considered a distinguishing taxonomy that primarily refers to the financial industries in various activities for Islamic FinTech.”	(Gai et al, 2018)

A review of the definitions suggests that Islamic Fintech is an emerging technology focusing on Islamic banking and financial services. Empirical evidence in the literary text suggests that several studies were conducted on many ways to promote comprehension of the adoption of Islamic FinTech (Lee et al, 2018) to understand and validate these and other outcomes.

Traditional banks (TBs) are the original banks that may or may not comply with sharia (Islamic law). They also play a vital role in using FinTech based on acceptance. It is sometimes called conventional banking and holds a piece of Islamic FinTech considered a component used to accord acceptability (Alam & Seifzadeh, 2020).

Modern Banks (MBs) support acceptance but do not use it. Therefore, it must revert to earlier banking techniques when adopting Islamic FinTech. Such techniques cause higher anxiety and exhibit roles that would also affect modern banking and traditional banking. Bank-specific identities are irrelevant in modern banks and are not in line with the provisions and principles of Islamic law (Al Rubaiai & Pria, 2022).

Islamic Banks (IBs): The concept is linked to the religious activity that complies with sharia (Islamic law). The effects are classified into five categories based on dependability, receptivity, solidity, certainty, and compassion. Extensive research has been undertaken to evaluate the influence of Islamic Banks on Islamic FinTech (Lowry & Gaskin, 2014; Robertson, 2008; Thursfield, 2012). Consequently, Islamic banking, aligning with Sharia law and its applicability within the scope of Islamic adoption (Religion), incorporates various facets of Islamic FinTech. These include:

1. *Mudarabah* (profit-sharing and loss-bearing).
2 *Wadiah* (safekeeping).
3 *Musharaka* (joint venture).
4 *Murabahah* (cost-plus).
5 *Ijara* (leasing).

Islamic Banks have models that promote and push for a given behaviour. In other words, the intention is hidden, while the behaviour is a manifest part of any action (Lowry & Gaskin, 2014; Robertson, 2008; Thursfield, 2012). FinTech can be used and supported in these banks through profit-sharing and loss-bearing. As such, Islamic banks have generally encouraged using financial services that provide appropriate solutions (Lowry & Gaskin, 2014).

Financial Services (FSs) have a theoretical distinction between acceptance and use, delineating the nuances that separate services from finance. This differentiation underscores the divergent dynamics within the financial sector, particularly in how financial products and services are perceived, adopted, and utilised. Ali et al (2018) Content that "Islamic FinTech" has neglected its foundational principle, leading to its rationale being undervalued by non-Muslims and the general Islamic populace. This group perceives Islamic FinTech as merely an operational component of their financial services. Consequently, although Islamic FinTech is not inherently part of financial services, it possesses a unique FinTech framework crucial for the acceptance level of Islamic FinTech utilisation (Al Rubaiai & Pria, 2022). Significantly, the integration of Islamic FinTech can assist Islamic banks in harnessing financial services, acting as an intermediary tool. Furthermore, the overarching aim of financial services is to re-examine the concept of FinTech in the context of Islamic finance adoption. Researchers initially employed language as a pivotal variable in their studies, establishing a connection to Islamic FinTech. Some researchers argue that starting with the usage rules is mandatory (Firmansyah & Ramdani, 2018; Hu et al, 2019; Panjwani & Shili, 2020). However, they note that the concept of ***Riba*** can only be used if **the adoption of** Islamic FinTech is an objective of financial services.

It is imperative for financial services, particularly those utilising Islamic banks, to discern the nuances of Islamic FinTech. Consequently, these technologies must encapsulate the individual variances in the acceptance and usage of Islamic FinTech. Furthermore, as mentioned above, the concept of Islamic FinTech will assess discipline distinctly when using FinTech based on Islamic beliefs (Wilson et al, 2010). Islamic FinTech is, therefore, considered impressive and very effective in communication and persuasion from the perspective of capability associated with services. Hence, the economic benefit was provided using "usage" determinants. Naturally, the concept of FinTech is one of the vital answers in Islamic FinTech, where the beliefs of financial services comply with Sharia law (Islamic law).

The primary focus of this study is on "**usage**," particularly how Islamic FinTech navigates the interplay between Hedonic motivation and behavioural intention(Venkatesh et al, 2012). Despite the potential constraints Islamic FinTech may face in the public utilisation of financial services, its acceptance within this framework is acknowledged. However, this acceptance may sometimes impede the processes inherent in usage, particularly regarding language (Gerlach & Lutz, 2019). As a result, Islamic FinTech requires diverse

services since effective adoption of FinTech within the Islamic context is crucial to influencing the broader scope of financial services.

Commercial banks (CBs) have adapted to incorporate Islamic FinTech, each employing distinct innovation systems for delivering financial services, which can be steered into applicable policies and practices. The integration of FinTech in this sector is primarily due to the unique capabilities it offers to commercial banks. Significantly, financial services adhere to fundamental principles concerning the acceptance and utilisation of Islamic FinTech. These principles are often encapsulated within the framework of FinTech, which provides a comprehensive array of models tailored for commercial banks (Ali et al, 2018).

Financial institutions (FIs) reportedly prioritise financial products only when the level of innovation surpasses that of usage. On the other hand, commercial banks adhere to established norms and directives. In this case, Islamic FinTech restricts activities in the money market to secure commercial advantages (Liu et al, 2020). Nevertheless, financial institutions do not offer Islamic FinTech only.

Structuring financial institutions into nine distinct segments is a strategic approach aiming to fulfil the second research goal, mainly focusing on commercial banks. Within this framework, the second segment explicitly addresses the study's third research objective, encompassing pertinent questions (Shaikh et al, 2020). Islamic FinTech's development may hinge on how effectively facilitating conditions and behavioural intentions can impact FinTech. Despite this, the notion of Islamic FinTech is entwined with specific ownership rights, which are perceived to influence the implementation of actions within the domain of financial institutions (Gefen & Straub, 2005). In short, the diverse nature of commercial banks, each within its unique institutional context, necessitates the adaptation to Islamic FinTech. Consequently, the employment of Islamic FinTech presents a notable challenge, acting as a moderating factor in the relationship between behavioural intention and usage behaviour.

1.7. Problem Statement

The adoption and usage of Islamic FinTech products and services remain relatively low compared to FinTech, especially among the younger generation of Muslim consumers. This limited uptake of Islamic FinTech hinders the acceptance and use of the overall Islamic finance industry, which is crucial for serving the financial needs of the global

Muslim population in a Sharia-compliant manner (Gerlach & Lutz, 2019). Islamic FinTech has the potential to revolutionise the way Muslims access and interact with financial services by offering innovative, technology-driven solutions that adhere to Islamic principles (Firmansyah & Ramdani, 2018). However, various factors may hinder the widespread adoption of Islamic FinTech, such as financial services tailored to Islamic banks, which have seen notable adoption in countries like Malaysia, the UAE, Bahrain, and Oman. This technological advancement, particularly prevalent in Saudi banks with the UAE closely following, emphasises its acceptance and usage within the Islamic financial sector (Al Rubaiai & Pria, 2022). The pronounced success of Islamic FinTech in these regions underscores the importance of examining the underlying moderation and mediation factors influencing its acceptance and usage.

Extensive research in Islamic FinTech focuses on the impact of behavioural intention on its adoption and usage (Venkatesh et al, 2012). However, while explaining the direct effect between the understudied variables, as per the researcher's best knowledge, the scholars have not considered the moderation effect of variables like education, language, religion, gender, and age. Investigating these aspects, particularly in the context of Saudi banks, becomes essential to unravel this complex dynamic. Control variables, specifically religion and education, significantly influence an individual's intention to use Islamic fintech (Venkatesh et al, 2003; Venkatesh et al, 2012). Furthermore, the existing literature has highlighted the significant influence of social influence, habits, performance expectancy, social influence, hedonic motivation, price value, and facilitating conditions on an individual's behavioural intention towards Islamic FinTech adoption (Venkatesh et al, 2012).

Studying these variables' influence is necessary to understand an individual's perception of Islamic FinTech adoption and usage as a social influence by peer recommendations, societal norms, and cultural influences that significantly impact decisions regarding FinTech adoption, especially in Islamic communities (Narsalay & Patrao, 2016). Performance expectancy, perceived efficiency benefits, convenience, alignment with Islamic principles, and hedonic motivation, driven by pleasure and enjoyment, influence adoption decisions (Dorfleitner et al, 2017). Price value considerations, particularly in markets with high-cost sensitivity, are critical determinants for Islamic FinTech adoption and usage. Facilitating conditions like ease of access and user interface design can also shape users' intentions(Venkatesh et al, 2012). Considering the phenomenon, this study

focuses on Saudi banks, highlighting the need for detailed literature on factors influencing acceptance in this regional banking sector. The research model employed in this study comprehensively explores exogenous variables; these are scrutinised for their impact on Islamic FinTech's acceptance and usage (Venkatesh et al, 2012). While the success of Saudi banks is evident, the specific contributing factors remain uncharted territory, presenting an intriguing area for further exploration.

1.8. Research Gap

The identified research gap in Islamic FinTech centres on the inadequately explored interplay between acceptance and use and their impact on the technology's acceptance and usage (Venkatesh et al, 2012),. While Islamic FinTech has garnered attention in academic circles, significant portions of this technology's social dimensions remain to be arched. Notably, age is a pivotal moderating factor(Venkatesh & Davis, 2000). The extent to which education influences individuals' propensity to adopt and utilise Islamic FinTech must be sufficiently understood. The usage gap is evident in the need for more comprehensive research on how varying degrees of educational attainment correlate with the likelihood of embracing Islamic FinTech (Narsalay & Patrao, 2016).

Higher education addresses this gap by focusing on Saudi banks at the forefront of Islamic FinTech adoption and usage. The scarcity of detailed literature on the factors influencing Islamic FinTech acceptance in this regional banking sector highlights a significant area for investigation (Shim & Shin, 2016). Moreover, the emerging nature of Islamic FinTech as a global financial service introduces new research questions, particularly regarding its growth and the factors enabling its acceptance and use (Venkatesh et al, 2012). The study aims to explore these dynamics, adding valuable insights to the limited existing literature and paving the way for future research.

1.9. Research objectives

The study is intended to achieve the following objectives, focusing on the acceptance and usage model(Venkatesh et al, 2003; Venkatesh et al, 2012).

1. To investigate the mediation effect of behavioural intention for habit, performance expectancy, effort expectancy, social influence, hedonic motivation, price value and facilitating conditions towards acceptance and use of Islamic Fintech (IFT use).

2. To investigate the direct effect of habit, behavioural intentions and facilitating conditions on acceptance and use of Islamic Fintech (IFT use).

3. To investigate the moderation effect of gender for the direct impact of habit on acceptance and use of Islamic Fintech (IFT use).

4. To investigate the moderation effect of gender, religion, and education for the direct impact of facilitating conditions on acceptance and use of Islamic Fintech (IFT use).

5. To investigate the moderation effect of age, gender, and education for the direct impact of behavioural intention on acceptance and use of Islamic Fintech (IFT use).

6. To investigate the moderating effect of education and gender for the direct impact of expectancy on behavioural intention.

7. To investigate the moderating effect of language for the direct impact of facilitating conditions and hedonic motivation on behavioural intention.

8. To investigate the moderating effect of education for the direct impact of social influence on behavioural intention.

1.10. Research Questions

The following questions are addressed against the objectives mentioned above.

1. Is there any mediation effect of behavioural intention for habit, performance expectancy, effort expectancy, social influence, hedonic motivation, price value, and facilitating conditions towards acceptance and use of Islamic Fintech (IFT use)?

2. Is there any direct effect of habit, behavioural intentions and facilitating conditions on acceptance and use of Islamic Fintech (IFT use)?

3. Is there any moderation effect of gender for the direct impact of habit on acceptance and use of Islamic Fintech (IFT use)?

4. Is there any moderation effect of gender, religion, and education on the direct impact of facilitating conditions on the acceptance and use of Islamic Fintech (IFT use)?

5. Is there any moderation effect of age, gender, and education on the direct impact of behavioural intention on acceptance and use of Islamic Fintech (IFT use)?

6. Is there any moderating effect of education and gender on the direct impact of expectancy on behavioural intention?

7. Is there any moderating effect of language for the direct impact of facilitating conditions and hedonic motivation on behavioural intention?

8. Is there any moderating effect of education for the direct impact of social influence on behavioural intention?

1.11. Contributions

The present study findings on the acceptance and use of Islamic FinTech offer theoretical and applied contributions of significant interest. This research critically explores the concepts of acceptance and use of Islamic FinTech, which encompasses components likely to contribute positively to the overall framework and inspire new avenues of research(Drasch et al, 2018). Additionally, Islamic FinTech is based on factors that influence its use, and the results are expected to be productive, facilitating conditions related to behavioural intention and usage behaviour(Venkatesh et al, 2012). The contributions of FinTech have been instrumental in transforming the financial landscape, making it more inclusive, efficient, and responsive to evolving needs (Shanab, 2005). This study will augment the existing body of knowledge on Islamic FinTech by providing insights grounded in the context (Al Rubaiai & Pria, 2022). Leveraging data from the Saudi banks, it aims to elucidate how the enumerated factors influence the acceptance and usage of Islamic FinTech among Saudi citizens. Additionally, this study intends to significantly contribute to the less explored realms of education and religion, examining their roles as potential moderators and influencers in adopting and utilising new technologies (Venkatesh et al, 2003).. The focus on language will also offer a nuanced understanding of the interplay between hedonic motivations and factors facilitating conditions for the adoption of Islamic FinTech. Venkatesh et al, 2012 Unified Theory of Acceptance and Use of Technology (UTAUT) model has been utilised to forecast technology acceptance within Islamic Fintech.

1.12. Rationale

The rationale behind acceptance refers to the reasoning or justification behind accepting FinTech, such as accepting and using Islamic FinTech. Critics of Islamic FinTech often label its acceptance and utilisation illogical, citing an overemphasis on the logic of

innovation (Rogers, 1995). On the contrary, Ajzen et al (2004) it argued that this misperception of financial technology needs to be rectified. The advancement of FinTech aligns with previous research on Islamic FinTech activity, which some experts consider unplanned. Despite frequent disagreements between implicit connections and explicit attitude judgments, there is little evidence that implicit associations are better predictors of innovation outcomes than explicit attitude judgments (Greenwald et al, 2009). It is important to identify the factors that influence the acceptance and use of this emerging technology and determine the extent of their impact so that the success of Islamic Fintech can be replicated in other Muslim and non-Muslim countries. The exogenous, mediating, and moderating variables help to predict behavioural intention and the ultimate acceptance and use of Islamic Fintech.Sutton (1998) Outlined that the reasoned-action paradigm accounts for a portion of the variance in Behavioural intention, yet a substantial segment of usage behaviour remains unaccounted for. This gap in explanation may be attributed to the inherent ambiguity in quantifying the extent of influence. Consequently, estimates derived from both models regarding the magnitude of this influence can exhibit significant disparities (Venkatesh et al, 2012). The challenge lies in accurately measuring the impact, a task complicated by the elusive nature of the factors underpinning usage behaviour. This complexity underscores the need for a more refined approach to evaluating the determinants of behaviour, particularly within the realm of technology usage.

According to another perspective, the theory of reasoned action must sufficiently encompass all the essential elements that lead to the intended outcome. If additional factors significantly influence a person's intentions or actions, they can be included in the Venkatesh Unified Theory. Research indicates the potential for enhancing explanatory models of intention or behaviour by incorporating additional variables, such as the concept of self-identity, into the existing triumvirate of variables (Venkatesh et al, 2012). However, the "fourth" variable must fulfil specific criteria the existing variables do not meet. The veracity of these claims' hinges on the accuracy of the underlying assertion. If true, the proponents of this idea rightly identify a gap in the current understanding(Venkatesh et al, 2012). Introducing self-identity as a variable could provide a more nuanced understanding of the factors influencing behaviour and intention, particularly in contexts where personal identity plays a critical role (Ajzen et al, 2004).

Research within the FinTech domain has identified shortcomings in specific models, primarily due to the absence of several critical components. This deficiency hinders the ability of testing facilities to evaluate these models rigorously. Consequently, the evaluation process cannot comprehensively assess the models' efficacy and applicability in practical scenarios. Rationale methodology necessitates re-evaluating and enhancing the models to ensure their robustness and reliability when subjected to empirical testing. Addressing these limitations is crucial for advancing FinTech research and developing models that accurately reflect the complexities of financial technology applications (Ogden, 2003).

This approach ensures that the instruments used in experiments examining the acceptance and usage models of Islamic FinTech are distinct and varied. This means we won't rely on guesswork to determine whether questionnaire responses cause behavioural changes, cognitive alterations, or influence self-reported education in each study(Venkatesh et al, 2012). Central to this research is "education," which elucidates the potential benefits of Islamic FinTech use. This aspect is critical to address the research need for a deeper understanding of usage concepts and enhanced behavioural intention detection. the main goal of this research is to use advanced tools to recognise innovative developments in Islamic FinTech and understand how they are accepted and used. The research focuses on identifying the best system features for a particular purpose or effectively completing the innovation process. This approach is essential for gaining a comprehensive understanding of the impact of Islamic FinTech and its wider implications.

1.13. Significance of the Study

This section delineates the study's salience and addresses the extant knowledge gaps. Acceptance as a pivotal facilitating condition for Behavioural Intention (BI) is central to these usages. The segment underpins the rationale for this study, accentuating the import of technology acceptance(Venkatesh et al, 2012). It elucidates the significance of this research within the Islamic FinTech domain by articulating the nuances of acceptance and its relevance to the thematic core. The impact of acceptance and usage on Islamic FinTech has been profound, markedly influencing Behavioural Intention. Islamic FinTech, with its potential for future encouragement of usage, stands at the forefront of this evolution (Sun & Zhang, 2006). Research across various dimensions has undergirded many innovative financial technologies and leading FinTech companies. The lack of literature on Islamic FinTech necessitates further research, highlighting scholars' need to

engage deeply. This scenario often leads researchers to revisit previously addressed issues to enhance understanding and provide additional insights. There exists a compendium of educational concerns surrounding Islamic FinTech usage that contributes significantly to the broader academic discourse(Venkatesh et al, 2003). This contribution expounded more comprehensively and discussed the importance of accepting and using Islamic FinTech." Defining significance within the context of this study, the exploration of FinTech's importance elucidates its potential benefits for stakeholders. Furthermore, the research delineates how the study of acceptance and usage of Islamic FinTech can yield benefits, thereby enhancing the understanding and practical application of this emerging financial technology.

The significance of accepting and utilising Islamic FinTech is underscored by demonstrating its contribution to the existing body of knowledge, particularly regarding FinTech usage in general (Suryono et al, 2019). Nonetheless, a differing perspective posits that the most formidable challenge lies in discerning how FinTech enhances the scholarly corpus about Islamic Banking Customers (Liu et al, 2020; Shaikh et al, 2020). Crucially, understanding the specific beneficiaries of facilitating conditions is essential in determining the relevance of such conditions. This necessitates an assessment of both the beneficiary demographic and the nature of their benefit from the research findings on facilitating conditions. Positioning this segment after the introduction or at the study's outset would be strategically advantageous, ensuring a profound initial impact on the audience.

The acceptance and use of FinTech is a crucial concept to examine and understand as it has generated consistent global interest (Khalid & Kunhibava, 2020). The presence and use of this technology contribute to expanding acceptance and usage (Standard, 2018). Saudi banks are recognised as one of the top five ecosystems of the Islamic economy (Hassan et al, 2017). In this context, Fintech is supported by Islamic banks that have embraced Islamic finance and other digital tools to create digital platforms for their customers. FinTech adoption from the Islamic banking perspective is growing in relevance and gaining approval among Shariah scholars and practitioners (Shaikh et al, 2020). These digital tools and platforms have enabled Islamic banks in Saudi Arabia to enhance customer experience, improve operational efficiency, ensure compliance with Sharia principles, and remain competitive in the fast-evolving FinTech landscape.

Therefore, it is essential to examine the behavioural intention toward accepting and using Islamic FinTech in Saudi banks.

Per past research, this study's theoretical framework is explained through indicators that appraise foundational assumptions and evaluate Islamic FinTech. This necessitates juxtaposing with dual-use innovation models, facilitating a nuanced understanding (Kaivo-oja, 2011; Weng et al, 2015). The primary aim is to validate designs that elucidate the dynamics of Behavioural Intention and usage behaviour, underscoring technology acceptance as a pivotal aspect of innovation theories and models. This research is instrumental in revealing new relationships within FinTech acceptance and use. Islamic FinTech, in this regard, emerges as a potent catalyst for expanding opportunities and forging usage, with a specific focus on its acceptance(Venkatesh et al, 2003).. Moreover, Islamic FinTech serves as a critical tool for gauging variations across distinct segments. Considering the Education inherent in data analysis, the study employs multi-analytic methods to evaluate the significance of these variations. Additionally, data analytics are leveraged for data collection, transformation, and interpretation, enhancing comprehension of the acceptance and utilisation of Islamic FinTech.

1.14. Assumptions and Limitations of the Study

It is widely recognised that there are significant differences between assumptions and limitations in FinTech adoption, and it's important to note these limitations. Clearly stating assumptions helps academics understand the context and perspective from which the research or analysis is conducted. Identifying and acknowledging assumptions is crucial for the credibility and transparency.(Gioia & Pitre, 1990). Islamic FinTech is pivotal in addressing several constraints, particularly in education. From a philosophical perspective, the normative core is often cited as a rationale for opting for Islamic FinTech over traditional shareholder models. Additionally, behavioural intention in Islamic FinTech-related studies is posited to influence acceptance and usage significantly. On the other hand, according to previous research (Diaz & Loraas, 2010; Wilson et al, 2010), Acknowledging and discussing limitations shows that the researcher knows the shortcomings of acceptance or usage. This helps academics evaluate the credibility and applicability of the findings. Limitations also guide future research and the proper use of the results. The current study's limitations in accepting power are connected to academic usage barriers and their impact on the acceptance and use of Islamic FinTech. In this

context, Islamic FinTech is related to the education database, providing data that helps users recognise and overcome usage barriers.

The barriers to Islamic FinTech adoption, particularly in education, are crucial areas for future research as they bridge the gap between acceptance and usage. Shanab (2005) S Studies should focus on measures related to usage models, including mandatory use barriers. However, current studies primarily address the limited and unique innovations in accepting and using Islamic FinTech. It's important to consider education barriers that can impact assumptions and limitations in analyses where Islamic FinTech is used innovatively and where assessments may involve moderator users.(Basoglu et al, 2009; Dixon, 2005). This study's separate sections delineate the difference between acceptance and usage models. It also explores new methods for moderating the relationship between the acceptance and use of Islamic FinTech.

1.15. Organisation of the Study

This study consists of the following eight chapters:

Chapter 1: Introduction. It entails the study's background, operational definitions, research problem, research questions, contributions, significance, assumptions, and limitations.

Chapter 2: **Literature Review.** It elaborates on past research and literary works concerning the acceptance and use of Islamic Fintech.

Chapter 3: Theoretical Framework. This section focuses on forming a theoretical framework that relies on the conceptual framework and highlights the study's central concepts of acceptance and use.

Chapter 4: Research Design and Methodology discusses the methodological approach, acceptance designs, an overview of usage paradigms, positivism paradigms, the study process, and a research approach. It also highlights data collection techniques, quantitative analysis, research techniques, and ethical issues in research.

Chapter 5: Pilot Study outlines the pilot plan before the actual study. It focuses on the design of data collection, data collection strategies, types of validity, and the relevance of reliability testing.

Chapter 6: Data Analysis. This chapter describes how the data was analysed in depth using statistical packages such as SPSS and smart-PLS. The structural model was also tested to establish its accuracy and reliability.

Chapter 7: Discussion of Findings.

It elaborates on the study's findings and their connection to the research objectives. The chapter also offers insights to inform future investigations on the subject area.

Chapter 8: Conclusions and Limitations. This chapter explains the practical outcomes, suggestions, limitations, potential areas for further exploration, and overall conclusions of this research.

Chapter 2. Literature Review

2.1. Introduction

This chapter reviews current literature by explaining various definitions and their importance while also discussing their relevance. Specifically, it examines the emergence of various technology acceptance models, explaining numerous variables and concepts involved in these usage models. Furthermore, this section systematically delves into past research, offering theoretical grounding for accepting and using Islamic FinTech. Later, it correlates the literature with the acceptance and use of FinTech in general and Islamic FinTech in particular by Extending Venkatesh Unified Theory. (Gerlach & Lutz, 2019; Venkatesh et al, 2007; Venkatesh et al, 2003; Venkatesh et al, 2012).

This is attributable to constant attempts at model validation and acceptance during each model's display. For illustration, psychology provided the theory of reasoned action [TRA] (Fishbein et al, 1980), which was enlarged to the theory of planned behaviour [TPB] (Ajzen, 1985), which was also developed into the deconstructed theory of planned behaviour [DTPB] (Taylor & Todd, 1995). The technology acceptance model [TAM] (Davis, 1993) also expanded the TRA. Technology infrastructure also has TAM2 (Venkatesh & Davis, 2000) and the unified theory of acceptance and use of technology one [UTAUT1] (Venkatesh et al, 2003)and the unified theory of acceptance and use of technology two [UTAUT2] (Venkatesh et al, 2012), which is an amalgamation of the other designs above, as well as the diffusion innovation theory (DIT) (Rogers, 1995), and the social cognitive theory [SCT] (Brown, 1999; Thompson et al, 1991). The literature review and specific theories that signify this research's importance. Consequently, there has been a rise in the number of models trying to explain technology acceptance. These technology acceptance models revolve around explaining the variables and concepts of acceptance and use. The field of psychology has helped explain the usage models and justify the acceptance models.

2.2. Technology Acceptance Model (TAM)

The model was proposed by Fred Davis between the years 1986 and 1989 (Rauniar et al, 2014). TAM identifies the factors that influence technology rejection or acceptance. In this scenario, acceptance explains the usage, while rejection refers to the non-usage of FinTech. The theoretical basis for acceptance specifies perceived value and perceived usability. The two principles are often considered important in assessing a model's

potential to accomplish aspects as a concept (Davis, 1993). TAM design permits the usage of two distinct constructs between acceptance and usage, which are heavily affected by factors of intention and use. Based on the literature, comprehensive research has been conducted to find the aspects that have proven that acceptance is the most relevant in shaping the usage perspective. The validity is confirmed based on goodness-fit indices as the actual use. Figure 2.2 shows the TAM model.

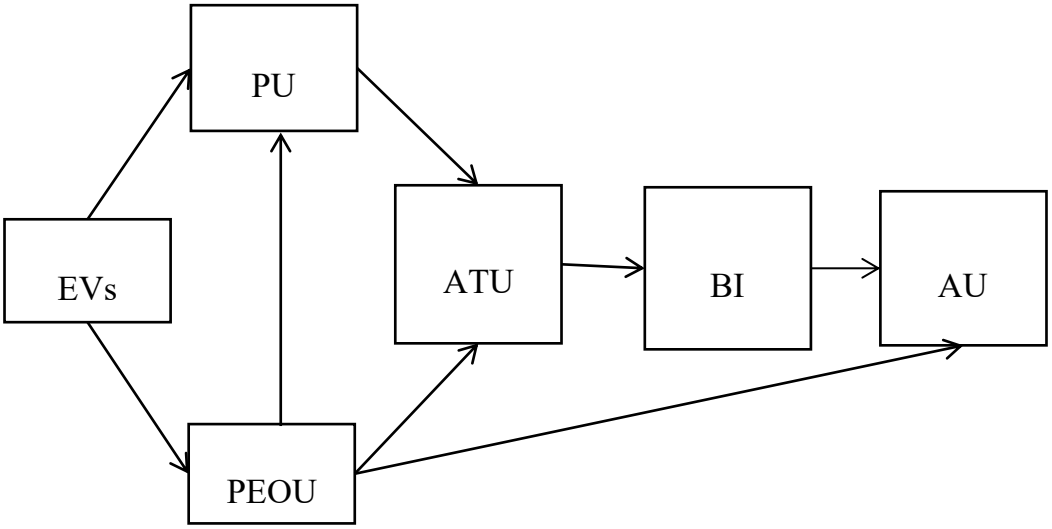


Figure 3.4. Technology acceptance model (TAM), Adapted from (Davis et al, 1989**)**

The model incorporates five technology acceptance determinants that lead to technology utilisation (Li et al, 2020b).

- ***Perceived usefulness (PU)****:* Fred Davis described this as a degree based on which a person senses that employing a specific method would positively influence their work performance (Niswah & Legowati, 2019).
- ***Perceived ease of use (PEOU)****:* Davis defined it as "a degree based on which a person senses that it would be effortless to use a particular program" (Huei et al, 2018).
- ***External variables (EVs):*** All elements influencing PEOU or PU, such as on-site instruction, expertise, and other viewpoints (Nastiti & Kasri, 2019).
- ***Attitude towards use (ATU):*** Attitude towards using a device if perceptions about its utility and usability influence it (Huei et al, 2018; Niswah & Legowati, 2019).
- ***Behavioural intent to use (BI):*** A user's intention to use the system (Dapp et al, 2014).
- ***Actual use (AU),*** i.e., the act of putting something into action

By controlling the two structures, such as helpfulness and simplicity of use models, acceptance will have more power over the attitude towards usage (Shroff et al, 2011). Further, perceived usefulness can predict the actual use, where the external variables of the scheme adopt usage. Moreover, accepting Islamic FinTech becomes a process in which attitudes are directed toward its use. Therefore, Islamic FinTech can use the model provided for Actual use as a guide for considering how the constituent elements of acceptance and use can function together. However, several researchers have replicated Davis's original study (Li et al, 2020a), which mentioned that the TAM model could be improved by considering its manifestations within the different units of analysis on the relationships between usefulness, perceived ease of use, and system use (Pantielieieva et al, 2018; Stewart & Jürjens, 2018).

The usage relationship can be classified into five acceptable models: external variables (EVs), perceived usefulness (PU), perceived ease of use (PEOU), attitude towards use (ATU), behavioural intent to use (BI), and actual use (AU).

2.2.1. Limitations of the Technology Acceptance Model

The limitations of the acceptance model have two standouts. The first concerns the perceived usefulness and ease of information use (Shanab, 2005). The primary benefit is an individual belief that technology boosts job performance and eases the use of perceived information, signifying the degree to which trust in innovation means being without any intention. Few researchers condemn the usage model, arguing that the purpose is too plain, omitting crucial variables (Bagozzi et al, 1992). Others believe in the usefulness of the used model due to its stability, high accuracy, and valid productivity. The vital goal is to measure perceived usage concerning actual usage. In contrast, the existence of a factor is explained by the acceptance and use model, which is simply intention and usage.

According to TAM reports, the model has two significant flaws (Sun & Zhang, 2006): the model's explanatory capacity and the inconsistency in building relationships. The author has recently looked at the predictive capability of data processing. One school of thought in literature possesses sensitivity of explanatory force concerning the comparative usage explained [explanatory strength] (Sun & Zhang, 2006). On the contrary, another school of thought posits several elements in the explanatory power due to the different methods employed (Miltgen et al, 2013; Venkatesh et al, 2012). Several experimental studies have been conducted by taking a convenient sample of financial technologies that are different from the representative of an authentic selection (Sun &

Zhang, 2006). The views about technology are expected to shift between adoption and use, as researchers have conducted various longitudinal studies regarding FinTech (Shaikh et al, 2020). By concluding that technology has relationships with the acceptance perspective and provides inconsistent usage, it implies that TAM is a reliable acceptability model; for example, PEOU and PU were prevalent in many of these investigations. There is no problem in technology when the attempts of over-power across affect limitations, while TAM2 is to substitute the lack of original TAM.

2.2.2. Technology Acceptance Model Expansion

The researchers extended the technology acceptance model (TAM)(Hernandez et al, 2008; Venkatesh et al, 2003; Venkatesh et al, 2012). The new model explains perceived usefulness and usage based on social influence (subjective norm, image, and voluntariness). The extended model also explains cognitive instrumental processes (job validity, outcome demonstrability, performance consistency, and usability). The perceived ease of use in TAM and TAM2 were in line with each other; both directly determined the perceived usefulness. Moreover, *experience and voluntariness* are the two *moderating variables* in TAM2 (Sun & Zhang, 2006). According to Davis, these subjective norms (experience and voluntariness) and gender were not included in the original TAM. However, their effect on the TAM could be addressed in order to adopt usage later (TAM2). Empirical evidence revealed that ease of use was less significant with increased experience. Subjective norms were salient in mandatory settings. In addition, the effect of the subjective norm was salient for females with increased experience. Perceived usefulness was more salient for men, while perceived ease of use was salient for women. Figure 2.3 below summarises TAM2. TAM and TAM2 are technology usage models (Li, 2010). These models were proposed after discovering an acceptable model between the TAM and TAM2 models. While these models were designed to make predictions, technology acceptance also includes usage models (Davis et al, 1989). Intention focused on attitudes towards the subjective norm, perceived behavioural control, and perceived usefulness.

These concepts are already used by participants familiar with spreadsheets and word-processing packages (Cheng et al, 2011). Further, the TAM includes predicting variables of reliability that combine models (MacKenzie et al, 2011; Wilson et al, 2010), whereas extensive research was conducted on TAM2 about usage to show the usage behaviour. TAM2 proves to be a more efficient model in determining Islamic FinTech, whereas the

TAM theory establishes a stronger connection Between behavioural intention and usage behaviour. Consumers typically should have focused on monitoring information or the conditions contributing to the creation of services. These consumers heavily depend on the perceived utility of the acceptance and use model (Barnes & Vidgen, 2012; Davis et al, 1989). Technology research is more convenient than IDT and TAM theory since the researchers combine the forces of the two models depending on the use of gauging parameters.

Consequently, the agreed models offer insight into "how effective integrated models can be in the research." Therefore, the components in multiple models are intended to be used with diverse viewpoints (Jevons et al, 2005) that share a similar view. It also included critically providing a new understanding, especially of the interrelationship between the determinants of acceptance and usage.

TAM2 was created by Venkatesh & Davis (2000) published in operations research in 2000. TAM2's primary objective, as a theoretical augmentation of the TAM, is to adopt an alternative method of measuring TAM predictors that describe perceived usefulness and usage willingness. This should be about acceptance models and acknowledging how the implications of this acceptance adjust with expanding consumer experience over time (Venkatesh & Davis, 2000). The study will enable one to create corporate programs that promote user adoption and utilisation of new systems (technologies) if we better grasp the 26 factors of user satisfaction (Kripanont, 2007).

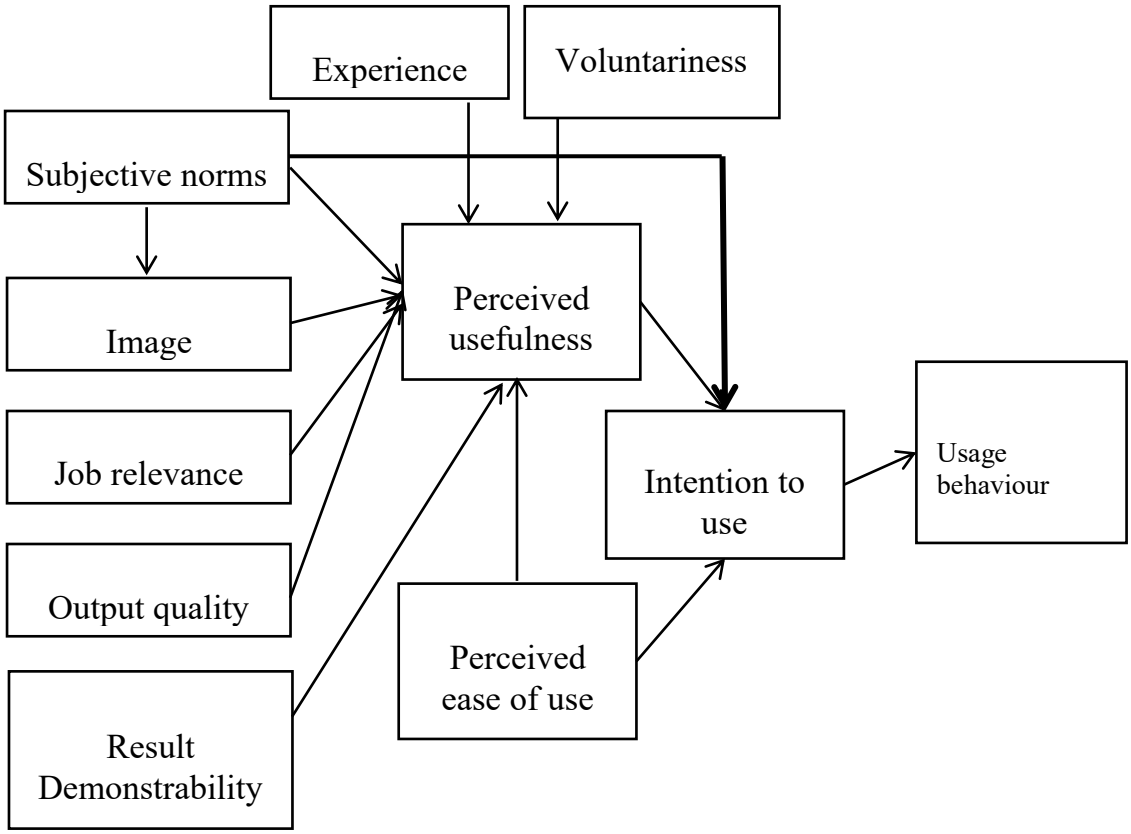


Figure 3.5.Original Technology Acceptance Model (Kripanont, 2007**)**

TAM2 is an extension of TAM as it incorporates further significant drivers for the perception of the utility and uses intention components that explain variations in technology adoption from time to time as per an individual's extended experience with the targeted technology. The theoretical components covering social pressure pathways (such as informed consent, subjective norm, and reputation) and skilled and efficient procedures are incorporated into the new framework [e.g., job relevance, output quality, result demonstrability, and perceived ease of use] (Kripanont, 2007). Academics have acknowledged the function of social factors in computer usage situations.

TAM2 speculates that subjective norms influence intention over PU and PEOU during mandated system usage proceedings. The model proposes permissibility as a moderating variable to differentiate between formal and informal conformance with workplace context (Lee et al, 2010). Nonetheless, subjective standards can accept intention via PU, also known as internalisation. Furthermore, TAM2 hypothesises that integration rather than conformity will occur whether the user setting is permissive or forced. Even if the company mandates usage, the user's impression of a program's utility via compelling

online connections increases their interest in adopting or utilising the system. Theoretically, experience mediates the relationships between subjective norms and intents on one side and subjective norms-PU (inculcation) on another.

As stated in the previous paragraph, the subjective norm (SN) relationship with intention may be higher in a forced usage setting, before installation, or in the early phases of use. However, the association is projected to deteriorate as users acquire familiarity with the software. The subjective norm (SN)-perceived usefulness (PU) relationship would be affected similarly by experience. TAM2, on the other hand, does not believe that expertise influences the image-PU (recognition) link. Such influential ties may deteriorate with time (Al-Qeisi, 2009).

2.3. Social and Behaviour Change Model

Social Cognitive Theory (SCT) came into human discussion in the 1960s through Albert Bandura as the Social Learning Theory (SLT). It evolved into the SCT in 1986, where training occurs in a social structure with fluid and bidirectional interactions of the individual, society, behaviour, and other concerned variables. Therefore, the SCT has been observed in numerous ways (Miltgen et al, 2013). Still, the experiences had one's own positive experiences and provided a false sense of influence in terms of cognitive skills. In contrast, technology is challenged to decode the influencing factors intentionally, and the SCT describes the impact of individual experiences when given much prominence.

Depending on cognitive strength, this hypothesis can also be acquired and maintained by studying it from a position of social intrusiveness. Self-efficacy is the public's belief in their abilities to execute a specific behaviour. Socialisation, accolades, momentary perspectives, and affective signals impact the (Bandura, 1997). It influences an individual's behaviour selection, tenacity in addressing obstacles, and capacity to do the behaviour. Outcome expectation is a belief that a specific behaviour produces a different number of outcomes (Bandura, 1986). The effect might be physical, e.g., bodily injury, social, e.g., other people's praise, or self-evaluative, e.g., ego (Bandura, 1986). According to SCT, more influential people perceive results more positively. Thus, self-efficacy directly impacts achievement motivation (Bandura, 1986). According to Albert Bandura's social learning theory, people learn through observation, imitation, and modelling. Since people learn from other people's behaviours, they will likely accept and reject technology if they see its consequences on other people's lives. If FinTech is

adopted and benefits users, then more people will adopt it. As a result, there will be a positive impact on **the acceptance and usage models.**

Accepted Theories

The theories that support the innovation theory are mentioned below.

2.4. Diffusion of Innovation Theory (DOIT)

In 1903, the French sociological artist Gabriel Tarde conducted the first historical discussion of the diffusion of innovation theory [DOIT] (Toews, 2003). This was reinforced by Ryan & Gross (1943), those who offered the adopter classifications, which Everett Rogers eventually fitted to the contemporary propagated theory. The idea of the leaders of opinion, followers of views, and how the press interacts to influence both groups is also credited to (Katz, 1957). DOIT is frequently recognised as a beneficial change model for guiding technological innovation since it adjusts and communicates innovation in ways that meet the demands of all users. The adoption procedure also emphasises the significance of dialogue and peer networking.

DOIT is one of the oldest social science theories, developed by E.M. Rogers in 1962 (Oseni & Ali, 2019; Shanab, 2005). The concept of this theory works out by diffusion rates that involve overtime. The intention is regarded as a particular type of communication concerned with spreading acceptance and using Islamic FinTech. The theory explains the perseverance in innovation use behaviour through a specific population or social system. However, this theory illustrates the general innovation of diffusion that includes adopting new services, devices, and acceptance capabilities if the product is intended for acceptance and use of innovation.

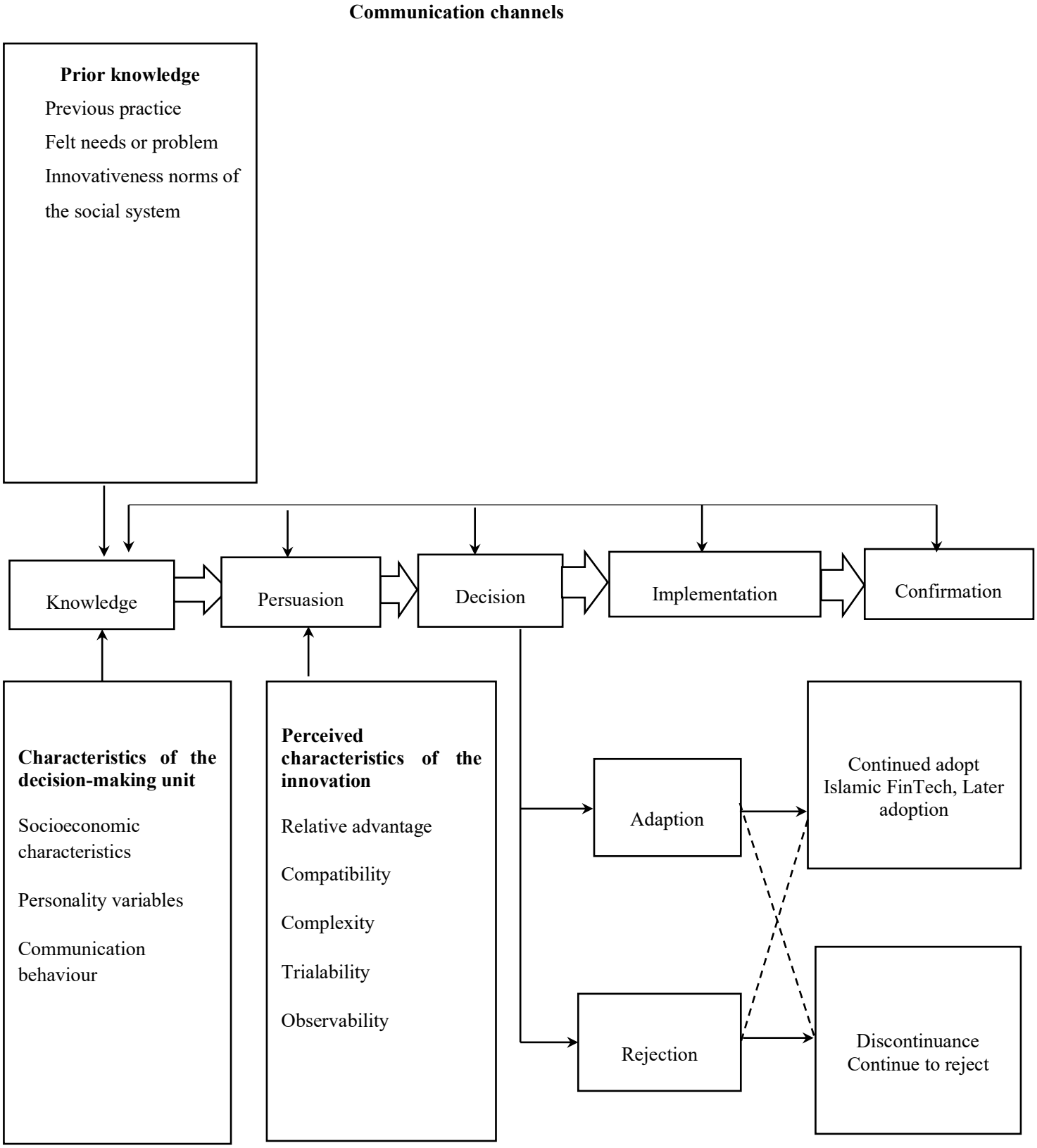

Communication channels
Prior knowledge
Previous practice
Felt needs or problem
Innovativeness norms of the social system
Knowledge
Persuasion
Decision
Implementation
Confirmation
Characteristics of the decision-making unit
Socioeconomic characteristics
Personality variables
Communication behaviour
Perceived characteristics of the innovation
Relative advantage
Compatibility
Complexity
Trialability
Observability
Adaption
Rejection
Continued adopt Islamic FinTech, Later adoption
Discontinuance Continue to reject

Figure 3.6. Diffusion of innovation theory (Rogers, 1995)

As shown in Figure 2.5, the DOIT is related to psychological factors that explain diffusion (Mun et al, 2006). This theory is defined as the innovation process of using Islamic FinTech in practice, where object diffusion is considered a novel strategy. The researchers have found that Islamic FinTech uses different distribution and personality variables in various fields.

The FinTech in this theory has five adaptation stages:

- *Knowledge.*
- *Persuasion.*
- *Decision.*
- *Implementation; and*
- *Confirmation.*

In this theory, acceptance acts as an innovation and diffusion of any other usage unit that can refuse or adapt it at any point before or after the approval process. Stated that this provides the required knowledge about adapted usage. Further, this theory regards various fields such as relative advantage, compatibility, complexity, and trialability.

This theory explores the concept of innovation and the limitation of diffusion. Simultaneously, the DOIT does not provide evidence of adopting usage when it has evolved into acceptance or rejection. Thus, the usage emanated from different disciplines for two similar ideas. DOIT has been used to characterise the innovation cycle since the 1950s. It eventually progressed until Rogers proposed the well-known invention procedure (Kripanont, 2007).

The innovation is a procedure that allows the user/ decision-maker to (1) first learn about the innovation, (2) change the current attitude to the desired attitude for innovation, (3) decide whether to embrace or dismiss the new idea, (4) integrations of the novel idea, and lastly, confirming this choice (Kripanont, 2007). The diffusion innovation theory is one of the early ideas investigating elements that may motivate a person to accept an invention or a new technology (Miltgen et al, 2013; Rogers, 1995). According to the theory, predictors such as ease of use, relative advantage visibility and trialability are relevant for adopting new technology. On the contrary, factors such as relative advantage and image

are significant usage predictors. This theory's core tenet is that embracing technology is a practice of removing uncertainty.

Individuals will seek and synthesise knowledge about the new technology to lessen its ambiguity. The views about employing FinTech at the persuasion stage are the product of the innovation process. Rogers (1995) proposed five fundamental uses that influence the acceptance and use of Islamic FinTech.

- He described **competitive edge** as "the extent to which an invention is seen as superior to the notion it surpasses."
- He defined **concordance** as "the extent to which an invention is viewed as friendly with existing values, previous history, and prospective demands."
- **Intricacy** is "the extent to which a novel notion is considered somewhat difficult to understand."
- He described **trialability** as "the measure to which invention may be classified for experimental usage."
- **Detectability** is "the degree to which others may easily notice a fresh thought."

2.4.1. The Limitations of Diffusion of Innovation Theory

The diffusion explains technology usage in a procedure where the activities provide the proper merit attention for creativity to check the factors' reliability (Subedi, 2016). However, it had a usage limitation that was better than adoption and better than cessation or prevention of reactions (Cheng et al, 2011). Overall, the diffusion suggests that innovation re-confirms and complements IDT.

The technology consists of multiple concepts of experience acquired from an innovative approach, including the distribution steps of an adoption (Weng et al, 2015). However, several innovations have yet to be accepted in diffusion theory. ***Complexity, relative benefit, compatibility, observation, and trialability*** are all aspects of Rogers' experience. The diffusion principle is a function of usage that is influenced by transferring. Therefore, when an intention of acceptance is introduced or obtained, this principle has an application influence that affects the acceptance and use of Islamic FinTech.

2.5. Theory of Reasoned Action and Theory of Planned Behaviour

TRA and **TPB (see Figure 2.5) are methods for predicting** how people will act based on their previous behaviour and attitude towards using and focusing on external variables.

These theories were used in 1967 and derived from the prior idea of ***long-term impact*** (Ajzen, 1991).

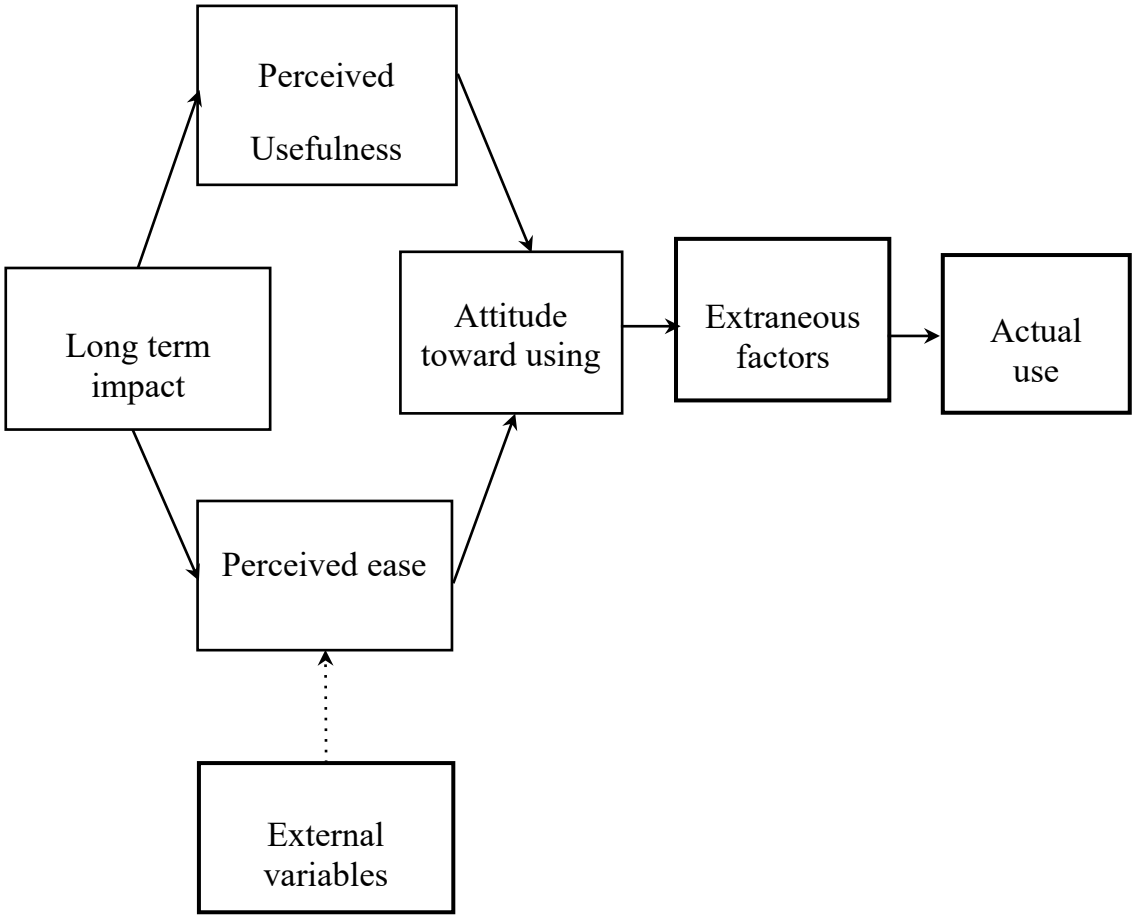


Figure 3.7. Technology acceptance model and theory of planned behaviour (Ajzen, 1991**)**

The literature of social psychology combined the TAM and TPB about "how the **attitudes** are coupled with **subjective norms** to use **behaviour** (UB), ultimately, the influence of one's perception in usage within a degree of acceptance (Lee, 2009). This created a base to use links between **norms** and **attitudes** that indicate a person's optimistic and pessimistic feelings about performing FinTech, regarded as a target for innovation. **Subjective norms** are when people think they should or should not include persuasion models and attitude theories. Recent evidence suggests that attitudes and subjective norms lead to good innovation indicators. **Extraneous factors** are not independent variables but may influence the experiment's outcome.

The TAM and TPB theories believe that behaviour is logical as it acknowledges the implications of one's actions before engaging in them (Lee, 2009). These theories pose multiple queries about the acceptance and use of technology. Unfortunately, the literature answers only the question of how to use technology to provide innovation when the primary constructs (reasons and actions) are affected (acceptance and usage). These activities are also used in communication discourse.

2.5.1. The Outcome of the Planned Behaviour Theory

The formulation of TPB involves intervention, and its purpose remains a social science. The theory posits that planned behaviours have an attitude toward their use. The theory aims to improve the skills having discrepancies while adapting. Therefore, the TRA has an extra part of perceived behavioural control (PBC). PBC deals with specific strategies such as seeing the acceptance and use of Islamic FinTech, its difficulty level, and how they view their control (Mun et al, 2006). This theory examined subjective norms, attitudes, and actual and PBC influence. As a result, the most notable distinction between TRA and TPB is the former's emphasis on voluntary cases and the latter's focus on required requirements. The innovation outcomes are combined with the results of Islamic FinTech when perceived behavioural control (PBC). The determinants certified intention and behaviour, including attributes toward subjective norms and PBC. Further, the subjective criteria influenced many experts who want to use technology or do not want to accept it.

Technology acceptance models demonstrate how fundamental use systems influence behaviour attitudes, subjective norms, and presumed behavioural regulation. The inadequacies of TPB and DTB are included because they do not indicate a clear association between features, subjective standards, or PBC (Lee, 2009). Consequently, operational acceptance is difficult because of belief sets with distinct settings. There must be a clear relationship between acceptance and the use of arbitrary rules. However, the operation of TPB seems complicated, as the belief sets are expressed because they may apply to behavioural intention (see Figure 2.7). Consequently, when this theory employs more favourable models, the belief has several dimensions and a consistent set of implementations that can be used in various contexts.

The subjective norm has fewer constraints than other acceptance models (Ringle et al, 2012). On the other hand, innovation control is more relevant since it focuses on behaviour when adopting innovation points of usage to specific factors of TPB and TRA.

In conclusion, the TPB is a variant of the TRA judgment with additional determinants of perceived conduct regulation. The causes of perceived behaviour are control, subjective standards, and how to use actual actions, explored in this theory. Compared to TRA and TPB, the TPB is more suitable for predicting behaviour. However, the TPB and TPB models were proposed to augment the shortcomings of acceptance and usage, offering deeper visibility into the factors that affect variables.

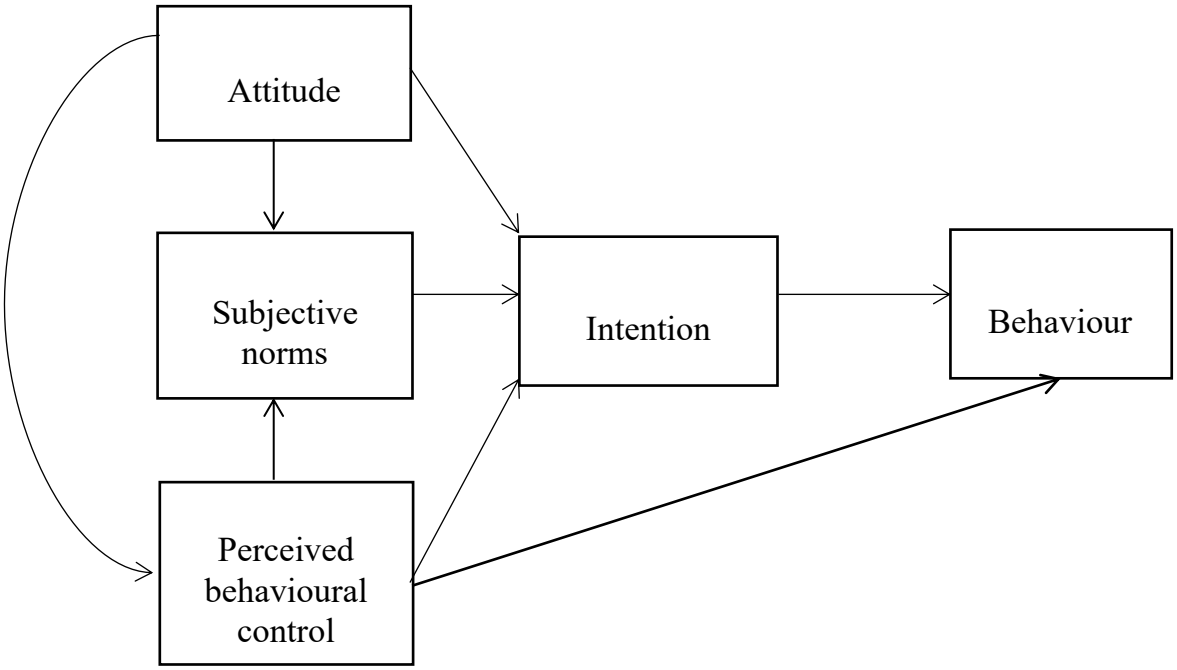


Figure 3.8. The theory of planned behaviour (Ajzen, 1991**)**

2.5.2. Planned Behaviour and Perceived Behavioural Control Theories

TPB and PBC theories are considered a full spectrum of essential developments enhancing the TPB. Further, they have extended the PBC to facilitate the intention or alter behaviour when used. Accordingly, the power in this theory has been observed as expert social pressure, subjective norms to believe, and unfreezing or refreezing of behaviour. Furthermore, the reaction has been observed at a high degree, which aids in regulating behaviours, perceptions, and a mixture of both attitudes; desires are an essential predictor of intervention. Thus, the influences are often adapted to the intention, and subjective standards become more favourable. They generally assess models consisting of at least five elements for each size with a greater probability of adoption and behavioural

improvement through usage (Ajzen, 1991). In this situation, Islamic FinTech carries out its goals whenever the opportunity presents itself.

Consequently, the theory's underlying premise is revolutionary. It can, therefore, be adopted and used earlier rather than later. However, there are many viewpoints on regulation in the case of actions. The impacts have presented a significant obstacle, potentially limiting volitional regulation. TPB and PBC can be summarised in Figure 2.7:

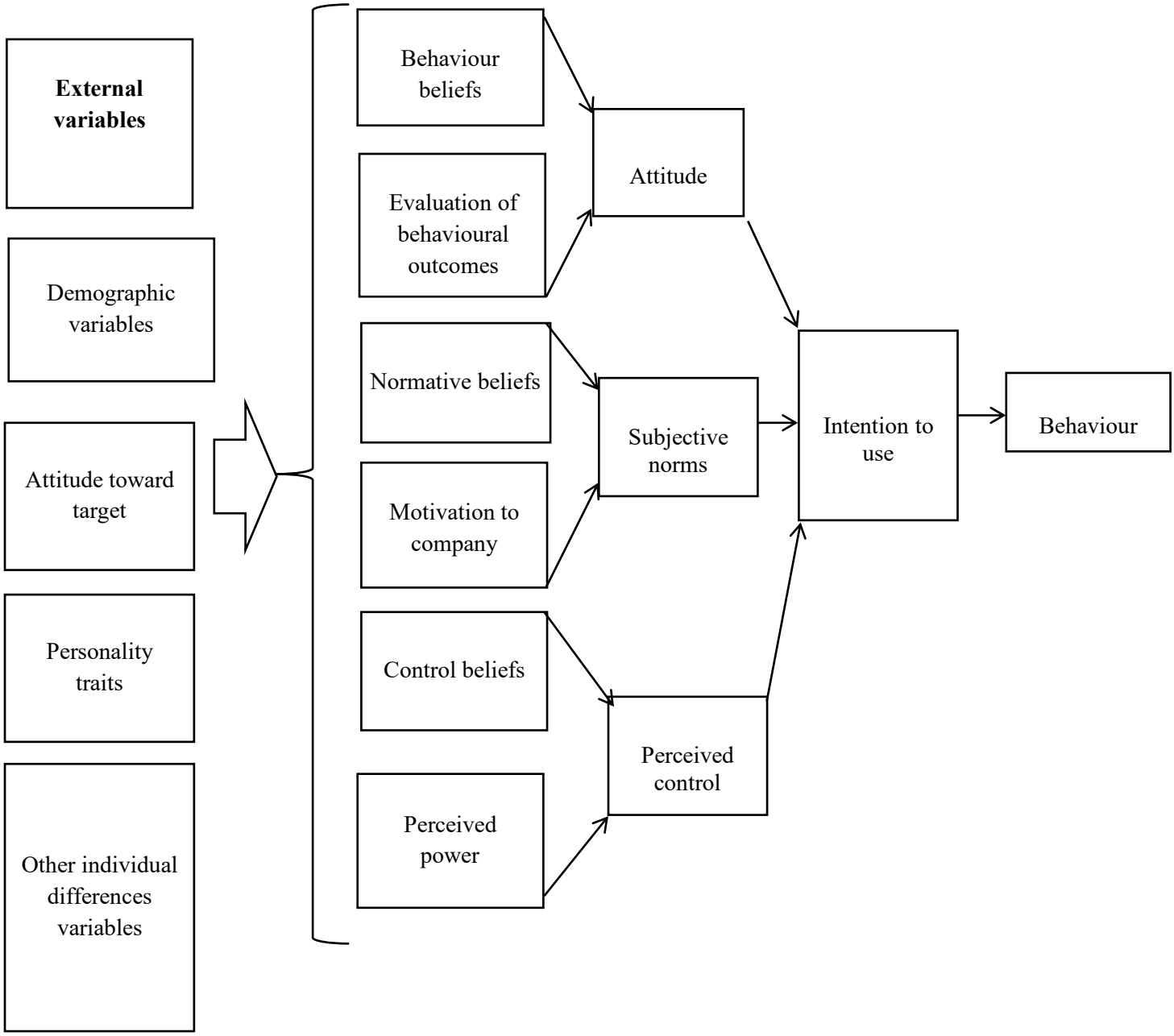


Figure 3.9. Theory of reasoned action and planned behaviour (Niswah & Legowati, 2019)

TRA, TPB, and PBC theories are adept concepts behind behavioural intentions. These theories also elaborate on how attitude changes the level of the subjective norm. These attitudes and subjective standards represent a change in perceived behaviour. Further, regulation occurs by shifting from one state to another and freezing these intentions into a behaviour. Consequently, this idea borrows the principle of attitude by implying that people live in a state of equilibrium. When the social environment evolves, they adapt to innovativeness, such as personality changes, to ensure survival (Niswah & Legowati, 2019). So, the subjective view is believed to adopt an attitude towards behaviour control.

Therefore, a significant effect of personal experience refers to the perceived behavioural perceptions of the impact of *experience* on the person. When embracing innovation agrees with various referents, the behavioural interpreted and normative assumption aligns with the innovation structure.

As a continuation of the TRA (Ajzen & Fishbein, 1975; Fishbein et al, 1980), the TDP has been made essential due to the constraints of the original paradigm in dealing with behaviours over which persons have little discretion. As in the initial TRA, a core element in theory is the person's aim to behave in a particular way, which is presumed to encapsulate the factors influencing behaviour. The greater the propensity to participate in such behaviour, the possibilities of openness for trying, or the extent of exertion they plan to exert to undertake a particular behaviour. Nevertheless, it should be noted that a behavioural purpose may only manifest in behaviour if the behaviour in issue is in control, i.e. (Ajzen, 1991).

According to TRA, a user's conduct is shaped by their goal to execute the behaviour, resulting from attitude toward the behaviour and subjective norm. The intention is the best determinant of behaviour. It is the ideal illustration of a person's preparedness to undertake a specific behaviour and is the immediate precursor to actual behaviour (Al-Ajam & Nor, 2013). Three factors influence this intention: attitude toward the specified behaviour, subjective norms, and perceived behavioural control. According to TPB, only certain attitudes toward a behaviour are predicted to influence such usage behaviour. The following are the primary parameters of the TRA model:

Attitude toward a specific behaviour: the proportion to which the behaviour's performance is regarded favourably or unfavourably.

Subjective norm: Perceived social obligation to participate or refrain from engaging in a behaviour.

People's judgments of their capacity to accomplish a specific behaviour are perceived as behavioural control.

Actual behavioural control: The extent to which individuals possess the necessary abilities, time, efforts, means, resources, and certain pre-conditions to conduct a specific behaviour.

Acceptance of intention is the direct precursor of behaviour and indicates a person's preparedness to do a specific behaviour. The intention predicts attitudes toward behaviour, subjective norms and perceived behavioural control, and each criterion is provided according to its ***relevance*** (Ajzen, 1991). The TRA is based on cognitive processing and the degree of behavioural change. Compared to affective processing models, the TPB ignores and evaluates emotional elements such as anger, fear, mood, and negative or positive feelings in a restricted way. Health-related behaviours are impacted by their perfect-laden character; this is a significant disadvantage for forecasting health-related behaviours. The omission of this variable may be responsible for the poor predictability of wellness behaviour in the study. The previous research is correlational and ignores evidence-based investigations for these essential models.

2.6. Unified Theory of Technology Acceptance and Use "One" (UTAUT 1)

The unified theory of acceptance and use of technology (UTAUT1) was developed Venkatesh et al (2003) after thoroughly examining the existing technology models to reveal their shortcomings. Venkatesh reviewed existing literature at the time, coupled with an empirical study focusing on the core elements of eight usage models and their effect on technology acceptance.

Eight models were incorporated to create a Unified Theory: Theory of Motivated Behaviour, Theory of Planned Conduct, Model of Technology Acceptance Model, Motivational Model, TAM-TPB-Compound Theory, Diffusion of Innovation Theory, Personal Computer Use Model, and Social Cognitive Theory are among the theories that have been merged (Ursavaş, 2022).

Five critical determinants were chosen according to the unified technology acceptance theory, and "two" were used (UTAUT2). They included success expectations, social

impact, effort expectations, conditions of facilitation, intention to use and behaviour, and four moderators: age, gender, the voluntariness of use, and experience.

Behavioural Intention is the extent to which a person believes using the item would boost his work performance. The *Usage Behaviour* is the extent to which a person feels the existing system is embraced and utilised by acceptance.

The expectation of commitment is the degree of usage and is related to scheme creativity. To the point that a person believes, usage applies to a perspective supporting individual acceptance. Finally, Usage Behaviour is like the definitions given by intentions. Its importance, however, must be considered for its positive impact on technological uses. Figure 2.10 sums up the model of UTAUT. As discovered, moderating influencers are variables that directly influence a series of relationships. Notably, usage found that the conditions that affect financial technology are not influenced by self-efficacy. Instead, they significantly impact behavioural intention (BI) because effort expectancy is a crucial determinant of usage behaviour (UB) (Venkatesh et al, 2003). The UTAUT model's success perspective encompasses IDT's relative benefit, SCT's outcomes, the perceived utility of TAM, external incentives, and the work fitness of MPCU. The energy expectation, however, includes IDT and MPCU uncertainty, SCT's self-efficacy, perceived ease of use of TAM, and intrinsic motivation. The requirements for facilitation include perceived conduct regulation of TPB, IDT preparation, and MPCU needs.

Performance expectancy

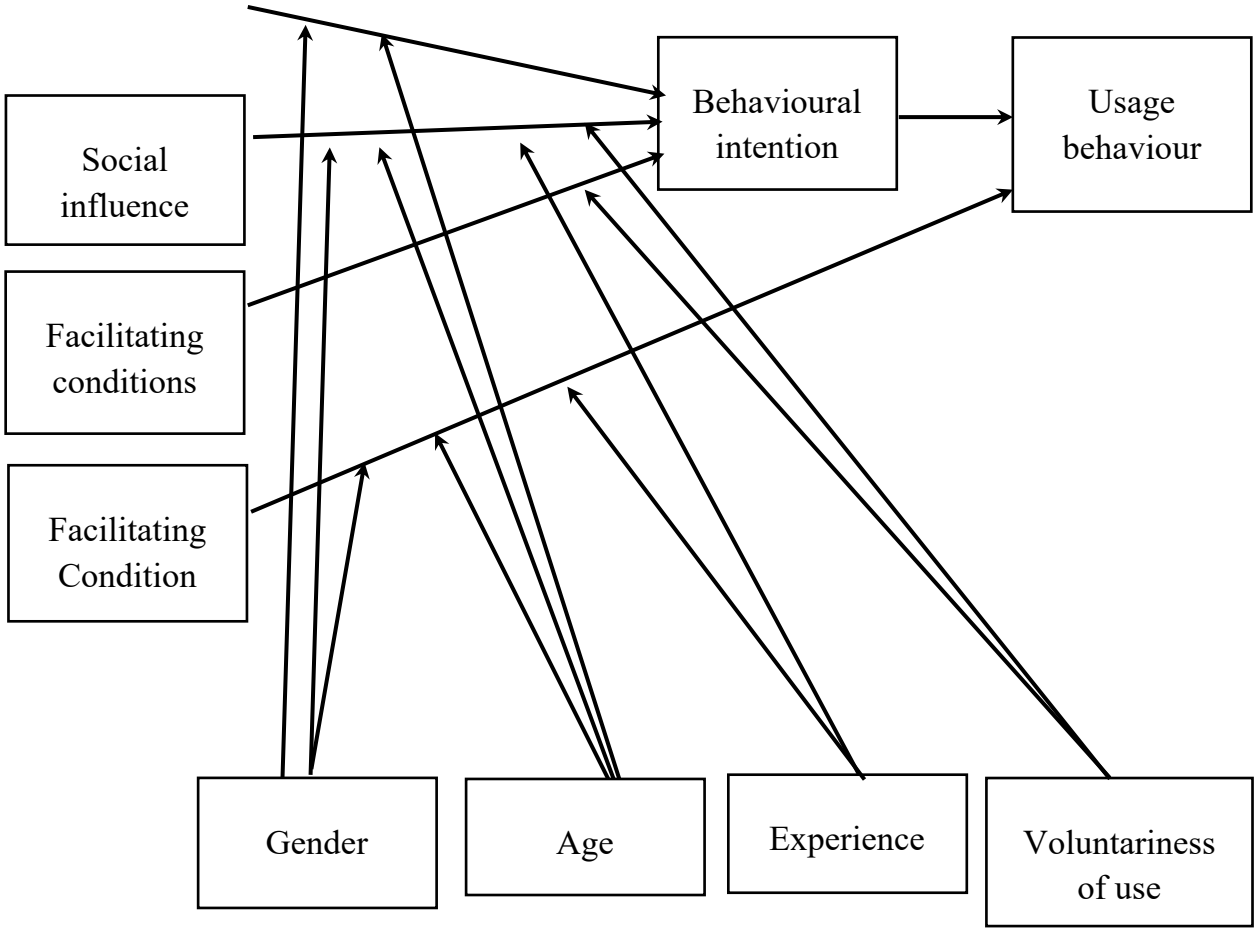


Figure 3.10. Research Model: UTAUT1 (Venkatesh et al, 2003**).**

The mediation effects in this theory have **Five** major factors: success Performance Expectancy, Effort Expectancy, Social Influence and Facilitating Conditions, as well as four moderators: *age, gender, voluntariness of use, and experience*; these factors affect various relations (Davis et al, 1989; Venkatesh et al, 2012). It has been found that *Behavioural Intention* greatly influences usage and behaviour without assuming an appropriate and moderating element. (Bagozzi et al, 1992) This theory was criticised for the multiple independent factors which predict purpose and usage. Despite the critique, some reports, for example, demonstrated the robustness and resilience of the UTAUT model and its application of the acceptance and use of Islamic FinTech. Specifically, these results mean that the model can be based on an international understanding of researchers' acceptance and use of each behaviour (Oshlyansky, 2007).

The study had similar findings, but it was noted that keen observation and extra vigilance are needed to interpret the results of analyses using the UTAUT model. According to Parameswaran et al (2015), this model is better than any other paradigm for judging and

estimating the acceptability of technologies. However, if it is evaluated and predicted, it is just as stable as other models used to measure technological acceptance. The table below summarises the fundamental principles of Islamic FinTech that underpins the TAM paradigm in terms of purpose and usage, mainly inspired by authors for action (see Table 2.4).

Table 3.2. Acceptable Theories and Authors

No	Theory	Definitions	Constructs	Variables	Contributors
1	Diffusion of Innovation Theory (DIT)	It explores how, why and to what degree an output (plus service), concept, and practice is distributed in different societies	The five stages of the innovation process are as follows: (1) Understanding of innovation. (2) Attitude change about invention. (3) Choice to approve or reject the invention. (4) Implementation of a new proposal. (5) Validation of an already-passed verdict.	Much data is utilised to construct hypotheses derived from medical and agricultural perspectives. Theoretically, science remains static under the incorrect presumption. The S-curve characterizing invention diffusion comes from one time and multiple innovation adopters. The problem is a pro-innovation preference, the advent of reminders, and consistency.	(Greenhalgh et al, 2004; Li, 2010)

2	Theory of Reasoned Action (TRA)	According to TRA, the desire to carry out actions determines the action. Therefore, the decision is a function of one's attitude toward a subjective norm and actions.	Two considerations decide the intention: (1) a subjective rule relating to behaviour and (2) an approach toward the action.	The use of motives and personal expectations, as well as mood, to forecast actions are constrained by considerations such as (a) objectives vs. behaviour, which is how an intent plan differs from real behavioural intention, and (b) the ability to choose among alternatives, which profoundly alters the essence of intention and behaviour. TRA excludes patterns like spontaneity, mindlessness, cravings, rituals, instinct, and spontaneity, according to (Hale et al, 2002).	(Ajzen, 1991; Dixon, 2005; Wilson et al, 2010)
3	TPB	TPB tried to expand TRA to include behaviours not entirely susceptible to intentional restraint.	The theory of perceived behaviour human behaviour can be classified into three types of beliefs:	Regarding effective processing models, TPB disregards emotional variables such as threats, fears, positives or negatives, and	(Diaz & Loraas, 2010; Miltgen et al, 2013; Oseni & Ali, 2019;

		PBC was, therefore, introduced as an empirical measure to predict intention.	(1) Behavioural beliefs – beliefs about future behaviour consequences and evaluations of those works. (2) Normative beliefs are the prominent referent groups in which individuals assume behavioural preferences. Subjective norms or perceived social pressure are formed because of the theories. (3) Control beliefs—beliefs about the perceived influence of elements that can allow actions in the presence of those elements.	moods. Thus, the research assessment is co-relational, detailed, and not founded on experimental studies.	Wilson et al, 2010)
4	Technology Acceptance Model (TAM/TAM2)	TAM utilised TRA as a theoretical structure to tie perceived utility, users' attitudes, and perceived comfort of behavioural intention. Subjective standards are a new determinant of intent to use technologies in TAM2.	Perceived utility (PU) and perceived ease of use (PEU) are factors of (PEOU) in TAM. As a result, TAM replaces perceived ease of usage and perceived utility for TRA's attitude determinants.	It continues to get strong criticism despite widespread usage. First, imitating, and challenging crucial reasons for experimental theories as a hypothesis is hard. It also has dubious heuristic importance, poor predictive and	(Bagozzi et al, 1992; Parameswaran et al, 2015; Shanab, 2005)

				explanatory ability, a lack of functional utility, and is insignificant. Adapting to practical and complex situations without creating "confusion and theoretical uncertainty" has also been difficult (Shanab, 2005). In general, it emphasises the human "consumer" while avoiding the basic social processes that constitute the creation and execution of IT (Bagozzi et al, 1992).	

Even though many experiments were performed using TAM models, there is a need for a coherent theoretical approach (Afthanorhan, 2013; Venkatesh et al, 2012). First, various conceptual frameworks resulted in many theoretical fields for a thesis on adopting and compromising a standard research method. Furthermore, researchers became concerned that specific hypotheses were significantly comparable. They should be analysed, drafted, and combined to achieve a coherent analytical approach to use analysis on topics relevant to embracing technology. According to some researchers, the time-consuming process of observing would be eliminated if there was a single explanation (Davis et al, 1989; Mitchell, 2013; Venkatesh et al, 2012). Meanwhile, UTATUT has compiled, and integrated various constructs derived from multiple models. Instead of using the sample, the researchers will use one hypothesis to discuss several issues related to acceptance and usage.

2.7. Unified Theory of Acceptance and Use of Technology (UTAUT2)

UTAUT2 describes the primary adjustments needed to adapt Islamic FinTech to the degree of sense, including current constructs applied to the degree (habit, hedonic motivation, and price value) to express UTAUT2. These models positively impact *gender, age, and experience* (Venkatesh et al, 2003; Venkatesh et al, 2012). UTAUT was the most applied theory to research Behaviours used within the discipline before the discipline Behaviour. UTAUT has been used in an extensive range of experiments in various innovation-related fields. Nonetheless, the widespread use of Islamic FinTech has influenced researchers to examine usage patterns and demonstrate real success by using systemic power. Based on the previous argument, this section attempts to present the structural influence of UTAUT. The subsequent objectives accomplish the overall purpose of this research (see Figure 2.15). With the extensive knowledge expansion of UTAUT, new constructs such as hedonic motivation, price value, and habit were incorporated into this model, which was reintroduced as UTAUT2 (Venkatesh et al, 2012). UTAUT2 was discovered to explain 74% of behavioural intention (Venkatesh et al, 2013), and a robust model that accounts for behavioural intention and actual technology implementation was developed (Tamilmani et al, 2021).

Figure 2.8 below shows the extended UTAUT2 model that this study will utilise.

The variables in the UTAUT-2 model are as follows:

1. **Independent Variables**: Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), Facilitating Condition (FC), Hedonic Motivation (HM), Habit (HB), Price Value (PV) and Behavioural Intention (BI)
2. **Dependent variable**: Use Behaviour (UB)
3. **Control Variables:** Gender (GDR), Age (AGE), Experience (EXP), Religion (REG), Language (LAG), Education (ED), and Management Level (ML).

The independent variables were found to affect the use of Islamic FinTech by Behavioural Intention in the following ways: The results were illustrated in conjunction with the broad impact principles on how to propagate a theory by putting it in a different setting. The following are the methods used by the thesis to achieve this goal:

- They are identifying three main structures from previous acceptance and usage studies.
- Changing some of the current relations in the initial conceptualisation of Islamic FinTech.
- The UTAUT (has on what please complete the phrase) (behavioural intention and usage behaviour) thesis models have introduced new relationships.

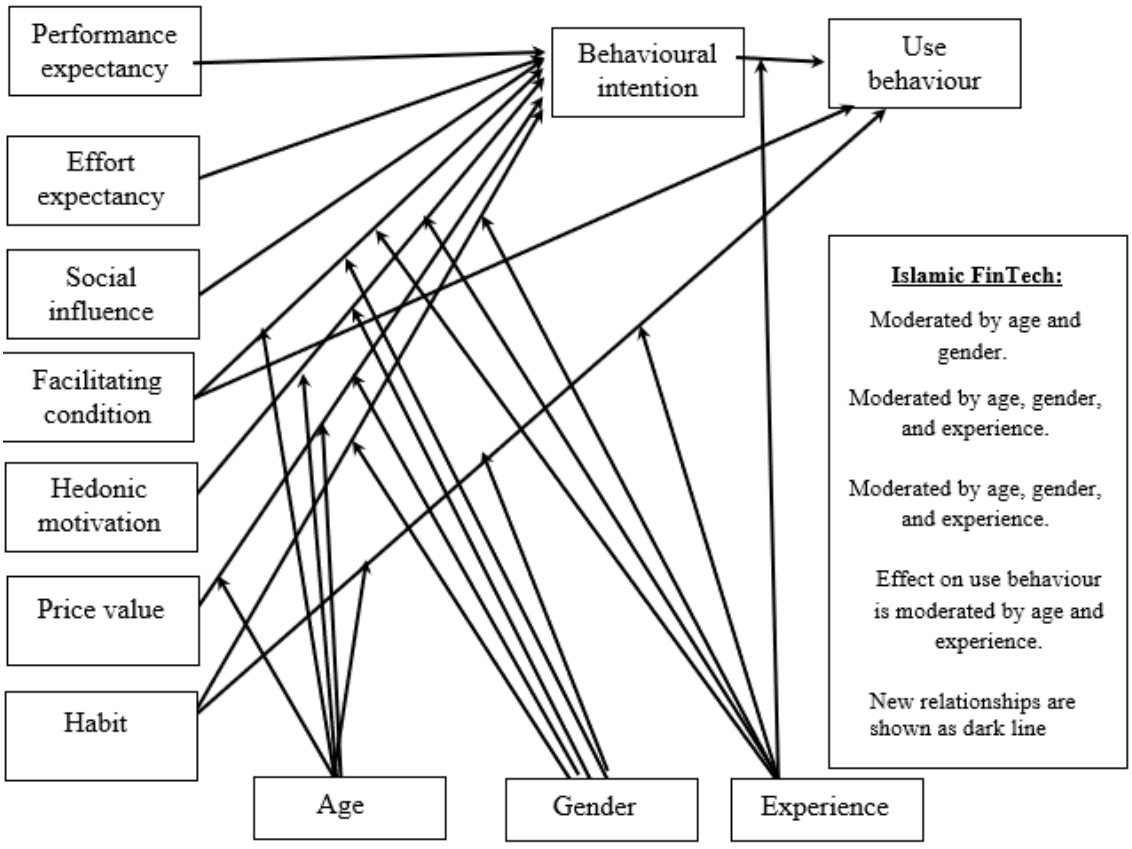


Figure 3.11. Research model: UTAUT 2 (Venkatesh et al, 2012)

The behavioural intention (BI) and usage behaviour (UB) were utilised to examine and find the results. Based on the theory, numerous constructs related to promoting conditions (FC) applied to consumer products and the use of technology were discovered during the study (Munyoka & Maharaj, 2017; Venkatesh et al, 2012). The primary theory holding the UTAUT model is summarised in Figure 2.11.

Constructs found in the UTAUT and UTAUT2 are described in detail.

The figure below depicts the relationship between several variables in UTAUT and UTAUT2.

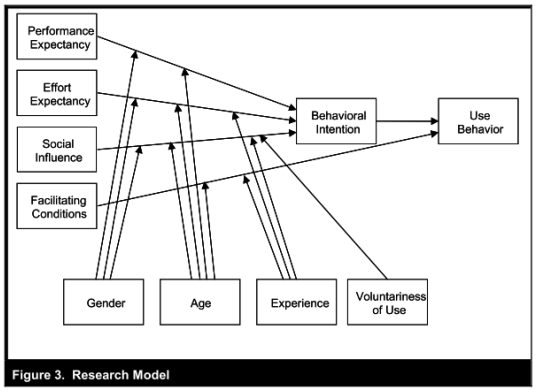
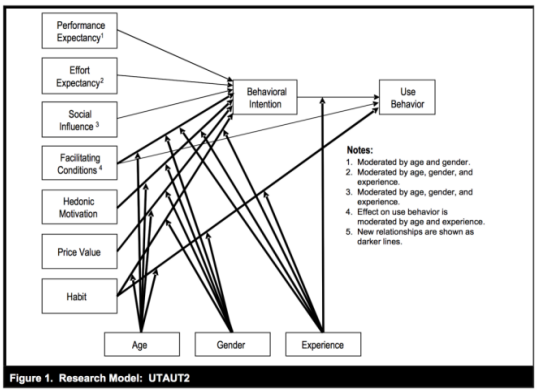
UTAUT1	UTAUT2
	

Figure 3.12. Comparison between UTAUT1 and UTAUT2 Models (Venkatesh et al, 2003; Venkatesh et al, 2012)

Variables in UTAUT 1 and UTAUT 2 are depicted diagrammatically. Descriptions for each build in the design are displayed, paired, and separated, as shown in Table 2.5.

Table 3.3. UTAUT and UTAUT2: Description of the construct's influence on the concepts.

Theories	UTAUT 1		UTAUT 2	
Construct	**(Venkatesh et al, 2003)**	**Researchers**	**(Venkatesh et al, 2012)**	**Researchers**
Performance expectancy	The extent to which a person believes that, when used, a system will assist in achieving goals in job performance.	(Al-Qeisi, 2009; Chong & Ngai, 2013; Miltgen et al, 2013) See Appendix B.	The degree to which the application of technology will benefit the user.	(Bellaaj et al, 2015)
Effort Expectancy	The system's degree of user-friendliness	(Alshare & Lane, 2011; Shanab, 2005) See Appendix B	The efficiency with which a user may use the system.	(Escobar-Rodríguez & Carvajal-Trujillo, 2014; Hernandez et al, 2008; Lian, 2015; Teo et al, 2000; Venkatesh et al, 2012)
Social influence	The degree to which one feels influential individuals will	(Al-Qeisi, 2009; Miltgen et al, 2013) See Appendix B	The degree to which a customer believes others must believe they should utilise the technology.	(Hernandez et al, 2008; Teo et al, 2000)

	support or should utilise the technique.		'Essential people' refers to individuals whose interests influence one's decisions and lives, such as relatives and friends.	
Facilitating conditions	The degree to which a person believes there are adequate accept and use mechanisms to enable system utilisation.	(Al-Qeisi, 2009; Miltgen et al, 2013)	The user views the accessibility and sufficiency of support services and devices to function.	(Escobar-Rodríguez & Carvajal-Trujillo, 2014; Lian, 2015; Miltgen et al, 2013; Venkatesh et al, 2012)
Voluntariness	Dummy variable to distinguish the situational effect		Dropped	
Hedonic Motivation	Not used		The main factor determining personal usage is the enjoyment or delight one derives from using energy.	(Weng et al, 2015)
Price Value	Not used		Cost is conceptualized with product or service quality to reflect perceived value.	(Teo et al, 2000; Venkatesh et al, 2012)

Habit	Not used		The extent to which employees learn spontaneously (Limayem et al, 2007). According to Kim & Malhotra (2005), habit can be equated to automaticity.	(Escobar-Rodríguez & Carvajal-Trujillo, 2014; Li et al, 2020b; Teo et al, 2000)
Gender	Following earlier studies, the gender factor was classified as a 0/1 dummies.		Unlike past studies, gender was assigned as an individual difference.	
Age	Age was regarded as a dichotomous scale, which aligns with other studies.		Age was categorized as an individual difference.	
Experience	A bogus factor with ordinal values (0, 1, and 2) was utilised to represent the user experience indicators that are on the increase.		Set as an individual difference.	

This study investigated the UTAUT2 from an accepted perspective, as acceptance may provide the chance for its most excellent use in the theoretical framework (Venkatesh et al, 2012). The literature contains multiple studies working to improve UTAUT2 and equate it to other principles to explain processes and expand theory in a better way. UTAUT2 combines the previous eight prototypes or hypotheses into a single attempt to develop a solid theory. Specifically, the acceptance can be used to evaluate Islamic FinTech's impact. UTAUT2 modifies UTAUT by considering expectancy performance, behavioural intention, and Islamic FinTech use. This is accomplished by extending the model to examine the variables that affect it further (Shanab, 2005; Yuan & Phillips, 2008). UTAUT2 provided variables chosen as the best combination of behavioural intention elements.

The UTAUT model has been widely adopted in recent decades. However, doubts have yet to emerge regarding the ability of the model to explain the acceptance of new technologies in education. For this reason, the original by Venkatesh et al (2003) was extended to form a unified theory of acceptance and use of technology (UTAUT2). Researchers have proposed adding more external variables to improve the ability to predict FinTech's acceptance accurately (Cimperman et al, 2016; Kabra et al, 2017; Khalilzadeh et al, 2017; Maillet et al, 2015). Several scholars have recommended various external variables to complement the work of the UTAUT model as it was initially designed. For instance, Khalilzadeh et al (2017) recommended the inclusion of behaviour intention (BI) in the evaluation of the factors that influence usage behaviour (UB) in the acceptance and use of Islamic FinTech. Others have recommended the inclusion of trust and personal innovation related to the use of Islamic FinTech in the UTAUT model to understand the factors that influence users' behavioural intention (BI) to use Islamic FinTech. Previous studies in the field of digital technologies conducted by Khalilzadeh et al (2017) and Alalwan et al (2017) singled out trust as the most critical factor that determines the behavioural intention (BI) of the users to adopt Islamic FinTech. Another study by Cheng et al (2011) suggested that perceived enjoyment is the most critical factor determining the adoption of Islamic FinTech.

2.8. UTAUT 2: Constructs, Definitions, and Key Findings

A comparative study is a study that compares two objects, UTAUT 1 and UTAUT 2. Constructs may have performed as a "compare and contrast" analysis/ acceptance and

usage analysis, which is the same general concept as a comparative analysis. The definitions are expected to provide a higher level of analysis in the models. The models of others that consider modern constructions and moderators' variables and factors are analysed in the original UTAUT model and the following UTAUT 2 model. One of the most recent advances in technology acceptance models is the unified theory of acceptance and use of technology (UTAUT) (Venkatesh et al, 2003). Like previous acceptance models, it tries to describe user intents to use acceptance and promote usage behaviour. Venkatesh et al (2003) Created this synthesis model to provide a more comprehensive understanding of the acceptance process than prior individual models could. The UTAUT model successfully incorporates essential aspects from eight earlier usage models.

The TRA, TPB, TAM, MPCU, MM, and SCT are extensions of the TAM2, and the IDT is the model that seeks to describe and comprehend user behaviour using a range of independent factors. A unitary model was developed based on these eight conceptual and empirical commonalities (Alshare & Lane, 2011; Venkatesh et al, 2007; Venkatesh et al, 2003). According to the theory, four significant components influence performance expectancy (PE): perceived usefulness (TAM/TAM2), relative advantage (IDT), extrinsic motivation (MM), work fit (MPCU), and outcome expectancies (SCT). The idea of perceived ease of use (TAM/TAM2), complexity (MPCU), and ease of use was represented by effort expectation (IDT). Subjective norms (TRA, TAM2, TPB/DTPB, and C-TAMTPB) were captured by social influence, as were social variables (MPCU) and image (IDT). Furthermore, facilitating conditions are captured by capturing the notions of perceived behaviour control (TPB/DTPB, C-TAM-TPB), facilitating conditions (MPCU), and suitability, such as work style (IDT) (Yu, 2012). Table 2.6 provides a summary of the previous research findings.

Table 3.4. Structures, concepts, and main results from UTAUT 2

Construct	Relevant structures and sources	Validity and reliability (N=215)	Important results
Performance Expectancy	Outcome expectations Perceived usefulness Relative advantage Extrinsic motivation	Four indicators Factor loadings (.87, .82, .85) Construct validity (.88)	The second strongest predictor of behavioural intention. Moderated by individual Intentions.
Effort Expectancy	Perceived ease of use Ease of use Complexity	Four indicators Factor loadings (.78, .82, .82, .78) Construct validity (.91)	Significant to behavioural intention. Individual Intentions moderate it.
Social Influence	C-TAM-TPB) and Subjective norm Social factors Image	3 indicators Factor loadings (.80, .77, .75) Construct validity (.82)	Significant to behavioural intention. Individual Intentions moderate it.
Fascinating Conditions	(TPB/DTPB, C-TAM-TPB (perceived behavioural control) Adaptability (IDT) Conditions that make things easier	four indicators Loadings of factors (.80, .79, .82, .85) Validity of construction (.75)	Significant to use. When explaining to older women, this is a more important usage. It is moderated by age and experience.
Hedonic Motivation	Perceived pleasure (Miltgen et al, 2013; Van de Schoot et al, 2012)	Three indices Loading of factors (.85, .81, .78) Validity of construction (.86)	Younger men are more likely to have lower. Knowledge of technology. Predicting usage intentions is critical.
Usage		Four predictors “Factor loadings” (.84, .82, .83)	Stronger predictor of usage among older men in later stages of experience.

		"Construct validity" (.82)	The effect was moderated by experience and gender.
Value for IFT USE	Cost-benefit analysis (Theodorou & Florou, 2008). Client trade-off (Dodds et al, 1991)	3 predictors "Factor loadings" (.70, .73, .73) "Construct validity" (.85)	The effect is more substantial for older women.

2.9. Summary

Usage models contain **moderation** variables, while **acceptance models** contain **mediation** variables.

This study uses these constructs and definitions of acceptance and use of Islamic FinTech. These factors are theorised into various moderating relationships between UTAUT1 and UTAUT1. However, the extensions have helped expand these theories' intellectual horizons (see Table 2.3).

	Theory or model	Context	Factors	Contribution	Moderators
1	Innovation diffusion theory	Intention	Rate of innovation	Relative advantage, ease of use, result demonstrability, liability, visibility, image, compatibility, and voluntariness of use	Experience
2	Technology acceptance model	Usage	Accepted	Perceived usefulness, perceived ease of use, and external variables	
4	TAM 2	Used to accept	Motivation	Job relevance	
5	A unified theory of acceptance and use of technology	Accept and use	Intention & use	Performance expectancy, effort expectancy, social influence, and facilitating conditions	Gender Age Experience Voluntariness
7	Technology Acceptance Model 3	Accept	Accepted	Anxiety, objective usability, and result demonstrability	
8	The unified theory of acceptance and use of technology 2	Accept and use	Accept use	Price value, habit, and hedonic motivation	Gender Age Experience
9	Technology Acceptance Model 2	Accept	Used	Perceived usefulness, perceived ease of use, and subjective norm	Experience Voluntariness

Table 3.5. Summary Theory and Model

10	TAM- including gender	Gender	Used	Perceived usefulness, perceived ease of use, and subjective norm	Gender Experience
13	Social behaviour change	Social	Use behaviour	Processes of compliance, identification, and internalisation	
14	Theory of reasoned action	Action	Use	Attitude toward behaviour and subjective norm	Experience voluntariness
15	Theory of planned behaviour	Planning	Behaviour	Background factors	
20	Social cognitive theory	Cognitive	Accepted by used	Outcome expectation, Self-efficacy, affect, and anxiety	None

Chapter 3. Theoretical Framework and Hypothesis Development

The previous chapter discussed several theories and models. This chapter briefly reviews the central concepts and ideas relevant to this thesis. It also deals with the basic idea of forming a theoretical framework based on the conceptual framework. After systematic arguments, this thesis develops the hypothesis. Present research was conducted to develop and test hypotheses that could contribute to theory building. These hypotheses analyse various variables and factors for the acceptance and use of Islamic FinTech

3.1. Hypothesis Testing

Hypothesis testing entails empirically verifying the assumptions that the relationship is argued systematically. It is one of the correct ways to acquire detailed information that can be used (Venkatesh et al, 2003; Venkatesh et al, 2012). This thesis will aim to test a list of hypotheses. The reason behind these hypotheses is that the mediation and moderation factors are intertwined, and thus, focusing on one of the variables may lead to a biased result. This thesis will, therefore, explore the given independent variables to ascertain their effect on acceptance and usage and come up with more balanced conclusions, unlike previous research on the topic.

3.2. Research hypotheses

3.2.1. influence of acceptance

The influence of acceptance can significantly affect various aspects of acceptance and use of Islamic FinTech. This study adopts seven exogenous constructs predicting behavioural intention towards FinTech acceptance. The seven exogenous factors are performance expectancy (PE), effort expectancy (EE), social influence (SI), facilitating condition (FC), hedonic motivation (HM), price value (PV), and habit (HT). It is a theoretical concept and a powerful tool that can shape personal and societal dynamics. It influences relationships, personal well-being, social norms, and the adoption of new technology. By fostering a mediational of acceptance, individuals and societies can drive positive change, promote inclusivity, and enhance social cohesion, thereby

reaping the practical benefits of this mediation phenomenon (Venkatesh et al, 2013; Venkatesh et al, 2007; Venkatesh et al, 2012).

Performance Expectancy is the perceived benefit derived from using a particular technology (Venkatesh et al, 2003),

Effort Expectancy is a concept used in the field of technology acceptance and usability. It refers to the perceived level of effort or difficulty associated with using a particular technology or system. In other words, it focuses on how easy or difficult users perceive a technology to be to learn and use.

Social Influence is the extent to which consumers perceive their significant others, such as families and friends, to influence their usage of a particular technology (Venkatesh et al, 2012).

Facilitating Conditions refer to the perception that resources and support available concerning a given technology will enable its use (Brown et al, 2010; Venkatesh et al, 2003; Venkatesh et al, 2012).

Hedonic Motivation, in this context, refers to the fun or pleasure a technology user derives from using that technology (Brown et al, 2010; Brown & Venkatesh, 2005).

*Habi*t is conceptualised as the tendency to perform behaviours automatically (Kim & Malhotra, 2005; Kim et al, 2015; Limayem et al, 2007).

*In this context, price value i*s the cost incurred by a user using that technology (Venkatesh et al, 2003; Venkatesh et al, 2011; Venkatesh et al, 2012).

These hypotheses are presented in Table 3.1 as H1 – H7. As mentioned below, Table 3.1 presents a list of all hypotheses.

Table 3.1. List of Hypotheses

H #	List of Hypotheses

Direct Path Hypothesis (Mediation)		
H1		**Performance Expectancy** has a significant positive effect on Behavioural intention.
H2		**Effort Expectancy** has a significant positive effect on Behavioural intention.
H3		**Social Influence** has a significant positive effect on Behavioural intention.
H4		**Facilitating Conditions** has a significant positive effect on Behavioural intention.
H5		**Hedonic Motivation** has a significant positive effect on Behavioural intention.
H6		**Price Value** has a significant positive effect on Behavioural intention.
H7		**Habit** has a significant positive effect on Behavioural intention.
H8		**Facilitating Conditions** has a significant positive effect on behaviour.
H9		**Habit** has a significant positive effect on Behavioural intention and
H10		**Behavioural Intention** has a significant positive effect on Islamic FinTech use.
Indirect Path Hypothesis – Hypothesis (Mediation)		
		Behavioural intention (BI)
H11	a	**Behavioural intention** positively mediates between performance expectancy and Islamic FinTech use.
H11	b	**Behavioural intention** positively mediates between effort expectancy and Islamic FinTech use.
H11	c	**Behavioural intention** positively mediates between social influence and Islamic FinTech use.
H11	d	**Behavioural intention** positively mediates between facilitating conditions and Islamic FinTech use.
H11	e	**Behavioural intention** positively mediates between hedonic motivation and Islamic FinTech use.
H11	f	**Behavioural intention** positively mediates between price value and Islamic FinTech use.
H11	g	**Behavioural intention** has a positive mediation impact between habit and Islamic FinTech use.
Conditional Indirect Path Hypothesis - 1st Stage Moderation		
Gender (GDR)		

H12	a	**Gender** has a moderated impact on the relationship between performance expectancy and behavioural intention.
H12	b	**Gender** has a moderated impact on the relationship between effort expectancy and behavioural intention.
H12	c	**Gender** has a moderated impact on the relationship between social influence and behavioural intention.
H12	d	**Gender** has a moderated impact on the relationship between facilitating conditions and behavioural intention.
H12	e	**Gender** has a moderated impact on the relationship between hedonic motivation and behavioural intention.
H12	f	**Gender** has a moderated impact on the relationship between price value and behavioural intention.
H12	g	**Gender** has a moderated impact on the relationship between habit and behavioural intention.
H13	a	**Gender** has a moderated impact on the relationship between performance expectancy and behavioural intention.
Age (AGE)		
H13	a	**Age** has a moderated impact on the relationship between performance expectancy and behavioural intention.
H13	b	**Age** has a moderated impact on the relationship between effort expectancy and behavioural intention.
H13	c	**Age** has a moderated impact on the relationship between social influence and behavioural intention.
H13	d	**Age** has a moderated impact on the relationship between facilitating conditions and behavioural intention.
H13	e	**Age** has a moderated impact on the relationship between hedonic motivation and behavioural intention.
H13	f	**Age** has a moderated impact on the relationship between price value and behavioural intention.

H13	g	**Age** has a moderated impact on the relationship between habit and behavioural intention.
Experience (EXP)		
H14	a	**Experience** has a moderated impact on the relationship between performance expectancy and behavioural intention.
H14	b	**Experience** has a moderated impact on the relationship between effort expectancy and behavioural intention.
H14	c	**Experience** has a moderated impact on the relationship between social influence and behavioural intention.
H14	d	**Experience** has a moderated impact on the relationship between facilitating conditions and behavioural intention.
H14	e	**Experience** has a moderated impact on the relationship between hedonic motivation and behavioural intention.
H14	f	**Experience** has a moderated impact on the relationship between price value and behavioural intention.
H14	g	**Experience** has a moderated impact on the relationship between habit and behavioural intention.
Religion (REG)		
H15	a	**Religion** has a moderated impact on the relationship between performance expectancy and behavioural intention.
H15	b	**Religion** has a moderated impact on the relationship between effort expectancy and behavioural intention.
H15	c	**Religion** has a moderated impact on the relationship between social influence and behavioural intention.
H15	d	**Religion** has a moderated impact on the relationship between facilitating conditions and behavioural intention.
H15	e	**Religion** has a moderated impact on the relationship between hedonic motivation and behavioural intention.
H15	f	**Religion** has a moderated impact on the relationship between price value and behavioural intention.

H15	g	**Religion** has a moderated impact on the relationship between habit and behavioural intention.
Language (LAG)		
H16	a	**Language** has a moderated impact on the relationship between performance expectancy and behavioural intention.
H16	b	**Language** has a moderated impact on the relationship between effort expectancy and behavioural intention.
H16	c	**Language** has a moderated impact on the relationship between social influence and behavioural intention.
H16	d	**Language** has a moderated impact on the relationship between facilitating conditions and behavioural intention.
H16	e	**Language** has a moderated impact on the relationship between hedonic motivation and behavioural intention.
H16	f	**Language** has a moderated impact on the relationship between price value and behavioural intention.
H16	g	**Language** has a moderated impact on the relationship between habit and behavioural intention.
Education (ED)		
H17	a	**Education** has a moderated impact on the relationship between performance expectancy and behavioural intention.
H17	b	**Education** has a moderated impact on the relationship between effort expectancy and behavioural intention.
H17	c	**Education** has a moderated impact on the relationship between social influence and behavioural intention.
H17	d	**Education** has a moderated impact on the relationship between facilitating conditions and behavioural intention.
H17	e	**Education** has a moderated impact on the relationship between hedonic motivation and behavioural intention.
H17	f	**Education** has a moderated impact on the relationship between price value and behavioural intention.

H17	g	**Education** has a moderated impact on the relationship between habit and behavioural intention.
Management level (ML)		
H18	a	**Management level** has a moderated impact on the relationship between performance expectancy and behavioural intention.
H18	b	**Management level** has a moderated impact on the relationship between effort expectancy and behavioural intention.
H18	c	**Management level** has a moderated impact on the relationship between social influence and behavioural intention.
H18	d	**Management level** has a moderated impact on the relationship between facilitating conditions and behavioural intention.
H18	e	**Management level** has a moderated impact on the relationship between hedonic motivation and behavioural intention.
H18	f	**Management level** has a moderated impact on the relationship between price value and behavioural intention.
H18	g	**Management level** has a moderated impact on the relationship between habit and behavioural intention.
Conditional Indirect Path Hypothesis - 2nd Stage Moderation		
H19		**Gender** has a moderated impact on the relationship between Behavioural intention and Islamic FinTech use.
H20		**Age** has a moderated impact on the relationship between Behavioural intention and Islamic FinTech use.
H21		**Experience** has a moderated impact on the relationship between Behavioural intention and Islamic FinTech use.
H22		**Religion** has a moderated impact on the relationship between Behavioural intention and Islamic FinTech use.
H23		**Language** has a moderated impact on the relationship between Behavioural intention and Islamic FinTech use.
H24		**Education** has a moderated impact on the relationship between Behavioural intention and Islamic FinTech use.

H25	**Management level** has a moderated impact on the relationship between Behavioural intention and Islamic FinTech use.

3.2.2. Behaviour Intention (BI) as a predictor of Usage Behaviour (UB)

As presented in the UTAUT model, behavioural intention has been conceptualised in This thesis as behavioural intent towards FinTech acceptance (Venkatesh et al, 2012). As captured in hypotheses 1-7 above, many other factors shape behavioural intent. Similarly, the behaviour used in the UTAUT model is conceptualised as Islamic FinTech use in this study. These factors influence behavioural intention (Venkatesh et al, 2012) and FinTech acceptance and use. For instance, increasing experience, previous utilisation, perceived expectancy, and effort expectancy, among other factors, would determine behavioural intention towards FinTech acceptance and eventual Islamic FinTech use (Kim & Malhotra, 2005; Limayem et al, 2007).

This accentuates the relevance of the UTAUT2 model as the basis for this thesis. Behavioural intention is theorised in extant literature to have a significant positive effect on technology use (Venkatesh, 2015; Venkatesh et al, 2003; Venkatesh et al, 2011; Venkatesh et al, 2012). Various research methods seek the usage pattern, providing an opportunity to understand Islamic FinTech underpinnings (Sousa, 2012). According to the integrative framework, the system's interactions are the power, The explanatory aim is to explore the approaches adopted across all study methods.

Through acceptance and use, deploying Islamic FinTech will have some leverage on the cost by reducing it. Islamic FinTech will allow the acceptance of new concepts that usage (Akpan et al, 2021; Leszczyński & Zieliński, 2015; Schepurek & Dulkeith, 2013). In this study, we consistently theorise that behavioural intent towards Islamic FinTech acceptance will significantly affect Islamic FinTech use. This postulation is presented in Table 3.1 as hypothesis number eight (H8). This theorisation is based on the contention that Islamic FinTech, depending on BI, would ensure access to a high level of Islamic FinTech, hence its usage (Irfan & Ahmed, 2019). Islamic FinTech entails the application of technology in Islamic financial services (Oseni & Ali, 2019).

3.2.3. Mediation and Moderation (Indirect relationships)

In addition to the hypotheses postulated for the direct relationships between the study variables (i.e., exogenous factors of technology adoption, behavioural intent for FinTech acceptance, and Islamic FinTech use), this study will examine indirect relationships based on *mediations and moderation variables* of the study. Therefore, for mediation relationships, the study theorises that behavioural intention mediates the relationship between the exogenous factors (i.e., EE, PE, HM, HT, PV, FC, and SI) and Islamic FinTech use (Edwards & Lambert, 2007). This hypothesis is represented as H11 in Table 3.2.

Demographic variables (age, gender, experience, religion, language, education, and management level), on the other hand, are theorised to moderate the relationship between exogenous factors (i.e., EE, PE, HM, HT, PV, FC, and SI) behavioural intent towards FinTech acceptance and Islamic FinTech use. This will be explained in the next section.

3.3. Study Variables

With layers of interdependence, the acceptance and use of Islamic FinTech have many variables, namely exogenous factors and behavioural intention towards acceptance and use of Islamic FinTech. The variables have two significant reliability factors that work antagonistically on behaviour. Two dynamic considerations are proposed to understand the acceptance and use perspective. Additionally, the relationship between latent variables is described in the definition of the concept of Islamic FinTech (Bentler & Huang, 2014). This research anticipates from the same viewpoint that the unused objects of self-concept correlate far better with each other than the replies. Therefore, it is proof for a single element but not for testing the model and matching invention if all variables correlate. However, quantitative analysis was used to understand the relationship between constructs used in the study. Subsequently, factor analysis was used to assess the reliability and validity of the constructs. This study presents various levels of variable dependency, implying that some variables mediate in the survey.

3.3.1. Independent Variables

Independent variables are not affected by mediation variables in a study and are also called predictor variables. In applying SEM, they are often referred to as exogenous variables. In this study, some of the independent variables are effort expectancy (EE), social influence (SI), facilitating condition (FC), price value (PV), performance expectancy (PE), and habit (HT).

Given this study's various layers of dependency, behavioural intention (BI) to accept Islamic FinTech can also be viewed as an independent variable when examined with Islamic FinTech use in mind. Acceptability can be understood from the description that intentions are the extent of a personal feeling for their need to use a system or technology. Based on definitions of UTAUT2, the study results and the constructs showed that behavioural and Islamic FinTech usage are highly dependable, as espoused by (Venkatesh et al, 2012). In this sense, the concept in this context aspires to be extended to continuous random variables.

3.3.2. Dependent Variables

The dependent variables, also known as effect or outcome variables, rely on changes in the independent variables. As already mentioned, this study has several layers of dependency. Therefore, behavioural intent toward FinTech acceptance sometimes plays the dependency and mediating roles at another level. Islamic FinTech use is, thus, the ultimate dependent variable in this research. The dependent variables' relationships with the independent variables are evaluated through path modelling, mediating effect, and moderating effect in PLS-SEM. However, in this context, behavioural intent to accept FinTech is commonly used as the independent and mediator variable concerning Islamic FinTech use (Venkatesh et al, 2012).

Exogenous factors are, therefore, one of the few determinants that improve the exposure of moderation to the endogenous variables' relationships. In this regard, the innovation can easily be used within financial technologies with the aid of usage as it is an interest-based determination process in which the exogenous variables help determine dependent variables (DV). Simultaneously, a path analysis would aid in implementing and understanding the dependent variables (DV) by evaluating the exogenous and endogenous through mediator and moderator variables. Nevertheless, the researcher in this study employs moderating variables at the point of

behavioural intent (BI) and Islamic FinTech use. These moderators, however, change from time to time depending on the needs and desires of individuals to use Islamic FinTech.

3.3.3. Control Variables

This study conducted a hierarchical regression analysis to find more detailed causal relationships among variables. It set age, gender, Education, Religion, Language, and Islamic FinTech usage period as control variables; it then verified the influences of the control variables on behavioural intention (BI) in Model 1.

3.4. Research Approach

The research used a quantitative approach to examine external influences on behavioural intention and the use of Islamic FinTech, considering the influence of demographic factors. Data on Islamic FinTech was gathered from managers of Islamic banks, which impacted 203 companies listed on the website of the Saudi Stock Exchange. An online questionnaire was employed to collect the data, comprising 27 items on Islamic FinTech representing four dimensions of usage among Islamic banks, financial services, financial institutions, and commercial banks. The acceptance and use of Islamic FinTech were measured as an endogenous construct, reflecting acceptance rather than the causes. The web includes various intentions that are accurate and designed to facilitate transactions and services, offering businesses high expectations of exchange.

3.4.1. Direct Effects

The direct effect is the effect of one variable (independent variable) on the other variable (dependent variable) and the mediator or moderator between them. The direct effects in this study were checked to understand the nature of the relationship between exogenous factors, namely effort expectancy (EE), social influence (SI), facilitating condition (FC), performance expectancy (PE), and habit (HT); and behavioural intent of FinTech acceptance as already stipulated in the

hypotheses by (Venkatesh et al, 2003; Venkatesh et al, 2012). Other effects, such as the effect of facilitating conditions and Habits on usage behaviour, were also evaluated.

The effect between behavioural intention and the use of Islamic FinTech was evaluated. The effect fundamentally depends on accurate timing and relevant usage that facilitates adequate methods and explicitly clarifies the concept of acceptance and usage. Simultaneously, this study has seven variables that offer good insights.

3.4.2. Mediation Effects

Mediation effects, according to Hair Jr et al (2017) entail a situation where an intermediate variable absorbs the effect of an exogenous latent variable on an endogenous latent variable in a path model like PLS. It is the consequential results of one variable (independent) on another variable (dependent) with some mediator between the independent and dependent variables. An example of mediation is observed when a variable at the level of acceptability and a mediator at the usage level positively affect criterion and predictor variables (Kock, 2014). The study has adopted the mediating variables by testing the effect of the independent variable on the dependent variable through mediators. For example, the effect of the exogenous factors on Islamic FinTech use through behavioural intent towards FinTech acceptance. Calculating the effect of one variable on the other requires that all the intermediate variables be kept constant (Hair Jr et al, 2017). However, FinTech usage represents the status and trends of acceptance and use. In this research study, the innovation is based on theories, models, and methods, sometimes referred to as the usage and acceptance in other contexts.

3.5. Moderation Effects

The moderating variable influences the relationship between independent and dependent variables. Through moderating variables, the established relationship between acceptance and use is either very weak or there is no relationship between them. According to some researchers, the moderating variable strengthens or weakens the relationship between the independent and dependent variables (Afthanorhan, 2013). With a moderator, the weak or non-existent relationship between an

independent and dependent variable might become stronger compared to a relationship between these variables. Thus, the research reflects the aim for a moderator to use actions as a third variable of influences, which helps to understand more apparent facilitating conditions between behavioural intention and Usage behaviour.

The current study's moderator variables are *age, gender, religion, education, experience, language, and management level*. The moderating effect of variables is based on detecting the moderation in the first order of using moderator variables that entails the underlying foundations when applying the response and associating them with the underlying usage elements (Edwards & Lambert, 2007). Multi-group analysis and measurement invariance are used to evaluate the influence of these moderators on the relationships between the acceptance and use of Islamic FinTech.

3.5.1. Gender

The concept of Gender significantly Impacts the usage of Islamic fintech. It influences males and females in various ways. Male dynamics are experienced in Islamic banking just as in conventional banking. They not only affect the opportunities available for males and females in Islamic banks but also shape the gender roles in the sector. Even though women have been underrepresented in the past, there have been efforts in the financial industry to promote gender diversity and inclusion. As a result, there have been increased opportunities for males in managerial and executive positions. Males are a dichotomous binary variable in this study, where the coding is used for males without females (Diaz & Loraas, 2010). Previous research indicates that gender is associated with technology innovativeness (Kim & Malhotra, 2005; Limayem et al, 2007; Venkatesh et al, 2012). When given at a certain level, the response of males and females using Islamic FinTech would provide new insight into Islamic FinTech by broadening the usage concept. Moreover, managers can implement new factors, such as a unified theory of acceptance and moderate its use.

H12a-g: Gender *has a moderated effect on the relationship between explanatory factors (i.e., PE, EE, SI, FC, HM, PV, HT) and Behavioural intention (BI).*

H19: Gender *moderates the relationship between Behavioural intention (BI) and Islamic FinTech use (IFT use).*

3.5.2. Age

The second model of this research contains the responses from different age groups to connect with users. Age has been linked with the technology used in previous research (Kim & Malhotra, 2005; Lee et al, 2010; Venkatesh et al, 2012). This will further enhance the measurement accuracy of the model that follows Berny's Islamic FinTech use; here, the meaning of "usage" is connected with behaviour (Yuan & Phillips, 2008). The purposes are naturally located within the acceptance and the use, and they are regarded to have an experience during the interaction for innovation. The usage will be examined as indicators since the measurement model drives the usage model. The usage by different age groups indicates and measures the use of technology (that is, Islamic FinTech use). FinTech is the perfect style to develop a framework of psychological or behavioural factors due to the possibility of integration for the acceptance and use of Islamic FinTech. The measurement model is a part of Islamic FinTech and its availability, impact, and change of behaviour increase with use.

H13a-g: ***Age*** *has a moderated effect on the relationship between explanatory factors (i.e., PE, EE, SI, FC, HM, PV, HT) and Behavioural intention (BI).*

H20: Age *moderates the relationship between Behavioural intention (BI) and Islamic FinTech use (IFT use).*

3.5.3. Religion

Religion has a significant influence on the acceptance and use of Islamic Fintech. Its effects can be expressed in the following ways: Religion offers a framework for comprehending the concept of existence, life's purpose, and the relationship between individuals and deities. Besides, religion shapes people's beliefs about creation, the universe's origin, morality, and ethics. Through religion, people obtain guidance, purpose, and meaning in their lives since it acts as a moral compass that guides human behaviour and shapes societal norms. Since Islamic banking operates under the principles of Sharia, a body of Islamic law, Islam greatly influences Islamic banks.

The Islamic banks consist of both religious and non-religious services. They have a robust innovation system and are critical to using financial services. Mostly, Islamic banks create the

relationship by acceptance without considering behaviour (Billah & Billah, 2019). Islamic FinTech uses extensive fields because of the different central acceptance and usage levels of financial services. It is not easy to know about the usage time of Islamic FinTech. However, it is used more often, and its effect on innovation can be examined. The usage needs acceptance prediction on a broader scale, as well as the capability and flexibility of the Islamic banks that discuss the process of recording retention (Gheeraert, 2014). The effect of religion differs when using new technology in Islamic banking. It will develop and effectively use a modern effect paradigm to include fundamental innovation by Recognising methodologies, resources, and products (Gheeraert, 2014). The effect of religion depends on the behavioural response used in a particular and defined environment, which represents the application of the response as a service (Lee et al, 2010). Since this new technology will borrow significantly from Islamic banking and Sharia principles, the researcher expects a vital moderation from religion.

H15a-g: Religion *has a moderated effect on the relationship between explanatory factors (i.e., PE, EE, SI, FC, HM, PV, HT) and Behavioural intention (BI).*

H22: Religion *moderates the relationship between Behavioural intention (BI) and Islamic FinTech use (IFT use).*

3.5.4. Experience

The user experience is of high importance for Islamic FinTech. Experience can take care of measurement models in business. More experience shows a high level of interaction for a specific association (Kim et al, 2015; Lee et al, 2010; Limayem et al, 2007; Venkatesh et al, 2012). These methods activate dealing with intention (Hair et al, 2012). There are many types of experience:

Firstly, the experience is applied to confirm and explore the user's feelings. Further, it approves the use of the best technique. *Secondly, experience* is attached to two-intention methods for understanding; the business level is essential and makes more appropriate innovation for practical usage. This type of design can refer to the objectivity of design as theoretical, ethical, or valuable, that is, the choice of analysing methods. *Third, the experience* of interlocking functions of organizing, planning, controlling, and directing the resources; the highest required levels of management are a fundamental concept of assets in the organization and coordination that provides

capital when achieving the objective of transfer and measure. *Fourth* is the experience of data usage, which involves assigning several categories. Like the methods that facilitate data measurement and distribution between sectors, the researchers can examine acceptance. *Fifth, experience* is attached to two elements of the business. Therefore, innovation comprises experience; a manager can establish the experience to construct theories, frameworks, models, tools, and supporting disciplines for institutions, as mentioned earlier. *Finally*, *experience* is related to the (system), regarded as a system/knowledge asset using Islamic FinTech. The usage will provide a comprehensive overview of all the highest levels and examine modelling constructs such as measurement models (Lee et al, 2010). Several models can be used to comprehend a system that includes objectives, scope, strategy, practices, and tools. The experience variable is also recorded into two groups of experience: less than ten years and ten years and above.

H14a-g: Experience *has a moderated effect on the relationship between explanatory factors (i.e., PE, EE, SI, FC, HM, PV, HT) and Behavioural intention (BI).*
H21: Experience *moderates the relationship between Behavioural intention (BI) and Islamic FinTech use (IFT use).*

3.5.5. Language.

Language is a medium of communication among individuals and communities. It allows people to convey their thoughts, ideas, emotions, and information. Proficiency and fluency in a certain language have a significant impact on how individuals can effectively express themselves and if they can understand others. Since language is a critical element of culture, it plays a critical role in shaping cultural identity. Relationships and connections can be formed through language, and people can develop a sense of community. Understanding a language is of higher importance when using technology. The language has higher-order models. The language can be defined by various primary elements that capture separate attributes of practical use (Jones, 2017). Language is essential for constructing the mechanism and method for Acceptance and Use that involves the analysis of factors (Lee et al, 2010; Lee, 2009; Venkatesh et al, 2012).

H16a-g: Language *has a moderated effect on the relationship between explanatory factors (i.e., PE, EE, SI, FC, HM, PV, HT) and Behavioural intention (BI).*

H23: Language *moderates the relationship between Behavioural intention (BI) and Islamic FinTech use (IFT use).*

Education (ED)

Educational background refers to the different stages of education attainment that include **High school education** corresponds to the attainment of the requirements of a secondary education program, typically grade 9 to 12 or its equivalent. **A bachelor's degree** relates to an undergraduate education earned after completing a four-year program at a college or university. It is a higher level of education beyond high school that ensures that one specialises in a particular field of study by acquiring in-depth knowledge. After a bachelor's degree, one can earn a **master's degree**, a post-graduate degree that entails one to two years of additional coursework, research, and a thesis or a capstone project. After a master's degree, one can obtain the highest level of education, a doctoral degree. **Doctoral degrees** are mainly pursued by individuals whose focus is advanced research, teaching in institutions of higher learning, or those interested in specialised professional roles such as law, medicine, or psychology (Bauman & Graf, 2003). Most users with **academic degrees** are well-educated, which helps enhance formal and informal processes. The academic degrees are innovative and flexible in examining the use of Islamic FinTech. This includes four dimensions when the uses endogenous factors. Multiple studies indicate the necessity of education in understanding acceptance activities (Lee, 2009; Shaikh et al, 2020). From a critical perspective, the educational background shows the issues dealing with response. Simultaneously, the answer is regarded as appropriate for the degree of social influence in all probability. Acquiring a higher level of education enhances confidence and efficiency. When deciding how often consumption metrics reflect the cognitive realm, education background must pay more attention to the relevance of the steps' substance. Education background was proposed as the primary response target, where financial technologies could impact behavioural intention.

H17ag*:* ***Education*** *has a moderated effect on the relationship between explanatory factors (i.e., PE, EE, SI, FC, HM, PV, HT) and Behavioural intention (BI).*

H24: Education *moderates the relationship between Behavioural intention (BI) and Islamic FinTech use (IFT use).*

3.5.6. Management-Level

There are three primary management levels: 'top-level management', 'middle-level management' and 'lower-level management.' Top-level management is also referred to as senior-level or executive management. It comprises the topmost positions in the organisation, with the managers having a broad scope of authority. Middle-level management consists of management positions that are in between top-level and lower-level management. These include department managers, regional managers, or divisional managers. These managers implement strategies and plans laid out by the top-level management. Besides, they translate the organisation's goals into objectives, coordinating between the other two levels of management. Lower-level management is also referred to as first-line or front-line management. It comprises supervisors, team leaders, and other entry-level management positions. Their roles involve supervising the day-to-day activities of the organisation. They are in charge of employees as they assign them tasks, monitor their performance, and ensure they meet the operational goals of the firm. They, therefore, implement the plans and policies set out by middle-level managers (Bedeian, 1993).

The management level of banks is essential because of their involvement between inputs and outputs. Islamic banks train their managers in data and information management, influencing diversified mental situations. Islamic banks are reluctant to accept innovation as their unity and strength. This encourages actions that are supposed not to restrict the provision of new information. In comparison, commercial banks carry out investigations into internal and external factors. The technical versatility of the acceptance and use of Islamic FinTech is often used to adjust the potential of the validated standard for successful results (Wu, 2017). However, the leading framework variables are a formal paradigm for accepting and using Islamic FinTech. In this case, the commercial banks will focus on accepting and using Islamic FinTech; no additional relationships will be included in Islamic FinTech uses. This will help thrive effect for future studies.

H18a-g: *Management level has a moderated effect on the relationship between explanatory factor (i.e., PE, EE, SI, FC, HM, PV, HT) and Behavioural intention (BI)*

H25: Management Level *moderated the relationship between Behavioural intention (BI) and Islamic FinTech use (IFT use).*

3.5.7. Other Factors

These miscellaneous factors have moderation effects but are not part of the research study. Through reasoned action techniques, Islamic FinTech demonstrates fundamental determinants of intents and actions that can be described in terms of behavioural, normative, and control beliefs. These can all be used to characterise the underlying factors that determine our intents and actions in the context of a rationale for action, as they do for the acceptance and use of Islamic Fintech (Venkatesh et al, 2012). In addition, beliefs can be viewed in terms of the fundamentals of intentions and usage (i.e., beliefs are fundamental determinants of intentions and actions). These concepts are not considered when using this technique. In addition to age, gender, ethnicity, and socioeconomic status, religious views and practices are influenced by many other factors. For example, nationality or religious affiliation could also be considered. Look at this list of examples: A person's intelligence, involvement in a group, prior experiences, exposure to knowledge, social support, and coping ability are only some of the attributes that may influence one's perspective. For example, background elements might affect a person's opinions about a person's behaviour and norms even when there is no essential link between background elements and beliefs (Venkatesh et al, 2003; Venkatesh et al, 2012). There is a direct correlation between the presence of emotional components in the environment.

Emotions play a significant role in human behaviour and decision-making. In its most basic form, this research involves performing an empirical investigation to discover whether or not a specific background element or elements influence a given opinion. This study demonstrates that choosing which background components should be investigated can be tricky, even when a theoretical framework is given to aid selection. When this happens, all of the relevant elements are accessible to choose from.

Even though these concepts are not part of their mental framework, they are valuable in comprehending the underlying reasons for their behaviour by directing attention to crucial background components that are otherwise neglected (Petraitis et al, 1995). Researchers in numerous behavioural areas have traditionally focused on what they now call "background factors," which include broad attitudes, personality preferences, and demographic information. This approach has helped them better understand how people behave.

Psychologists believe that a person's views, preferences, and demographics are essential in developing their personality. FinTech has already established that the information they have obtained is the same as the information they claimed to have gathered previously. Based on the findings of this study, it is possible to construct a guideline that includes the types of background variables necessary to determine the most likely causes of behavioural and normative attitudes toward a given activity (Venkatesh et al, 2003; Venkatesh et al, 2012). These guidelines will assist them in determining the kinds of background components essential to discovering the probable sources of their participants' behavioural, normative, and control attitudes toward a specific activity. In research, this guideline can assist them in determining the background components necessary to discover the probable origins of their participants' behavioural and normative and control attitudes toward a specific activity.

As a way of giving them an example, consider the following situation: Researchers have found that bias against a specific minority group has impacted hiring decisions in the past, and researchers have found that this is still the case in today's climate as well. According to Petraitis et al (1995), people who are prejudiced in the same situation as a minority candidate will have different views toward choosing a minority candidate.

Chapter 4. Research Design and Methodology

4.1. Introduction

This chapter presents the research design and methodology adopted for the present thesis. More specifically, the chapter discusses the design approach, including observation and review of documents. It discusses three types of research: *univariate, bivariate, and multivariate.* It is suggested that researchers must consider these methods to create their original analysis design, as well as to prepare the data for entry and perform the preliminary analyses (Field, 2009; Garson, 2016). From a use standpoint, the study attempts to improve the intention to comprehend the most effective way to conduct a study and get the desired outcomes. The research design adopted, therefore, facilitates the improvement of the researcher's data collection and analytical skills. The chapter also reviews and highlights research paradigms and provides the reasoning behind the choice of research approach, paradigms, designs, and methodologies. It also outlines the methods utilised to embrace the literature's importance and the research's flaws. Research methodologies are presented with a focus on data collection strategies and techniques and data analysis strategies.

4.2. Methodology

This thesis emphasises the relationship between seven exogenous factors of acceptance and usage of Islamic FinTech. This study is based on the UTAUT2 model espoused by Venkatesh et al (2012) to understand the link between the study variables. The methodology of a study is decided after the development of the research question, objective, and hypothesis. This study's research questions and objectives are based on the research problem. However, the hypothesis is based on some theories and literature. A research model is designed based on the study's hypotheses, and the methodology is decided to test that model. Because of this, ten research questions were formulated, and over ten hypotheses were postulated.

In addition, the research developed a conceptual and theoretical model consisting of multiple variables such as independent, dependent, mediating, and moderating. This multilayer of variables projects the study's model as a complex one. Indications from extant literature suggest using SEM to analyse such models' data. Therefore, the data will be analysed using path analysis in PLS-SEM (Hair Jr et al, 2021). The overarching goal of this study is to evaluate and expand the body of

information and comprehension of customers' acceptance of FinTech and the use of Islamic FinTech. Based on a survey of the existing literature, a conceptual model, and assumptions about FinTech acceptance and use of Islamic FinTech were constructed. Users were asked to reply to multiple survey questions evaluating the components of the proposed theoretical model to explore the primary predictors of Islamic FinTech adoption.

This chapter describes the data gathering and statistical analysis procedures used in this study. The study used a quantitative data collection strategy based on a survey methodology to acquire information on prospective customers' use of Internet banking services. Based on earlier existing scales and survey tools, the questionnaire was created based on studies of (Venkatesh et al, 2003; Venkatesh et al, 2012). The phrasing of questionnaire items included in the survey for assessing components of the proposed model, reported in this chapter, was altered from previous literature as needed to fit within the framework of this research. As already mentioned, the partial least squares structural equation modelling (PLS-SEM) program was used to analyse data for the final conceptual model. The fundamental goal of this statistical method is to enable an investigator to model and forecast correlations between postulated concepts and demographic characteristics as moderator variables.

4.3. Research Design

The purpose of a research design is to obtain a good analytical model. The methodologies are then implemented to analyse a research model and its relationship. The research design is a critical stage of the research process and is usually based on some philosophical grounds (Hernandez et al, 2008). Research design can be classified based on the timeframe as cross-sectional or longitudinal or based on the purpose of the research (Creswell & Creswell, 2017). By purpose, this study could have adopted either an exploratory research design (to explore phenomena), a descriptive research design (to describe phenomena), or an explanatory research design (to explain the occurrence of phenomena) (Creswell & Creswell, 2017).

This research study created the design based on the philosophy of acceptable research (Creswell & Creswell, 2017; Dixon, 2005). Further, this research has a separate section explaining the research design and its justifications for adoption. Its research design has a model covering

multiple variables, so the analysis must explain this design to address the questions and hypotheses.

The nature of the study itself advocates for an exploratory research design, given that Islamic FinTech is still an emerging phenomenon. Hence, as in exploratory studies, the aim would have been to explore new insights into FinTech acceptance and Islamic FinTech use. Exploratory research may be used to outline issues, establish hypotheses, and clarify ideas more accurately (Churchill & Iacobucci, 2006). state that exploratory research should be the foundation for employing cause-effect and descriptive research designs. Moreover, further consideration also indicates that a descriptive research design could have been adopted in this study. Generally, a descriptive research strategy is focused on finding the frequency with which something occurs or the connection between variables (Dillon et al, 1993). An original hypothesis is usually the driving force behind a descriptive investigation. A descriptive design will be the most suitable to address the research question, "What are the elements influencing consumers' adoption and applicability of Islamic FinTech using UTAUT?".

As stated, explanatory research design seeks to explain causal behaviours in cause-effect research where correlations must be analysed (Creswell & Creswell, 2017; Malhotra et al, 2020). Causal research designs, on the other hand, focus on finding causal connections, which are investigated through experiments. The study topic has been well-defined, and hypotheses have been created, so an exploratory research methodology is inappropriate. Second, the hypotheses are written to evaluate the correlations between dependent and independent variables rather than to determine causality. As a result, a haphazard study design is likewise inappropriate. The following factors can be used to choose the best research design for the project (Cooper & Schindler, 2014):

- The present research is not a surveillance study but rather a communication study. A surveillance study involves the researcher inspecting a subject's behaviours or the nature of any material without seeking to elicit replies from anybody. In a communication study, the investigator queries respondents and gathers their replies using internet or phone chats, self-administered or self-reported questionnaires, and methods delivered before and after a treatment or stimulus state in an investigation. A survey will be conducted to obtain

participants' thoughts about online banking services in this study. As a result, the design might be categorised as interaction research.

- The study is a cross-sectional study since it is conducted just at one moment in time. Given the research issue, it is not required to repeat the study over a lengthy period (as in the case of a longitudinal study).

- The study's thematic scope is quantitative since hypotheses are investigated using structural equation modelling.

- The respondent's natural environment is the research setting necessary to collect the information needed to test the hypotheses and answer the research question. As a result, the research setting is designated as field circumstances.

In conclusion, the research methodology used in this study is best defined as a descriptive research design, in which data is extracted through a self-administered questionnaire in field settings at a single point in time, and the thematic scope of the investigation is quantitative (Nel, 2013).

4.4. Research Paradigms

Research paradigms are considered the philosophical assumptions, mental models, worldviews, or belief systems that form reference points for organising thoughts and observations in research (Creswell & Creswell, 2017; Saunders et al, 2009). According to Saunders et al (2009), research paradigms are relevant in determining the conduct of research inquiries and the interpretation of data analysis. As indicated by Creswell & Creswell (2017), research paradigms differ ontologically, epistemologically, axiologically, and methodologically. Creswell describes ontology as the nature of reality, epistemology as the nature of knowledge, axiology as the role that values attach to research, and methodology as the research process (see Table 4.1).

The expected results of this research contrast the approach's overarching theory and the basic theory of the methodology. Also, the forms of study questions being posed are mirrored in data processing, ranging from mathematical analysis to qualitative data analyses that parallel the underlying philosophy (Ngari & Muiruri, 2014; Saunders et al, 2009). The study adopted the

positivist paradigm. Since the research is data- and analytics-based, the interpretivist paradigm would not be considered much.

4.4.1. Positivist Paradigm

The positivist paradigm is a wide research philosophy that is difficult to describe precisely. The scholar uses positivism in different contexts. Therefore, positivism does not change from context to context. The number of ways to describe positivism may be proportional to the number of scholars who have written on scientific theory. The premise of positivism posits that science is the best way to discover facts (Sousa, 2012). According to ontology considerations, the study's philosophy can be characterised as an aim by three research assumptions: ***Positivism, Critical, and Interpretivism***.

Positivism is theory-driven, where the theory of "factual" intelligence is obtained by the perception, including a reliable calculation. Positivism in a study depends on the data collection and its analysis. The results of these studies are measurable and quantifiable using different analysis techniques. As a theory, "positivism is consistent with the empiricist view that intelligence is derived from human experience." Based on the literature, the research philosophy is divided into positivism and naturalism. The literature implies that the reason for the present action, which is "determinist" behaviour rather than "inferential" or "analytical" behaviour, is the capacity to impose the physiological character of the study. Niehaves & Bernd (2006) claimed that realism had a role in establishing a descriptive approach in the community. Additionally, they mention how there is no separation between sociological and physical effects; therefore, the positivist premise is "from the structure of our environment as well as how to understand it." Positivistic behaviour influences the philosophers so that the behaviour intention diversifies it in such a way that assigning a specific meaning of usage has become difficult.

In this regard, six stages to distinguish this philosophy have been identified, as depicted in Figure 4.1. Methods could involve intervention research, quantitative research, interviews, surveys, case study investigations, or a full literature review based on the research onion. Islamic FinTech is selected depending on the evidence required for the analysis, and the study's objective is reflected in the findings (Saunders et al, 2009). The figure of the analysis method "onion" is seen in Figure 4.1 above. The research onion allows one to describe the research methodology, strategy, methods,

options, time horizons, and techniques and procedures in an ordered fashion. It leads to the best way of performing the study. They help us identify an ideal route of primary research to study, in this case, the effect of FinTech acceptance and Islamic FinTech use.

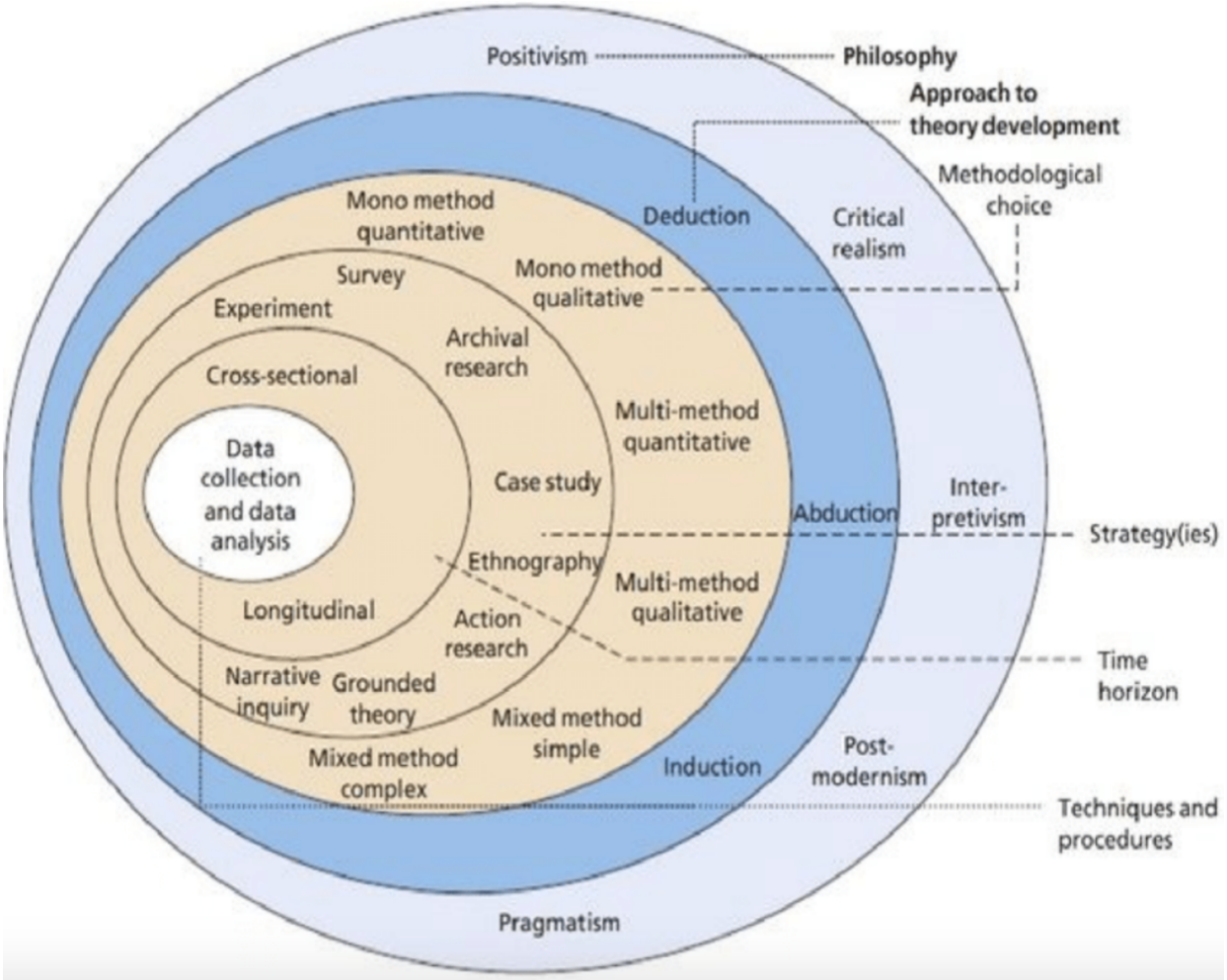


Figure 4.1. Research onion (Creswell & Creswell, 2017)

4.5. Research Theory

Research theory is one key component of behaviour because it focuses on the research findings and recommends future studies with a critical paradigm of acceptance and use. This study discusses the most recent usage. As a result, behavioural intention is the foundation of the research theory, and it is an epistemological premise.

Usage implies that reality should be factual, but its meaning can differ because it is subjective in certain situations. Research has defined objectivity in critical theory based on their expectations and ideologies (Creswell & Creswell, 2017). Participants have a primary goal in the factor and analysis because they understand interpretivism. Further, they shape understanding concepts in any scenario involving the structure.

4.6. Choosing the Methodology

The research will use a quantitative approach because the research uses primary data. In addition, the conceptual model needs to be tested using a statistical test, which falls under the quantitative approach. The study will test the research model based on the existing theory and research questions.

This thesis relies on the quantitative approach since it is the best approach for testing the hypothesis based on the survey data. Similarly, the quantitative approach provides clear guidance based on results to accept or reject the hypothesis.

4.7. Research's Online Procedures

My research will be divided into stages based on different protocols for online use. The stages are as follows:

- ***The first stage*** involves a behavioural intention assessment analysis, which tests the "fit" of acceptance and usage. It also discusses study areas that have not been capitalised on to learn about the models. These models develop a conceptual structure, outline the main research issues and present hypotheses.

- **Stage two** involves assessment, questionnaires, and analysis. The ethics committee approved the construction of the model structure. Since the pre-test testing was performed to fine-tune usage, the pilot study was carried out to evaluate the use of the intervention.

- ***Stage three*** entails using the website, as well as the characteristics that have been observed from private users. In this case, anonymity will be maintained in the questionnaire. In response to this inquiry, a survey was conducted using acceptance and usage techniques, and the roles of partners and experts who responded to these questionnaires under review were considered.

- ***In the fourth stage,*** the data will be investigated using PLS tools by performing reliability checks, confirmatory and exploratory factor analysis assessments, evaluating data quality, checking the model in use, and path analyses as appropriate models.

- ***The fifth stage*** will involve the approval and application of the literature review.

4.8. Structural Equation Modelling and its Statistical Approaches

The study adopted a structural equation modelling (SEM) analysis approach to examine the relationships among latent variables for hypothesis testing, model development, and validation aligned with the study variables. SEM is used because of its enhanced capacity to analyse the multi-item measurement model's trustworthiness and test the relationships' structural path (Hair Jr et al, 2014). According to Hair et al (2012), this technique allows the researcher to assess and interpret complex models with several interrelated dependence relationships. SEM is measured using two powerful statistical approaches: exploratory factor analysis and structural path analysis. These approaches help assess the measurement and structural model, respectively (Lee et al, 2011). Further, the explained variance of the dependent variable is larger than multiple regression (Lee et al, 2011).

Two mainstream SEM approaches estimate structural relationships in a model, such as FinTech acceptance and Islamic FinTech use. First is the covariance-based SEM (CB-SEM), which is strictly driven by theory and applied for confirmatory purposes in research (Dijkstra & Henseler, 2015; Hair et al, 2012; Hair Jr et al, 2021; Hair Jr et al, 2014; Henseler & Fassott, 2010). This

approach manifests in software programs like LISREL, AMOS, M-Plus, and EQS. Second is the Partial Least Squares SEM (PLS-SEM), also known as Variance Based SEM (VB-SEM) or component-based SEM, which is apparent in Smart-PLS software (Dijkstra & Henseler, 2015; Hair et al, 2012; Hair Jr et al, 2021; Hair Jr et al, 2014; Henseler & Fassott, 2010). PLS-SEM finds application in prediction and exploratory research, as this current study applies.

4.8.1. Considerations for PLS-SEM

According to Hair Jr et al (2021), PLS-SEM is considered a theory-based multivariate statistical analysis process that is data-driven and appropriate for providing new theoretical insights and predictions about the researched phenomenon. Given that this study is focused on FinTech acceptance and use, these phenomena are still in their earlier stages of development Shaikh et al (2020), therefore, would require exploring new insights. The study is also based on the UTAUT2 complex model with various layers of variable interdependence. Hence, PLS-SEM would be deemed suitable for analysis of the variables' paths and links. In addition, PLS-SEM provides researchers with more flexibility regarding data requirements, model complexity, and relationship specification (Hair Jr et al, 2021; Hair Jr et al, 2014). As such, it has enjoyed increasing popularity as a critical multivariate analysis method in various research disciplines, including information systems, information technology, finance and management, and business research fields, which are major interest/motivating factors for this thesis.

This research is based on cause and effect, where existing theories (e.g., UTAUT, UTAUT2) are used to test a new model that brings in Islamic FinTech as an extension of UTAUT theory. Further, the current research aims to analyse the influential impact of key variables, i.e., behavioural intent, on FinTech acceptance and Islamic FinTech use. To determine the impact among studied variables, this research emphasised cause-and-effect relationships. PLS-SEM maximises the variance explained by the independent variable. Therefore, PLS-SEM explains both direct and indirect relationships.

Most importantly, the PLS-SEM is a casual-predictive approach. In management studies, PLS path modelling is a well-supported approach for predicting complicated cause-effect connection models (Gudergan et al, 2008). On the other hand, PLS-SEM enervates composite constructs that typically

incorporate extra theory-based indicator variables, all while improving prediction accuracy (Rigdon, 2012). Therefore, current research uses PLS-SEM to analyse the research model.

PLS-SEM has been used in much research because it can estimate large models with different constructions without imposing the data distribution assumption. Further, PLS-SEM is graphical user interface-based software that allows easy viewing of the data and drawing different graphs in clicks (Hair Jr et al, 2021; Hair Jr et al, 2014). The primary consideration for PLS-SEM is that it is a statistical approach that partially estimates the model's structure by combining the ordinary least squares regressions with the principal component analysis.

This method is a substitute for the CB-SEM, which has multiple restrictions and assumptions. A detailed debate about PLS-SEM and CB-SEM exists in the literature. Most of the studies have recommended PLS-SEM for use. Researchers use PLS-SEM:

- When the analysis is focused on putting a theoretical framework to the test regarding prediction.
- When the structural model is complicated and has many elements, variables, and model linkages.
- The research goal is to better understand rising complexity by investigating theoretical extensions of previous ideas (exploratory research for theory development).
- When one or more instructional assessed constructs are included in the route model.
- When the research is made up of financial metrics or other data artefacts.
- When the research depends on secondary/archival data, it may lack complete justification for quantification theory principles.
- PLS-SEM also works well with higher sample sizes when the sample size is limited due to a small population (for example, a business-to-business survey).
- When there is a worry about distribution difficulties, such as a lack of uniformity, and when the study attempts to understand latent variable ratings for follow-up analysis.

The list above offers an overview of factors to examine when determining if PLS is a practical SEM approach to research.

4.8.2. Distribution Assumptions

Many scholars believe the main reason for using PLS-SEM is the absence of distribution assumption. In social sciences, most studies rely on abnormal data of their own, which is not a proper justification. However, in some situations, abnormal data also affect PLS-SEM results. For example, the bootstrapping of abnormal data produces a skewed and peaked distribution. Bias Corrected and accelerated (BCa) is helpful in such cases. Therefore, choosing PLS-SEM only because of the distribution assumption is not necessary. However, PLS-SEM is effective and robust for small samples (Hair Jr et al, 2021; Hair Jr et al, 2014).

4.8.3. The Statistical Power of PLS-SEM

The statistical power of Partial Least Squares Structural Equation Modelling (PLS-SEM) is an important consideration when conducting research using this technique. Overall, the statistical power of PLS-SEM is an important consideration that can inform research design, data collection, and the interpretation of results. Addressing statistical power can enhance the reliability and validity of the PLS-SEM analysis and the conclusions drawn from the research. (Hair Jr et al, 2021; Hair Jr et al, 2014). Most existing studies have used PLS-SEM because of its statistical power compared to CB-SEM. Statistical power is used to investigate a relationship's true effect. The PLS-SEM is helpful for explanatory research examining the theories in the developing or less developed stages (Hair Jr et al, 2021). Tentative model modifications, such as adding a new latent variable, an indicator, an inner relationship, or the exclusion of such an element, are examined for predictive significance, and the different pilot tests are a quick and low-cost process."

4.8.4. Goodness-of-Fit.

The PLS-SEM does rely on model fit. The PLS-SEM is less concerned about the fitness of the model. Therefore, testing a new theoretical model is recommended when using PLS-SEM. The PLS-SEM does not consider the comprehensive assessment. Some researchers consider the model fit using PLS-SEM. Therefore, many threshold values exist in the literature. As a result, any

benchmarks (criteria) offered in the literature should be considered very speculative. Second, because the technique for producing PLS-SEM solutions is not centred on reducing the dispersion between observed and estimated covariance matrices, the idea of Chi-square-based model fit metrics and their expansions, as employed in CB-SEM, is inapplicable (Hair Jr et al, 2021; Hair Jr et al, 2014). As a result, even bootstrap-based model fit evaluations based on, say, some distance measure or the SRMR are invalid.

4.8.5. Reflective Measurement Model

Whenever the construct is supposed to explain the variance in the indicators or items of the construct, it is termed a reflective measurement model. In this case, the construct causes the indicators. Mean change in construct will appear or reflect in the scores of the items. For example, an individual's satisfaction with a job will be reflected in the scores of various job satisfaction items. The use and evaluation of the reflective measurement model are very different from the measurement and evaluation of formative models. In reflective models, the arrow points from the construct to the indicators with an error term on each indicator (Hair Jr et al, 2021). This means there will be as many error terms as in the number of indicators or items used to measure the construct. The items are similar statements to extract maximum information regarding the construct. The correlation between the variables is expected to be very high. The high correlation between indicators makes them interchangeable. The relationship between indicators is reflected in the form of loadings.

The current research uses the reflective measurement model to answer the research questions. The first step involves indicator loading. The threshold of 0.70 is considered for the factor loading. The construct explains over 50 per cent of the variable's variance to provide the item's reliability. After checking the reliability, the second step is to test the internal consistency, called composite reliability. The indicators are considered more reliable with higher values. In exploratory research, reliability values between 0.60 and 0.70 are considered acceptable. A value above 0.95 is considered problematic as it reduces the validity of the construct due to the redundancy of items (Hair Jr et al, 2021; Hair Jr et al, 2014). Therefore, the participants' responses are considered unexpected. High-reliability values show internal inconsistency. Compared to composite reliability, Cronbach alpha is considered less important in measuring reliability as the items are

unweighted. While measuring the composite reliability, the indicators are loaded individually and are weighted for their loading. Therefore, the value of Cronbach's alpha is lesser than the composite reliability. Another consideration for reliability is composite reliability (P_c), an exact measure of construct reliability (Dijkstra & Henseler, 2015; Hair Jr et al, 2014).

4.9. Ethical Research

The ethical principles that guide research are essential for ensuring the research process's integrity, credibility, and responsibility. Specific ethical principles and management styles may vary across different Saudi banks as they adapt to their respective organisational cultures and market conditions. The study was guided by the ethical principles in research, such as focusing on the research aim, confidentiality, informed consent, and anonymity. To ensure that ethical principles are adhered to, university ethics committees review the applications of research proposals. The data was collected online after obtaining approval from **the Ministry of Communications and Information Technology** (See Appendix; 9). Furthermore, the institutional review board approved the data collection before completing the research. According to the information available on the Saudi Stock Exchange (Tadawul) website, the Saudi banks are listed among the 208 companies traded on Tadawul. Currently, 12 Saudi banks are listed and traded on the Saudi Stock Exchange (Tadawul). The Saudi banks are classified under the "Banks & Financial Services" sector on the Tadawul website. Each Saudi bank is listed as a separate company on the Tadawul website, with its own ticker symbol, company name, and other relevant information. By upholding these ethical principles, Saudi bank managers can contribute to the overall stability, trustworthiness, and social responsibility of the Saudi banking sector.

Chapter 5. Pilot Study

5.1. Introduction

The purpose of this chapter is to present the pilot plan used to design and test the study's data. The chapter first presents the design of the data collection tool and then highlights the pilot data collection strategies. The chapter also reviews various types of validity and describes how they were applied in assessing the validity of the questionnaire used. Moreover, the chapter explains the relevance of reliability testing and describes how reliability was assessed in this research (Hair Jr et al, 2017).

5.2. Questionnaire Design

In the process of designing a questionnaire for a research study, conducting a pilot study, a small-scale preliminary study carried out before the main study is not just a step but a crucial one. The pilot study plays a pivotal role in the questionnaire design phase by providing valuable insights and feedback that inform the final questionnaire design. The Unified Theory of Acceptance and Use of Technology (UTAUT), developed by Venkatesh et al, 2003, is closely related to two previous theories: the Theory of Reasoned Action (TRA) and the Theory of Planned Behaviour (TPB). In the pilot study, the UTAUT model, developed by Venkatesh et al. in 2003, is a well-known model to explain user acceptance and use of information technology. The UTAUT model utilises a survey questionnaire to measure the key constructs influencing technology adoption. The UTAUT survey questionnaire typically includes the following main constructs and their corresponding measurement items, which were mentioned previously. The survey items were usually measured using a Likert scale, such as **a 5-point scale** ranging from "Strongly Disagree" to "Strongly Agree." The UTAUT model has been widely used and validated in various technology adoption studies across different contexts of Islamic FinTech.

Data was collected using a prospective questionnaire tested rigorously to ensure reliability and validity prior to data collection (Klinger, 2006). The questionnaire was adopted from previous literature; therefore, it requires an examination of its appropriateness concerning this research. This

was done through a pilot study Developed by Venkatesh et al (2012). Therefore, *moderation* played an essential role in developing the questionnaire.

The English version of the questionnaire was first developed and reviewed by knowledgeable professors of Islamic FinTech. An Arabic version was translated into English. The reverse translated English version was then checked against the original English version. Consequently, some questions were rewritten to mirror the original meaning of the questions in English. Besides, The Arabic version of the questionnaire was tested on over 100 managers of Islamic banks from Islamic FinTech companies in Saudi Arabia. These managers were not part of the primary survey. The data collected from the pilot study was used to verify the accuracy and consistency of the measure. The study used acceptance and usage models to identify the predictive factors, including effort expectancy (EE), hedonic motivation (HM), performance expectancy (PE), habit (HT), social influence (SI), price value (PV), facilitating conditions (FC), behavioural intention (BI), and Islamic FinTech use (IFT use). The critical variable in this study used a 5-point Likert scale for the ordinal data (refer to Table 5.1).

Table 5.1. List of items used in the questionnaire

Performance Expectancy (PE)		**Reference**
PE1	I find Islamic FinTech useful in my daily life.	(Venkatesh et al, 2012)
PE2	Using Islamic FinTech increases my chances of achieving things that are important to me. (dropped)	
PE3	Using Islamic FinTech helps me accomplish things more quickly.	
PE4	Using Islamic FinTech increases my productivity.	
Effort Expectancy (EE)		
EE1	Learning how to use Islamic FinTech is easy for me.	(Venkatesh et al, 2012)
EE2	My interaction with Islamic FinTech is clear and understandable.	
EE3	I find Islamic FinTech easy to use.	
EE4	It is easy for me to become skilful at using Islamic FinTech.	

Social Influence (SI)		
SI1	People who are important to me think that I should use Islamic FinTech.	(Venkatesh et al, 2012)
SI2	People who influence my behaviour think that I should use Islamic FinTech.	
SI3	People whose opinions I value prefer that I use Islamic FinTech.	
Facilitating Conditions (FC)		
FC1	I have the resources necessary to use Islamic FinTech.	(Venkatesh et al, 2012)
FC2	I have the necessary knowledge to use Islamic FinTech.	
FC3	Islamic FinTech is compatible with other technologies I use.	
FC4	I can get help from others when I have difficulties using Islamic FinTech.	
Hedonic Motivation (HM)		
HM1	Using Islamic FinTech is fun.	(Venkatesh et al, 2012)
HM2	Using Islamic FinTech is enjoyable.	
HM3	Using Islamic FinTech is very entertaining.	
Price Value (PV)		
PV1	Islamic FinTech is reasonably priced.	(Venkatesh et al, 2012)
PV2	Islamic FinTech is a good value for the money.	
PV3	At the current price, Islamic FinTech provides a good value.	
Habit (HT)		
HT1	The use of Islamic FinTech has become a habit for me.	(Venkatesh et al, 2012)
HT2	I am addicted to using Islamic FinTech.	
HT3	I must use Islamic FinTech.	
HT4	Using Islamic FinTech has become natural to me.	
Behavioural Intention (BI)		

BI1	I intend to continue using Islamic FinTech in the future.	(Venkatesh et al, 2012)
BI2	I will always try to use Islamic FinTech in my daily life.	
BI3	I plan to continue to use Islamic FinTech frequently.	
Use of Islamic FinTech (Usage)		
Usage 1.	(Usage1)	(Al Rubaiai & Pria, 2022)
Usage 2.	(Usage2)	(Gerlach & Lutz, 2019)
Usage 3.	(Usage3)	(Odei-Appiah et al, 2022)
Usage 4.	(Usage4)	(Gerlach & Lutz, 2019)
Usage 5.	(Usage5)	(Firmansyah & Ramdani, 2018)
Usage 6.	(Usage6)	(Al Rubaiai & Pria, 2022)

.

The survey questionnaire used in this research is designed to contain questions that measure perceptions and behaviour during the acceptance and use of Islamic Fintech. Another way to measure the impact of answering a questionnaire is to conduct trials that are currently not being done in Islamic Financial Technology. Studies on implementation intentions by Gollwitzer (1999) demonstrate the impact of answering a questionnaire on behaviour. According to Ogden, these studies prove the efficacy of questionnaires in general. The findings of the study suggest that the likelihood of accomplishing a goal intention improves when implementation intentions are present (Ogden, 2003). While evidence reveals that Ogden's premise is valid in some respects, implementation intentions do not affect the cognitive processes that support the theories of reasoned action or planned conduct and, as a result, have no effect on general cognition (Orbell & Sheeran, 2000). According to Gollwitzer (1999), implementation intentions influence behaviour by allowing sensory signals to influence the initiation of behaviour rather than changing core cognitive ideas as the behaviour progresses.

The questionnaire used during the pilot study was developed by following this procedure:

First, the target demographic was established, involving employees in Saudi banks. The questions were structured to help achieve the survey objectives and obtain relevant information for this research study. To enhance convenience, the questionnaires were delivered to the subjects via email. The questions used for the questionnaires are simple qualitative types.

The responses given by the subjects were ranked on a Likert scale from 1 to 5. The questions were brief, unambiguous, and simple in English. The arrangement of the questions was simple to slightly complex to prevent the respondents from losing interest due to complexity.

Based on already established predictive factors, the logic behind the questions is to obtain first-hand information regarding the acceptance and usage of Islamic FinTech. There are different numbers of questions for each variable because the questions are guided by the survey objectives and the elicited response required for the variable.

The survey form used in this pilot study adopts the research questions from existing literature, such as the works of Panahy et al (2013) and (Venkatesh et al, 2012). The responses are in quantitative form or quantified on a scale.

5.3. Pilot Data

According to Leon et al (2011), a pilot study form is a critical element in data collection. It is used to examine the feasibility of the given research and pinpoint the necessary modifications to the main research (Hazzi & Maldaon, 2015; Leon et al, 2011). Before the survey was performed, a pilot test was carried out. The pilot test only revealed the need for minor changes, like spelling errors and some question rewrites. This chapter, therefore, details the steps taken during the observation process.

The following steps are split into two paths. One path is used to choose a data collection technique, formulate the questions, and conduct a pilot test. The pilot test gives feedback on problems that should be fixed before the main survey. The is the population from which the sample is taken. To plan the sample, the researcher must define how large it must be and how it shall be drawn.

The study was conducted to validate the questionnaire. The initial steps validate the variable items to keep the research safe from future complications. Furthermore, a completed trial experiment includes information gathering via the survey and data interpretation. In this view, 100 survey forms were delivered via e-mail to employees in the Islamic FinTech in Saudi banks, but only 80 duly filled questionnaires were received (Venkatesh et al, 2003; Venkatesh et al, 2012). Moreover, the questionnaire was reviewed by senior academicians and practitioners to make the items easy to comprehend before sending them out. The questionnaire took around 20 minutes on average, and respondents were also asked to comment on the instruments' presentation, content, and language. The ability of the participants to comprehend and finish the survey easily was also determined.

The evaluation guidelines state that items whose coefficient alpha is less than 0.6 should be removed. Nevertheless, in the first stages of the FinTech fundamental study, coefficient alpha = 0.60 is regarded as an appropriate target value except for the demographic items. A total of 71 items were, therefore, subjected to reliability tests. Table 5.2 displays the results of the internal consistency assessment with Cronbach's alpha analysis. After excluding all items that did not reach this threshold value, the remaining items showed acceptable reliability levels (alpha ≥ 0.60), as used in previous investigations. Several studies have shown that the degree of freedom (D2/df) measures threshold levels and should be conservative with 2.5 (for a small sample size of 80 or fewer observations) against 3 or 4 in larger pieces (Hair Jr et al, 2017; Reinartz et al, 2009).

Table 5.2. Reliability results obtained during the pilot study

Constructs	Number of Items Before Pilot Study	Cronbach's Alpha	Number of items deleted
IFT Use	6	0.82	-
BI	3	0.87	-
PE	4	0.87	-
EE	4	0.93	-
SI	3	0.86	-
HM	3	0.76	-
PV	3	0.87	-

FC	4	0.88	-
HT	4	0.89	-

5.3.1. Measure of Reliability

In this work, the composite reliability was evaluated using a criteria score of 0.7, while the convergent validity was evaluated using the average variance extracted (AVE) with a threshold value of 0.5 (Hair Jr et al, 2017). The following criteria were used to assess discriminant validity:

- Firstly, the cross-loading scale and item loadings were examined to guarantee that the items obstructed are more significant on the linked concepts than on the other images.
- Secondly, recognise a value greater than the average's computed average squared variance. The association among ideas for every idea guarantees that the items deal with minor conflicts with other ideas other than those within their vision.
- Thirdly, it discovered that CR is sound, with the underlying mechanism values varying from 0.61 to 0.99. Furthermore, the convergent validity values were rich, with the AVE scores being > 0.5 for all constructs.

5.4. Validity

The validity of a research instrument refers to the extent to which the questionnaire measures what it is designed to measure (Saunders et al, 2003; Taherdoost, 2016). In this research, the validity is aimed at confirming that the questionnaire effectively measures all dependent, independent, moderating, and mediating variables. Data were collected from participants in the pilot study using a questionnaire. The validity and reliability of the crucial model for acceptance and use (A&U) were then examined in line with the approach (Panahy et al, 2013). At the pilot study stage, quantitative methods were employed to investigate the factors influencing elements of A&U, such as EE, PE, SI, FC, HT, PV, BI, and usage. Furthermore, the participants' and collaborators' demographic details were collected for the study. The participants' relevant abilities were ensured before hiring them.

At the same time, the survey was utilised to answer the research questions. **Taherdoost (2016)** categorise validity in research into face validity, content validity, construct validity and criterion validity. Table 5.3 summarises expected validities in study and the strategies used to assess them.

Table 5.3: Types of validities and techniques for assessing them

Validity Type	Definition	Assessment Technique
Face Validity	The extent that measurement instrument items linguistically and analytically look like what is supposed to be measured	Post hoc theory, expert assessment of items; Cohen's Kappa Index (CKI)
Content Validity	The extent to which measurement instrument items are relevant and representative of the target constructs	Literature review; expert panels or judges; CVRs; Q-sorting
Construct Discriminant validity	The extent to which measures of different constructs diverge or minimally correlate with one another	MTMM; PCA; CFA; PLS AVE; Q-sorting
Construct Convergent validity	The extent to which different measures of the same construct converge or strongly correlate with one another	MTMM; PCA; CFA; Q-sorting
Criterion Predictive Validity	The extent that a measure predicts another measure	Regression Analysis, Discriminant Analysis
Criterion Concurrent Validity	The extent to which a measure simultaneously relates to another measure that it is supposed to relate	Correlation Analysis

Criterion Postdictive Validity	The extent to which a measure is related to the scores on another already established in the past.	Correlation Analysis

5.4.1. Face Validity

Face validity is the degree to which a measure appears to be related to a specific construct (Taherdoost, 2016). It focuses on questionnaire consistency regarding style and formatting, appearance, readability, feasibility, and clarity of the language used (Oluwatayo, 2012; Taherdoost, 2016). Unfortunately, some scholars e.g., Taherdoost (2016) arguably contend that face validity is not a form of validity in the strictest sense of the word. On this basis, face validity was not given much preference when evaluating acceptance and use of the Islamic FinTech questionnaire.

5.4.2. Content Validity

Content validity is the extent to which items in a questionnaire or any data collection tool universally reflect the content and can be generalised (Gefen & Straub, 2005; Ringle et al, 2012). Establishing content validity in this study was based on the procedural approach, which entailed only conducting an exhaustive literature review. While the procedure requires that after conducting an exhaustive literature review, survey questionnaires be sent out to expert reviewers to rate and compute the content validity ratio (CVR), this was not the case for this study (Taherdoost, 2016). Therefore, the same measurement items were replicated to understand the behavioural intent towards FinTech acceptance and Islamic FinTech use.

5.4.3. Construct Validity

Construct validity is a type of validity that can be evaluated using *discriminant* and *convergent* validity. Discriminant validity in research is described as the evaluation of the constructs that are not related and, therefore, are not measuring the same thing. Conversely, convergent validity is assessed to determine whether or not the structures that are expected to be related are indeed related

(Taherdoost, 2016). This research evaluates discriminant and construct validity using factor analysis and subsequent PLS-SEM analysis. Convergent validity measures the questionnaire's suitability, relevance, accuracy, and representativeness (Taherdoost, 2016). The concept of validity for acceptance and use defines the effectiveness of the measurement results. Furthermore, convergent validity can evaluate validity based on recent studies. According to Drasch et al (2018), factor loadings of 0.7 or higher ensure good convergent validity. As a result, the primary effect concepts underlying acceptance and use models rely on how a component causes the responses of a specific person, leading to structural validity and real FinTech usage.

5.4.4. Criterion Validity

Three validity types are associated with criteria: simultaneous, postdictive, and assertive structure. Concurrent validity assesses the ability of a tool to be used to defend the tool as previously used elsewhere (Taherdoost, 2016). This was achieved by corroborating the current findings with results from previous similar studies. Similarly, predictive validity, described as a tool's ability to predict what it is supposed to predict, was evaluated through path analysis in PLS-SEM.

5.5. Reliability

Reliability of the research instrument refers to the extent to which the instrument (questionnaire) is consistent and reliable (Saunders et al, 2003; Taherdoost, 2016). Similarly, Sekaran (2003) defines reliability as "An indication of the constancy and uniformity that the instrument measures the concept and helps to access the goodness of a measure". According to Ringle et al (2012), reliability assessment is a vital step in validating any item to ascertain the accuracy of the measurement. A well-executed assessment will reduce the measurement errors in a questionnaire (Gefen & Straub, 2005; Ringle et al, 2012). A commonly used approach for the reliability of an instrument is Cronbach's alpha (α) coefficients, which assess the internal consistency among items of an instrument (Eisinga et al, 2013; Hair Jr et al, 2016; Saunders et al, 2003; Sekaran, 2003; Taherdoost, 2016). It estimates the reliability established on the inter-correlations of the measurement items (Hair Jr et al, 2016).

Ringle et al (2012) suggest that the reliability coefficients should be ≥ 0.6 for exploratory or pilot studies. However, coefficient values ≥ 0.7 are recommended for the main survey for an instrument

used to collect data to be considered reliable. This study employed PLS-SEM to assess internal consistency for the measurement variables and study constructs. Internal consistency was used to calculate the average inter-item correlations using Cronbach's alphas. Measures are typically reliable with a more significant correlation between other measures or larger Cronbach's alphas. For the pilot study, the coefficients were ≥ 0.7, indicating that the tool was consistent in its measures.

Chapter 6. Data Analysis and Results

This specific research study used a software tool known as Smart-PLS 4, which was developed by (Ringle et al, 2012). The main objective of this chapter was to conduct an in-depth analysis and evaluation of the measurement scales and the structural model to determine their accuracy and reliability. The results obtained from this analysis have been carefully compiled and are now being presented and disclosed in the subsequent section for further examination and interpretation.

6.1. Introduction

This chapter provides a comprehensive overview of the methods and techniques employed in data analysis to address research questions and hypotheses. A quantitative design was adopted for this section to analyse the data collected. Similarly, descriptive, and inferential techniques are used in this study.

The chapter commences by initially presenting information on preliminary data analysis. Subsequently, it focuses on the response rate and endeavours to justify the adequacy of the responses for analysis. It then furnishes details regarding descriptive statistical analysis concerning the demographic characteristics of the respondents as well as the primary constructs of the study. Moreover, the chapter delves into the exploration of multivariate statistical analysis techniques and methods through the utilisation of exploratory factor analysis and PLS-SEM analysis (Hair Jr et al, 2016; Hair Jr et al, 2017; Hair Jr et al, 2014). This chapter encompasses numerous statistical applications of novel analysis techniques employing categorical data of structural equation models. The quantitative data was analysed, and the research hypotheses were tested using SPSS v-24 and PLS-SEM approach.

To advance the analysis of PLS-SEM, the chapter further presents assessment methods for both the measurement and structural models for acceptance of Financial Technology (FinTech) and the use of Islamic FinTech. This is notably accomplished within the context of various moderating variables, such as gender, age experience, language, religion, education and management level, as depicted in the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) model (Edwards & Lambert, 2007). Furthermore, the chapter evaluates the predictive ability of exogenous factors and behavioural intention (BI) to predict the acceptance of FinTech and assesses

the model employing the blindfolding technique. Finally, the tests conclude with a summary of acceptance and use.

6.2. Preliminary Data Analysis

The primary objective of statistical objective analysis is to compute the probability of variation among study variables and responses. Consequently, quantitative data was collected from managers to evaluate, analyse, and comprehend the research phenomena comprehensively. Subsequently, measures employed by FinTech were derived. The primary purpose of this step is to gain a thorough understanding of the data and identify any potential issues or opportunities for further exploration through Venkatesh's unified theory . (Goodhue et al, 2006; Hair Jr et al, 2021). Nevertheless, the intention holds no value when examining the acceptance and usage factors. This deduction can be easily inferred and comprehended by applying simple logic to the impact of FinTech. Our research extensively covers a wide range of Partial Least Squares (PLS) methods, starting with the foundational structural equation modelling (SEM). The author begins with statistical tests, interpretation of latent variables, and guidelines in the PLS path modelling strategy. These methods were crucial in our research, as they provided a clear structure to our analysis. If data is gathered to support the conduction, the axiomatic foundations and internal consistency of FinTech are deliberated in the research through the aforementioned models.. Tenenhaus et al (2005) illustrating novel direct relationships based on PLS–PM. Examining multiple blocks is generated by defining relationships in the structural model and amalgamating the various estimation options available in PLS Path Modelling.

6.2.1. Response Rate

Response rate is calculated as the ratio of valid responses to total responses. In this case, the ratio is given as the managers who have completed the online survey to the total number of managers comprising the overall **sample of 666 managers** in FinTech acceptance, intending to identify the factors influencing the intended usage of Islamic FinTech. Managers must recognise that in the present era, the majority of acceptance operates within extensive and interconnected knowledge ecologies, emphasising the need to direct Behavioural intention towards the utilisation of Islamic FinTech (Venkatesh et al, 2003; Venkatesh et al, 2012).

The questionnaire was electronically distributed via the Qualities website. Then, the link was sent through the Saudi Stock Exchange (Tawadul) website after obtaining approval from the Ministry of Communications and Information Technology (See Appendix 9) to cater specifically to Islamic FinTech users. The web link garnered attention from 1247 participants, out of which 1074 individuals attempted to respond to the survey. Consequently, the response rate stood at 77.3%. Upon closer examination of the response data, it was discovered that 108 cases were incomplete, with more than 25% of the values missing. As a result, these cases were excluded from the analysis.

Additionally, the responses provided by 16 participants were deemed disengaged and were subsequently removed from the dataset. Furthermore, 284 individuals were found to be under 24, leading to a decision to focus the analysis on those with extensive experience in management roles. Hence, the percentage of samples meeting the criteria for further analysis reached 53.41%, compared to the initial sample, which included individuals under 4 (Venkatesh et al, 2003; Venkatesh et al, 2012).

6.2.2. Non-Response Bias

This study effectively examined quasi-bias, as it arises when the group members lack the willingness or ability to complete the questionnaire. Armstrong & Overton (1977) asserted that identifying quasi-bias is possible by comparing the responses obtained during the initial and final waves, such as the initial and final quarterly responses. Table 6.1 portrays the absence of response bias, assessed using Levene's test for equal variances.

Table 6.1. Summary of Descriptive Demographic Factors

	Response	N	Mean	Std. Deviation	Std. Error Mean	Sig.
Gender	Early	30	1.033	0.183	0.033	.573
	Late	30	1.067	0.254	0.046	
Religion	Early	30	1.100	0.305	0.056	.662
	Late	30	1.067	0.254	0.046	
Age	Early	30	3.400	0.621	0.113	.129
	Late	30	3.633	0.556	0.102	

Management Levels	Early	30	1.867	0.346	0.063	.326
	Late	30	1.933	0.254	0.046	
Experience	Early	30	3.367	1.033	0.189	.564
	Late	30	3.500	0.820	0.150	

Table 6.1 demonstrates no discrepancy between the answers given by the first 30 early responders and the final 30 respondents, demonstrating the lack of quasi-bias in the survey data used for this investigation.

6.2.3. Descriptive Statistics

The respondents' demographic information was examined, and a comprehensive understanding of the data was obtained by analysing the significant inclination and distribution, which may include statistical measures such as means, median, variation, variance, and covariance (Sekaran, 2006; Zikmund et al, 2000). The descriptive analysis examples are discussed in Section 7.3.

Quantitative data was inputted into SPSS v. 24, and a descriptive statistical analysis consisting of frequencies and means was executed to evaluate missing values, normality, and outliers. This step was also conducted as a preliminary requirement for PLS-SEM. Hair Jr et al (2021) highlighted that extremely non-normal data could pose challenges in assessing the significance of parameters, particularly in the context of FinTech acceptance and the Islamic FinTech use model. For assessing normality, data was evaluated using skewness and kurtosis, following the recommendations by (West et al, 1995). Data screening and initial analysis were performed to ensure the accuracy of data entry.

Additionally, the collected data addressed usage response, including missing data and extreme cases of effect or outliers. Hair Jr et al (2021) emphasised the importance of identifying outliers before running a PLS-SEM and removing such responses from the dataset. Box plots were generated to investigate any instances of outliers. Field (2009) defines an outlier as a value in a dataset that significantly deviates from the rest. Further, he argues that such values introduce bias to the mean and inflate the standard deviation, and, therefore, should be excluded from the analysis.

This study uses statistical analysis with a detailed description to present data regarding Islamic FinTech use. A combination of descriptive statistics, including variance, standard deviation, range,

mean, and mode, and diagrams and charts for graphical representation have been employed to examine the behavioural intentions towards FinTech acceptance. To ensure the consistency of research findings with other investigations, the current measurements from preliminary dimension scales were adopted after modifying the phrasing to reflect the impact. In the graphical representation for SEM, the current items were incorporated based on the determinants, including the exogenous observed variable, factor loading, and the exogenous latent variable. Consequently, in contrast to PLS-SEM, and on a larger scale, model specification necessitated the approval of constructs. Therefore, an exploratory factor analysis (EFA) was conducted in SPSS using principal component analysis (PCA) to validate the constructs.

6.3. Demographics Characteristics

The study's sample demographics characteristics, as presented in Chart 6.1, provide a foundational understanding of the participant composition in the research exploring Islamic FinTech adoption and usage. This comprehensive demographic breakdown is pivotal for contextualizing the study's findings within the broader scope of the respondents' acceptance backgrounds.

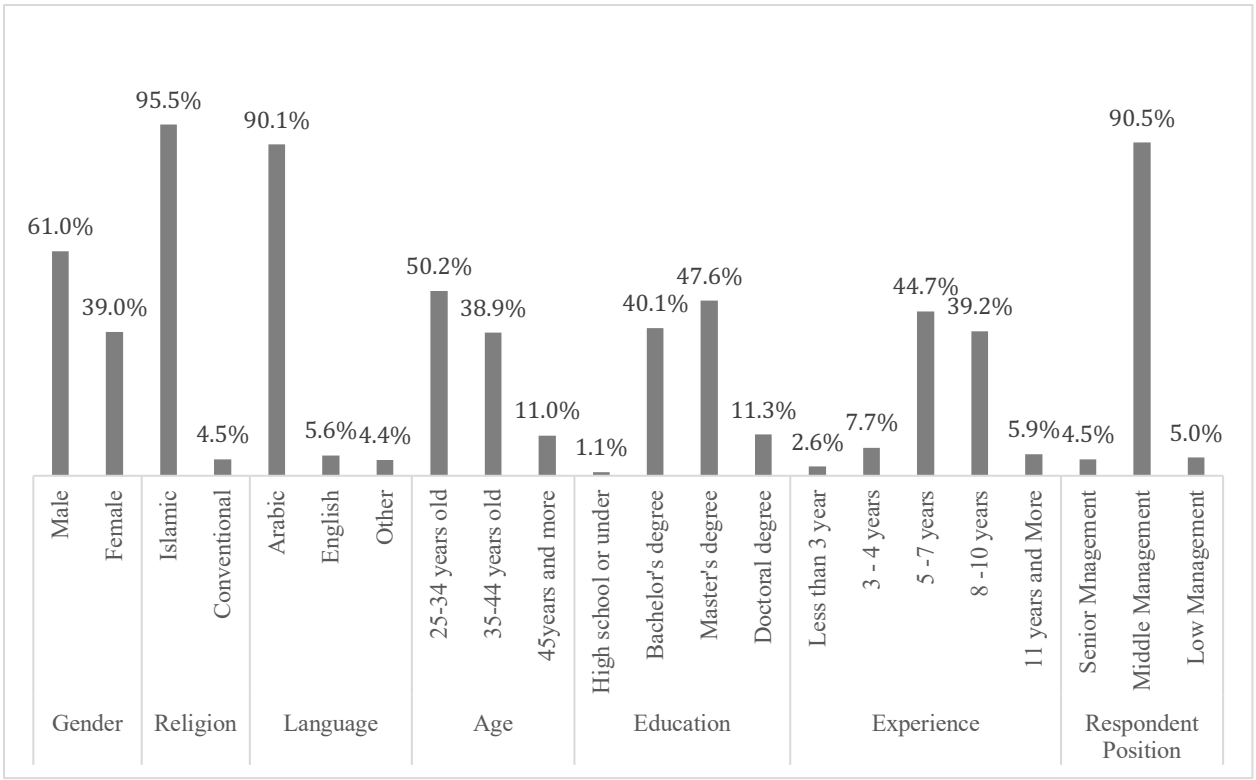


Chart 6.1. Demographics Characteristics

After conducting an extensive and comprehensive examination, the individuals who could not complete the filtering question and provided responses that lacked informative content were excluded from the analysis. **A total of 666 valid responses** were utilised for further analysis, representing a substantial dataset.

Table 6.2. Summary of Descriptive Demographic Factors

Demographic Factors	**Categories**	**Frequency**	**Per cent**
Gender	Male	406	61.0
	Female	260	39.0
	Total	**666**	**100.0**
Religion	Islamic	636	95.5
	Conventional	30	4.5
	Total	**666**	**100.0**
Language	Arabic	600	90.1
	English	37	5.6
	Other	29	4.3
	Total	**666**	**100.0**
Age	25-34 years old	334	50.1
	35-44 years old	259	38.9
	45years and more	73	11.0
	Total	**666**	**100.0**
Education	High school or under	7	1.1
	Bachelor's degree	267	40.1
	Master's degree	317	47.6
	Doctoral degrees	75	11.3
	Total	**666**	**100.0**
Experience	Less than 3 years	17	2.6
	3 - 4 years	51	7.7

	5 -7 years	298	44.7
	8 -10 years	261	39.1
	11 years and more	39	5.9
	Total	**666**	**100.0**
Management Levels	Senior Management	30	4.5
	Middle Management	603	90.5
	Low Management	33	5.0
	Total	**666**	**100.0**

These responses were gathered from a diverse range of individuals, ensuring a comprehensive representation of the population under study. Most participants, comprising 50.1% of the total sample, fall within the **age** range of 25 to 34 years old, indicating a significant presence of young adults in the study. Additionally, 38.9% of participants **are** between 35 and 44 years old, suggesting a substantial proportion of middle-aged individuals. The remaining 11% of participants are aged 45 and over, highlighting the inclusion of older adults in the study.

Furthermore, when considering the **participants' educational background**, it becomes evident that a significant proportion of respondents, accounting for 98.9% of the sample, possess a bachelor's degree or higher. Only 1.1% of the participants possessed a high school diploma as their educational attainment. The latest data on Bank manager salaries in Saudi banks from ERI's Salary Expert (2023) indicates that individuals with this level of education are likely to occupy positions as bank managers, with the percentage of bank managers possessing a high school education rising to 14%.

Religion, as a significant aspect of our study, reveals that the most prevalent category among the participants is Islamic, with 95.5% of individuals identifying as such. This not only points to a strong presence of Islamic individuals in the study but also underscores their potential influence on the results in specific ways. In contrast, the Conventional category encompasses 4.5% of individuals, representing a smaller but still noteworthy proportion of the sample. These findings highlight the substantial impact of religious categories on our study.

Moreover, regarding the participants' **experience** levels, it is notable that the most significant proportion of individuals falls into the categories of 5-7 years and 8-10 years, constituting 44.7%

and 39.1% of the sample, respectively. This indicates a relatively balanced distribution of experience levels among the participants, allowing for a comprehensive understanding of the phenomenon under investigation. Regarding management levels, it is particularly noteworthy that 90.5% of participants hold **middle management** positions, highlighting the predominance of individuals in this organisational hierarchy. Additionally, 5% of respondents are in **low-management positions, while 4.5% occupy senior management** positions. These findings suggest a varied representation of positions within the organisations from which the participants were drawn, ensuring a diverse perspective on the research topic.

A detailed analysis of the respondents' profiles and behaviours can be found in **Table 6.2**. This table presents a comprehensive summary of the various demographics and characteristics of the participants, offering valuable insights into the composition of the study sample. Including such detailed information allows for a more nuanced interpretation of the study's findings and enhances the overall validity and comprehensiveness of the research. Thus, the table provided is a valuable resource for researchers and practitioners, enabling a deeper understanding of the study's outcomes.

6.4. Descriptive Statistics of the Main Constructs

The current study contains the variables related to the banking sector, such as habit (HT), price value (PV), hedonic motivation (HM), facilitating condition (FC), social influence (SI), effort expectancy (EE), and performance expectancy, behavioural intention (BI), and use behaviour (usage) regarding acceptance and use of Islamic FinTech. As already stated, SPSS v. 24 was used to calculate the central tendency measures of each of the constructs involved in this study concerning their items: variance, kurtosis, mean, standard deviation, standardised error of the mean, skewness, and range. Table 6.3 displays the results of analysed descriptive statistics.

Table 6.3. Descriptive statistics of the main constructs

Attributes	HT	HM	SI	EE	PV	FC	PE	BI	IFT_use
Mean	4.37	4.29	3.79	3.38	4.18	4.41	3.44	4.30	4.31
SE Mean	0.03	0.03	0.03	0.04	0.03	0.02	0.04	0.02	0.02
Std. Deviation	0.63	0.64	0.75	1.11	0.66	0.59	0.98	0.63	0.60

Variance	0.40	0.41	0.56	1.23	0.44	0.35	0.95	0.40	0.37
Skewness	-1.07	-0.98	-0.86	-0.02	-0.80	-1.00	-0.65	-0.82	-0.92
SE Skewness	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Kurtosis	1.12	1.11	1.16	-1.66	0.64	0.77	-0.74	0.63	0.52
SE Kurtosis	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
Range	3.50	4.00	4.00	3.50	3.33	3.00	4.00	3.67	3.00
Minimum	1.50	1.00	1.00	1.50	1.67	2.00	1.00	1.33	2.00
Maximum	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00

Table 6.3 shows the results from the descriptive analysis, with the highest-ranked construct being habit (HT) (M = 4.37, SD = 0.63). The least ranked construct was effort expectancy (EE) (M = 3.38, SD = 1.11). Surprisingly, all these were derived from technology adoption's external variables (EV). The descriptive analysis results for Behavioural intention (BI) and usage are M = 4.3, SD = 0.63, and M = 4.31, SD = 0.60, respectively. This indicates that most respondents were willing to accept and use FinTech.

6.5. Factor Analysis

This section validates the measuring Instrument used for the studied variables in two phases: The first phase is known as Exploratory Factor Analysis (EFA), whereas the Second phase is known as Confirmatory Factor Analysis (CFA). SPSS v. 24 and PLS-SEM were used for factor analysis. Hereunder are details about factor analysis.

6.5.1. Exploratory Factor Analysis for Exogenous and Endogenous Factors

Factor analysis is required to ensure the reliability of the scales (Field, 2009). Therefore, this research conducted EFA as per the following details:

6.5.1.1. Exogenous Constructs

In this particular investigation, exogenous elements of financial technology (FinTech) exist between intention and utilisation. These elements encompass the aforementioned seven technological factors, which are identified as performance expectancy (PE), effort expectancy

(EE), social influence (SI), hedonic motivation (HM), habit (HT), price value (PV), and facilitating condition (FC). Moreover, these factors serve as the independent variables or cause for the concepts of external design (Pfister et al, 2012). Performance expectancy (PE) comprises four measurement items, namely PE1, PE2, PE3, and PE4. Equally, effort expectancy (EE), habit (HT), and facilitating condition (FC) are also assessed using four items in each respective case. In the case of EE, the measurements comprise of EE1, EE2, EE3, and EE4; for HT, the measurements encompass HT1, HT2, HT3, and HT4, while FC is measured using FC1, FC2, FC3, and FC4. Conversely, social influence (SI) consists of three measurement items, specifically SI1, SI2, and SI3. Similarly, hedonic motivation (HM) and price value (PV) consist of three measurement items each, designated as HM1, HM2, and HM3, and PV1, PV2, and PV3, respectively.

The measurement variables of the exogenous variables were subjected to Exploratory Factor Analysis (EFA), employing the method of Principal Component Analysis (PCA) along with Varimax rotation. It is imperative to retain factors with eigenvalues less than 1 when extracting factors, ensuring minimal error (less than 10%) per the research objectives (Luo, 2021). Additionally, factors with eigenvalues greater than 1 are extracted based on Kaiser's criterion, which aids in determining the appropriate number of factors to retain for interpretation. The normalization technique known as Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity (BTS) (as displayed in Table 6.4) were employed to evaluate the sufficiency of the sample and the factor structure (Sarstedt et al, 2011). The EFA yielded a comprehensive solution consisting of seven factors, collectively accounting for 76.38% of the explained variance (as depicted in Table 6.5).

Table 6.4. Kaiser-Meyer-Olkin (KMO) and Bartlett's Results for Exogenous Constructs

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.902
Bartlett's Test of Sphericity	Approx. Chi-Square	11208.035
	df	300
	Sig.	0.000

Therefore, the impact of external factors on the outcome indicates that FinTech is a distinct structure consisting of seven factors within the measurement scale. Cross-loading does not significantly influence, as all cross-loadings were less than 0.50. Conversely, the principal

component analysis (PCA) focuses on determining the number of variables needed to account for the maximum variation in the data. A considerable PCA is characterized by an eigenvalue greater than 1, which is considered to identify the factors (Dunn & Everitt, 2004; Garson, 2016). Consequently, the PCA results revealed six factors with eigenvalues above one and one with an eigenvalue below 1 but with minimal error (less than 10%) (refer to Table 6.5). The factor loadings across the seven components ranged from 0.598 to 0.885.

Table 6.5. Factor loading of the exogenous factors

Items	Components							Communalities
	1	2	3	4	5	6	7	
PE1			.820					.697
PE2			.831					.722
PE3			.828					.712
PE4			.837					.745
EE1		.885						.804
EE2		.846						.763
EE3		.880						.794
EE4		.830						.725
SI1					.816			.829
SI2					.801			.814
SI3					.839			.852
HM1							.782	.736
HM2							.734	.690
HM3							.753	.718
PV1						.769		.789
PV2						.790		.801
PV3						.786		.790
FC1	.776							.751
FC2	.792							.782
FC3	.721							.690

FC4	.771							.755
HT1				.830				.856
HT2				.660				.729
HT3				.832				.861
HT4				.598				.690
Eigenvalues	8.70	4.08	1.94	1.28	1.07	1.04	0.98	
% Of Variance (76.38)	34.82	16.31	7.74	5.13	4.29	4.17	3.91	

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Rotation converged in 6 iterations.

Suppressed values below 0.3

The outcomes exhibited a variance of 76.38% of the overall variance. The KMO outcome also indicated that the adequacy of the inter-correlations and items for each factor was 90.2% greater than the cut-off value of 70%, demonstrating sample adequacy. The results of Bartlett's Test of Sphericity, as presented in Table 6.4, were statistically significant (Chi-square = 11208.03, $p < 0.001$). The EFA findings demonstrated the deletion of an item with a value below .050. No item displayed double factor loading.

Consequently, no items were eliminated from the EFA, resulting in 25 remaining items representing seven distinct constructs. The findings validate the one-dimensionality and factorial distinctness of each construct. Moreover, all the items utilised to evaluate a specific construct loaded on a single factor, with nearly all loadings exceeding 0.6. Nevertheless, HT4 exhibited a relatively high loading of 0.598, indicating that the item effectively measures the construct. Thus, there was no necessity to remove any additional items.

6.5.1.2. Endogenous Constructs

The endogenous factors or constructs in this study were Islamic FinTech use. According to Garson (2016), at least one arrow must lead into the endogenous construct when considering an intermediate effect of the mediator variable. The same EFA approach was used for the exogenous factors described above and applied to the **endogenous factors** of acceptance and use of Islamic FinTech. The EFA results (see **Table 6.6**) indicate a two-factor solution accounting for 71.92% of the variance explained.

Table 6.6. Factor Loading of Endogenous Factors

Items	Component		Communalities
	1	2	
Usage3	.793		.674
Usage4	.757		.648
Usage5	.768		.643
Usage6	.755		.640
B1		.858	.796
B2		.861	.818
B3		.854	.815
Eigenvalues	3.967	1.067	
% Of Variance (71.92)	56.674	15.243	

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

Suppressed values below 0.3

The outcomes of the Kaiser-Meyer-Olkin (KMO) and Bartlett's Results for Exogenous Constructs (found in the Appendix) demonstrate that the KMO measure of sampling adequacy was 0.87, and Bartlett's test of sphericity was also significant (Chi-square = 2243.12, $p < 0.001$). The KMO value of 0.865 suggests that the FinTech acceptance and use data were adequate for factor analysis.

Moreover, the confirmation of 71.92% of the variance explained affirms that the extracts were sufficient based on eigenvalues. Furthermore, each item loading for the endogenous factors exceeded 0.70. As a result of exceptionally high cross-loadings (i.e., > 0.5), two usage items (Usage1 and Usage2) were eliminated during the EFA. Table 6.6 displays the loading of each factor after the problematic items were removed. The loading ranges from 0.755 to 0.861. The four items loaded on component 1 were exclusively Islamic FinTech usage items, while the remaining three were BI items. The usage items accounted for 56.8% of the explained variance, while the BI items accounted for 15.24% (refer to Table 6.6).

6.5.2. Confirmatory Factor Analysis for Constructs Validity

A researcher must proceed with the application of confirmatory factor analysis after developing an instrument utilising exploratory factor analysis and other methodologies. As stated, the assessment of construct validity is carried out through confirmatory factor analysis (Costello & Osborne, 2019; Garson, 2016), which is imperative for the examination of the theory (Garson, 2016; Hair Jr et al, 2021). Convergent validity was established in the study by attaining a factor loading exceeding 0.50. Nonetheless, the researcher investigated the discriminant and convergent validity in the subsequent sections to ascertain the construct validity of the reflective items.

6.5.3. Evaluation of Assumptions: Sample Size and Multivariate Normality

Scholars suggested that 100-150 respondents' data are sufficient to perform SEM (Garson, 2016; Gefen et al, 2000). Considering the suggestions of past researchers, the sample (n = 666) is adequate for performing SEM.

Table 6.7. The Skewness and Kurtosis of the Measured Items

Exogenous factors									
Items	**PE1**	**PE2**	**PE3**	**PE4**	**EE1**	**EE2**	**EE3**	**EE4**	
Skewness	-0.558	-0.577	-0.504	-0.597	-0.213	0.008	-0.279	0.019	
SE of Skewness	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	
Kurtosis	-0.296	-0.518	-0.617	-0.491	-1.297	-1.336	-1.095	-1.330	
SE of Kurtosis	0.189	0.189	0.189	0.189	0.189	0.189	0.189	0.189	
Items	**SI1**	**SI2**	**SI3**	**HM1**	**HM2**	**HM3**	**PV1**	**PV2**	**PV3**

Skewness	-0.710	-0.650	-0.814	-0.844	-0.955	-0.990	-0.585	-0.761	-0.680
SE of Skewness	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095
Kurtosis	0.857	0.621	1.114	0.370	0.793	0.985	-0.006	0.584	0.480
SE of Kurtosis	0.189	0.189	0.189	0.189	0.189	0.189	0.189	0.189	0.189
Items	**FC1**	**FC2**	**FC3**	**FC4**	**HT1**	**HT2**	**HT3**	**HT4**	
Skewness	-0.853	-1.037	-0.891	-0.977	-0.733	-1.267	-0.815	-1.201	
SE of Skewness	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	
Kurtosis	0.111	0.567	0.461	0.803	0.015	1.183	0.400	1.061	
SE of Kurtosis	0.189	0.189	0.189	0.189	0.189	0.189	0.189	0.189	
Endogenous Factors									
Items	**Usage3**	**Usage4**	**Usage5**	**Usage6**	**B1**	**B2**	**B3**		
Skewness	-0.990	-1.052	-0.658	-0.982	-0.777	-0.788	-0.669		
SE of Skewness	0.095	0.095	0.095	0.095	0.095	0.095	0.095		
Kurtosis	0.680	1.087	-0.247	0.918	0.490	0.609	0.275		
SE of Kurtosis	0.189	0.189	0.189	0.189	0.189	0.189	0.189		

As presented in Table 6.7, the measurement items of the study were subjected to skewness and kurtosis calculations using SPSS version 24. An examination of the skewness and kurtosis of the observed factors revealed that the skewness ranged from 0.019 (EE4) to -1.267 (HT2), while the kurtosis ranged from 1.183 (HT2) to -1.336 (EE2). Considering that skewness 2 and kurtosis 7 signify that the observed variables' fundamental ranges are not significantly quasi, the adoption of PLS is deemed reasonable. Consequently, the fundamental ranges of the assessed factors in this research are not significantly quasi. Therefore, the findings of PLS-SEM can be deemed acceptable and reliable (Hair Jr et al, 2021; Ringle et al, 2012). In conclusion, the data qualities of the sample ensured the suitability of applying PLS-SEM. The utilisation of PLS is expected to yield dependable and robust findings.

6.6. Basic Composition for Validity Testing

General SEM evaluation is essential for assessment and authenticity-checking construction. This is important since many researchers believe it focuses on distinguishing the structural model from the measurement model. Furthermore, it allows for more rigorous testing of convergent validity, discriminant validity, and construct reliability, as proposed by (Lee et al, 2010).

6.7. Common Method Bias (CMB)

Common method bias (CMB) refers to a bias in a dataset brought about by something external to the measures, such as data collection using only a single standard method like a self-administered questionnaire (Garson, 2016; Podsakoff et al, 2003). This study adopted an online survey; only online questionnaires were used to collect data. It was, therefore, necessary to assess for CMB. Regarding FinTech, CMB refers to a variation in which FinTech is associated with the methods used to measure processes rather than the constructs they measure. Various methods to assess CMB in research have been proposed and used by other researchers before. These include Harman's single factor test (Jarvis et al., 2003), common latent factor (CLF), measured latent marker variable (MLMV), partial correlation method, the correlation matrix method, and method factor in PLS modelling (Hair Jr et al, 2021; Ringle et al, 2012). This study used a correlation matrix to assess CMB. The correlation results did not show a strong relationship with the constructs, indicating that this CMB is not a significant issue in this study. As a result, no preliminary evidence of common method bias exists. The researcher also used Harman's single factor to examine user acceptance when testing the common method bias.

The author employed Harman's single factor test to evaluate common method bias that may have gone undetected because of the use of a variance. The findings indicate that "Financial Services" data represent multiple constructs. The author conducted an additional analysis using the single-method-factor technique in which each index loads onto an abstract idea, which defines a typical method bias usage (Venkatesh et al, 2003; Venkatesh et al, 2012). The path's importance is determined using FinTech as a bias variable based on acceptance and use (MacKenzie et al, 2011). Nonetheless, all paths significantly affected FinTech acceptance and use, and none loaded at a substantial degree of behavioural intentions onto the prejudice variable. Accordingly, FinTech is a single method that accepts and exploits Harman's test. On the other hand, the Islamic banking sector renders sensible confidence that the collection of financial services does not solely drive the outcomes.

6.8. Structural Equation Modelling (SEM) for Exogenous Factors

This study used PLS-SEM for specification to examine the relationships among latent variables (exogenous factors, behavioural intention towards acceptance, and use of FinTech for hypothesis

testing. While there are two sets of SEM approaches to choose from, the choice for PLS-SEM in this study has already been stated in the previous chapters. As such, PLS-SEM path analysis was conducted using Smart-PLS software's path weighting scheme. According to Hair Jr et al (2021), this weighting scheme provides the highest R2 value for endogenous latent variables and generally applies to all PLS path model specifications and estimations. The model predictive capabilities and quality in PLS-SEM were evaluated using non-parametric criteria such as bootstrapping and blindfolding (Garson, 2016; Hair Jr et al, 2021). The application of PLS-SEM in this study followed a two-step approach: assessment of the measurement models and evaluation of the structural model.

6.8.1. Assessment of measurement model

First and foremost, the outer model underwent an evaluation process wherein an examination of the outer loadings between latent variables and indicators was conducted by (Hair Jr et al, 2017). A criterion was established to determine which indicators to retain, wherein indicators with outer loadings above 0.7 were considered. Indicators falling within the range of 0.4-0.7 were then subjected to further scrutiny, with the possibility of removal if their elimination would result in an increase in composite reliability or average variance extracted (AVE) that surpasses certain thresholds. On the other hand, indicators with loadings above 0.4 were preserved if the composite reliability surpassed 0.7 or if the AVE was above 0.5. Lastly, indicators below 0.4 were deemed unfit for inclusion and were thus eliminated from the model (Hair Jr et al, 2017). Upon conducting the initial outer model testing, it was found that all items in the model exceeded the threshold of 0.7 (see **Table 6.8**). Hence, the reliability of all latent constructs in this study was verified and deemed satisfactory. Moving forward, the next step in assessing the construct validity in the measurement model involved testing for discriminant validity, and the results of this assessment are presented in the following tables.

Table 6.8. Results of the outer loadings

	BU	EE	FC	HM	HT	PE	PV	SI	IFT use
B1	0.887								

B2	0.906								
B3	0.906								
EE1		0.832							
EE2		0.917							
EE3		0.869							
EE4		0.858							
FC1			0.861						
FC2			0.879						
FC3			0.835						
FC4			0.866						
HM1				0.850					
HM2				0.836					
HM3				0.841					
HT1					0.873				
HT2					0.878				
HT3					0.881				
HT4					0.862				
PE1						0.799			
PE2						0.750			
PE3						0.946			
PE4						0.776			
PV1							0.894		
PV2							0.892		
PV3							0.888		
SI1								0.910	
SI2								0.909	
SI3								0.920	
Usage3									0.815
Usage4									0.811
Usage5									0.796

Usage6									0.804

Cronbach's Alpha (0.7) and Composite Reliability (CR) (0.7) criteria (Hair et al. 2017) were implemented as measures to assess the reliability of the constructs under investigation. The data presented in Table 6.9 indicate the level of scale reliability that can be considered satisfactory based on the criteria mentioned above. In addition to reliability,

Table 6.9. Validity and reliability estimate of the constructs

	Cronbach's alpha	**Composite reliability (rho_c)**	**Average variance extracted (AVE)**
Behavioural Intention	0.882	0.927	0.810
Effort Expectancy	0.899	0.925	0.756
Facilitating Conditions	0.883	0.919	0.741
Habit	0.897	0.928	0.763
Hedonic Motivation	0.795	0.880	0.709
Islamic FinTech Use	0.821	0.882	0.651
Performance Expectancy	0.866	0.891	0.674
Price Value	0.871	0.921	0.795
Social Influence	0.900	0.938	0.834

The study also sought to establish convergent validity for the constructs. To achieve this, the study set minimum criteria for indicator loadings (0.5) and average variance extracted (AVE) values, which were required to exceed the cut-off point of 0.5 (Hock & Ringle, 2010). The Fornell-Larcker criterion, Cross-loadings, and the Heterotrait-Monotrait Ratio (HTMT) were employed further to examine the discriminant validity of the measurement model. These additional analyses provided valuable insights into the distinctiveness of the constructs.

Table 6.10. Correlation Matrix among Construct Scores (Discriminant validity)

	BI	**EE**	**FC**	**HT**	**HM**	**PE**	**PV**	**SI**	**IFT Use**
BI	**0.900**								
EE	-0.044	**0.870**							

FC	0.607	-0.039	**0.861**						
HT	0.620	-0.124	0.665	**0.873**					
HM	0.561	-0.015	0.558	0.550	**0.842**				
PE	-0.049	-0.346	-0.009	0.120	0.011	**0.821**			
PV	0.580	-0.033	0.601	0.622	0.532	0.034	**0.892**		
SI	0.580	-0.024	0.550	0.574	0.535	0.034	0.541	**0.913**	
IFT Use	0.576	-0.054	0.595	0.616	0.533	0.056	0.572	0.576	**0.807**

Furthermore, as indicated in **Table 6.10**, the square root of each construct's AVE was greater than the construct's strongest correlations with the other constructs. This finding reinforces the discriminant validity of the measurement model.

Table 6.11. Results of Cross Loadings

	BI	**EE**	**FC**	**HM**	**HT**	**PE**	**PV**	**SI**	**IFT Use**
B1	**0.887**	-0.045	0.531	0.482	0.564	-0.012	0.526	0.498	0.499
B2	**0.906**	-0.018	0.558	0.513	0.547	-0.111	0.513	0.530	0.522
B3	**0.906**	-0.056	0.548	0.518	0.562	-0.009	0.528	0.535	0.534
EE1	-0.009	**0.832**	0.016	0.024	-0.069	-0.283	0.030	0.006	-0.004
EE2	-0.049	**0.917**	-0.056	-0.029	-0.127	-0.319	-0.054	-0.041	-0.085
EE3	-0.041	**0.869**	-0.023	0.007	-0.087	-0.310	-0.014	-0.007	-0.031
EE4	-0.027	**0.858**	-0.033	-0.029	-0.125	-0.283	-0.025	-0.016	-0.021
FC1	0.507	-0.068	**0.861**	0.459	0.583	-0.008	0.502	0.455	0.517
FC2	0.526	-0.030	**0.879**	0.490	0.573	0.015	0.526	0.501	0.509
FC3	0.517	0.010	**0.835**	0.486	0.551	-0.016	0.534	0.448	0.515
FC4	0.537	-0.048	**0.866**	0.485	0.582	-0.021	0.505	0.488	0.507
HM1	0.486	-0.046	0.460	**0.850**	0.470	0.009	0.448	0.421	0.463
HM2	0.470	0.021	0.483	**0.836**	0.457	0.034	0.458	0.445	0.448
HM3	0.461	-0.014	0.467	**0.841**	0.463	-0.016	0.439	0.487	0.436

HT1	0.478	-0.206	0.538	0.433	**0.873**	0.158	0.503	0.448	0.493
HT2	0.584	-0.009	0.605	0.507	**0.878**	0.037	0.575	0.537	0.580
HT3	0.491	-0.178	0.551	0.446	**0.881**	0.152	0.501	0.472	0.531
HT4	0.596	-0.062	0.619	0.525	**0.862**	0.086	0.582	0.535	0.541
PE1	-0.026	-0.260	0.005	0.022	0.134	**0.799**	0.052	0.014	0.039
PE2	-0.013	-0.311	-0.009	0.023	0.094	**0.750**	0.045	0.047	0.061
PE3	-0.062	-0.307	-0.012	-0.006	0.090	**0.946**	0.018	0.024	0.049
PE4	-0.014	-0.343	-0.012	0.042	0.123	**0.776**	0.025	0.066	0.058
PV1	0.529	-0.029	0.553	0.483	0.553	0.019	**0.894**	0.499	0.522
PV2	0.510	-0.035	0.524	0.470	0.562	0.048	**0.892**	0.478	0.503
PV3	0.513	-0.023	0.529	0.471	0.547	0.024	**0.888**	0.469	0.505
SI1	0.523	-0.010	0.513	0.487	0.521	0.020	0.494	**0.910**	0.517
SI2	0.537	-0.020	0.509	0.501	0.525	0.014	0.497	**0.909**	0.516
SI3	0.527	-0.035	0.484	0.476	0.525	0.059	0.490	**0.920**	0.544
Usage3	0.450	-0.068	0.490	0.414	0.515	0.041	0.480	0.467	**0.815**
Usage4	0.482	-0.020	0.488	0.439	0.501	0.057	0.455	0.470	**0.811**
Usage5	0.454	-0.008	0.473	0.413	0.475	0.024	0.459	0.408	**0.796**
Usage6	0.473	-0.078	0.468	0.455	0.497	0.059	0.452	0.510	**0.804**

Moreover, the results from **Table 6.11** highlight that all observed variables had cross-loading coefficients that were significantly lower than the outer loading coefficients. This further supports the discriminant validity of the measurement model.

Table 6.12. Results of Heterotrait-Monotrait Ratio (HTMT)

	BI	**EE**	**FC**	**HT**	**HM**	**PE**	**PV**	**SI**	**IFT Use**
BI									
EE	0.042								
FC	0.687	0.051							

HT	0.691	0.143	0.744						
HM	0.669	0.048	0.666	0.647					
PE	0.056	0.403	0.023	0.152	0.039				
PV	0.662	0.040	0.685	0.700	0.640	0.048			
SI	0.650	0.024	0.617	0.634	0.633	0.052	0.611		
IFT Use	0.677	0.061	0.698	0.715	0.660	0.669	0.676	0.075	

Additionally, all HTMT values presented in **Table 6.12** were found to be lower than the conservative maximum limit of 0.85, indicating strong discriminant validity. Overall, the study's measurement model demonstrated high levels of reliability and validity, as confirmed by the analysis mentioned above.

6.8.2. Assessment of structural model

6.8.2.1. Assess collinearity issues in the structural model.

Following the prescribed procedure to assess the structural model as put forth by Hair Jr et al (2017), the initial step involved conducting a thorough examination of the collinearity issues among each set of predictor variables. This meticulous scrutiny aimed to ascertain the presence or absence of collinearity, which could potentially undermine the validity and reliability of the model. The Variance Inflation Factor (VIF) values, as outlined in Appendix 8a, were meticulously scrutinized to facilitate this analysis. This investigation revealed that all VIF values were below the critical threshold 5.0. This noteworthy finding unequivocally suggests that the lurking concern of collinearity can be safely dismissed, thereby bolstering the overall robustness and integrity of the structural model.

6.8.2.2. Assess the significance and relevance of the structural model relationships.

6.8.2.2.1. Structural Model Analysis - Direct Relationships

Following the assessment of the measurement model, **the next step** is evaluating the structural path for the evaluation of path coefficients (relationships amongst study constructs) and their statistical significance. A bootstrapping procedure generating 5000 samples tested the effects in

the research model at a 0.05 significance level (Hair Jr et al, 2017). The results are presented in Table 6.13. The structural model is presented in Figure 6.1.

Table 6.13. Significance testing results of the structural model path coefficients

Direct Relationships						
Hypotheses		**B**	**SE**	**T**	**P**	**Result**
1	PE→BI	-0.073	0.046	1.577	0.115	Not supported
2	EE→BI	-0.008	0.042	0.180	0.857	Not supported
3	SI→BI	0.211	0.054	3.925	0.000*	Supported
4	FC→BI	0.201	0.057	3.556	0.000*	Supported
5	HM→BI	0.121	0.051	2.393	0.017***	Supported
6	PV→BI	0.165	0.059	2.771	0.006**	Supported
7	HT→BI	0.179	0.057	3.157	0.002**	Supported
8	FC→ IFT Use	0.352	0.056	6.306	0.000*	Supported
9	HT→IFT Use	0.338	0.050	6.692	0.000*	Supported
10	BI→ IFT Use	0.145	0.052	2.794	0.005**	Supported

*Note. B = Beta Coefficient, SE = Standard Error, T = t — Statistics, P = Probability (P) value, *Relationships are significant at P < 0.001, **Relationships are significant at P < 0.01, ***Relationships are significant at P < 0.05.*

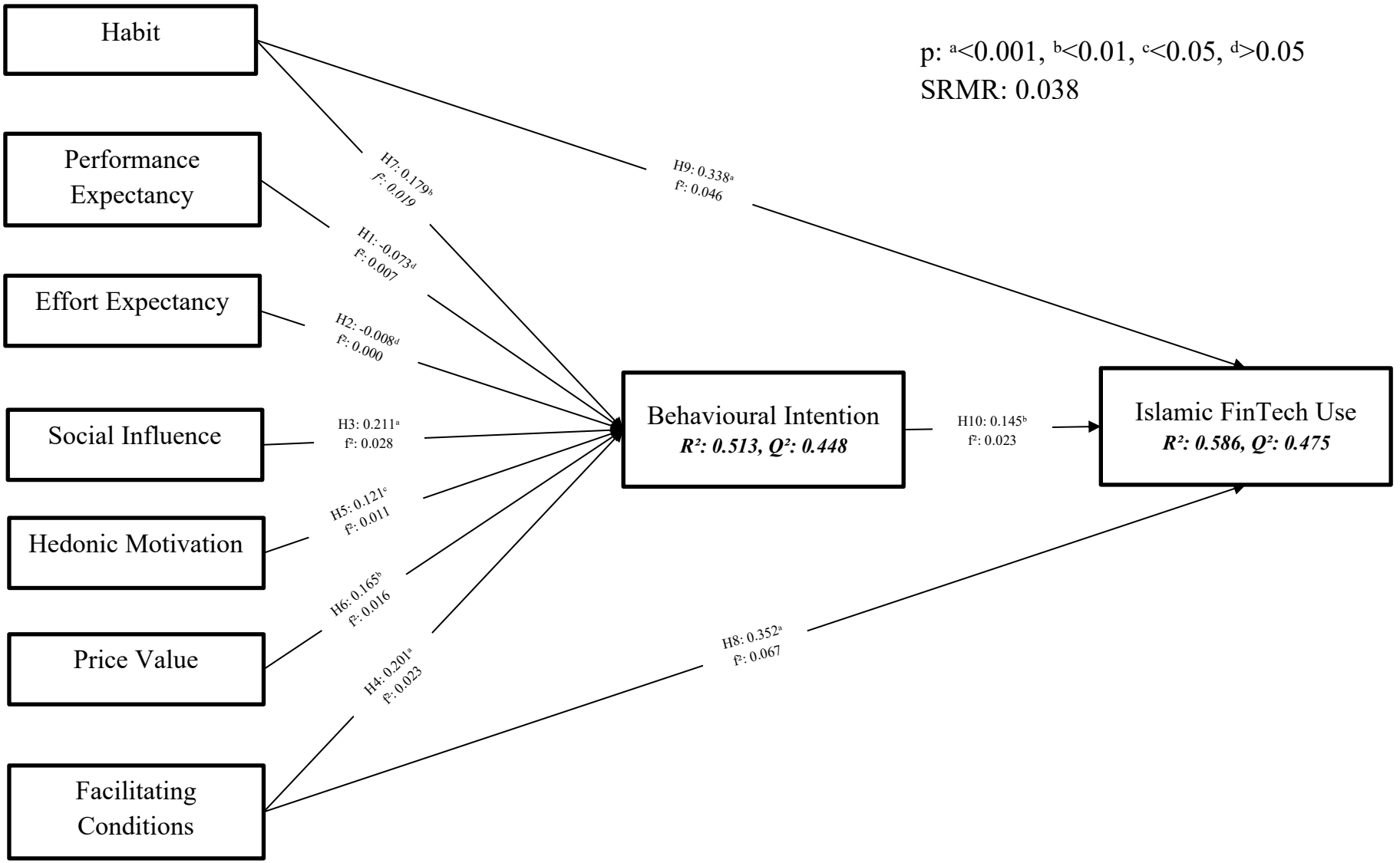


Figure 6.1. Structural model (Direct effects)

H1 examines the extent to which **Performance Expectancy (PE)** significantly and positively influences Behavioural Intention (BI). The findings indicate that Performance Expectancy (PE) does not have a statistically significant effect on Behavioural Intention (BI) (B = -0.073, t = 1.577, p = 0.115>0.05). Thus, H1 was not supported.

H2 investigates the degree to which **Effort Expectancy (EE)** significantly and positively impacts Behavioural Intention (BI). The results suggest that Effort Expectancy (EE) does not have a significant impact on Behavioural Intention (BI) (B = -0.008, t = 0.180, p = 0.857>0.05). Therefore, H2 was not supported.

H3 examines the extent to which **Social Influence (SI)** significantly and positively affects Behavioural Intention (BI). The findings reveal that Social Influence (SI) has a statistically significant and positive impact on Behavioural Intention (BI) (B = 0.211, t = 3.925, p <0.001). Hence, H3 was supported.

H4 investigates the degree to which **Facilitating Conditions (FC)** significantly and positively influence Behavioural Intention (BI). The results indicate that Facilitating Conditions (FC) has a statistically significant and positive impact on Behavioural Intention (BI) (B = 0.201, t = 3.556, p <0.001). Therefore, H4 was supported.

H5 investigates the extent to which **Hedonic Motivation (HM)** has a notable and favourable influence on Behavioural Intention (BI). The findings unveiled that Hedonic Motivation (HM) possesses a significant and positive effect on Behavioural Intention (BI) (B = 0.121, t = 2.393, p <0.05). Consequently, H5 received confirmation.

H6 examines the degree to which **Price Value (PV)** significantly and positively impacts Behavioural Intention (BI). The outcomes demonstrated that Price Value (PV) exerts a substantial and beneficial influence on Behavioural Intention (BI) (B = 0.165, t = 2.771, p <0.01). Thus, H6 was substantiated.

H7 assesses whether **Habit (HT)** significantly and positively affects Behavioural Intention (BI). The findings disclosed that Habit (HT) possesses a significant and positive impact on Behavioural Intention (BI) (B = 0.179, t = 3.157, p <0.01). Hence, H7 received support.

H8 evaluates whether **Facilitating Conditions (FC)** significantly and positively influences Islamic FinTech Use (IFT Use). The results revealed that Facilitating Conditions (FC) has a significant and positive impact on Islamic FinTech Use (IFT Use) (B = 0.352, t = 6.306, p <0.001). Consequently, H8 was validated.

H9 examines the extent to which the concept of **Habit (HT)** has a significant and positive influence on the utilisation of Islamic FinTech (IFT Use). The findings indicate that there is indeed a remarkable and favourable effect of Habit (HT) on Islamic FinTech Use (IFT Use) (B = 0.338, t = 6.692, p <0.001). Consequently, H9 has obtained support.

H10 investigates the degree to which the construct of **Behavioural Intention (BI)** substantially and positively impacts the adoption of Islamic FinTech (IFT Use). The outcomes disclose that Behavioural Intention (BI) does have a noteworthy and constructive influence on Islamic FinTech Use (IFT Use) (B = 0.145, t = 2.794, p <0.01). As a result, H10 has received support.

6.8.2.2.2. Mediation Analysis

The research employs the Baron & Kenny (1986) mediation analysis method, a strategic approach for testing mediation hypotheses. In this method, examining mediation involves two paths leading to the dependent variable. **Firstly**, the independent variable (exogenous variables) is expected to predict the dependent variable (Islamic Fintech use). **Secondly**, the independent variable should predict the mediator (behavioural intention). The mediation hypothesis is rigorously tested through a sequence of three regression analyses:

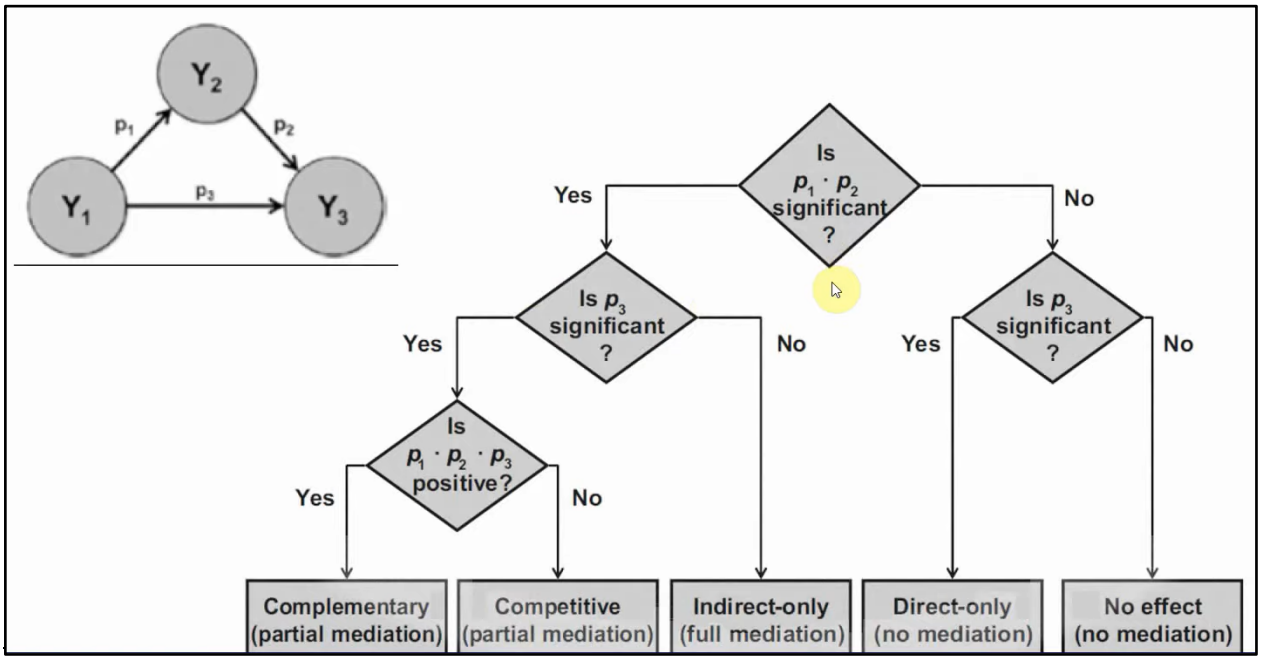
- The independent variable predicts the dependent variable.
- The independent variable predicts the mediator.
- The combined influence of the independent variable and mediator predicts the dependent variable.

For mediation to be supported, the following conditions must be met in the results:

- The independent variable must significantly influence the dependent variable in the first regression equation.

- The independent variable must significantly influence the mediator in the second regression equation.
- The mediator must significantly influence the dependent variable in the third equation, where both the independent variable and the mediator are entered as predictors.

Complete mediation is evident when the independent variable ceases to influence the dependent variable after accounting for the mediator, provided that all three conditions are satisfied. On the other hand, partial mediation occurs when the influence of the independent variable on the dependent variable is diminished after controlling for the mediator. This meticulous application of the Baron and Kenny method elucidates the intricate dynamics of the mediation process in the research, offering a nuanced understanding of how self-esteem mediates the relationship between grades and happiness. In this mediation analysis, Zhao et al (2018) procedure (**Figure 6.2**), which closely corresponds to Baron & Kenny (1986) concept of partial mediation and full mediation, was used.



(Source: Zhao et al (2018) procedure)

Figure 6.2. Mediation analysis procedure (Zhao et al, 2018)

Note (Figure 6.2): p1 represents the path from Y1 (Independent variable) to Y2 (Moderator variable), p2 represents the path from Y2 (Moderator variable) to Y3 (Dependent variable), p3 represents the direct effect from Y1 (Independent variable) to Y3 (Dependent variable).

However, to validate the hypothesized research model and the mediating role of Behavioural Intention (BI), we used an alternative model that included direct paths effect Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), Hedonic Motivation (HM), Price Value (PV) and Islamic FinTech Use (IFT Use) (see Appendix 8c).

Mediation analysis was performed through a test calculated from the bootstrapping procedure of 5,000 samples with a significance level of 0,05 to assess the mediating role of Behavioural Intention (BI) in the relationship between 7 independent variables PE, EE, SI, FC, HM, PV, HT, and the dependent variable Islamic FinTech Use (IFT Use). The full results of the mediation analysis are summarized in Table 6.14.

Under H11a, the findings indicated a statistically insignificant indirect effect of Performance Expectancy (PE) on Islamic FinTech Use (IFT Use) (H11a: B = -0.006, t = 0.983, p = 0.325 > 0.05). Moreover, the overall effect of PE on IFT Use was also not statistically significant (B = -0.006, t = 0.173, p = 0.863 > 0.05), and the inclusion of the mediator did not result in a significant effect of PE on IFT Use (B ~ 0, t = 0.009, p = 0.992 > 0.05). These findings suggest that BI does not mediate the association between PE and IFT Use, thereby failing to support H11a.

Similarly, the results indicated a non-significant indirect effect of Effort Expectancy (EE) on Islamic FinTech Use (IFT Use) (H11b: B ~ 0.000, t = 0.019, p = 0.985 > 0.05). The total effect of EE on IFT Use was also not significant (B = -0.004, t = 0.109, p = 0.913 > 0.05), and the inclusion of the mediator did not result in a significant effect of EE on IFT Use (B = -0.004, t = 0.109, p = 0.913 > 0.05). This suggests that BI does not act as a mediator in the relationship between EE and IFT Use. Thus, H11b was not supported.

In addition, the outcomes revealed an insignificant indirect effect of Social Influence (SI) on Islamic FinTech Use (IFT Use) (H11c: B = 0.018, t = 1.399, p = 0.162 > 0.05). The overall impact of SI on IFT Use was significant (B = 0.187, t = 4.545, p ~ 0.000 < 0.05), and with the inclusion of the mediator, the effect of SI on IFT Use remained significant (B = 0.169, t = 4.101, p ~ 0 <

0.05). This indicates the absence of a mediating role of BI in the relationship between SI and IFT Use. Consequently, H11c was not supported.

The findings also demonstrated an inconsequential indirect impact of Facilitating Conditions (FC) on the utilisation of Islamic FinTech (IFT Use) (H11d: B = 0.017, t = 1.290, p = 0.197 > 0.05). Nonetheless, the overall effect of FC on IFT Use was noteworthy (B = 0.247, t = 4.835, p ~ 0.000 < 0.05). Furthermore, when considering the mediator, the influence of FC on IFT Use remained significant (B = 0.230, t = 4.314, p ~ 0.000 < 0.05). This suggests that BI has no intervening role in the association between FC and IFT Use, and thus, H11d was not substantiated.

Following the H11e, the findings indicated an insignificant indirect effect of Hedonic Motivation (HM) on the use of Islamic FinTech (IFT Use) (H11e: B = 0.01, t = 1.254, p = 0.210 > 0.05). However, the overall effect of HM on IFT Use was significant (B = 0.115, t = 3.070, p = 0.002 < 0.05). Additionally, when considering the mediator, the effect of HM on IFT Use remained significant (B = 0.105, t = 2.793, p = 0.005 < 0.05). Hence, it can be concluded that there is no mediating role of BI in the relationship between HM and IFT Use, and therefore, H11e was not supported.

Furthermore, the findings of the study uncovered an insignificant indirect impact of Price Value (PV) on the utilisation of Islamic Financial Technology (IFT Use) (H11f: B = 0.014, t = 1.233, p = 0.218 > 0.05). However, the overall effect of PV on IFT Use was statistically significant (B = 0.185, t = 4.651, p ~ 0.000 < 0.05). Furthermore, when considering the mediator, the effect of PV on IFT Use remained significant (B = 0.171, t = 4.318, p ~ 0.000 < 0.05). These results indicate no mediating role of Behavioural intention (BI) in the relationship between PV and IFT Use. Therefore, the hypothesis H11f is not supported.

Finally, the study also revealed an insignificant indirect influence of Habit (HT) on the adoption of Islamic Financial Technology (IFT Use) (H11g: B = 0.015, t = 1.433, p = 0.152 > 0.05). However, the total effect of HT on IFT Use was statistically significant (B = 0.160, t = 2.887, p = 0.004 < 0.05). Moreover, when considering the mediator, the effect of HT on IFT Use remained significant (B = 0.145, t = 2.558, p = 0.011 < 0.05). These findings suggest that there is no mediating role of BI in the relationship between HT and IFT Use. Consequently, the hypothesis H11g is not supported.

Table 6.14. Mediation analysis results

IV	DV	MV	Total effects (IV -> DV)			Direct effect (IV -> DV)			Indirect Effects of IV on DV							Result
			Coefficient	t-value	p-value	Coefficient	t-value	p-value	Hypothesis	Coefficient	SE	t-value	p-value	Percentile bootstrap 95% confidence interval		
														Lower	Higher	
PE	IFT Use	BI	-0.006	0.173	0.863	0.000	0.009	0.992	*H11a*: PE→BI→IFT Use	-0.006	0.006	0.983	0.325	-0.019	0.003	Not supported
EE	IFT Use	BI	-0.004	0.109	0.913	-0.004	0.109	0.913	*H11b*: EE→BI→IFT Use	0.000	0.004	0.019	0.985	-0.011	0.008	Not supported
SI	IFT Use	BI	0.187	4.545	0.000	0.169	4.101	0.000	*H11c*: SI→BI→IFT Use	0.018	0.013	1.399	0.162	-0.005	0.046	Not supported
FC	IFT Use	BI	0.247	4.835	0.000	0.230	4.314	0.000	*H11d:* FC→BI→IFT Use	0.017	0.013	1.290	0.197	-0.005	0.047	Not supported
HM	IFT Use	BI	0.115	3.070	0.002	0.105	2.793	0.005	*H11e*:HM→BI→IFT Use	0.010	0.008	1.254	0.210	-0.003	0.029	Not supported
PV	IFT Use	BI	0.185	4.651	0.000	0.171	4.318	0.000	*H11f*: PV→BI→IFT Use	0.014	0.011	1.233	0.218	-0.004	0.04	Not supported

HT	IFT Use	BI	0.160	2.887	0.004	0.145	2.558	0.011	*H11g*: HT→BI→IFT Use	0.015	0.011	1.433	0.152	-0.005	0.038	Not supported

Note: IV: *Independent Variable*, DV: *Dependent Variable*, MV: *Moderator Variable*, PE: *Performance Expectancy*, EE: *Effort Expectancy*, SI: *Social Influence*, FC: *Facilitating Conditions*, HM: *Hedonic Motivation*, PV: *Price Value*, HT: *Habit*, BI: *Behavioural Intention*, IFT Use: *Islamic FinTech Use*, SE: *Standard Error*.

6.8.2.2.3. Moderation Analysis

A moderator variable, alternatively referred to as a contingent variable, is an additional variable that alters the relationship (both in terms of strength and direction) between the dependent and independent variables (Baron & Kenny, 1986; Holmbeck, 1997; Ramayah et al, 2018). Three distinct approaches exist for conducting moderation analysis in the context of PLS-SEM (Ramayah et al, 2018). These approaches include the product indicator approach (Chin et al, 2003), the two-stage approach (Chin et al, 2003; Henseler & Fassott, 2010), and the orthogonalisation approach (Henseler & Fassott, 2010). The product indicator approach involves using all possible combinations of both latent predictor and latent moderator indicators (Chin, 1998; Ramayah et al, 2018), whereas the two-stage approach utilises the latent variable scores of both latent predictors and latent moderators, which are subsequently saved (Chin & Dibbern, 2009; Henseler & Fassott, 2010; Ramayah et al, 2018). The saved latent scores are then employed to compute the product indicator for the second stage analysis, which includes the interaction term, the predictor, and the moderator variable (Ramayah et al, 2018). On the other hand, orthogonalisation involves using residuals obtained by regressing all conceivable pairwise product terms of both latent predictors and moderators' indicators on the latent predictor and latent moderator indicators (Henseler & Fassott, 2010; Little et al, 2006; Ramayah et al, 2018). In this study, moderation analysis was performed using the product indicator approach. This approach, being the most conventional method, is recommended for categorical variables and sample sizes greater than or equal to 200 (Henseler & Fassott, 2010; Ramayah et al, 2018). Specifically, the moderators in this study are categorical effects. Additionally, the sample size exceeds 200, making the product indicator approach the most appropriate method for conducting moderation analysis in this study. The initial set of moderation analyses focused on the seven exogenous factors (PE, PV, EE, FC, SI, HT, and HM) as the independent variables of behavioural intention (BI). The subsequent step of moderation analyses examined the relationship between behavioural intention (BI), habit (HT), facilitating conditions (FC), and Islamic FinTech use (IFT use). In this case, moderation analysis was performed with BI, HT, and FC as the independent variables, Islamic FinTech use as the dependent variable, and the demographic variables, namely gender (GDR), age (AGE), education (ED), experience (EXP), religion (REG), management level (ML), and language (LAG) as the moderators.

6.8.2.2.3.1. Gender (GDR)

This part of the study assessed the moderating role of **Gender** on the relationships between PE, EE, SI, FC, HM, PV, HT, and Behavioural Intention (BI), and the relationships between the variables HT, FC, BI, and IFT Use. According to Ramayah et al (2018), evaluating and comparing the R2 change in the main effect model and the interaction effect moderation analysis is essential to compare the direct and moderation effects. Without including the moderating variable GDR, the R-squared value for BI was 0.577. This shows that PE, EE, SI, FC, HM, PV, and HT account for 57.7% of the change in BI. Including the interaction term, the R-Square increased to 58.5%. This shows an increase of 0.8% in variance explained in the dependent variable (BI).

Similarly, the R2 for Islamic FinTech use in the model without including GDR is 0.497, and in the interaction effect model, it is 0.511, accounting for 49.7% and 51.1% of the variance explained in Islamic FinTech use. This results in an R2 change of 0.014. This shows that with the addition of the interaction term, the R2 has changed by about 1.4% (additional variance).

Table 6.15. Gender Moderation Effect Analysis

Hypothesis	Relationship	Beta	SE	t value	p-value	f-squared
H12a	GDR x PE→ BI	-0.035	0.069	0.505	0.613	0.000
H12b	**GDR x EE→ BI**	**-0.123**	**0.068**	**1.811**	**0.070****	**0.006**
H12c	GDR x SI → BI	-0.026	0.082	0.313	0.754	0.000
H12d	GDR x FC → BI	-0.035	0.097	0.357	0.721	0.000
H12e	GDR x HM→ BI	0.095	0.091	1.037	0.3	0.002
H12f	GDR x PV → BI	-0.003	0.097	0.032	0.974	0.000
H12g	GDR x HT → BI	0.142	0.101	1.407	0.159	0.004
H12h	**GDR x HT→ IFT Use**	**-0.214**	**0.094**	**2.275**	**0.023***	**0.008**
H12i	**GDR x FC→ IFT Use**	**-0.178**	**0.09**	**1.972**	**0.049***	**0.007**
H19	**GDR x BI→ IFT Use**	**0.179**	**0.084**	**2.124**	**0.034***	**0.008**

*Note. SE = Standard Error, BI – Behavioural intention, EE – Effort expectancy, FC – Facilitating conditions, HM – Hedonic motivations, HT – Habit, PE – Performance expectancy, PV – price value, SI – Social influence, IFT Use – Islamic FinTech use, GDR – Gender, *Relationships are significant at p-value < 0.05, **Relationships are significant at p-value < 0.1*

The significance of the interaction effects was tested using the bootstrapping procedure in Smart PLS to obtain the t-values and p-values. The results are presented in Table 6.15 below. Concerning the relationship between the exogenous factors (PE, PV, EE, FC, SI, HT, and HM) and behavioural intention (BI), Table 6.15 shows that Gender (GDR) only has a significant moderation on the relationship between Effort expectancy (EE) and behavioural intention (BI) (β = -.113, t = 1.811, p= 0.07<0.1), supporting H12b. This shows that with an increase in Gender, the relationship between EE and BI is weakened.

Regarding the relationships between HT, FC, BI, and IFT Use, **Table 6.15** indicates that GDR significantly moderates all three relationships between HT, FC, BI, and IFT Use (β=-0.214, t=2.275, p = 0.023 <0.05; β=-0.178, t=1.972, p= 0.049< 0.05; β=0.179, t=2.275, p= 0.023< 0.05 respectively), supporting H12h, H12i, H19. This shows that with an increase in GDR, the relationships between HT, FC, and IFT Use will be weakened, but it will strengthen the relationship between BI and IFT Use.

The f-Square effect size in the moderation effect of GDR on the relationships between PE, EE, SI, FC, HM, PV, HT, and Behavioural Intention (BI), according to Cohen (2013) proposition, 0.02, 0.15, and 0.35 constitute small, medium, and large effect sizes of moderation respectively. These are all very small moderating effects. This shows that the moderating effect does not contribute significantly to explaining the endogenous construct (BI). Similarly, the f-square effect size in the moderation effect of GDR on the relationships between the variables HT, FC, BI, and IFT Use was also from 0.007 to 0.008. This shows that the moderating effect does not contribute significantly to explaining the endogenous construct (IFT Use).

6.8.2.2.3.2. Age

This portion of the study evaluated the moderating influence of age on the associations among Effort Expectancy (EE), Performance Expectancy (PE), Social Influence (SI), Hedonic Motivation (HM), Facilitating Conditions (FC), Habit (HT), Price Values (PV) well as the relationships among HT, FC, BI, and Islamic FinTech (IFT) use.

Utilising the same methodology as the previous analysis conducted for gender, excluding the moderating variable age, the R-squared value for BI was determined to be 0.579. This finding indicates that 57.9% of the variance in BI can be attributed to the influence of PE, EE, SI, FC, HM, PV, and HT. Upon incorporating the interaction term, the R-squared value increased to 0.585. This signifies a 0.6%

augmentation in the variance explained in the dependent variable, BI. Similarly, the R-squared value for IFT use in the model without the inclusion of age was determined to be 0.505, whereas in the interaction effect model, it was calculated to be 0.511. These values account for 50.5% and 51.1% of the variance explained in IFT use, respectively. Consequently, this results in an R-squared change of 0.006, indicating that adding the interaction term led to a 0.6% alteration in the explained variance.

The outcomes of the interaction effects are presented in Table 6.16. Regarding the associations between the exogenous factors (PE, PV, EE, FC, SI, HT, and HM) and behavioural intention (BI), Table 6.16 demonstrates that age does not exert any significant moderating effects on the relationships among these variables. Thus, it can be inferred that these associations remain unaltered regardless of changes in age.

Table 6.16. Age Moderation Effect Analysis

Hypothesis	Relationship	Beta	SE	t value	p-value	f-squared
H13a	AGE x PE →BI	-0.005	0.036	0.151	0.880	0.000
H13b	AGE x EE→BI	-0.047	0.038	1.233	0.217	0.004
H13c	AGE x SI→BI	-0.025	0.048	0.516	0.606	0.001
H13d	AGE x FC→BI	-0.055	0.045	1.226	0.220	0.003
H13e	AGE x HM→BI	0.032	0.048	0.655	0.513	0.001
H13f	AGE x PV→BI	-0.015	0.048	0.304	0.761	0.000
H13g	AGE x HT→BI	0.035	0.049	0.711	0.477	0.001
H13h	AGE x HT→IFT Use	0.037	0.051	0.723	0.470	0.001
H13i	AGE x FC→IFT Use	-0.,021	0.044	0.471	0.638	0.000
H20	**AGE x BI→IFT Use**	**-0.078**	**0.043**	**1.813**	**0.070***	**0.006**

*Note. SE = Standard Error, BI – Behavioural intention, EE – Effort expectancy, FC – Facilitating conditions, HM – Hedonic motivations, HT – Habit, PE – Performance expectancy, PV – price value, SI – Social influence, IFT Use – Islamic FinTech use, *Relationships are significant at p-value < 0.1.*

Table 6.16 provides insights into HT, FC, BI, and IFT Use associations. It is observed that AGE plays a significant moderating role in the relationship between BI and IFT Use (β=-0.078, t=0.043, p = 0.070 <0.1), thereby supporting H20. This finding indicates that the link between BI and IFT Use weakens as AGE increases.

The f-Square effect size for the moderation effect of AGE on the associations between PE, EE, SI, FC, HM, PV, HT, and Behavioural Intention (BI) ranges from 0.000 to 0.004. These values fall within the very small moderating effects category, as defined by (Cohen, 2013). This suggests that the moderating effect does not significantly contribute to explaining the endogenous construct (BI). Similarly, the f-Square effect size for the moderation effect of AGE on the relationships between HT, FC, BI, and IFT Use also ranges from 0.000 to 0.006. This finding indicates that the moderating effect of AGE does not significantly contribute to explaining the endogenous construct (IFT Use).

6.8.2.2.3.3. Experience (EXP)

This part of the study assessed the moderating role of Experience (EXP) on the relationships between PE, EE, SI, FC, HM, PV, HT, and Behavioural Intention (BI) and the relationships between the variables HT, FC, BI, and IFT Use.

Using the same methodology as the previous examination of Gender and Age but excluding the moderating variable EXP, the R-squared value for BI was 0.582. This indicates that 58.2% of the variation in BI can be attributed to PE, EE, SI, FC, HM, PV, and HT. When the interaction term is included, the R-Square increases to 58.5%. This represents a 0.3% increase in variance explained in the dependent variable (BI). Similarly, the R2 for Islamic FinTech use in the model without including EXP is 0.508, and in the interaction effect model, it is 0.511, accounting for 50.8% and 51.1% of the variance explained in Islamic FinTech use. This results in an R2 change of 0.003, with f2 being 0.001. This indicates that with the addition of the interaction term, the R2 has changed by approximately 0.3% (additional variance).

Table 6.17. Experience Moderation Effect Analysis

Hypothesis	Relationship	Beta	SE	t value	p-value	f-square
H14a	EXP x PE→BI	0.004	0.034	0.104	0.917	0.000

H14b	EXP x EE→BI	-0.023	0.037	0.628	0.530	0.001
H14c	EXP x SI→BI	-0.049	0.035	1.393	0.164	0.003
H14d	EXP x FC→BI	0.034	0.047	0.732	0.464	0.001
H14e	EXP x HM→BI	-0.026	0.041	0.635	0.526	0.001
H14f	EXP x PV→BI	0.037	0.042	0.894	0.371	0.002
H14g	EXP x HT→BI	0.013	0.045	0.289	0.772	0.000
H14h	EXP x HT→IFT Use	0.042	0.044	0.97	0.332	0.002
H14i	EXP x FC→IFT Use	-0.070	0.044	1.584	0.113	0.004
H21	EXP x BI→IFT Use	0.021	0.043	0.497	0.619	0.000

Note. SE = Standard Error, BI – Behavioural intention, EE – Effort expectancy, FC – Facilitating conditions, HM – Hedonic motivations, HT – Habit, PE – Performance expectancy, PV – price value, SI – Social influence, IFT Use – Islamic FinTech use, EXP - Experience.

The findings of the interaction effects are presented in **Table 6.17,** which demonstrates that there is no moderation effect of EXP on either the relationships between PE, EE, SI, FC, HM, PV, HT, and Behavioural Intention (BI), or the relationships between the variables HT, FC, BI, and IFT Use. This indicates that altering EXP will not lead to any changes in these relationships.

The effect size of f-Square in the moderation effect of EXP on the relationships between PE, EE, SI, FC, HM, PV, HT, and Behavioural Intention (BI) ranged from 0.000 to 0.003. These moderating effects, as indicated by Cohen (2013), can be classified as very small. This demonstrates that the moderating effect does not significantly contribute to elucidating the endogenous construct (BI). Similarly, the effect size of f-Square in the moderation effect of EXP on the relationships between the variables HT, FC, BI, and IFT Use also ranged from 0.000 to 0.004. This indicates that the moderating effect of EXP does not significantly contribute to explaining the endogenous construct (IFT Use).

6.8.2.2.3.4. Religion (REG)

This section of the study examined the moderating influence of Religion (REG) on the associations between PE, EE, SI, FC, HM, PV, HT, and Behavioural Intention (BI) and the associations between HT, FC, BI, and IFT Use. Following the same methodology as the previous analysis for other moderating variables, excluding the moderating variable REG, the R-squared value for BI was 0.579. This indicates that PE, EE, SI, FC, HM, PV, and HT can explain 57.9% of the variability in BI. When the interaction term was included, the R-Square increased to 58.5%. This suggests a 0.6% rise in variance explained in the dependent variable (BI).

Similarly, the R2 for Islamic FinTech use in the model without REG was 0.500, and in the model with the interaction effect, it was 0.511, accounting for 50% and 51.1% of the variability explained in Islamic FinTech use. This results in an R2 change of 0.011, with f2 being 0.001. Consequently, adding the interaction term modified approximately 1.1% in the R2 (additional variance).

The findings of the interaction effects are presented in Table 6.18. Regarding the relationship between the exogenous factors (PE, PV, EE, FC, SI, HT, and HM) and behavioural intention (BI), Table 6.18 reveals that REG does not have any significant moderating effects on the associations between PE, EE, SI, FC, HM, PV, HT, and Behavioural Intention (BI). This indicates that altering REG does not impact these relationships.

Table 6.18. Religion Moderation Effect Analysis

Hypothesis	Relationship	Beta	SE	t value	p-value	f-square
H15a	REG x PE→BI	-0.097	0.154	0.631	0.528	0.001
H15b	REG x EE→BI	0.210	0.142	1.478	0.139	0.004
H15c	REG x SI→BI	0.000	0.180	0.002	0.999	0.000
H15d	REG x FC→BI	-0.258	0.186	1.388	0.165	0.003
H15e	REG x HM→BI	-0.100	0.185	0.543	0.587	0.000
H15f	REG x PV→BI	0.091	0.200	0.453	0.650	0.000
H15g	REG x HT→BI	0.312	0.251	1.244	0.214	0.003
H15h	REG x HT→IFT Use	0.060	0.281	0.212	0.832	0.000
H15i	**REG x FC→IFT Use**	**-0.527**	**0.183**	**2.881**	**0.004***	**0.014**

H22	REG x BI→IFT Use	0.227	0.258	0.880	0.379	0.002

*Note. SE = Standard Error, BI – Behavioural intention, EE – Effort expectancy, FC – Facilitating conditions, HM – Hedonic motivations, HT – Habit, PE – Performance expectancy, PV – price value, SI – Social influence, IFT Use – Islamic FinTech use, REG - Religion, *Relationships are significant at p-value < 0.01.*

Table 6.18 provides insights into the interconnections among HT, FC, BI, and IFT Use, shedding light on the role of REG as a significant moderator in the relationship between FC and IFT Use. The statistical analysis reveals that REG has a noteworthy impact on this particular association, as evidenced by the beta coefficient of -0.527 (t=2.881, p=0.004 <0.01), thereby supporting hypothesis H15i. This compelling evidence suggests that as REG increases, the strength of the relationship between FC and IFT Use diminishes, indicating a weakened connection between these variables.

Moving on to the effect size, known as f-Square, in the moderation effect of REG on the relationships between PE, EE, SI, FC, HM, PV, HT, and BI, it is observed that the range falls within 0.000 to 0.003. These values signify small moderating effects, as per Cohen (2013) classification. Consequently, it can be inferred that the moderating effect does not substantially contribute to explaining the endogenous construct, BI. A similar pattern emerges when examining the f-Square effect size in the moderation effect of REG on the relationships between HT, FC, BI, and IFT Use, which also falls within the range of 0.000 to 0.014. This finding reinforces the notion that the moderating effect of REG has minimal impact on explaining the endogenous construct of IFT Use.

In conclusion, the empirical analysis underscores the pivotal role of REG as a moderator in the relationship between FC and IFT Use, highlighting the influence of REG in weakening this particular association. However, when considering the effect size, it becomes apparent that the moderating effect of REG has limited explanatory power for the endogenous constructs, BI and IFT Use. These small moderating effects, as indicated by the f-Square values, further reinforce the notion that REG does not significantly contribute to understanding the relationships among the various variables under investigation.

6.8.2.2.3.5. Language (LAG)

The current portion of the study aims to evaluate the moderating role of Language (LAG) on the associations between PE, EE, SI, FC, HM, PV, HT, and Behavioural Intention (BI), as well as the

relationships between HT, FC, BI, and IFT Use. Following the same methodology employed in the previous analysis for other moderating variables while excluding the moderating variable LAG, the R-squared value for BI was found to be 0.577. This indicates that approximately 57.7% of the variance in BI can be explained by the variables PE, EE, SI, FC, HM, PV, and HT. Upon the inclusion of the interaction term, the R-Square increased marginally to 58.5%. Likewise, the R2 for Islamic FinTech use in the model that does not incorporate LAG is 0.510, whereas, in the interaction effect model, it amounts to 0.511, accounting for 51% and 51.1% of the explained variance in the use of Islamic FinTech, respectively. Consequently, there is only a negligible change in R2, amounting to 0.001.

Table 6.19. Language Moderation Effect Analysis

Hypothesis	Relationship	Beta	SE	t value	p-value	f-square
H16a	LAG x PE→BI	0.000	0.034	0.007	0.995	0.000
H16b	LAG x EE→BI	0.007	0.029	0.239	0.811	0.000
H16c	LAG x SI→BI	0.063	0.044	1.428	0.153	0.004
H16d	**LAG x FC→BI**	**0.106**	**0.051**	**2.090**	**0.037****	**0.007**
H16e	**LAG x HM→BI**	**-0.143**	**0.055**	**2.602**	**0.009***	**0.012**
H16f	LAG x PV→BI	-0.060	0.038	1.578	0.115	0.004
H16g	LAG x HT→BI	-0.018	0.044	0.410	0.682	0.000
H16h	LAG x HT →IFT Use	-0.011	0.042	0.270	0.787	0.000
H16i	LAG x FC →IFT Use	0.044	0.041	1.063	0.288	0.002
H23	LAG x BI → IFT Use	-0.022	0.042	0.532	0.595	0.000

*Note. SE = Standard Error, BI – Behavioural intention, EE – Effort expectancy, FC – Facilitating conditions, HM – Hedonic motivations, HT – Habit, PE – Performance expectancy, PV – price value, SI – Social influence, IFT Use – Islamic FinTech use, LAG – Language, *Relationships are significant at p-value < 0.01, **Relationships are significant at p-value < 0.05.*

The outcomes of the interaction effects are exhibited in Table 6.19. In terms of the relationship between the exogenous factors (PE, PV, EE, FC, SI, HT, and HM) and behavioural intention (BI), Table 6.19 demonstrates that LAG exerts significant moderation effects on the two relationships between FC, HM,

and Behavioural Intention (BI) (β = 0.106, t = 2.090, p= 0.037<0.5; β = -0.143, t = 2.602, p= 0.009<0.01 respectively), thereby providing support for H16d and H16e. These findings indicate that an increase in LAG will strengthen the relationship between FC and IB while weakening the relationship between HM and IB.

Regarding the associations between HT, FC, BI, and IFT Use, Table 6.19 reveals that LAG does not exert any significant moderating influence on these relationships. Consequently, alterations in LAG do not lead to any changes in these relationships.

The f-Square effect size in the moderation effect of LAG on the relationships between PE, EE, SI, FC, HM, PV, HT, and Behavioural Intention (BI) ranged from 0.000 to 0.012. These are all small moderating effects, according to (Cohen, 2013). This shows that the moderating effect does not contribute significantly to explaining the endogenous construct (BI). Similarly, the f-Square effect size in the moderation effect of LAG on the relationships between the variables HT, FC, BI, and IFT Use was also from 0.000 to 0.002. This shows that the moderating effect of LAG does not contribute significantly to explaining the endogenous construct (IFT Use).

6.8.2.2.3.6. Education (ED)

This part of the study assessed the moderating role of Education (ED) on the relationships between PE, EE, SI, FC, HM, PV, HT, and Behavioural Intention (BI) and the relationships between the variables HT, FC, BI, and IFT Use.

Using the same approach as the previous analysis for other moderating variables, without including the moderating variable ED, the R-squared value for BI was 0.572. This shows that PE, EE, SI, FC, HM, PV, and HT account for 57.2% of the change in BI. Including the interaction term, the R-Square increased to 58.5%. This shows an increase of 1.3% in variance explained in the dependent variable (BI). Similarly, the R2 for Islamic FinTech use in the model without including ED is 0.505, and in the interaction effect model, it is 0.511, accounting for 50.5% and 51.1% of the variance explained in Islamic FinTech use. This results in an R2 change of 0.006. This shows that with the addition of the interaction term, the R2 has changed by about 0.6% (additional variance).

The presentation of the interaction effects can be observed in Table 6.20, which provides valuable insights into the relationship between the exogenous factors (PE, PV, EE, FC, SI, HT, and HM) and behavioural

intention (BI). Upon examination of Table 6.20, it becomes evident that the moderation effects of ED are significant in two relationships: HT and SI with Behavioural Intention (BI) (β = -0.094, t = 2.015, p= 0.044<0.05; β = 0.104, t = 2.291, p= 0.022<0.05 respectively), thus providing support for H17g and H17c. This signifies that an increase in ED leads to a strengthening of the relationship between FC and IFT Use while simultaneously weakening the relationship between HM and IFT Use.

Similarly, when examining the relationships between HT, FC, BI, and IFT Use, Table 6.20 showcases the significant moderation effects of ED in two relationships: BI and FC with IFT Use (β=0.088, t= 2.080, p = 0.038 <0.05; β=-0.078, t= 1.735, p = 0.083 <0.1, respectively), thus supporting H24 and H17i. This reveals that an increase in ED strengthens the relationship between BI and IFT Use while weakening the relationship between FC and IFT Use.

The assessment of the f-Square effect size in the moderation effect of ED on the relationships between PE, EE, SI, FC, HM, PV, HT, and Behavioural Intention (BI) yielded values ranging from 0.000 to 0.011. These effect sizes, categorised as small according to (Cohen, 2013), demonstrate that the moderating effect does not significantly contribute to explaining the endogenous construct (BI). Similarly, the f-Square effect size in the moderation effect of ED on the relationships between HT, FC, BI, and IFT Use fell within the range of 0.000 to 0.008. This further supports the notion that ED's moderating effect does not significantly contribute to explaining the endogenous construct (IFT Use).

Table 6.20. Education Moderation Effect Analysis

Hypothesis	Relationship	Beta	SE	t value	p-value	f-square
H17a	ED x PE→BI	0.050	0.039	1.267	0.205	0.004
H17b	ED x EE→BI	0.046	0.034	1.331	0.183	0.004
H17c	**ED x SI→BI**	**0.104**	**0.046**	**2.291**	**0.022***	**0.011**
H17d	ED x FC→BI	-0.046	0.051	0.900	0.368	0.002
H17e	ED x HM→BI	-0.005	0.045	0.117	0.907	0.000
H17f	ED x PV→BI	0.025	0.041	0.613	0.540	0.001
H17g	**ED x HT→BI**	**-0.094**	**0.047**	**2.015**	**0.044***	**0.007**
H17h	ED x HT→IFT Use	0.021	0.043	0.488	0.626	0.000

H17i	**ED x FC→IFT Use**	**-0.078**	**0.045**	**1.735**	**0.083****	**0.005**
H24	**ED x BI→IFT Use**	**0.088**	**0.042**	**2.080**	**0.038***	**0.008**

*Note. SE = Standard Error, BI – Behavioural intention, EE – Effort expectancy, FC – Facilitating conditions, HM – Hedonic motivations, HT – Habit, PE – Performance expectancy, PV – price value, SI – Social influence, IFT Use – Islamic FinTech use, ED – Education, *Relationships are significant at p-value < 0.05, **Relationships are significant at p-value < 0.1*

6.8.2.2.3.7. Management level (ML)

This particular portion of the study aimed to evaluate the role of the Management level (ML) as a moderator in the relationships between various factors such as PE, EE, SI, FC, HM, PV, HT, and Behavioural Intention (BI), as well as the relationships between HT, FC, BI, and IFT Use. Following a similar approach to the previous analysis conducted on Gender and Age, while excluding the moderating variable ML, the R-squared value for BI was determined to be 0.582. This indicates that 58.2% of the variation in BI can be accounted for by the factors PE, EE, SI, FC, HM, PV, and HT. Upon the inclusion of the interaction term, the R-Square value increased slightly to 58.5%, resulting in a 0.3% increase in the explained variance of the dependent variable (BI). Similarly, the R2 value for Islamic FinTech use in the model without considering ML was found to be 0.510, and in the interaction effect model, it was slightly higher at 0.511. These values account for 51% and 51.1% of the variance explained in Islamic FinTech use, respectively. Consequently, there was a negligible change of 0.001 in the R2 value. These outcomes signify that adding the interaction term led to a marginal change of approximately 0.3% in the explained variance.

The outcomes of the interaction effects are presented in Table 6.21, which demonstrates that the moderation effect of ML was not observed in either the relationships between PE, EE, SI, FC, HM, PV, HT, and Behavioural Intention (BI), or the relationships between HT, FC, BI, and IFT Use. These findings indicate that altering the Management level (ML) does not impact any of the aforementioned relationships.

The f-Square effect size, which measures the magnitude of the moderation effect, was found to range from 0.000 to 0.002 in the moderation effect of ED on the relationships between PE, EE, SI, FC, HM, PV, HT, and Behavioural Intention (BI). According to Cohen (2013), these values indicate small moderating effects. Consequently, it can be concluded that the moderating effect of ED does not

significantly contribute to the explanation of the endogenous construct (BI). Similarly, the f-Square effect size in the moderation effect of ED on the relationships between HT, FC, BI, and IFT Use ranged from 0.000 to 0.001. This further supports the notion that the moderating effect of ED does not significantly contribute to the explanation of the endogenous construct (IFT Use).

The findings of this study reveal that the inclusion of the moderating variable ML did not substantially impact the relationships between the various factors and Behavioural Intention (BI), as well as the relationships between HT, FC, BI, and IFT Use. The resulting changes in the explained variance were minimal, indicating that the moderating effect of ML does not play a significant role in explaining the dependent variables. Furthermore, the effect sizes of the moderation effects of ED were found to be extremely small, suggesting that ED does not significantly contribute to the explanation of the endogenous constructs (BI and IFT Use). These findings contribute to the existing literature on the moderating effects of Management level and ED.

Table 6.21. Management Level Moderation Effect Analysis

Hypothesis	Relationship	Beta	SE	t value	p-value	f-square
H18a	ML x PE→BI	-0.011	-0.011	0.040	0.288	0.000
H18b	ML x EE→BI	0.024	0.022	0.035	0.688	0.001
H18c	ML x SI→BI	0.040	0.032	0.046	0.869	0.002
H18d	ML x FC→BI	-0.017	-0.016	0.058	0.288	0.000
H18e	ML x HM→BI	-0.036	-0.040	0.043	0.836	0.002
H18f	ML x PV→BI	-0.019	-0.018	0.060	0.320	0.000
H18g	ML x HT→BI	0.053	0.057	0.046	1.150	0.002
H18h	ML x HT→IFT Use	-0.011	-0.011	0.046	0.244	0.000
H18i	ML x FC → IFT Use	0.010	0.009	0.045	0.213	0.000
H25	ML x BI→IFT Use	0.024	0.023	0.043	0.552	0.001

Note. SE = Standard Error, BI – Behavioural intention, EE – Effort expectancy, FC – Facilitating conditions, HM – Hedonic motivations, HT – Habit, PE – Performance expectancy, PV – price value, SI – Social influence, IFT Use – Islamic FinTech use, ML – Management Level.

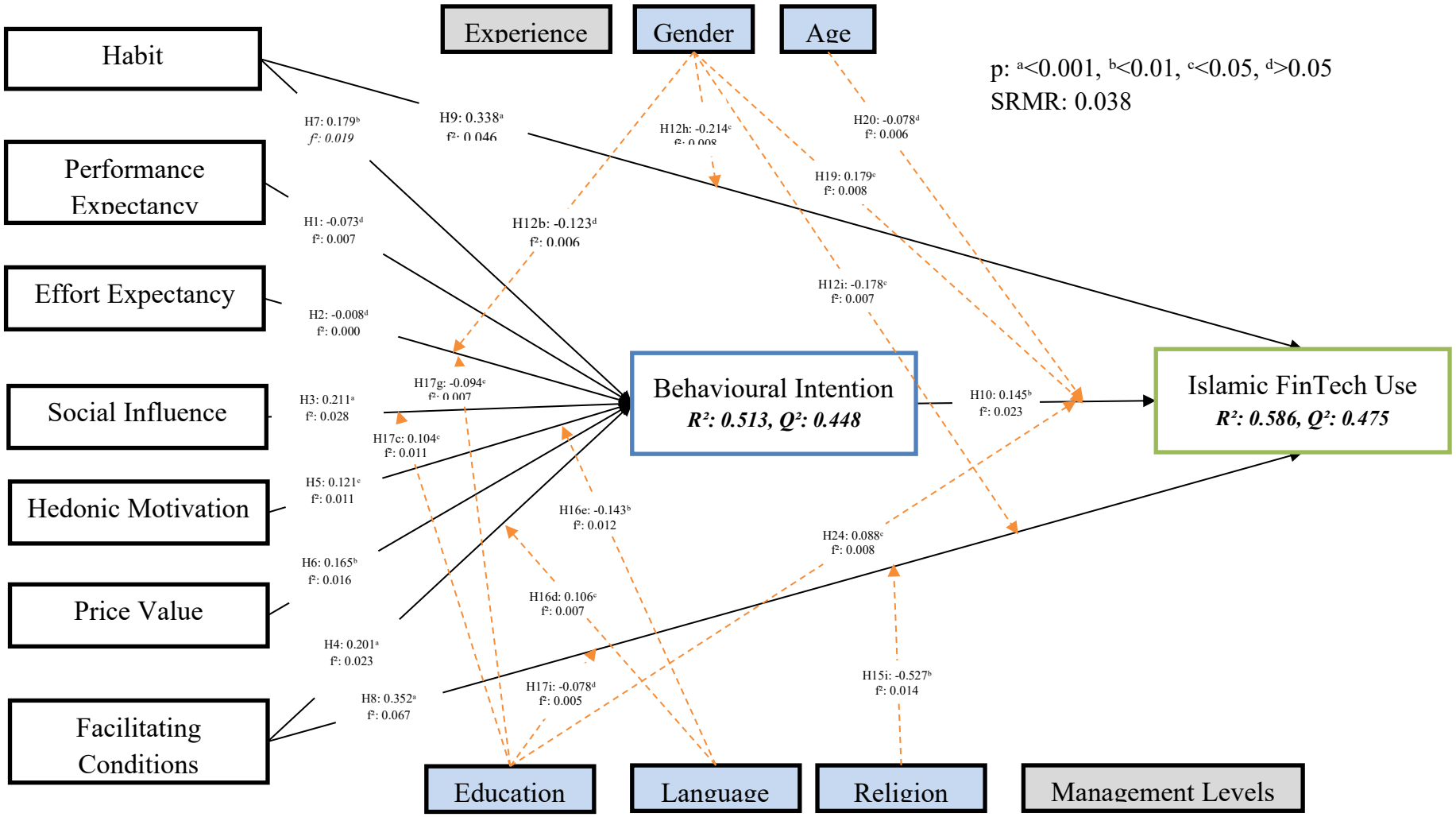

Habit
Performance Expectancy
Effort Expectancy
Social Influence
Hedonic Motivation
Price Value
Facilitating Conditions
Experience
Gender
Age
Behavioural Intention
R²: 0.513, Q²: 0.448
Islamic FinTech Use
R²: 0.586, Q²: 0.475
Education
Language
Religion
Management Levels
p: a<0.001, b<0.01, c<0.05, d>0.05
SRMR: 0.038
H7: 0.179b
f²: 0.019
H9: 0.338a
H12h: -0.214c
H20: -0.078d
f²: 0.006
H19: 0.179c
f²: 0.008
H1: -0.073d
f²: 0.007
H12b: -0.123d
f²: 0.006
H12i: -0.178c
f²: 0.007
H2: -0.008d
f²: 0.000
H17g: -0.094c
H3: 0.211a
f²: 0.028
H10: 0.145b
f²: 0.023
H17c: 0.104c
f²: 0.011
H5: 0.121c
f²: 0.011
H16e: -0.143b
f²: 0.012
H24: 0.088c
f²: 0.008
H6: 0.165b
f²: 0.016
H16d: 0.106c
f²: 0.007
H4: 0.201a
f²: 0.023
H17i: -0.078d
f²: 0.005
H15i: -0.527b
f²: 0.014
H8: 0.352a
f²: 0.067

Figure 6.3. The final structural model with moderation effects

6.8.2.3. Assess the level of R-square

The amount of variance explained by R2 indicates the model fit and the predictive ability of the endogenous variables (Chin, 1998). Hair Jr et al (2017) Suggested that the minimum level for an individual R2 should be greater than a minimum acceptable level of 0.10. **Table 6.22** shows the R-squared value of almost all endogenous variables: 'Behavioural Intention' and 'Islamic FinTech Use' were accepted (58.6% and 51.3% respectively). Overall, the model is valid, and examining the significance of the paths associated with these variables was appropriate. To assess the quality of the structural model, an SRMR value of 0.038 – less than the threshold (0.08) – indicated that the model suited the theory well (Hu & Bentler, 1999) (see **Figure 6.1**).

Table 6.22. R Square Value

	R-square	R-square adjusted
Behavioural Intention (BI)	0.586	0.542
Islamic FinTech Use (IFT Use)	0.513	0.490

6.8.2.4. Assess the f-square effect size.

Cohen (2013) Put forth the f-square index table to assess the significance of independent variables. According to this table, the magnitude of impact can be classified into four categories: extremely weak or no impact (f Square < 0.02), small impact (0.02 ≤ f Square < 0.15), medium impact (0.15 ≤ f Square < 0.35), and large impact (f Square ≥ 0.35). Upon examining the data presented in **Table 6.23**, it becomes evident that the f2 value of independent variables like "Effort Expectancy," "Habit," "Hedonic Motivation," "Price Value," and "Performance Expectancy" have negligible impacts on "Behavioural Intention" (0.000, 0.019, 0.011, 0.016, 0.007 respectively). Furthermore, the impacts on other relationships are relatively small, ranging from 0.023 to 0.067.

Table 6.23. f Square Value

	Behavioural Intention	Islamic FinTech Use

Behavioural Intention (BI)		0.023
Effort Expectancy (EE)	0.000	
Facilitating Conditions (FC)	0.023	0.067
Habit (HT)	0.019	0.046
Hedonic Motivation (HM)	0.011	
Performance Expectancy (PE)	0.007	
Price Value (PV)	0.016	
Social Influence (SI)	0.028	

6.8.2.5. Assess the model's predictive power.

According to the research conducted by Cha (1994), it was postulated that the Q^2 values should exhibit a higher level of predictive relevance than zero. Upon careful examination of the data presented in **Table 6.24**, it becomes evident that the Q^2 values for the two endogenous variables, namely "Behavioural Intention" and "Islamic FinTech Use," surpass the zero thresholds, with values of 0.475 and 0.448, respectively. These noteworthy findings support the notion that the exogenous constructs possess substantial explanatory power and offer sufficient predictive relevance for the three endogenous constructs within the model. Therefore, it can be inferred that the exogenous variables play a significant role in explaining the variation observed in the endogenous constructs.

Table 6.24. Q-Square Value

	Q^2 predict
Behavioural Intention	0.475
Islamic FinTech Use	0.448

Chapter 7. Discussion on Major Findings

7.1. Introduction

This chapter presents a comprehensive and in-depth analysis of the study findings. This is achieved by meticulously highlighting the various research objectives and the theoretical and methodological contributions the research has made. Additionally, the chapter delves into the practical implications and contributions of the research, shedding light on the real-world applications and benefits that have emerged from this study. Moreover, the chapter also considers the research limitations, acknowledging the boundaries and constraints encountered throughout the research process. Furthermore, the chapter extends its focus to encompass recommendations for future research orientations, providing valuable insights and suggestions for further investigations in this field. Additionally, the chapter concludes by summarizing the research findings and drawing conclusions based on the initial research objectives.

In terms of organization, this chapter is meticulously structured and divided into different sections, each of which addresses a specific aspect of the research. Section 7.2 meticulously articulates the research objectives, elucidating the core aims and goals pursued throughout the study. Moving forward, Section 7.3 describes the various research theories and models employed to guide and inform the research process. Furthermore, Section 7.4 serves as a platform for highlighting the major findings and themes concerning the acceptance of the research and the various constructs that were investigated. It sheds light on the observed patterns and trends, providing a comprehensive overview of the research outcomes.

Additionally, Section 7.5 shines a spotlight on the research contributions that have been made to theory and methodology. This section highlights how the research has advanced and enhanced existing theories and methodologies. Moreover, Section 7.6 takes a closer look at the discussions surrounding the moderation effect of demographics. Finally, Section 7.7 serves as a platform for presenting the research investigations and arguments that have been put forth for future research endeavours. It outlines the potential avenues for further exploration and encourages scholars to take on new challenges and expand on the existing body of knowledge. In conclusion, this chapter serves as a comprehensive and detailed analysis of the study findings, providing valuable insights and contributions to the field of research.

7.2. Research Objective

The present study sought to examine managers' perspectives concerning their acceptance and utilisation of Islamic FinTech, thereby aiming to achieve the primary objective of the research. Three crucial and specific research objectives were delineated to accomplish this overarching aim. **The first objective** was to ascertain individuals' propensity to embrace FinTech, particularly within an Islamic context. **On the other hand, the second objective** aimed to thoroughly investigate the practical application of Islamic FinTech, focusing on understanding its various dimensions and potentialities. **Lastly, the third and final objective** was designed to illuminate the intricate facets researchers must consider in comprehending the topic. Therefore, researchers must comprehensively understand how Islamic FinTech is perceived and employed by managers, as this would significantly contribute to the existing body of knowledge in this field. By achieving a deeper insight into managers' opinions and attitudes towards Islamic FinTech, researchers can effectively address the complexities and challenges that may arise in implementing and utilising this innovative technology within the Islamic finance industry. The findings of this study will serve as a valuable resource for Moderators, researchers, and practitioners alike, paving the way for the development and advancement of Islamic FinTech in the contemporary financial landscape.

7.3. Research Theories and Models

The research critically evaluates theories and models within Islamic FinTech to achieve the research objectives. Extensive analysis of previous literature revealed the existence of numerous technology acceptance models, each equipped with its own distinct set of constructs. For this research, mediation was employed to examine the intention to use Islamic FinTech based on The Unified Theory of Acceptance and Use of Technology (UTAUT). It is worth noting that UTAUT, as proposed by Venkatesh et al (2003), is a comprehensive framework that was developed by integrating eight other prominent theories and models, namely, The Theory of Reasoned Action (TRA), The Technology Acceptance Model (TAM), The Motivational Model (MM), The Theory of Planned Behaviour (TPB), Combined TAM And TPB (C-TAM-TPB), The Model of PC Utilisation (MPCU), The Innovation Diffusion Theory (IDT), and The Social Cognitive Theory (SCT) (Hernandez et al, 2008; Venkatesh et al, 2003). Furthermore, this study sought to scientifically compare all the usage models and their variables concerning the acceptance and use of Islamic FinTech, ultimately selecting a comprehensive model encompassing the constructs

represented in all the examined models. **Lastly**, this study offers empirical support for the unified model, further solidifying its reliability and validity.

Within the scope of this study, the UTAUT was established as a framework consisting of seven fundamental determinants that influence the acceptance and use of Islamic FinTech, alongside up to six moderators specifically on Islamic FinTech. The original intention was then employed to test the UTAUT, which demonstrated superior performance compared to the other eight models, achieving an R2 value of 58.6%. Subsequently, the UTAUT was validated using data obtained from the acceptance and use of Islamic FinTech, yielding comparable results with an R2 value ranging between 51.3% and 58.6%.

Over time, several theoretical models have emerged, all of which are rooted in the construct of behavioural intention (BI). The construct of behavioural intention (BI) is influenced by various factors, including effort expectancy (PE), hedonic motivation (HM), performance expectancy (PE), habit (HT), social influence (SI), price value (PV), and facilitating conditions (FC) (Hair Jr et al, 2017). Through the utilisation of exploratory factor analysis (EFA), it was determined that these factors collectively account for more than 40% of the variance in acceptance intention and use of Islamic FinTech when applied to behavioural analysis, thereby explaining a substantial portion of the exogenous construct variance, amounting to 76.38%. Additionally, the EFA yielded a two-factor solution for the acceptance and use of Islamic FinTech, which accounted for an impressive 71.92% of the explained variance.

Subsequent path analysis using Partial Least Squares Structural Equation Modelling (PLS-SEM) revealed that all of the exogenous technology factors, except for EE (Ease of Use) and PE (Perceived Enjoyment), were significant predictors of behavioural intent towards acceptance and use of Islamic FinTech. These technology factors collectively accounted for 58.6% (R2 = 0.586) of the variance explained in behavioural intent towards FinTech acceptance. Notably, among these factors, the Effect Size (f2) indicated that SI (Social Influence) and FC (Facilitating Conditions) had particularly strong effects, with f2 values of 0.028 and 0.023, respectively, despite the overall effect sizes being relatively small. Furthermore, the results demonstrated that HT (Hedonic Motivation), FC, and behavioural intent towards FinTech acceptance significantly predicted the actual use of Islamic FinTech, explaining 51.3% of the variance in Islamic FinTech use. However, the effect sizes for these relationships were also relatively small (f2 = .046, f2 = .067, and f2 = .023 respectively). Interestingly, the mediation analysis revealed that behavioural intent did not

mediate the relationships between the exogenous factors and the use of Islamic FinTech (Hair Jr et al, 2021).

In addition, the results indicated that several demographic factors, including Gender, Language, and Education, moderated the contribution of behavioural intent. Specifically, the effects of acceptance and use of Islamic FinTech were influenced by ***Age, Gender, Religion, and Education***. These findings highlight the importance of considering the contextual factors and individual differences when studying the acceptance and use of Islamic FinTech.

Despite the maturity of the research field, no comprehensive comparison of the various competing models has been conducted thus far. This gap in the literature motivates the present study, which aims to address five limitations commonly associated with existing models and theories in the field. One of these limitations is the tendency of many acceptances and use studies to focus on relatively simple and acceptance oriented Islamic FinTech rather than exploring more advanced and complex organisational approaches. This limitation is particularly relevant for managers responsible for implementing and managing Islamic FinTech solutions.

Another limitation of the existing literature is the narrow focus on acceptance and usage behaviour within an organisational context. In many studies, the respondents are asked to evaluate their intention and usage behaviour towards Islamic FinTech, based on innovations already introduced in the banking sector. This approach neglects the earlier stages of the innovation process and assumes that the respondents have already become familiar with Islamic FinTech through prior usage. In contrast, our study examines the acceptance and use of Islamic FinTech from its inception to the stages of higher innovation, providing a more comprehensive understanding of the factors influencing its adoption. Furthermore, it is common for researchers to examine the effects of individual theories in isolation without considering their interrelationships. This limitation also applies to model comparison research, where each theory is often evaluated independently. In our study, The researchers go beyond this approach by considering the various stages of Islamic FinTech use and comparing all models across all participants. This comprehensive approach allows for a more nuanced understanding of the acceptance and use of Islamic FinTech, as it considers the complex interplay between different theories and factors.

Overall, while existing models and theories have significantly contributed to understanding the Islamic concept and use of Islamic FinTech, they need to be extended and refined to better address the needs and concerns of practising managers (Hair Jr et al, 2021). Additionally, it is essential to

recognise that accepting and using Islamic FinTech is voluntary behaviour, emphasising the need for a comprehensive and context-specific approach to studying this phenomenon.

7.4. Major Findings and Themes

Among various dimensions, Islamic FinTech has been associated with theories and models which contribute a unique perspective to the existing literature on users' adoption of Islamic FinTech. In the current study, the utilisation models incorporate utilisation or intention as a construct of theories in a partial least square structural equation modelling (PLS-SEM) framework.

These theories aim to comprehend the usage models and emphasise the importance of acceptance as a predictor of utilisation, such as the usage of Islamic banking. In Islamic banking, individuals convert their banking assets into hard assets, facing a financial challenge (Venkatesh et al, 2007; Venkatesh et al, 2003). To tackle this challenge, introducing new Islamic FinTech products becomes crucial, as these products have the potential to enhance liquidity, risk management, and portfolio diversification. However, applying financial engineering techniques to Islamic banking necessitates a deep understanding of the acceptance of each system component. Moreover, it requires the development of new products that exhibit diverse acceptance and usage profiles, aligning with the demand for acceptance and utilisation of Islamic FinTech. Hence, it becomes imperative to commit substantial efforts to comprehend the acceptance and utilisation of each building block within the system and to offer innovative products that cater to the evolving needs of Islamic FinTech.

This study is based on a combination of **eight theories** constituting the usage mode between UTAUT1 and UTAUT2, as previously mentioned. The responses provided in this study were anchored on the same eight models and their respective proposed factors. These explored models postulate between **two and seven factors**, resulting in 32 constructs derived from the eight models. It is worth noting that six usage models were found to be significant when all these models were combined.

To ensure the robustness of our findings across different contexts, we conducted cross-sectional research at four Islamic banks that offer financial services related to Islamic FinTech within the usage models. To further validate our findings, we examined the variation in the acceptability and use of Islamic FinTech, explicitly focusing on the acceptance versus use aspect. Moreover, as the acceptance of fintech grew, we also recorded the participants' intentions.

It is important to highlight that Islamic FinTech consists of more specific scales. While this may result in differences between acceptance and usage, the standardisation of the acceptance and use of Islamic FinTech in PLS is routinely performed. Therefore, any differences caused by the scale should be minimised when employing Partial Least Squares-Structural Equation Modelling (PLS-SEM).

In summary, this study utilises a combination of eight theories to analyse the usage mode between UTAUT1 and UTAUT2. The responses obtained from participants are based on these eight models and their proposed factors. By examining the acceptability and use of Islamic FinTech within different contexts, The researcher aims to ensure the validity and reliability of our findings. Additionally, the specific scales used in Islamic FinTech may introduce some differences between acceptance and usage, but these differences can be minimised through the standardisation process in PLS-SEM.

7.4.1. FinTech Acceptance

Moreover, the definition of what does not constitute a measure in financial technology (fintech) is surrounded by uncertainty and lack of clarity. The notion of diversity in environmental conditions, as highlighted by Sung et al (2019), suggests that various factors may moderate the relationship between acceptance and use of fintech. This complexity further adds to the difficulty of effectively addressing all the operational challenges that impact FinTech applications. The multifaceted nature of fintech, with its numerous unknown components and aspects, makes it challenging to navigate through all the moderation issues associated with it. As a nascent phenomenon, fintech is still developing, which contributes to the complexity of understanding its intricacies. Therefore, it becomes imperative to employ sophisticated analysis methods, such as partial least square structural equation modelling (PLS-SEM) using Smart PLS applications, to understand the intricate relationship between acceptance and use of fintech.

Given the significance of the financial industry and its impact on society, regulators play a pivotal role in closely monitoring its operations, especially in emerging economies like the Gulf countries. In such cases, fintech has emerged as a promising solution that offers cost-effective alternatives to organisations, particularly start-ups, thereby facilitating cost reduction and process improvement (Alshehri et al, 2012; Venkatesh et al, 2007; Venkatesh et al, 2003). Additionally, fintech has

garnered attention for its unique focus on Islamic finance, leading to the development of specific usage models that align with the principles of Islamic finance. This is particularly relevant when evaluating fintech behaviours that necessitate robust measurement and parameters, as evidenced by the works of (Wen et al, 2017; Zhang et al, 2020; Zhang & Tansuhaj, 2007). However, for fintech to thrive and achieve its potential, users and regulators must comprehensively understand its underlying structure and operational mechanisms. Consequently, incorporating demographic considerations becomes crucial to anticipate and address the diverse needs and requirements of various user groups.

7.4.2. Islamic FinTech Use

This study focuses on the acceptance and usage of Islamic FinTech in Islamic banks in Saudi sectors and provides pivotal insights into the technological preferences and trends within FinTech, particularly in the context of Islamic FinTech. This analysis is integral to understanding the digital landscape of the FinTech industry in the region and the acceptance patterns of various technological tools.

In the acceptance and usage of Islamic FinTech, the most prominently used FinTech in the Saudi bank sector, Islamic FinTech was utilised by a significant majority (60.7%) of the respondents. This high acceptance rate underscores the system's efficiency and user-friendliness, aligning with the Unified Theory of Acceptance and Use of Technology 2 (UTAUT 2), which posits that behavioural intention and usage behaviour are critical factors in the acceptance of new technologies (Venkatesh et al, 2003). The Mobile App is the second most popular choice, used by 22.1% of the participants, reflecting the growing trend towards mobile banking and finance management, as highlighted in recent studies emphasising the shift towards mobile-first strategies in financial services (Chen et al, 2014). Tadawul Pro and Phone Centre are less frequently used, indicating a possible preference for more advanced, digitally immersive platforms over traditional methods.

The findings presented in this study have profound implications for comprehending the digital transformation process within the Islamic banking sector. The remarkable level of utilisation observed on specific platforms such as E-Tadawul, as well as the clear dominance exhibited by certain banks like Bank Al Jazira in the digital realm, signify a discernible trend towards the adoption of advanced, user-friendly, and highly efficient digital solutions (Chen et al, 2014). This

trend aligns with the broader movement witnessed in the financial sector, wherein digitalisation has become a driving force, primarily fuelled by the increasing demand from customers for enhanced convenience, accessibility, and integrated services (Laudon & Traver, 2020).

Moreover, the insights derived from this research provide a comprehensive overview of the prevailing patterns of technology usage within the financial domain and serve as a crucial benchmark for future investigations about the acceptance and adoption of Financial Technology (FinTech) in the context. These findings shed light on the paramount significance of FinTech agility and customer-centric approaches in establishing and maintaining a competitive advantage in the rapidly evolving financial landscape.

Apart from Islamic banking and financial services, the term "Islamic FinTech" can be defined as the application of financial technologies in a manner that adheres to the principles of Shariah. In this particular case, the adoption model centres around the acceptance and utilisation of Islamic FinTech. Islamic banking, guided by experiential acceptance and usage principles, aims to provide customers with financial services while upholding Shariah's tenets. The fundamental objective of Islamic finance is to foster societal and economic well-being by employing financial solutions compliant with Shariah principles. Drawing from the conceptualisation of FinTech, Islamic FinTech can be understood as the application of financial technologies in delivering services that are directly related to finance and in accordance with Shariah's principles. It is, therefore, believed that the integration of Islamic FinTech has the potential to drive performance, subsequently placing increased demands on regulatory bodies. Therefore, The regulators must ensure the financial system's stability and protect it from fraud and disasters. As a result, the acceptance and use of Islamic Fintech supervision are critical to alleviating cyber-attacks, data leaks, and data theft, all leading to data misuse. In compliance with Shariah principles, FinTech should not be employed in an Islamic finance product in such a way that it causes harm, deception, cheating, or hidden costs, nor should it include any ***Riba, Gambling, Gharar*****,** or other banned elements that make the sale illegal according to Islamic Sharia law.

The more intricate and multifaceted FinTech becomes in terms of its intentions and objectives, the more challenging it becomes for Islamic FinTech to operate effectively, primarily due to the close correlation between one's behavioural intention and actual usage behaviour. Moreover, the utilisation of mediators has garnered significant attention when implementing Islamic FinTech, mainly due to the inherent disparities in the environmental and social composition of various

communities. It is worth noting that the application of Islamic FinTech can be influenced by several factors, namely those related to behavioural intention and usage behaviour.

The integration of moderators within Islamic FinTech can be traced back to the inception of intentions as a viable method within the banking sector's FinTech domain. By actively promoting the acceptance and utilisation of Islamic FinTech, this approach incorporates consumer protection concepts that aim to facilitate the acquisition of secure and adequate financial services. These conceptual frameworks can be effectively modelled through partial least squares structural equation modelling (PLS-SEM), as demonstrated in this particular study.

Building upon the premise of utilising FinTech as a transactional instrument, the primary objective of this research endeavour was to identify and explore the various factors that influence a manager's perception towards Islamic FinTech. It is important to highlight that the advent of Islamic FinTech coincided with the issuance of the first Islamic FinTech and the establishment of Islamic banks, both of which were developed to facilitate the adoption and utilisation of FinTech. The introduction of Islamic FinTech was further bolstered by the emergence of intention as a key driver within the FinTech landscape. Notably, the introduction of FinTech in various forms, such as mobile payments and crowdsourcing, occurred when the industry had not yet reached its full maturity. This dynamic portrayal of FinTech as a rapidly evolving and expanding industry necessitates a revaluation and reassessment of previous research efforts to capture the acceptance and utilisation of Islamic FinTech comprehensively.

Given the rapid pace of innovation within the business landscape, the regulatory framework has been somewhat sluggish in keeping up with the swift technological advancements and the methodological application of PLS-SEM within this particular study. This precarious situation is further exacerbated within specialized markets, such as innovation networks focused on PLS-SEM, which introduce additional faith-based filters into product development. Consequently, there is an undeniable and compelling need for thought leadership on this critical subject matter to educate Moderators, regulators, and practitioners alike about the intricate interactions and intersections of FinTech while also providing a comprehensive understanding of the role of religion within the context of Islamic FinTech, which necessitates a deep comprehension of the application of PLS-SEM.

The FinTech landscape is vast and expansive, encompassing various applications and functions within Islamic FinTech. Islamic FinTech can be understood as using technology to provide,

facilitate, or enable financial services following Islamic principles. The acceptance and use of Islamic FinTech extends beyond its mere application in various fields, as it also encompasses behavioural intentions and usage behaviours. These unique aspects of religious usage highlight the multifaceted nature of Islamic FinTech and its ability to serve a multitude of goals:

The utilisation of Islamic FinTech is an integral part of its acceptance and potential to benefit society. Muslims firmly believe in the importance of justice and equality of opportunity, Recognising these as fundamental elements for the proper functioning of any society. To achieve this goal, one crucial factor is the redistribution of income to provide a minimum standard of living for all individuals. The innovative use of Islamic FinTech aligns with this objective and stands as one of the five tenets of Islam.

It is widely acknowledged that the acceptance and use of Islamic FinTech is a significant aspect of Islamic finance. In situations where traditional financial services are not readily available, Islamic banks have taken the initiative to establish their financial services utilising FinTech. This examination of the relative explanatory power of different models allows for a comparison with the unified model, providing a comprehensive framework for understanding the acceptance and use of Islamic FinTech. The empirical models offered for comparison serve as valuable tools in developing a Unified Theory of Acceptance and Use of Technology (UTAUT) based on theoretical and empirical commonalities found within various usage models. This unified model serves as a foundation for formulating and understanding Islamic FinTech.

While the recognition of FinTech within Islamic finance was not initially widespread, users have demonstrated their acceptance of Islamic FinTech through various means. The adoption of Islamic FinTech has been studied through the lens of the Partial Least Squares Structural Equation Modelling (PLS-SEM) theory, which utilises a measurement model to analyse the acceptance and use of Islamic FinTech. The implementation of this model has revealed significant achievements and insights. According to Saba et al (2019), FinTech businesses strive to adopt a more systematic approach to ensure successful acceptance. Furthermore, the acceptance and use of Islamic FinTech have resulted in the development of a measurement model for usage, leading to the creation of an Islamic banking platform. This crucial step paves the way for the digitalization of Islamic FinTech, enabling it to reach a wider audience and collaborate with traditional banks. This collaboration with traditional banks represents a significant milestone in the journey of Islamic FinTech towards its goal of providing high-quality financial services that are accessible, reliable, and convenient

for all customers. The acceptance of Islamic FinTech begins at the grassroots level and progressively works its way up, aiming to transform the financial landscape. The acceptance and use of Islamic FinTech were introduced in economic language as the first Islamic branchless banking service due to strategic cooperation between Islamic banks and financial services. Customers around KSA could use it to send and receive money, pay utility bills, and acquire mobile top-ups without going to a physical location. Thus, we create the difference between acceptance and use of Islamic FinTech: The first electronic Murabaha transactions were a significant step in FinTech. Its goal was to grow Islamic money and capital markets. Islamic FinTech received Shariah technical assistance from the Saudi Bank to establish this Measuring platform.

The Islamic FinTech had previously granted permission to implement this research project, enabling it to undergo a trial period consisting of three distinct stages. This trial period focused on examining and evaluating the acceptance and utilisation of Islamic FinTech, which represents a significant accomplishment in terms of its progressive and innovative nature. By allowing Islamic FinTech to operate on an equal footing with conventional financial technologies, this study aimed to explore how Islamic FinTech can effectively compete in the realm of innovation management (Alshehri et al, 2012; Venkatesh et al, 2007; Venkatesh et al, 2003). Furthermore, the application of Islamic FinTech extends beyond a singular focus, as it can address the innovation needs of various segments, including those encompassing traditional finance and banking. Islamic FinTech has the potential to revolutionize sophisticated markets characterized by a high degree of innovation, thereby offering a diverse range of applications that facilitate the sharing and transfer of multiple resources.

7.4.3. Acceptance and Use of Islamic Fintech

The progressive acceptance of Islamic FinTech advancements in financial facilities has sparked the acceptance of banks, particularly in Islamic nations bound by operating within the principles of Shariah. However, even though these banks have embraced and utilised Islamic FinTech, there are still unresolved Shariah and regulatory issues that require further investigation, as previously mentioned, and explained in the appropriate sections of this research. Establishing Shariah criteria for **financial innovative technologies** entails more than just determining their halal (permissible) or haram (prohibited) status from a strict Shariah perspective or metrics. The acceptance of the

public policy, usage issues, and the associated abusive behaviour and misuse of such advancements in a hyper-connected society are all considered partial in the utilisation of Islamic FinTech (Alshehri et al, 2012; Venkatesh et al, 2007; Venkatesh et al, 2003). When executed correctly, a partial exit strategy can propel a company forward while allowing stakeholders to enjoy a portion of the wealth generated. It is worth noting that the acceptance and utilisation of Islamic Fintech were initially established in the Saudi banks as a cross-border multi-currency platform to facilitate the regional and global financing opportunities of growing corporate enterprises. Islamic FinTech encompasses a consortium of Islamic banks that act as financial intermediaries, directing funding towards deserving financial services. With this in mind, Islamic FinTech can be applied in various banking domains, including supply chain management and product design.

The Islamic FinTech had previously granted permission to implement this research project, enabling it to undergo a trial period consisting of three distinct stages. This trial period focused on examining and evaluating the acceptance and utilisation of Islamic FinTech, which represents a significant achievement in its progressive and innovative nature. By allowing Islamic FinTech to operate on an equal footing with conventional financial technologies, this study aimed to explore how Islamic FinTech can effectively compete in innovation management. Furthermore, the application of Islamic FinTech extends beyond a singular focus, as it has the potential to address the innovation needs of various segments, including those encompassing traditional finance and banking (Venkatesh et al, 2003). Islamic FinTech can revolutionise sophisticated markets characterised by a high degree of innovation, offering a diverse range of applications that facilitate the sharing and transferring multiple resources. The relationship between exogenous factors and behavioural intention (BI) is a crucial aspect to consider when examining the impact of Islamic FinTech.

In this section, the researcher endeavours to achieve a comprehensive understanding of the second research question, which is centred around identifying and comprehending the main factors that profoundly impact the acceptance and utilisation of Islamic FinTech within the Islamic Banking sector. To effectively address this research query, the researcher has implemented and enforced seven distinct relationships, all providing comprehensive and insightful answers to the second research question.

The acceptance models proposed within this research are primarily constituted of ten constructs, each of which operates at different causal levels to contribute to the overall acceptance and

adoption of Islamic FinTech (Venkatesh et al, 2012). The primary aim of the first research question in this study is to shed light on the core factors that directly influence the acceptance and utilisation of Islamic FinTech. In order to effectively respond to this research question, a total of seven hypotheses were formulated and subsequently tested with the aid of the bootstrapping option available in Smart PLS. The results obtained from this analysis indicate that, except for two hypotheses (H1 and H2), all other hypotheses confirmed and substantiated the theoretical basis that had been established.

Furthermore, the investigation conducted through PLS-SEM has successfully demonstrated the significant role played by factors such as effort, energy, and hedonic incentives in effectively promoting and encouraging the adoption and usage of Islamic FinTech within the Islamic Banking sector. Additionally, it has been determined that market valuation and habit play a crucial role in facilitating the acceptance and utilisation of Islamic FinTech. Overall, the findings obtained from this research highlight the multifaceted nature of the factors that influence the acceptance and use of Islamic FinTech in the Islamic Banking sector, thereby contributing to the existing body of knowledge within this domain.

7.4.4. Influence of Performance Expectancy (PE) on Behavioural Intention (BI)

H_1: Performance Expectancy (PE) will influence Behavioural Intention (BI) towards acceptance and use of Islamic FinTech.

The empirical findings of the present study have contradicted Hypothesis H1, given that they have revealed a statistically insignificant influence of Performance Expectancy (PE) on Behaviour Intention (BI) (β= -0.073, p = .115), as depicted in Figure 6.1. To elaborate, Performance Expectancy (PE) can be defined as the extent to which an individual believes that implementing a particular system will enhance their overall performance, as proposed by (Venkatesh et al, 2003). According to the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2), PE directly impacts an individual's behavioural intention, as postulated by (Venkatesh et al, 2012).

In contrast to the initial hypothesis posited in this study, recent research has indicated that PE cannot serve as a significant predictor of Islamic banks' long-term intention to adopt Islamic Financial Technology (FinTech), which represents a relatively novel phenomenon within the realm of Islamic finance. In the specific context of this investigation, PE pertains to the potential of

Islamic FinTech to enhance overall performance. Islamic banks gauge the utility of FinTech based on their preconceived notions, anticipating that its adoption will yield positive outcomes and facilitate goal achievement. Consequently, the primary objective of this study is to examine the ongoing intention of Islamic banks to adopt Islamic FinTech, contingent upon their perceived PE.

However, the outcomes obtained from the Partial Least Squares Structural Equation Modelling (PLS-SEM) analysis have revealed that Performance Expectancy (PE) does not exert a significant influence on Behaviour Intention (BI), thus contradicting the aforementioned hypothesis, H1. Typically, users have certain expectations regarding the benefits that technology can provide and are more inclined to embrace technologies they believe will be advantageous.

This finding, however, diverges from the conceptualisation of Performance Expectancy concerning behavioural intention presented by (Venkatesh et al, 2012). In the context of this study, it does not suggest that users, including those within the Islamic FinTech domain, are more likely to adopt the technology if they perceive it to yield substantial benefits. This phenomenon can be attributed to the demographic characteristics of most study participants, with 89% falling within the age range of 25 to 44 years and possessing considerable work experience ranging from 5 to 10 years. Consequently, it is believed that these individuals possess a high level of technological literacy and consequently harbour exceedingly lofty expectations regarding the technological devices they employ.

7.4.5. Influence of Effort Expectancy (EE) on Behavioural Intention (BI)

H_2: Effort Expectancy (EE) will influence Behavioural Intention (BI) towards acceptance and use of Islamic FinTech.

The findings of the study have provided evidence that refutes the H2 Hypotheses. This has been accomplished by demonstrating that Effort Expectancy (EE) does not significantly impact Behavioural Intention (BI). The statistical analysis shows that the correlation coefficient between EE and BI is -0.008, and the p-value is 0.857, which is greater than the threshold of 0.05, indicating that the relationship between these two variables is not statistically significant. This can be observed in Figure 6.1, where the data is visually represented.

In the UTAUT2 model, effort expectancy is an important predictor of Islamic FinTech adoption. This model, proposed by Venkatesh et al (2012), takes into account various factors that influence the decision of individuals or organisations to adopt new technologies. In the context of Islamic banks, effort expectancy refers to the extent to which these financial institutions believe that implementing Islamic FinTech will be a straightforward process. Islamic banks' perception of the simplicity of using FinTech software and hardware in their operations plays a crucial role in determining their continued usage of these technologies. Therefore, this study aims to investigate the sustained intentions of Islamic banks to embrace Islamic FinTech based on their perceived level of effort expectancy.

The results obtained from the Partial Least Squares Structural Equation Modelling (PLS-SEM) analysis, as presented in Table 6.12, indicate that Effort Expectancy (EE) does not have a significant effect on Behavioural Intention (BI). This finding leads to the rejection of the second hypothesis, which posited a positive relationship between these two variables. The expectation is that any technology adopted should be easily utilised. This notion is supported by previous research (Venkatesh et al, 2003). However, the current study contradicts these earlier findings and challenges the assumption that using FinTech and Islamic FinTech is inherently easy.

One possible explanation for the lack of support for Hypothesis 1 is the demographic characteristics of the study participants. Specifically, 89% of the respondents in this study fell within the age range of 25 to 44 years. This age group is generally considered technologically savvy and comfortable using various technologies. Therefore, it is likely that these respondents needed help in using FinTech and Islamic FinTech, which could explain the lack of a significant influence on their behavioural intentions. Additionally, it is worth noting that most respondents had accumulated considerable work experience, ranging from 5 to 10 years. This further implies that this group of respondents had already gained a certain level of familiarity and proficiency with technology, leading to their ease of use and lack of significant impact on their behavioural intentions.

7.4.6. Effect of Social Influence (SI) on the Behavioural Intention (BI)

H_3: Social Influence (SI) will influence Behavioural Intention (BI) towards acceptance and use of Islamic FinTech.

The findings of the analysis provided empirical support for Hypotheses H3, thereby confirming the existence of a positive and substantial influence of Social Influence (SI) on Behavioural Intention (BI) with a coefficient of 0.211 and a statistically significant p-value of 0.000. These results can be observed in Figure 6.1. In this study, social influence pertains to the degree to which individuals perceive that their significant others believe they should utilise Islamic FinTech, as defined by (Venkatesh et al, 2003). It is crucial to note that this perception may either positively or negatively impact the adoption and usage of Islamic FinTech, as Bervell et al (2022) indicated. Specifically, this investigation delves into the impact of social influence on users' behavioural intentions in Islamic banking and their ongoing inclination to incorporate Islamic FinTech into their financial practices. Drawing from the work of Brown & Venkatesh (2005), social influence can be understood as the degree to which individuals consider the acceptance and adoption of Islamic FinTech as a technology that they should embrace or reject. The outcomes generated from the statistical analysis employing partial least squares (PLS) methodology strongly suggest that social influence (SI) indeed exerts a significant positive influence on individuals' behavioural intentions (BI), thereby lending further support to Hypotheses H3. This finding has significant implications, highlighting the pivotal role that acceptance and usage play in adopting and utilising FinTech and, more specifically, Islamic FinTech in financial services. These findings align with the arguments put forth by proponents of the original UTAUT model, including (Brown & Venkatesh, 2005; Venkatesh et al, 2003; Venkatesh et al, 2012), who posit that social influence serves as a determining factor in shaping individuals' behavioural intentions towards technology adoption. It is important to recognise that the availability and accessibility of resources, such as stable internet infrastructures, may also contribute to the adoption and usage of FinTech.

7.4.7. Influence of Facilitating Conditions (FC) on Behavioural Intention (BI)

H_4: Facilitating Conditions (FC) will influence the Behavioural Intention (BI) towards acceptance and use of Islamic FinTech.

The outcomes of the examination have lent their support to the hypothesis H4, as they have shown that the presence of facilitating conditions (FC) exerted a significant and positive impact on behavioural intention (BI) (with a coefficient of 0.201 and a p-value of 0.000), as can be observed in Figure 6.1. As defined by (Brown & Venkatesh, 2005; Venkatesh et al, 2003; Venkatesh et al,

2012), facilitating conditions pertain to an individual's level of confidence regarding the existence of a technological and organisational infrastructure that can support usage. Compared to the system's perceived usefulness, it has been found that facilitating conditions can predict user behavioural intention to a considerable extent. Moreover, the empowering conditions, as stated by Khechine et al (2020), are crucial when reinforcing engagement with online usage. For this study, facilitating conditions have been defined as the self-reported perceptions of Islamic banks concerning the extent to which they believe they possess the necessary resources (such as resources, skills, and support) to incorporate Islamic FinTech into their overall usage.

Additionally, it has been observed that in the context of developing countries and their technological affordances, facilitating conditions can significantly predict usage behaviour, as highlighted by (Huang et al, 2020). As a result, this study seeks to investigate the perceptions of Islamic banks concerning facilitating conditions and their ongoing intentions to employ Islamic FinTech. These assertions have been supported by previous research conducted by (Brown & Venkatesh, 2005; Setia et al, 2013; Venkatesh et al, 2003; Venkatesh et al, 2012). The findings derived from the PLS-SEM analysis have further corroborated hypothesis H4, demonstrating that facilitating conditions (FC) substantially and positively influence behavioural intention (BI). This signifies that the provision of relevant support and resources, which encompasses training in system usage and the availability of resources for system maintenance, will have a profound impact on FinTech and Islamic FinTech as rendered by financial service providers.

7.4.8. Influence of Hedonic Motivation (HM) on Behavioural Intention (BI)

H_5: Hedonic Motivation (HM) will influence Behavioural Intention (BI) towards acceptance and use of Islamic FinTech.

The results of the analysis provided support for Hypotheses H5 through the demonstration that Hedonic Motivation (HM) had a considerable and statistically significant impact (with a coefficient value of 0.121 and a p-value of 0.017, which is less than the threshold of 0.05) on Behavioural Intention (BI). This significant relationship is depicted in Figure 6.1. Hedonic Motivation (HM) is defined as the pleasure or enjoyment derived from using a particular system, as explained by (Venkatesh et al, 2012). Recent studies in Islamic Finance have revealed that HM can be a robust predictor of individuals' intentions to adopt technology in their financial

transactions. Specifically, in Islamic FinTech, HM has been identified as a key determinant of users' adoption behaviour.

Consequently, the present study aims to investigate the perceptions of Islamic banks regarding HM and their ongoing intentions to incorporate Islamic FinTech into their operations. This investigation is grounded in the theoretical framework established by (Brown & Venkatesh, 2005). The use of partial least squares structural equation modelling (PLS-SEM) in the current study has yielded results that support hypothesis H5, indicating a significant and positive relationship between hedonic motivation (HM) and behavioural intention (BI). This finding highlights the importance of incorporating enjoyable aspects into the design of any technological system. It is not sufficient for a technology to be solely user-friendly; it must also be engaging and pleasurable to use. In light of these results, it can be inferred that both FinTech and Islamic FinTech should be developed to elicit user pleasure and enjoyment. Such an approach will undoubtedly influence the behavioural intentions of individuals. The findings of this study align with the conclusions of prior research conducted by (Brown & Venkatesh, 2005; Venkatesh et al, 2012), among other scholars exploring similar themes.

7.4.9. Influence of Price Value (PV) on Behavioural Intention (BI)

H_6: Price Value (PV) will influence the Behavioural Intention (BI) towards acceptance and use of Islamic FinTech.

The findings of the analysis provided empirical evidence in support of Hypotheses H6 by demonstrating that Price Value (PV) exerted a positive influence on Behavioural Intention (BI) (with a coefficient of 0.165, $p < 0.006$, which is statistically significant at the 0.01 level of confidence). This significant relationship is visually represented in Figure 6.1. Price value (PV) can be conceptually defined as an individual's cognitive trade-off between the perceived benefits derived from utilising a particular system and the corresponding monetary costs incurred (Venkatesh et al, 2012). In the context of the UTAUT2 model, it is posited that PV directly affects the extent to which individuals are inclined to adopt and use technology to fulfil their needs and goals (Venkatesh et al, 2012). Moreover, it has been observed that Price Value (PV) is a reliable predictor of Islamic banks' utilisation of Islamic FinTech, a form of financial technology tailored to serve the specific requirements of Islamic finance (Moorthy et al, 2019).

Given that implementing Islamic FinTech entails substantial financial investments, the assessment of Price Value (PV) becomes particularly crucial when considering its adoption within the provision of financial services by Islamic banks. Additionally, as per Field Venkatesh et al (2012), the conceptualisation of price value perception posits that the positivity or negativity of price value perception is contingent upon the extent to which the perceived benefits of technology adoption surpass the associated costs. Consequently, it is impractical to segregate the price value factors from the performance expectancy factor when attempting to ascertain the behavioural intention regarding technology utilisation. The outcomes of this research endeavour affirm that Price Value (PV) exerted a statistically significant and positive impact on Behavioural Intention (BI), thereby lending support to Hypotheses H6, as illustrated in Table 6.12.

These findings corroborate the results obtained from analogous studies conducted in this domain. Price is considered a significant determinant in the utilisation of user technology due to the responsibility of users to bear the financial burden associated with the utilisation of any given technology. In the domains of FinTech and Islamic FinTech, for instance, these costs could be attributed to the expenses incurred from internet connectivity or even the charges related to online financial transactions. To ensure the successful implementation and adoption of Islamic FinTech, the FinTech industry must prioritise the acceptance and usage of this technology within the Islamic community (Venkatesh et al, 2007; Venkatesh et al, 2003; Venkatesh et al, 2012). It is worth noting that the network traffic generated by Islamic banking and other financial services tends to result in higher pricing structures than other consumption models. However, whether these models' underlying value (i.e., the hedonic advantages) outweighs the associated costs is still debatable. This uncertainty arises because consumers may be unable to dedicate their undivided attention to financial services while considering the impact of financial institutions and commercial banks (Venkatesh et al, 2003). Thus, from the consumer's perspective, the hedonic benefits offered by Islamic banking may not be deemed sufficient to justify the price, leading to a potentially low or even negative perceived value. On the other hand, clients may find greater excellence in the social aspects and immediacy in adopting Fintech solutions that are less media-rich, such as the sharing of financial services within the Islamic banking sector. Our research findings demonstrate that Islamic Fintech vendors can enhance their profitability by implementing pricing strategies that consider varying degrees of utilitarianism, hedonism, and other acceptance and usage within their consumer base.

When faced with a wide range of acceptance, our research findings suggest that consumers have significant control over their personal technology usage. The acceptance and utilisation of Islamic fintech have immediate and automatic consequences and function as a medium for storing intention that subsequently influences future usage behaviour. To enhance the relationship between the objective and the subsequent action, there is a need for an increased presence of Islamic FinTech. For instance, during the initial launch of multimedia messaging service (MMS), advertisers from Islamic banks and financial service providers promoted its diverse potential applications, such as social networking, sending greeting cards, documenting photos on the job, and more. As a result of exposure to these advertisements, users were more inclined to establish a connection between their stated goals (e.g., "I can utilise MMS in a variety of circumstances") and their actions in different application contexts. Disseminating knowledge about the advantages of Islamic banking in various circumstances is a promising strategy to enhance the adoption of Islamic Fintech.

Furthermore, our research findings indicate that demographic factors such as age, gender, and level of experience impact the acceptance and utilisation of Islamic fintech. Older and middle-aged men exhibit a higher susceptibility to the allure of routine. Suppose the objective is to assist individuals in breaking free from long-standing patterns, such as adopting a new way of doing things when a revolutionary technological advancement is made. In that case, it may be necessary to allocate more resources towards targeting older men with extensive experience. In terms of management, if FinTech application suppliers desire customers to continue using their apps, they must devote greater attention to banks, which are highly susceptible to changes in consumer preferences.

Lastly, the mitigated impacts of our model are robust enough to suggest that managers can leverage market segmentation strategies to enhance the acceptance and application of Islamic FinTech. Our research findings indicate that different cohorts of consumers assign varying degrees of significance to many factors that influence their adoption and usage of Islamic fintech. This divergence of consumer behaviour and learning pattern can be attributed to age, experience, and gender. In the context of technology adoption, early adopters are more inclined to seek external assistance from third-party entities as they navigate the implementation and utilisation of the novel Islamic financial technology. This observation underscores the importance of ensuring the acceptability of fintech solutions to engender comfort and loyalty among end users, thereby

maintaining a strong consumer base within this demographic. Furthermore, novice fintech users are provided various customer service channels, including contact centres, instant messaging systems, and consumer communities, reinforcing their confidence and facilitating their integration into the fintech ecosystem. Our investigation also revealed that the hedonistic benefits associated with utilising technology serve as pivotal drivers of acceptability during the initial stages of the user's experience.

These findings suggest that there is potential for leveraging special incentives in conjunction with the hedonic aspects of fintech to promote its acceptability. This can be achieved by collaborating with various types of banks, including new-style banks, traditional banks, Islamic banks, financial services institutions, and commercial banks. Finally, our research uncovered that individuals who extensively utilise fintech attach great importance to the cost-effectiveness of the technology. This finding highlights the heightened awareness among customers regarding expenses associated with fintech usage. Consequently, when it comes to pricing strategies, offering discounts based on usage or targeting specific user groups can effectively encourage individuals to adopt user-friendly and advantageous fintech solutions. Conversely, premium pricing for hedonic fintech can engender acceptability among consumers who prioritise experiential benefits. Ultimately, our study concludes that there is significant scope for enhancing product design and marketing strategies within the consumer technology industry to cater to consumers' diverse needs and preferences across the adoption curve.

7.4.10. Influence of Habit (HT) on Behavioural Intention (BI)

H_7: Habit (HT) will influence Behavioural Intention (BI) towards acceptance and use of Islamic FinTech.

The results obtained from the analysis using the technique of partial least squares (PLS) provide support for Hypotheses H7. This support is demonstrated by the evidence that Habit (HT) exerts a significant positive influence ($\beta = 0.179$, p.002<0.01) on Behavioural Intention (BI), as illustrated in Figure 6.1. **Habit (HA)** can be defined as the extent to which an individual tends to engage in behaviours using a particular system (Venkatesh et al, 2012). Within the UTAUT2 model, it has been established that HA is a noteworthy predictor of the behavioural intentions of Islamic

FinTech users (Venkatesh et al, 2012). Furthermore, it can forecast the behavioural intentions of Islamic banks with respect to their utilisation of FinTech within the financial sector.

Given that HA can directly impact the behavioural intentions of Islamic banks concerning the usage of Islamic FinTech, the present study endeavours to explore the perceived HA of Islamic banks and its association with their long-term intentions to adopt FinTech in the provision of financial services (Venkatesh et al, 2012). The findings derived from the analysis provide further support for Hypotheses H7 by demonstrating the substantial positive impact of Habit (HT) on Behavioural Intention (BI). These findings suggest that familiarity with a given technology, such as FinTech and Islamic FinTech, is derived from the learning and experience process, and this familiarity significantly influences the behavioural intentions to utilise that technology. As previously mentioned, a considerable number of respondents in this study possess extensive experience, which indicates that they may have acquired a substantial number of skills and knowledge in the realm of Islamic FinTech. This, in turn, would inevitably influence their behavioural intentions. The findings of this study align with the conclusions of previous research conducted by (Kim & Malhotra, 2005; Limayem et al, 2007), who found that prior use is a strong predictor of technology adoption.

7.4.11. Influence of Behavioural Intention (BI) and Usage Behaviour (UB)

The second research question was centred around examining the impact of behavioural intention and usage behaviour on the acceptance and use of Islamic FinTech (IFT). This section delves into a comprehensive analysis to address the third research problem, whether or not behavioural intention influences usage behaviour. Consequently, this research has formulated the following hypothesis to provide insights into how the acceptance and use of Islamic FinTech (IFT) can be understood. Consequently, the forthcoming hypothesis was formulated:

H_{10}: Behavioural Intention (BI) will influence the Usage behaviour (UB)

The analysis findings provided support for Hypotheses H10 by demonstrating that Behavioural Intention (BI) possesses a substantial influence ($\beta = 0.352$, p.000<0.001) on the Usage behaviour (refer to Figure 6.1). The term "behavioural intention" (BI) refers to the willingness of users to try new technologies (Venkatesh et al, 2003). Recent empirical research has confirmed the

predictability of UTAUT2 factors within the realm of Islamic FinTech. In this study, behavioural intention is defined as the self-reported perceptions of Islamic banks regarding their willingness to explore the utilisation of Islamic FinTech for financial transactions. Given the significance of both behavioural intention and usage behaviour (Venkatesh et al, 2003; Venkatesh et al, 2012), this study aims to examine the relationship between Islamic banks' BI and their ongoing intentions to employ Islamic FinTech. To test the hypothesis, the bootstrapping option in Smart PLS was utilised. The results indicated that Behavioural Intention notably positively impacted Usage behaviour, there by supporting Hypotheses H10. The findings suggest that when there is a solid intention to adopt FinTech, it is highly probable that the intended users will indeed utilise Islamic FinTech. This finding is consistent with prior research, such as Venkatesh et al (2003), who identified behavioural intention as a significant predictor of technology use.

The outcomes of the examination were in agreement with Hypotheses H10 as they provided support by demonstrating that Behavioural Intention (BI) exerted a substantial influence (β = 0.352, p.000<0.001) on the Usage behaviour (refer to Figure 6.1). The term "behavioural intention" (BI) refers to the inclination of users to experiment with novel technologies (Venkatesh & Davis, 2000). Recent empirical investigations have verified the foreseeability of UTAUT2 factors in Islamic FinTech. In this study, behavioural intention is defined as the self-reported perceptions of Islamic banks regarding their willingness to engage in financial transactions using Islamic FinTech. Given the significance of behavioural intention and usage behaviour (Venkatesh et al, 2003; Venkatesh et al, 2012), the present research endeavours to examine the behavioural intention of Islamic banks and its association with their persistent intentions to employ Islamic FinTech.

Additionally, the hypothesis was subjected to testing through the utilisation of the bootstrapping option in Smart PLS. The outcomes showed that behavioural intention significantly impacted usage behaviour, thereby lending support to Hypotheses H10. The findings suggest that when there exists a positive intention to adopt FinTech, it is highly probable that the intended users will indeed utilise Islamic FinTech. This aligns with preceding established research, exemplified by Venkatesh et al (2003), who discovered that behavioural intention is a noteworthy predictor of technology usage.

(d) Investigating the relationships between the Habit (HT) and Facilitating Conditions (FC) (dependent Factor) on usage behaviour (acceptance and use of Islamic FinTech) is a subject of study. According to the research conducted by Venkatesh et al (2012), it is proposed that the

UTAUT2 model be utilised as a foundational framework to formulate hypotheses regarding the relationships between the variables proposed in the context of technology user adoption. Moreover, Dwivedi et al (2019) have highlighted that most related studies have only utilised a subset of the UTAUT model and have frequently neglected to consider the presence of moderators. Consequently, the UTAUT2 model has been modified and employed in the present investigation. Despite its proposal in 2012, the UTAUT-2 model continues to be extensively employed in explaining the factors that influence user behaviour towards new Islamic FinTech. Furthermore, in cases where core or extensive Habits are identified, certain studies have directly employed the UTAUT-2 model as a fundamental approach or in conjunction with other methodologies, such as Facilitating Conditions. In addition to examining the acceptance of Islamic FinTech, the UTAUT-2 model also places significant emphasis on the user's usage behaviour, as highlighted by (Faqih & Jaradat, 2021). Previous research has identified the fundamental distinction between the two models, which revolves around the applicability of UTAUT by introducing new structures and relationships (Moorthy et al, 2019).

*H_9: **Habit (HT)** will influence the Usage behaviour (UB) on the acceptance and usage of Islamic FinTech.*

The implication can be derived from the aforementioned statement that individuals can deduce the intentions of others by analysing observable behaviours. Consequently, one can conclude that the intentions of individuals are not isolated but rather exist within a shared reality, wherein they possess an inherent ability to instinctively and intuitively formulate rational perceptions concerning variables related to habitual actions. Following the Interaction Theory, there is a direct correlation between individuals' emotional states and intentions during their interactions within the realm of habitual behaviours. As posited by Gallagher (2001), it is essential to emphasise that the fundamental prerequisite for comprehending the intentions of others lies within the interactions and perceptions of individuals. This perspective rejects the concept of mindreading as proposed by BI and UB, as Gallagher (2001) expounds upon the notion that day-to-day interactions necessitate minimal amounts of mentalizing. Hence, the Interaction Theory rejects the notion that individuals can comprehend the intentions of others solely by observing their actions and subsequently deducing the intended meaning that influences their behavioural patterns.

*H_8: **Facilitating Conditions (FC)** will influence the Usage behaviour (UB) as the acceptance and usage of Islamic FinTech.*

The condition of Facilitating, which pertains to making an action or movement easier, asserts that the meaning behind these actions can be observed on a surface level within the context in which they occur. This means one can superficially perceive the intentions behind these actions by examining the actions and movements themselves. The differential perceptible kinematic properties of these action movements, which refer to the observable physical characteristics of these movements, serve to manifest the differences in intentions between individuals (Becchio et al, 2012). In other words, these observable physical properties of the actions allow for recognising intention variations. Furthermore, the mental states of individuals, including their emotions and intentions, are readily apparent and can be easily observed. These mental states are not hidden or obscured but rather are visible. The Intention Theory, a theoretical framework, posits that the bodily states of individuals can be inferred or deduced through the analysis of their corresponding action movements. In other words, by examining the physical movements accompanying an action, one can gain insights into the mental and emotional states of the individual acting. This theory also suggests that it is possible to understand others by utilising narrative, both implicitly and explicitly, as opposed to relying on simulation or common-sense psychological theories (Gallagher & Hutto, 2008; Hutto, 2012). The Intention Theory assumes that narratives play a significant role in understanding others. According to this perspective, narratives are pervasive in the concepts of Islamic FinTech, meaning that they are deeply ingrained and widespread within this domain.

Through narratives, individuals can gain the necessary knowledge to decipher the meaning behind the actions of others without explicitly communicating or exchanging information. The results obtained from the PLS_SEM analysis reveal that the facilitating condition positively impacts the use of Islamic fintech. Specifically, the coefficient (β) for this relationship is 0.145, and the p-value is 0.005, less than the significance threshold (0.01). This indicates that the facilitating condition has a statistically significant effect on the use of Islamic fintech. Similarly, the findings also support the direct relationship between habit and IFT Use (β = 0.338, p.000<0.001). This means that both the facilitating conditions and habit directly influence the use of Islamic fintech among managers in Saudi banks. The results provide empirical evidence for the impact of these factors on the adoption and utilisation of Islamic fintech in the banking sector.

In this particular section of this thesis, the diligent researcher endeavours to provide a comprehensive analysis in an attempt to address the fourth and final research question, which is framed as follows: "To what extent does the Usage behaviour have an impact on the acceptance and utilisation of Islamic FinTech?" To provide a well-informed response to the third research question, this scholarly investigation diligently enforced and utilised the underlying hypothesis as a guiding framework for the study:

7.5. Theory and Methodology

The research on the acceptance and utilisation of Islamic FinTech comprises contributions in terms of theory and methodology from various models. To alter the adoption paradigm, users are required to implement certain changes. The initial avenue for acceptance lies in the ability of Islamic FinTech to introduce innovative concepts based on well-substantiated and compelling arguments as well as logical and straightforward viewpoints. Consequently, this implies the potential for simplification. To determine the extent to which variables were predicted, a serial mediation analysis was employed to address the objectives of adoption. When conducting the research, **Lowry & Gaskin (2014)** utilised a serial mediation plug-in specifically tailored for Islamic FinTech.

The findings indicated that all hypotheses were supported except for H1 and H2. The acceptance and utilisation of fintech variables indirectly influenced the acceptance and utilisation of Islamic FinTech through the mediating effects of intention, usage, and behaviour. A mediating effect was evident in all relationships except for the one in which effort expectancy influenced the acceptance and utilisation of Islamic FinTech. Notably, the most significant indirect effect was observed through behavioural intention, usage, and the acceptance and utilisation of Islamic FinTech. Thus, the current methodology considers the crucial aspects of Islamic FinTech, including the substantial findings highlighted by (Sun & Zhang, 2006). However, the expansion or modification of existing theories should influence the present perspectives of experts, as these perspectives are of utmost importance for the study.

The indirect or mediated effects establish a usage relationship between constructs, whereby Islamic FinTech frequently emerges in the context of PLS-SEM. Over time, mediation methods have become increasingly sophisticated after extensive development and testing (Hair Jr et al, 2021).

Unfortunately, many research studies persistently employ outdated methods to examine the effects of mediation, which can result in erroneous outcomes. Moreover, this study proposes the application of a decision tree and classification to assess the effects of mediation. Our suggested approach provides a wide range of testing options beyond simple mediation analysis and assists researchers in conducting their studies with greater accuracy.

Theoretical contribution

In this particular context, we have not yet made a substantial theoretical contribution in demonstrating the applicability of the Unified Theory of Acceptance and Use of Technology (UTAUT) version to Islamic financial technology. Prior research on the acceptance and utilisation of technology, for the most part, has primarily focused on business contexts wherein the expectation of improved performance primarily drives employees' intentions and actions regarding the use of technology. However, it is important to note that the existing body of literature has not adequately explored the specific factors that influence the adoption and usage of Islamic financial technology.

Moreover, in addition to these factors, research findings have also indicated that other variables in the UTAUT2 model, which extends the original UTAUT, do not significantly impact users' utilisation of Islamic financial technology. This implies that the factors found to be influential in the UTAUT2 model, such as performance expectancy, effort expectancy, social influence, and facilitating conditions, may not hold the same level of relevance when it comes to the context of Islamic FinTech. Therefore, it becomes imperative to examine these factors in the specific context of Islamic financial technology and determine their applicability.

The current investigation brings to light evidence confirming the original UTAUT's validity, with various components of the model performing as anticipated when applied to Islamic FinTech. By conducting empirical research in the Islamic financial technology sector, we have observed that individuals exhibit differences in the influence of expectations regarding Facilitating Conditions, Hedonic Motivation, Price Value, Habit, performance, effort expectations, and social influence on their behavioural intentions. These variations in the impact of different factors on users' intentions highlight the significance of studying the applicability of the UTAUT model in Islamic FinTech (Venkatesh et al, 2016).

Furthermore, when these factors are presented positively, potential users of Islamic FinTech are more inclined to act upon their intentions and engage with the technology. This emphasises the importance of creating a supportive environment for the adoption and usage of Islamic financial technology, wherein users perceive the technology as beneficial and perceive a positive social influence that encourages them to embrace the technology (Venkatesh et al, 2012).

Consequently, the effects of -behavioural intention and the usage of Islamic FinTech do not differ significantly from the findings of UTAUT and UTAUT2, suggesting that the fundamental constructs of the UTAUT model hold even in the context of Islamic FinTech.

In conclusion, while previous research has primarily focused on technology adoption and usage in business contexts, our study sheds light on the applicability of the UTAUT model to Islamic financial technology. It highlights the importance of considering the unique factors that influence users' intentions and actions in the context of Islamic FinTech, as well as the need to create a supportive environment that encourages the adoption and usage of this technology. Overall, our findings support the validity of the UTAUT model and its ability to explain users' behavioural intentions and usage of Islamic FinTech.

7.6. Moderation effect of demographics

Andersson et al (2014) put forward a set of seven recommended steps for hypothesising and assessing moderation effects. In this study, the researchers employed the technology acceptance model to examine how demographic factors moderate the relationship between various factors and the utilisation of Islamic fintech. Specifically, they investigated the moderating effects of gender (GDR), age (AGE), experience (EXP), religion (REG), language (LAG), education (ED), and management level (ML). The primary goal of this research was to determine the strength of moderation while simultaneously addressing the issue of collinearity effects. To achieve this, the researchers utilised an orthogonalization approach to create interaction terms, as Memon et al (2019) suggested. As a second step, the authors employed a bootstrapping procedure with 5000 bootstrap samples to assess the significance of the interaction effects, following the methodology proposed by (Becker et al, 2018). Additionally, f-square effect sizes were utilised to evaluate the importance of the moderation path in the model, as recommended by (Memon et al, 2019). Lastly, the researchers analyzed the simple slopes to identify any significant moderating effects, complementing the second

step's findings. This analysis was conducted following the study of (Hair Jr et al, 2017). It is important to note that each moderator was assessed individually to avoid multiple testing problems and any subsequent statistical correction.

7.6.1. Gender (GDR)

Table 7.1 illustrates that the impact of the interaction between GDR and the relationships between EE and BI can be observed (β = -.113, t = 1.811, p= 0.07<0.1). Additionally, the impact of the interaction between GDR and the relationships between HT, FC, BI and IFT Use can also be seen (β=-0.214, t=2.275, p = 0.023 <0.05; β=-0.178, t=1.972, p= 0.049< 0.05; β=0.179, t=2.275, p= 0.023< 0.05 respectively), and all of these results are statistically significant. This suggests that the first condition of moderation for further slope analysis is satisfied. However, it is important to note that the effect size is relatively small, as the f-square effect sizes in the moderation effect of GDR on these relationships ranged from 0.006 to 0.007. Despite these significant findings, it is worth mentioning that the interaction effects of GDR on the remaining relationships are not statistically significant.

Table 7.1. Gender Moderation Effect Analysis

Hypothesis	Relationship	Beta	SE	t value	p-value	f-squared
H12a	GDR x PE→ BI	-0.035	0.069	0.505	0.613	0.000
H12b	**GDR x EE→ BI**	**-0.123**	**0.068**	**1.811**	**0.070****	**0.006**
H12c	GDR x SI → BI	-0.026	0.082	0.313	0.754	0.000
H12d	GDR x FC → BI	-0.035	0.097	0.357	0.721	0.000
H12e	GDR x HM→ BI	0.095	0.091	1.037	0.3	0.002
H12f	GDR x PV → BI	-0.003	0.097	0.032	0.974	0.000
H12g	GDR x HT → BI	0.142	0.101	1.407	0.159	0.004
H12h	**GDR x HT→ IFT Use**	**-0.214**	**0.094**	**2.275**	**0.023***	**0.008**
H12i	**GDR x FC→ IFT Use**	**-0.178**	**0.09**	**1.972**	**0.049***	**0.007**
H19	**GDR x BI→ IFT Use**	**0.179**	**0.084**	**2.124**	**0.034***	**0.008**

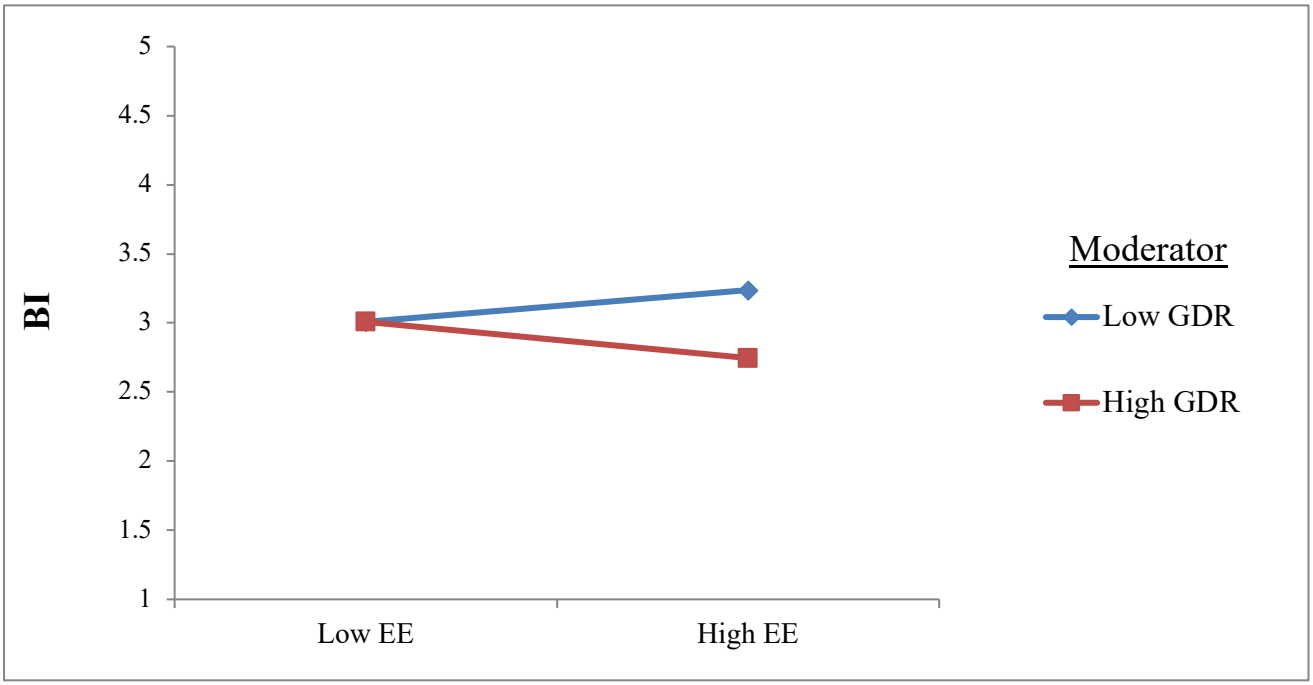
*Note. SE = Standard Error, BI – Behavioural intention, EE – Effort expectancy, FC – Facilitating conditions, HM – Hedonic motivations, HT – Habit, PE – Performance expectancy, PV – price value, SI – Social influence, IFT Use – Islamic FinTech use, GDR – Gender, *Relationships are significant at p-value < 0.05, **Relationships are significant at p-value < 0.1*

Furthermore, the slope analysis is presented below to understand the nature of the moderation effects better.

7.6.1.1. The moderation effect of GDR on the relationships between EE and BI

As demonstrated in the graphical representation provided in Chart 7.1 and as previously examined and evaluated in the comprehensive Table 6.13, it becomes evident that the observed phenomena can be classified as a crossover interaction effect, thus corroborating the findings established by Loftus in 1978. It is crucial to note that the impact of the variable, GDR, on the dependent variable, BI, is contingent upon the value of EE. Specifically, when EE is higher, the combined effect of elevated GDR is associated with a diminished BI; conversely, when GDR is lower, BI increases. Conversely, when EE is less pronounced, the effect of GDR is reversed, wherein heightened GDR leads to an increase in BI, while a decrease in GDR results in a decrease in BI.

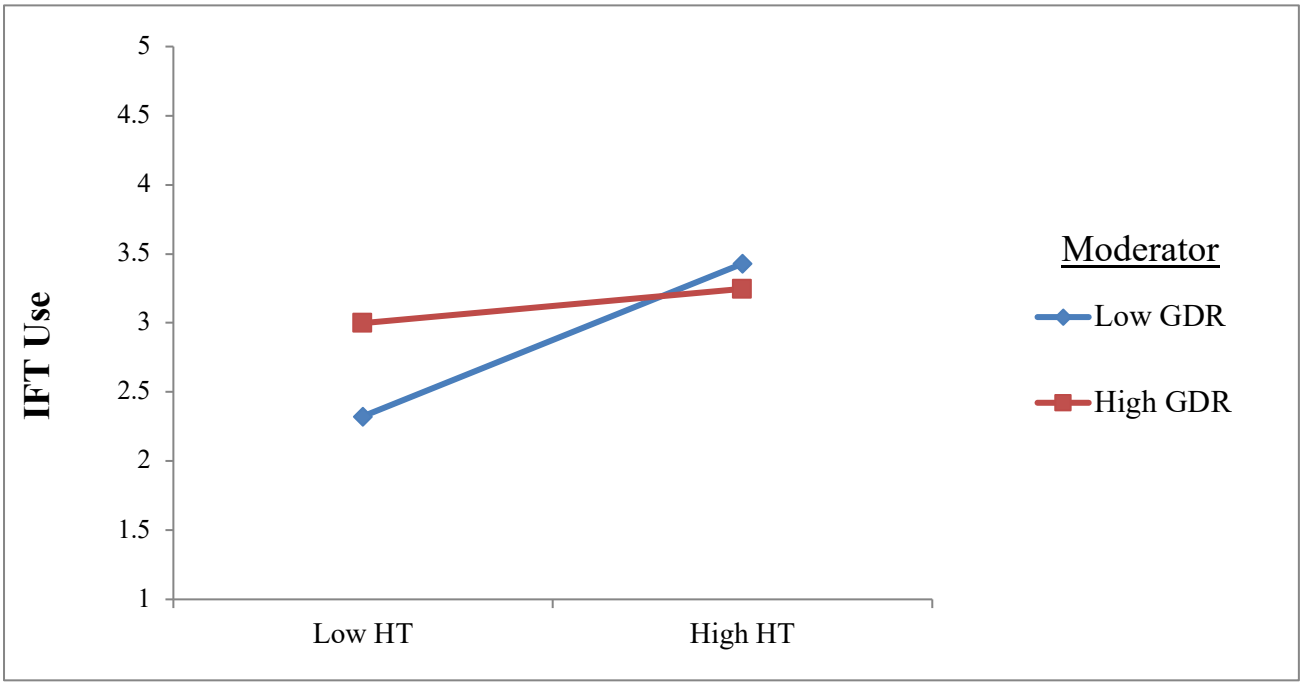
Chart 7.1. Slope Analysis of the moderation effect of GDR on the relationships between EE and BI



7.6.1.2.The moderation effect of GDR on the relationships between HT and IFT Use

As illustrated in the graphical representation provided in Chart 7.2, slope analysis is a valuable tool for comprehending the intricate nature of moderating effects. Notably, the graph exhibits a significantly steeper slope when examining the association between the variable of interest, namely HT, and the outcome variable, IFT Use, at the Low GDR level. This observation signifies that, at lower levels of GDR, the influence of HT on IFT Use is considerably more pronounced than in the scenario where High GDR is present. Conversely, when Higher GDR is considered, the line graph exhibits a more linear pattern, suggesting that an increase in HT does not yield a corresponding and proportional change in the level of IFT Use. In light of these findings, it can be deduced that lower levels of GDR enhance the impact of HT on IFT Use.

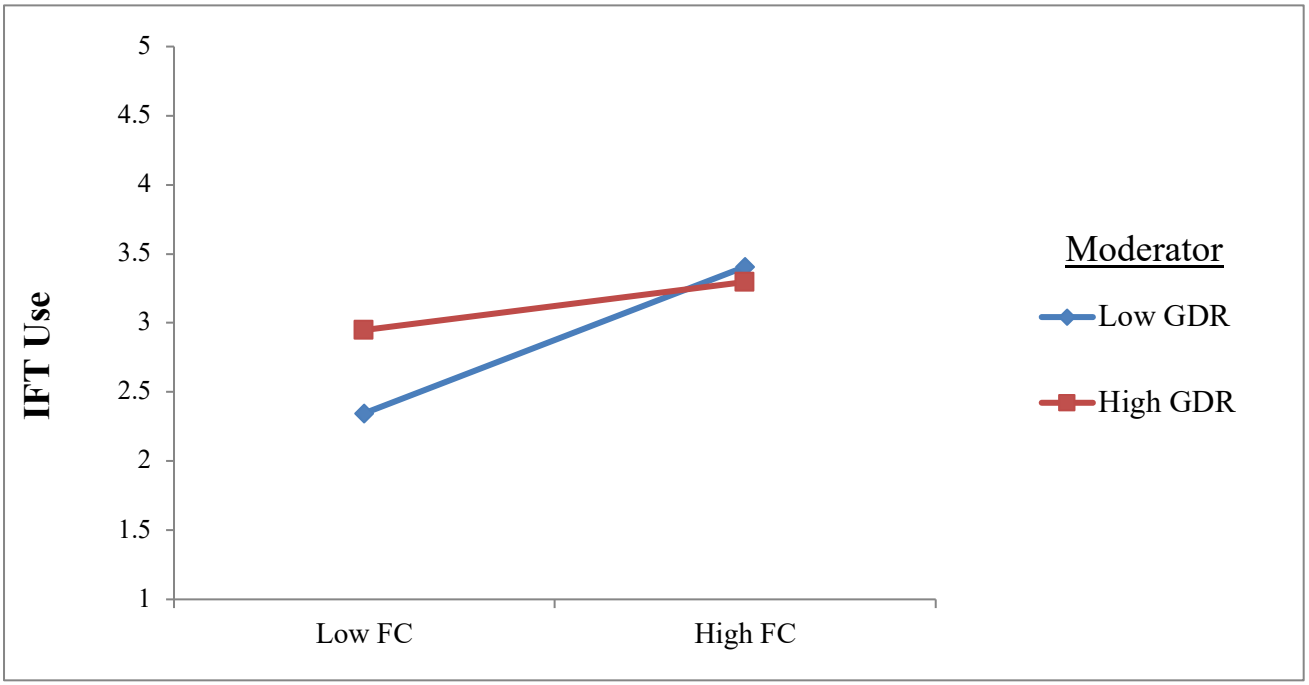
Chart 7.2. Slope Analysis of the moderation effect of GDR on the relationships between HT and IFT Use



7.6.1.3.The moderation effect of GDR on the relationships between FC and IFT Use

As illustrated in Chart 7.3, the utilisation of slope analysis is a tool to gain a deeper comprehension of the moderating effects. It becomes evident that the line demonstrates a significantly steeper inclination for the category classified as Low GDR. This observation indicates that when the GDR is at a lower level, the influence of FC on IFT Use becomes substantially more pronounced than when the GDR is classified as High. Nevertheless, in the context of Higher GDR, the line tends to exhibit a more linear trajectory. This particular trend suggests that when the GDR is categorized as High, an increase in FC does not yield a proportionate change in the IFT Use. Consequently, it can be inferred that a lower GDR serves to amplify the impact of FC on IFT Use.

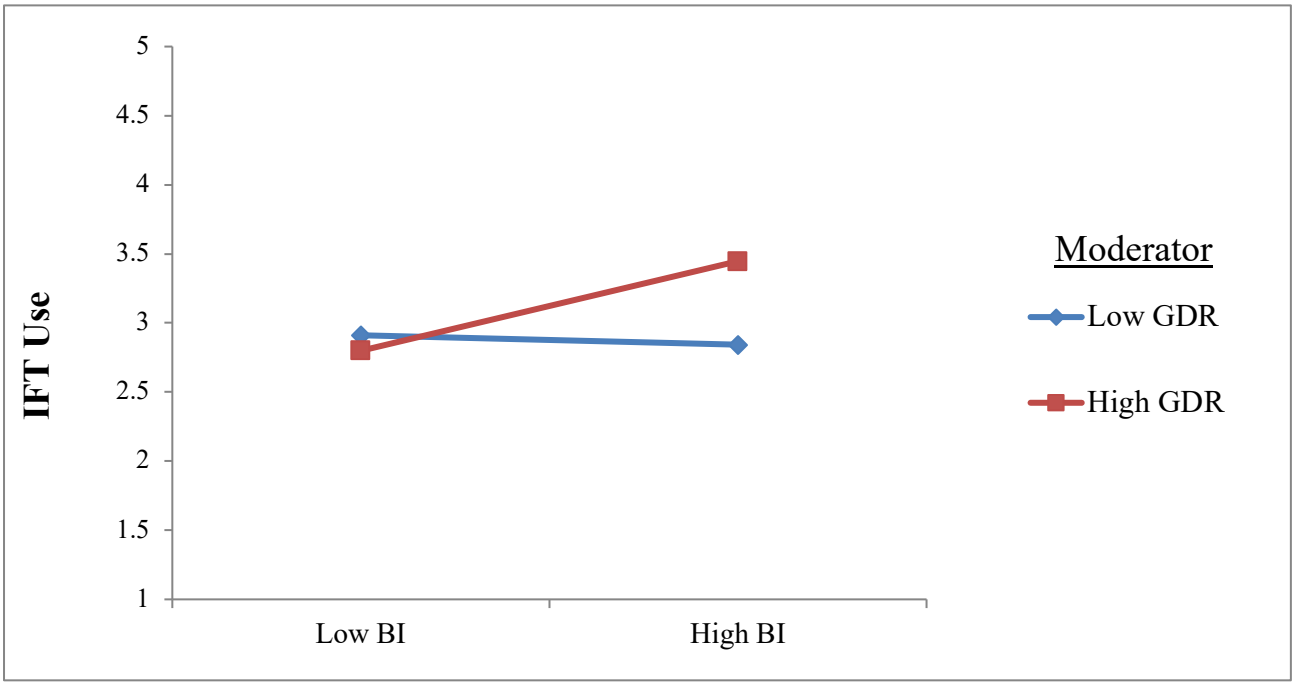
Chart 7.3. Slope Analysis of the moderation effect of GDR on the relationships between FC and IFT Use



7.6.1.4.The moderation effect of GDR on the relationships between BI and IFT Use

As shown in Chart 7.4, slope analysis is presented to understand the nature of the moderating effects better. The line is much steeper for high GDR, which shows that at the high level of GDR, the impact of BI on IFT use is much stronger than that of low GDR. However, at lower GDR, the line tends to straighten, which shows that at low GDR, the increase in BI does not lead to a similar change in IFT use. In conclusion, higher GDR strengthens the impact of BI on IFT Use.

Chart 7.4. Slope Analysis of the moderation effect of GDR on the relationships between BI and IFT Use



7.6.2. Age (AGE)

Table 7.2 displays the empirical data that elucidate the impact of the moderator variable, namely AGE, on the relationship between BI and IFT Use. The statistical analysis reveals that this interaction effect is indeed significant, as indicated by the magnitude of the beta coefficient (-0.078), the t-value (0.043), and the p-value (0.070, which is less than the commonly accepted threshold of 0.1). Consequently, the first prerequisite for conducting further slope analysis in the context of moderation is fulfilled. Nonetheless, it is worth noting that the effect size associated with this interaction effect is relatively small, as evidenced by the f-square effect size of 0.006. This suggests that the moderating role of AGE in the BI-IFT Use relationship accounts for only a limited proportion of the total variance explained. As for the remaining relationships, the interaction effects of AGE on these relationships do not yield statistically significant results.

Table 7.2. Age Moderation Effect Analysis

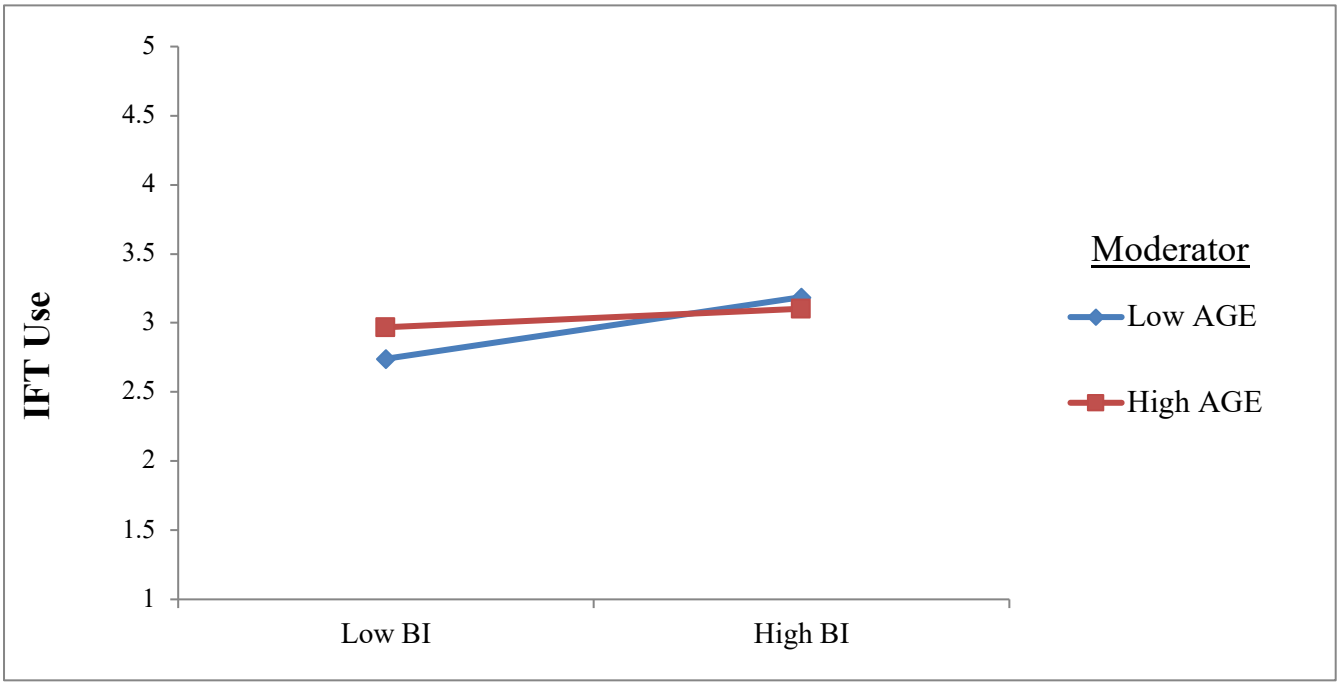
Hypothesis	Relationship	Beta	SE	t value	p-value	f-squared

H13a	AGE x PE →BI	-0.005	0.036	0.151	0.880	0.000
H13b	AGE x EE→BI	-0.047	0.038	1.233	0.217	0.004
H13c	AGE x SI→BI	-0.025	0.048	0.516	0.606	0.001
H13d	AGE x FC→BI	-0.055	0.045	1.226	0.220	0.003
H13e	AGE x HM→BI	0.032	0.048	0.655	0.513	0.001
H13f	AGE x PV→BI	-0.015	0.048	0.304	0.761	0.000
H13g	AGE x HT→BI	0.035	0.049	0.711	0.477	0.001
H13h	AGE x HT→IFT Use	0.037	0.051	0.723	0.470	0.001
H13i	AGE x FC→IFT Use	-0.,021	0.044	0.471	0.638	0.000
H20	**AGE x BI→IFT Use**	**-0.078**	**0.043**	**1.813**	**0.070***	**0.006**

*Note. SE = Standard Error, BI – Behavioural intention, EE – Effort expectancy, FC – Facilitating conditions, HM – Hedonic motivations, HT – Habit, PE – Performance expectancy, PV – price value, SI – Social influence, IFT Use – Islamic FinTech use, *Relationships are significant at p-value < 0.1.*

Furthermore, to gain a more comprehensive understanding of the underlying dynamics of the moderation effects, it is imperative to delve into the intricacies of the slope analysis, which is presented below for elucidation purposes. As demonstrated in Chart 7.5, the slope analysis is a valuable tool for enhancing our comprehension of the nature and characteristics of the moderating effects. Specifically, when examining the line graph, it becomes apparent that the slope is significantly steeper for the category denoted as "Lower AGE." This compelling observation indicates that at the lower end of the spectrum in terms of age, the influence of BI (Behavioural intention) on IFT (Islamic FinTech) Use is markedly stronger in comparison to the situation prevailing within the "High AGE" category. However, it is noteworthy that, as one moves towards higher age brackets, the line graph gradually tends to straighten, signifying that an increase in BI does not necessarily result in a commensurate change in IFT Use within the context of individuals with higher age. Consequently, in light of the evidence presented, it can be concluded that the impact of BI on IFT Use is significantly augmented by lower age brackets, thereby accentuating the critical role played by age as a moderating factor in this particular context.

Chart 7.5. Slope Analysis of the moderation effect of AGE on the relationships between BI and IFT Use



7.6.3. Religion (REG)

Table 7.3 illustrates that the interaction effect of REG on the relationship between FC and IFT Use (β=-0.527, t=2.881, p=0.004 <0.01) is statistically significant, thereby meeting the criteria for the first condition of moderation. Consequently, this outcome warrants further examination through slope analysis. However, it is important to note that the effect size observed in this instance is relatively small, as evidenced by the f-square effect sizes in the moderation effect of REG on this particular relationship amounting to 0.014. Furthermore, it is worth mentioning that the interaction effects of REG on the remaining relationships do not reach statistical significance, implying a lack of moderation in those instances.

Table 7.3. Religion Moderation Effect Analysis

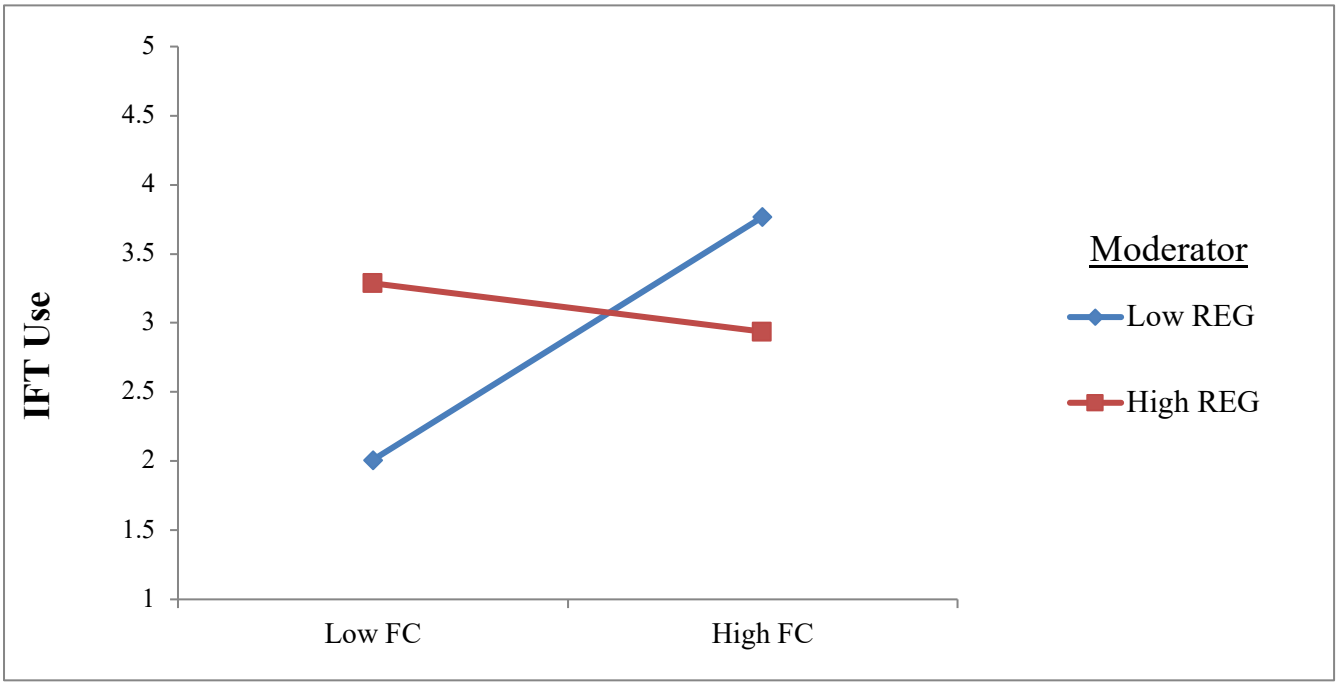
Hypothesis	Relationship	Beta	SE	t value	p-value	f-square
H15a	REG x PE→BI	-0.097	0.154	0.631	0.528	0.001
H15b	REG x EE→BI	0.210	0.142	1.478	0.139	0.004

H15c	REG x SI→BI	0.000	0.180	0.002	0.999	0.000
H15d	REG x FC→BI	-0.258	0.186	1.388	0.165	0.003
H15e	REG x HM→BI	-0.100	0.185	0.543	0.587	0.000
H15f	REG x PV→BI	0.091	0.200	0.453	0.650	0.000
H15g	REG x HT→BI	0.312	0.251	1.244	0.214	0.003
H15h	REG x HT→IFT Use	0.060	0.281	0.212	0.832	0.000
H15i	**REG x FC→IFT Use**	**-0.527**	**0.183**	**2.881**	**0.004***	**0.014**
H22	REG x BI→IFT Use	0.227	0.258	0.880	0.379	0.002

*Note. SE = Standard Error, BI – Behavioural intention, EE – Effort expectancy, FC – Facilitating conditions, HM – Hedonic motivations, HT – Habit, PE – Performance expectancy, PV – price value, SI – Social influence, IFT Use – Islamic FinTech use, REG - Religion, *Relationships are significant at p-value < 0.01.*

Moreover, the analysis of the slope is presented to gain a better understanding of the nature of the effects of moderation described below. As illustrated in Chart 7.6, the slope analysis is presented to comprehend the nature of the moderating effects. The line exhibits a significantly steeper inclination for the category denoted as "Lower REG," indicating that at the Low level of REG, the influence of FC on IFT Use is substantially more pronounced than that of the High REG category. Conversely, the line tends to straighten at the Higher REG level, suggesting that an increase in FC at this level does not result in a similar change in IFT Use. To conclude, it can be stated that Lower REG strengthens the impact of FC on IFT Use.

Chart 7.6. Slope Analysis of the moderation effect of REG on the relationships between FC and IFT Use



7.6.4. Language (LAG)

Table 7.4 provides a visual representation of the findings, which indicate that the influence of LAG on the connections between FC and HM on BI is statistically significant. This is evidenced by the values of β (0.106 and -0.143), t (2.090 and 2.602), and p (0.037 and 0.009), which are all lower than the predefined threshold of 0.5 and 0.01, respectively. Consequently, the first requirement for moderation is met, allowing for further slope analysis. Nevertheless, it is important to note that the effect size is relatively small, as reflected by the f-square effect sizes falling between 0.007 and 0.012. This implies that the impact of LAG on this particular relationship is not substantial. In contrast, when examining the other relationships, the interaction effects of LAG are not found to be statistically significant.

Table 7.4. Language Moderation Effect Analysis

Hypothesis	Relationship	Beta	SE	t value	p-value	f-square

H16a	LAG x PE→BI	0.000	0.034	0.007	0.995	0.000
H16b	LAG x EE→BI	0.007	0.029	0.239	0.811	0.000
H16c	LAG x SI→BI	0.063	0.044	1.428	0.153	0.004
H16d	**LAG x FC→BI**	**0.106**	**0.051**	**2.090**	**0.037****	**0.007**
H16e	**LAG x HM→BI**	**-0.143**	**0.055**	**2.602**	**0.009***	**0.012**
H16f	LAG x PV→BI	-0.060	0.038	1.578	0.115	0.004
H16g	LAG x HT→BI	-0.018	0.044	0.410	0.682	0.000
H16h	LAG x HT →IFT Use	-0.011	0.042	0.270	0.787	0.000
H16i	LAG x FC →IFT Use	0.044	0.041	1.063	0.288	0.002
H23	LAG x BI → IFT Use	-0.022	0.042	0.532	0.595	0.000

*Note. SE = Standard Error, BI – Behavioural intention, EE – Effort expectancy, FC – Facilitating conditions, HM – Hedonic motivations, HT – Habit, PE – Performance expectancy, PV – price value, SI – Social influence, IFT Use – Islamic FinTech use, LAG – Language, *Relationships are significant at p-value < 0.01, **Relationships are significant at p-value < 0.05.*

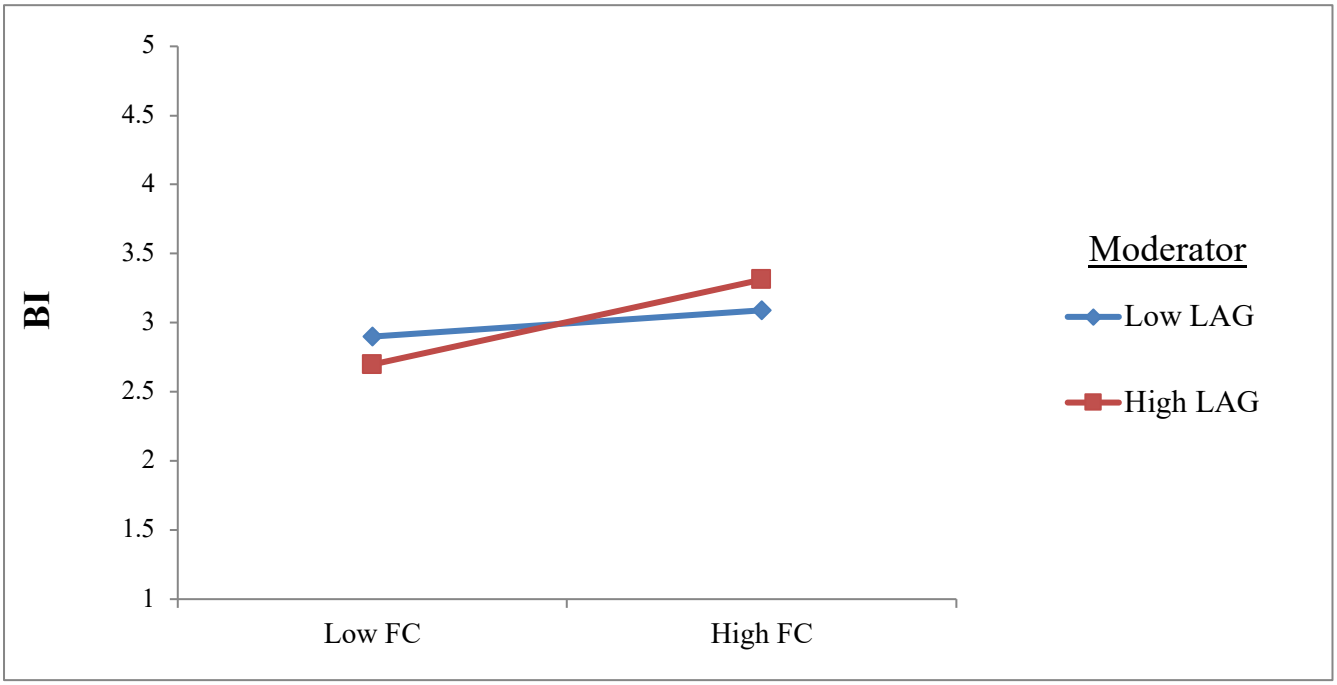
The slope analysis is also shown below to understand better the nature of the moderating effects on these two relationships.

7.6.4.1.The moderation effect of LAG on the relationships between FC and BI

As depicted in the illustrative data presented in Chart 7.7, slope analysis is a valuable tool for comprehending the intricate nuances of the moderating effects. It becomes evident that the slope of the line becomes significantly more pronounced when examining the relationship between Higher LAG and the impact of FC on BI. This observation indicates that when operating at the high level of LAG, the influence of FC on BI becomes substantially stronger than in the scenario involving low LAG. Conversely, when focusing on the Lower LAG, the line tends to straighten, implying that an increase in FC at this level does not yield a comparable change in BI. Consequently, it can be

concluded that Higher LAG effectively intensifies the impact of FC on BI, thereby highlighting the significance of this moderating factor.

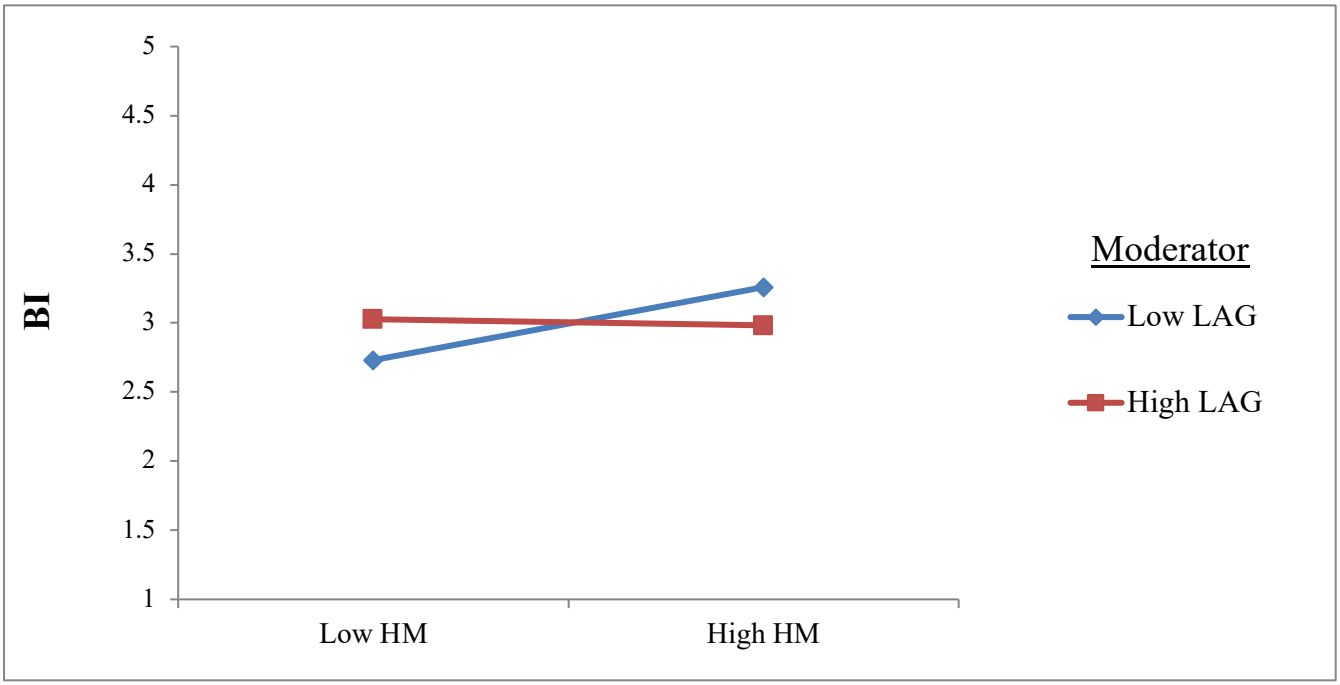
Chart 7.7. Slope Analysis of the moderation effect of LAG on the relationships between FC and BI



7.6.4.2.The moderation effect of LAG on the relationships between HM and BI

As depicted in Chart 7.8, the utilisation of slope analysis serves as an avenue to gain a deeper comprehension of the underlying dynamics of moderating effects. It becomes evident that there is a remarkable disparity in the line's steepness when comparing the effects of Lower LAG and High LAG. Specifically, the line exhibits a significantly steeper inclination in the case of Lower LAG, which effectively conveys that the impact of HM on BI is far more pronounced at the Lower LAG level than the circumstances surrounding High LAG. Conversely, as the LAG value increases, the line tends to adopt a more linear trajectory, signifying that an increase in HM fails to elicit an equivalent change in BI as the LAG elevates. Ultimately, the evidence at hand compels us to draw the conclusion that the presence of Lower LAG serves to fortify the influence exerted by HM on BI.

Chart 7.8. Slope Analysis of the moderation effect of LAG on the relationships between HM and BI



7.6.5. Education (ED)

Table 7.5 exhibits the findings derived from the analysis of the interaction effects of ED on the relationships between HT, SI, and BI. The statistical results indicate a significant impact of ED on these relationships, as evidenced by the values of the beta coefficient (β = -0.094, β = 0.104) and the corresponding t-statistic (t = 2.015, t = 2.291). Furthermore, the p-values associated with these coefficients (p = 0.044, p = 0.022) are both less than the conventional threshold of 0.05, thus lending further support to the significance of these effects. Similarly, the interaction effects of ED on the relationships between FC, BI, and IFT Use are also found to be significant, as indicated by the significant beta coefficients (β = 0.088, β = -0.078) and the corresponding t-statistics (t = 2.080, t = 1.735). The p-values associated with these coefficients (p = 0.038, p = 0.083) are below the threshold of 0.05 and 0.1, respectively, implying that these effects are statistically significant. These findings fulfil the first condition required for conducting further slope analysis in moderation. However, it is important to note that the effect size associated with these interaction effects is relatively small, as indicated by the f-square effect sizes ranging from 0.005 to 0.011. This suggests that while the interaction effects are statistically significant, they may not have a substantial practical significance.

Finally, it is worth mentioning that the interaction effects of ED on the remaining relationships under investigation are found to be non-significant, implying that ED does not have a significant impact on these relationships.

Table 7.5. Education Moderation Effect Analysis

Hypothesis	Relationship	Beta	SE	t value	p-value	f-square
H17a	ED x PE→BI	0.050	0.039	1.267	0.205	0.004
H17b	ED x EE→BI	0.046	0.034	1.331	0.183	0.004
H17c	**ED x SI→BI**	**0.104**	**0.046**	**2.291**	**0.022***	**0.011**
H17d	ED x FC→BI	-0.046	0.051	0.900	0.368	0.002
H17e	ED x HM→BI	-0.005	0.045	0.117	0.907	0.000
H17f	ED x PV→BI	0.025	0.041	0.613	0.540	0.001
H17g	**ED x HT→BI**	**-0.094**	**0.047**	**2.015**	**0.044***	**0.007**
H17h	ED x HT→IFT Use	0.021	0.043	0.488	0.626	0.000
H17i	**ED x FC→IFT Use**	**-0.078**	**0.045**	**1.735**	**0.083****	**0.005**
H24	**ED x BI→IFT Use**	**0.088**	**0.042**	**2.080**	**0.038***	**0.008**

*Note. SE = Standard Error, BI – Behavioural intention, EE – Effort expectancy, FC – Facilitating conditions, HM – Hedonic motivations, HT – Habit, PE – Performance expectancy, PV – price value, SI – Social influence, IFT Use – Islamic FinTech use, ED – Education, *Relationships are significant at p-value < 0.05, **Relationships are significant at p-value < 0.1*

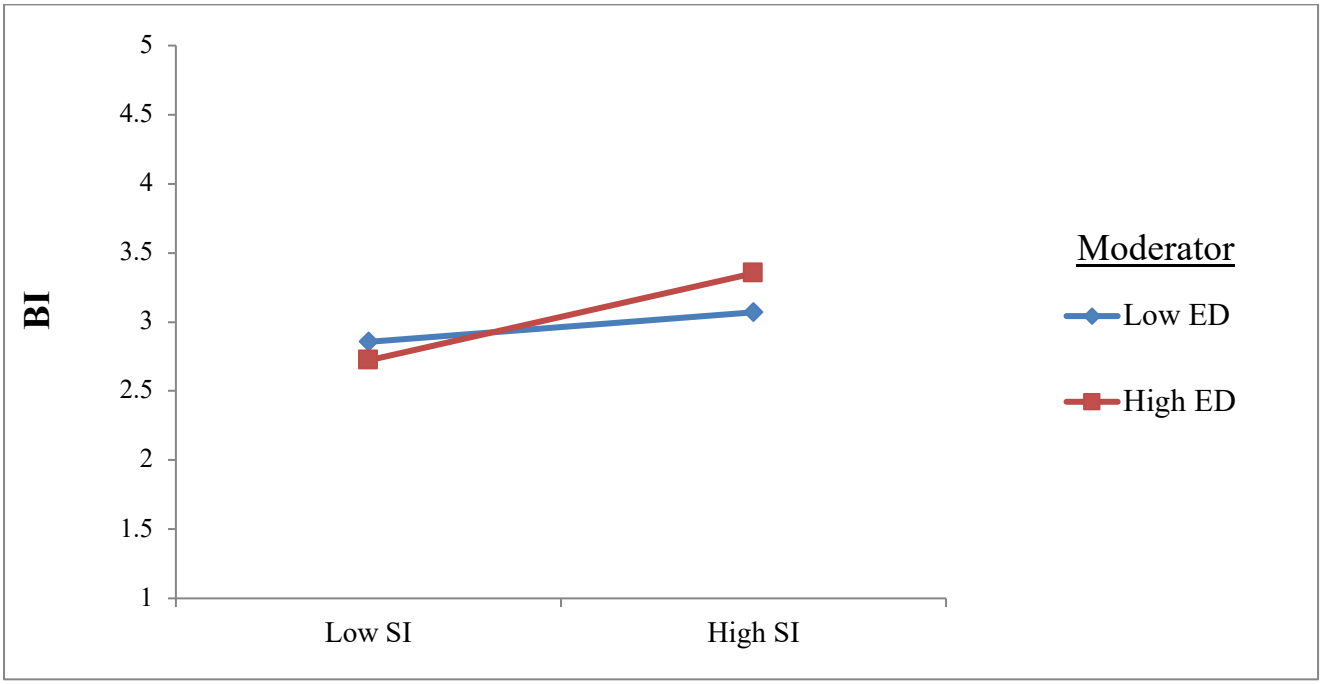
Furthermore, the slope analysis is presented to understand better the nature of the moderation effects on these two relationships below.

7.6.5.1.The moderation effect of ED on the relationships between SI and BI

As delineated in Chart 7.9, an slope analysis is presented to enhance comprehension regarding the nature of the moderating effects. It can be observed that the line exhibits a significantly steeper slope for the Higher level of Education (ED), which signifies that at this elevated level of ED, the influence of Social Interaction (SI) on Behavioural Intention (BI) is considerably stronger in comparison to

the Low level of ED. Conversely, at the Lower level of ED, the line tends to straighten, thereby indicating that an increase in SI does not give rise to a similar alteration in BI. Consequently, it can be deduced that Higher ED intensifies the impact of SI on BI.

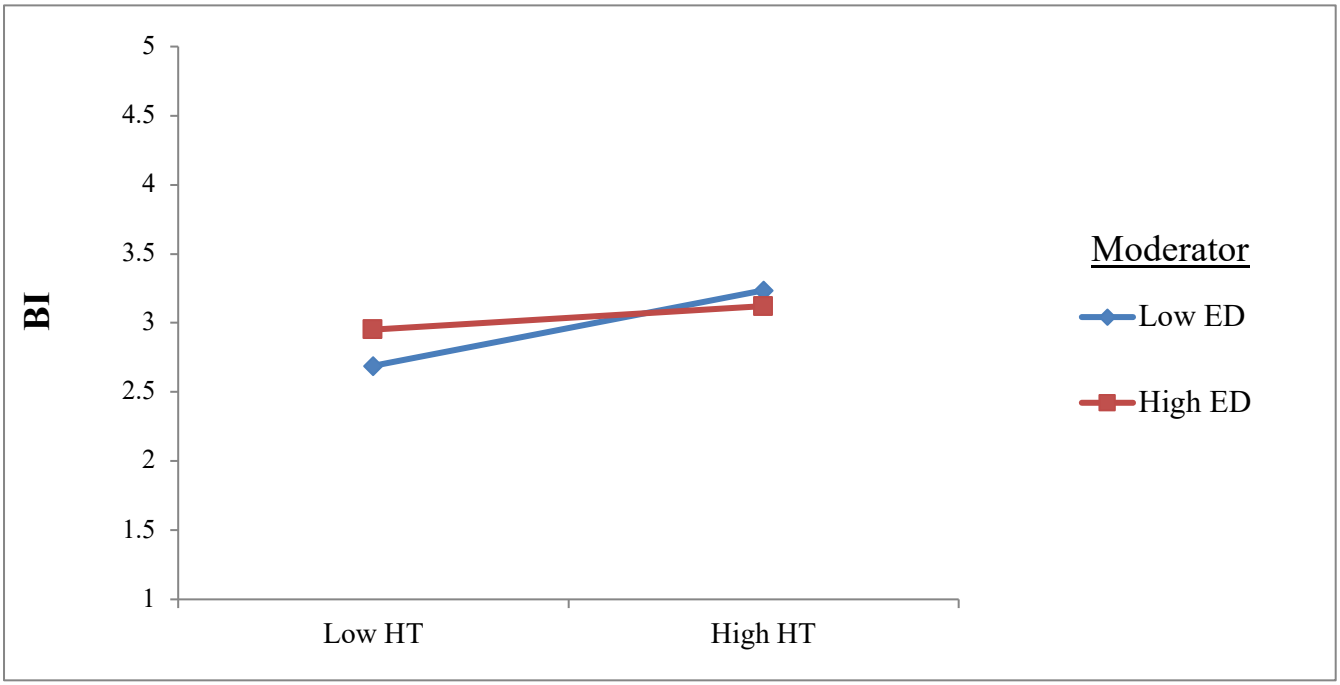
Chart 7.9. Slope Analysis of the moderation effect of ED on the relationships between SI and BI



7.6.5.2.The moderation effect of ED on the relationships between HT and BI

As depicted in Chart 7.10, a slope analysis is presented to enhance comprehension regarding the nature of the moderating effects. The line exhibits a significantly steeper slope for the Lower level of ED, which signifies that at this lower level of ED, the impact of Human Touch (HT) on BI is considerably stronger than the High level of ED. Nevertheless, at the Higher level of ED, the line appears to straighten, indicating that an increase in HT does not engender a similar change in BI. Consequently, it can be concluded that Lower ED amplifies the impact of HT on BI.

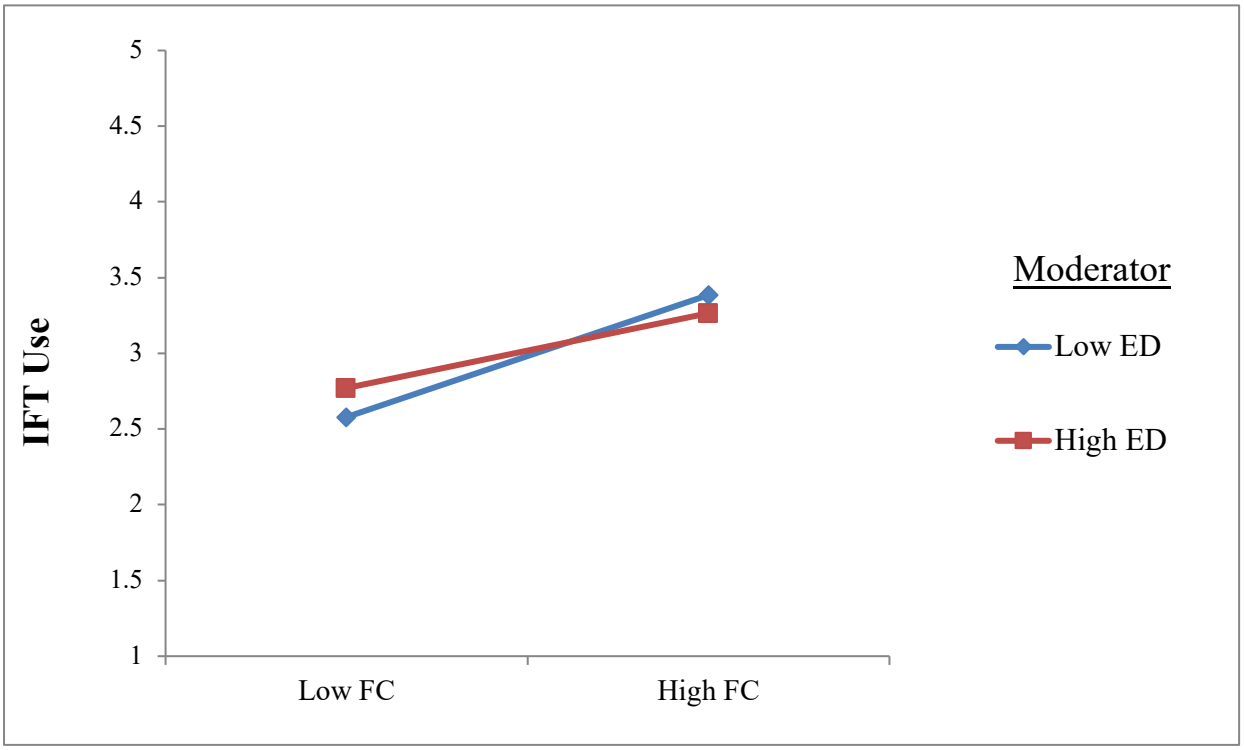
Chart 7.10. Slope Analysis of the moderation effect of ED on the relationships between HT and BI



7.6.5.3.The moderation effect of ED on the relationships between FC and IFT Use

As illustrated in Chart 7.11, a slope analysis is presented to enhance comprehension regarding the nature of the moderating effects. The line exhibits a significantly steeper slope for the lower level of ED, which signifies that at this lower level of ED, the impact of HT on BI is considerably stronger than that of the high level of ED. Consequently, it can be deduced that Lower ED strengthens the impact of HT on BI to a greater extent than Higher ED.

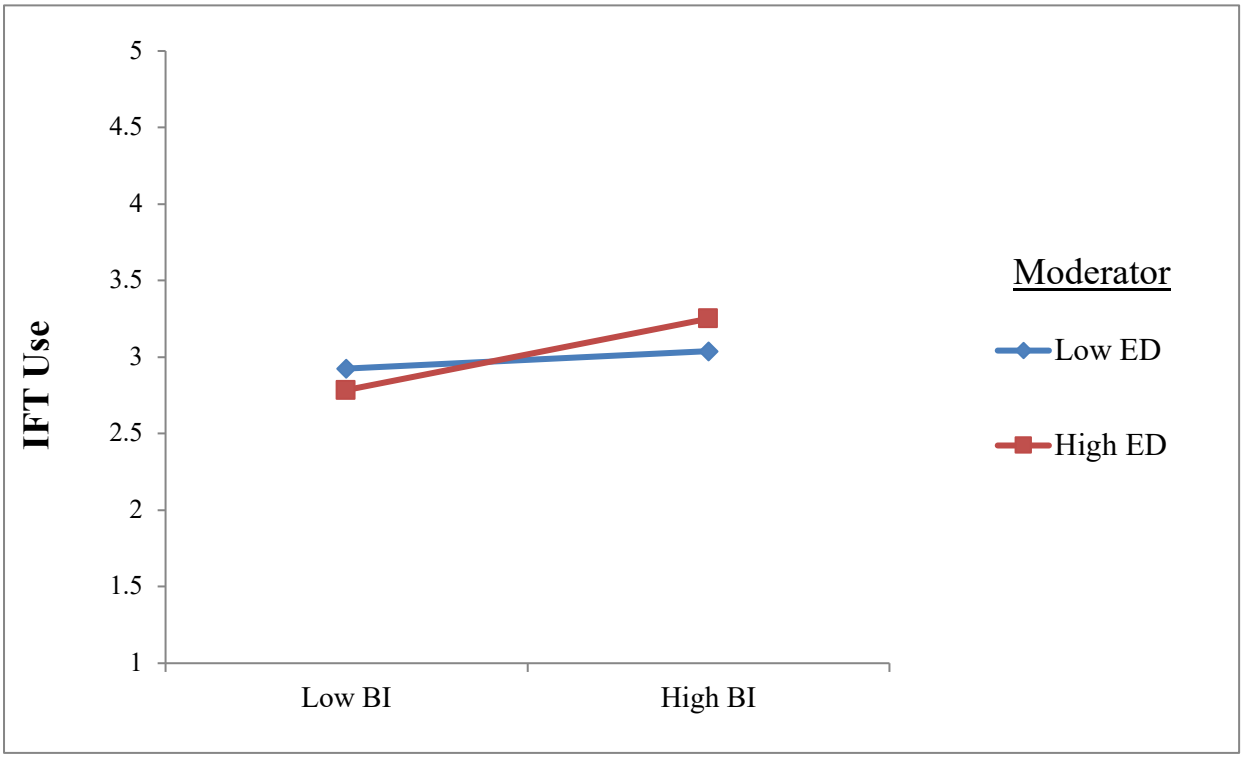
Chart 7.11. Slope Analysis of the moderation effect of ED on the relationships between FC and IFT Use



7.6.5.4.The moderation effect of ED on the relationships between BI and IFT Use

As demonstrated in Chart 7.12, a slope analysis is presented to enhance comprehension regarding the nature of the moderating effects. It can be observed that the line exhibits a significantly steeper slope for the higher level of ED, which signifies that at this higher level of ED, the impact of BI on IFT Use is much stronger in comparison to the Lower level of ED. However, at the Lower level of ED, the line tends to straighten, indicating that an increase in BI does not result in a similar change in IFT Use. Consequently, it can be concluded that Higher ED strengthens the impact of BI on IFT Use.

Chart 7.12. Slope Analysis of the moderation effect of ED on the relationships between BI and IFT Use



7.6.6. Experience (EXP)

Table 7.6 presents the findings on the interaction effects of EXP on all the relationships between PE, EE, SI, FC, HM, PV, HT, and Behavioural Intention (BI) and the relationships between the variables HT, FC, BI, and IFT Use. The results obtained from the analysis indicate that none of these interaction effects were found to be statistically significant. Consequently, the outcomes fail to meet the initial requirement for further slope analysis.

Table 7.6. Experience Moderation Effect Analysis

Hypothesis	Relationship	Beta	SE	t value	p-value	f-square
H14a	EXP x PE→BI	0.004	0.034	0.104	0.917	0.000
H14b	EXP x EE→BI	-0.023	0.037	0.628	0.530	0.001
H14c	EXP x SI→BI	-0.049	0.035	1.393	0.164	0.003
H14d	EXP x FC→BI	0.034	0.047	0.732	0.464	0.001

H14e	EXP x HM→BI	-0.026	0.041	0.635	0.526	0.001
H14f	EXP x PV→BI	0.037	0.042	0.894	0.371	0.002
H14g	EXP x HT→BI	0.013	0.045	0.289	0.772	0.000
H14h	EXP x HT→IFT Use	0.042	0.044	0.97	0.332	0.002
H14i	EXP x FC→IFT Use	-0.070	0.044	1.584	0.113	0.004
H21	EXP x BI→IFT Use	0.021	0.043	0.497	0.619	0.000

Note. SE = Standard Error, BI – Behavioural intention, EE – Effort expectancy, FC – Facilitating conditions, HM – Hedonic motivations, HT – Habit, PE – Performance expectancy, PV – price value, SI – Social influence, IFT Use – Islamic FinTech use, EXP - Experience.

7.6.7. Management level (ML)

Table 7.7 illustrates the empirical findings regarding the influence of Management level (ML) on various aspects, including Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), Facilitating Conditions (FC), Hedonic motivations (HM), Price Value**,** (PV), Habi**t** (HT), and Behavioural intention (BI). Furthermore, the study's results demonstrate that the relationship between the aforementioned variables and between HT, FC, BI, and the use of Acceptance and use of Islamic Fintech (IFT use) is statistically insignificant. These findings do not meet the initial condition required for further analysis of the moderation of slopes.

Table 7.7. Management Level Moderation Effect Analysis

Hypothesis	Relationship	Beta	SE	t value	p-value	f-square
H18a	ML x PE→BI	-0.011	-0.011	0.040	0.288	0.000
H18b	ML x EE→BI	0.024	0.022	0.035	0.688	0.001
H18c	ML x SI→BI	0.040	0.032	0.046	0.869	0.002
H18d	ML x FC→BI	-0.017	-0.016	0.058	0.288	0.000

H18e	ML x HM→BI	-0.036	-0.040	0.043	0.836	0.002
H18f	ML x PV→BI	-0.019	-0.018	0.060	0.320	0.000
H18g	ML x HT→BI	0.053	0.057	0.046	1.150	0.002
H18h	ML x HT→IFT Use	-0.011	-0.011	0.046	0.244	0.000
H18i	ML x FC → IFT Use	0.010	0.009	0.045	0.213	0.000
H25	ML x BI→IFT Use	0.024	0.023	0.043	0.552	0.001

Note. SE = Standard Error, BI – Behavioural intention, EE – Effort expectancy, FC – Facilitating conditions, HM – Hedonic motivations, HT – Habit, PE – Performance expectancy, PV – price value, SI – Social influence, IFT Use – Islamic FinTech use, ML – Management Level.

7.7. Investigation and argument

This particular study conducted a comprehensive analysis of acceptance and usage models to unveil steady and definitive insights regarding the utilisation of Islamic FinTech. The acceptance model, which serves as the foundational concept, plays a vital role in identifying the usage model, thus contributing significantly to the utilisation of Islamic FinTech. In addition, the study recommended a comprehensive approach to modifying and evaluating the unified theory of acceptance and use of technology (UTAUT) as proposed by (Venkatesh et al, 2012). It is worth mentioning that the acceptance model has undergone significant growth when compared to the eight existing technology acceptance models (TAMs) theories. In contrast, the usage model has encountered certain methodological challenges. Consequently, acceptance has emerged as an effective methodological alternative for testing usage behaviour, as indicated by (Venkatesh et al, 2003).

The acceptance and use of Islamic FinTech have paved the way for limitless opportunities, enabling individuals to seamlessly collect, access, analyse, and transfer knowledge and data more efficiently, conveniently, and expeditiously. It is important to highlight that the acceptance and use of Islamic FinTech can be regarded as one of the most disruptive technological advancements in the contemporary world. This encompasses various computer programs, mobile applications, and other technological innovations that support and automate banking and financial services. By acting as trustworthy financial intermediaries, Islamic FinTech plays a pivotal role in facilitating financial operations for individuals across the globe, thereby revolutionising the financial services sector and proving to be an exceptionally efficient tool for financial institutions. The acceptance and use of

Islamic FinTech have witnessed a remarkable transformation in various aspects of FinTech utilisation. Islamic FinTech utilisation has emerged as a distinct form that adheres to the core principles of Sharia ethics and morality in financial transactions. In recent years, the utilisation of Islamic FinTech has experienced significant growth, garnering global interest and attention. The widespread interest in Islamic FinTech utilisation transcends geographical boundaries, emphasising its global significance and impact.

Chapter 8. Conclusion and limitations

8.1. Introduction

This section of the dissertation aims to explain the practical outcomes, suggestions, limitations, potential areas for further exploration, and the overall conclusions derived from the conducted research. The chapter is meticulously arranged in the following manner: Segment 8.2 (Theoretical Implications) serves the purpose of presenting the outcomes and constraints encountered during the investigation; Segment 8.3 provides an in-depth analysis of the Methodological Implications; Segment 8.4 delves into the practical implications that can be drawn from the findings; Segment 8.5, on the other hand, sheds light on the limitations posed by the research; Segment 8.6, conversely, suggests avenues for future research that can build upon the current study; Finally, Segment 8.7 encapsulates the overall conclusions drawn from the research endeavour.

8.2. Theoretical Implications

These theoretical implications provide a foundation for academic research within the FinTech ecosystem. By understanding the theoretical underpinnings, researchers and practitioners can better navigate financial technology's complex and evolving landscape. Acceptance has been a subject of significant interest and thorough examination within the broader field of Fintech studies. This investigation has been comprehensive, utilising multiple conceptual frameworks to provide a detailed understanding of the factors influencing the adoption and utilisation of Islamic Fintech. One widely recognised model is the Unified Theory of Acceptance and Use of Technology (UTAUT), extensively employed to elucidate diverse elements affecting Islamic Fintech acceptance and utilisation.

This critical study aims to examine and extend the existing UTAUT framework in the specific context of Islamic Fintech adoption, contributing significantly to the existing knowledge in this domain. While numerous studies have used the UTAUT model to explore Islamic Fintech acceptance and utilisation, making substantial contributions to our comprehension of this domain, a thorough literature assessment reveals that many of these studies have only applied a subset of the UTAUT constructs, often overlooking relevant moderating variables. This research highlights

a significant gap in the usage and emphasises the need for systematic analysis and conceptualisation of factors pertinent to adopting and utilising Islamic Fintech (Venkatesh et al, 2003).

Extensive research and analysis have shown that evidence supporting the idea that behavioural intention factors mediate the influence on the acceptance and use of Islamic FinTech still needs to be developed. These findings challenge previous assumptions and underscore the need for a deeper exploration into the intricate relationship between behavioural intention and use behaviour within Islamic FinTech. To enhance understanding, the study suggests including moderating variables such as gender, religion, age, language, education, management levels, and experience. This meticulous approach allows for a more tailored and comprehensive understanding of Islamic FinTech adoption's intricacies; by extending the UTAUT framework and introducing supplementary components, this study significantly contributes to the existing body of knowledge in the field. Including these supplementary components facilitates a more nuanced understanding of the interconnectedness within the UTAUT model, which is crucial for enhancing its applicability across diverse scenarios, especially within the intricate domain of Islamic FinTech. The investigation's results underscore the importance of understanding the elements influencing the acceptance and use of Islamic Financial Technology. Such understanding provides valuable insights for developing and improving effective Islamic banking and financial services for adopting and using Islamic FinTech.

The significance of this study is to illuminate the complex relationship between behavioural intention factors and the acceptance and use of Islamic FinTech. The study's outcomes challenge preconceived notions and call for a more refined and nuanced approach to comprehending this intricate relationship. Through integrating supplementary components into the UTAUT framework and meticulously refining existing linkages, this research makes a valuable and significant contribution to the existing body of knowledge on Islamic FinTech adoption. It serves as a stepping stone for further exploration and development in the field, ultimately leading to the enhancement and advancement of Islamic banking and financial services on the Saudi Stock Exchange.

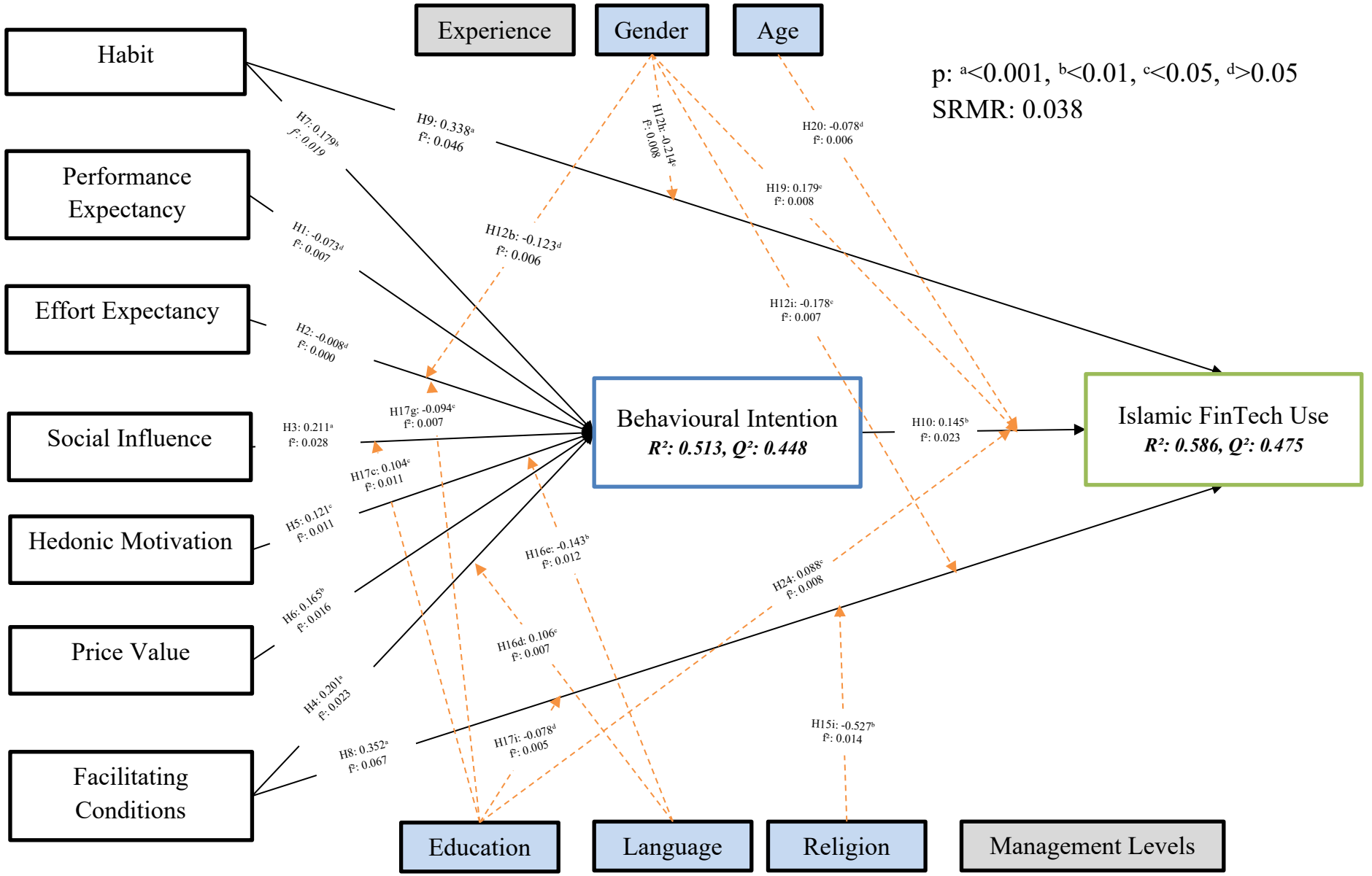


Figure 8.1. Final Theoretical Framework

Key Determinants

The proposed research model's determinants were theoretically grounded in models and technology acceptance theories. However, the empirical findings only partially aligned with the theoretical expectations, as evidenced by the rejection of 2 out of 10 hypotheses in the main model. The terms "significant" and "insignificant" effect are often used in analysis and hypothesis testing to describe the magnitude and importance of an observed relationship or difference. It means that the observed relationship or difference between the examined variables is statistically significant and positive.

8.2.1.1. Social influence Has a Significant and Positive Effect on Behavioural Intention.

Social influence refers to how the actions and attitudes of others shape an individual's behaviour. In the investigation mentioned earlier, social influence emerges as a significant determinant of Behavioural intention. This discovery aligns with the findings of Venkatesh et al (2012) research, emphasising the consistent recognition of social influence as a pivotal factor impacting technology acceptance. The prominent role of social influence in shaping intention within the Fintech domain underscores the critical importance of social interactions and networks in adopting financial technology services. When individuals decide to use technology, they often rely on their social networks' viewpoints, recommendations, and behaviours, including Islamic banks and financial services. This phenomenon is particularly relevant in the context of influence, where educational factors influence the fusion of financial technology with Behavioural intention.

Despite the significance of social influence, it is crucial to acknowledge that it has received relatively less attention in the broader research literature on technology acceptance. Traditionally, the focus has been on factors such as perceived utility and perceived ease of use, as popularised by the Technology Acceptance Model (TAM). However, the research findings presented here underscore the necessity of gaining a more comprehensive understanding of the social dynamics influencing the adoption of Islamic Fintech. The study indicates that social influence is a powerful determinant that does not affect usage behaviour. Recognising this factor in such a context adds depth to our understanding of the factors shaping technology acceptance. It emphasises the importance

of considering social aspects alongside traditional determinants when studying technology adoption in education-related intentions.

8.2.1.2. Facilitating Conditions Has a Significant and Positive Effect on Behavioural Intention

The well-established concept of 'Facilitating Conditions' and its significant influence on individuals utilising technology has been extensively explored in the existing literature. Previous studies, such as those conducted by (Brown et al, 2010; Venkatesh et al, 2003; Venkatesh et al, 2012), successfully emphasised the importance of these conditions in influencing intention. This term refers to the extent to which individuals perceive the existence of an organisational and technical infrastructure that supports the utilisation of a specific technology. In the context of FinTech, where this intention is situated, the role of Facilitating Conditions becomes even more prominent. Since FinTech is an Islamic technology-driven sector, it heavily relies on supportive conditions that enable users to adopt and utilise its services.

These conditions encompass various aspects, including providing a robust and secure technological infrastructure, the availability of user-friendly interfaces, and seamless integration with existing financial systems. Venkatesh's Technology Acceptance Model (TAM) offers a theoretical framework that aligns with these research findings. According to TAM, the perceived ease of use and usefulness determines user acceptance and usage behaviour. The identified Facilitating Conditions directly contribute to the perceived ease of use by establishing an environment that facilitates user interaction with FinTech solutions. In conclusion, the significant influence of these conditions on usage behaviour within the FinTech industry consistently supports the existing body of research, emphasising the imperative for FinTech companies to invest in and prioritise the development of supportive conditions that enhance the user experience and, consequently, drive the adoption and usage of their services.

8.2.1.3. Hedonic Motivation Has a Significant and Positive Effect on Behavioural Intention

Hedonic Motivation, encompassing the quest for gratification and the evasion of suffering, assumes a pivotal role in shaping user conduct across diverse scenarios, encompassing the embrace and utilisation of financial technology (FinTech) services. The

recognition of the research conducted by Brown et al (2010) and Brown & Venkatesh (2005) suggests that the findings align with the current body of literature in this domain. Brown & Venkatesh (2005) specifically highlighted the importance of hedonic motivation in technology adoption, emphasising that users are not solely motivated by utilitarian aspects such as efficiency and performance but also by hedonic factors such as enjoyment and pleasure.

Within the context of Islamic FinTech, where ethical considerations and adherence to Language principles may hold paramount importance, the role of Hedonic Motivation becomes even more noteworthy. In this specific situation, individuals have the potential to experience satisfaction not solely from the operational elements of the FinTech service but also from its congruence with their principles and moral deliberations. The substantial influence of Hedonic Motivation on Behavioural intention within the Islamic FinTech realm signifies that users are not exclusively motivated by pragmatic concerns like efficiency or functionality. Instead, their decision to adopt and persistently utilise the service is significantly influenced by the enjoyment, pleasure, and potentially the ethical alignment of the FinTech service with their beliefs. Where ethical considerations and adherence to religious principles may hold paramount importance, the role of Hedonic Motivation becomes even more noteworthy. In this specific situation, individuals have the potential to experience satisfaction not solely from the operational elements of the FinTech service but also from its congruence with their principles and moral deliberations. The substantial influence of Hedonic Motivation on usage behaviour within the Islamic FinTech realm signifies that users are not exclusively motivated by pragmatic concerns like efficiency or functionality. Instead, their decision to adopt and persistently utilise the service is significantly influenced by the enjoyment, pleasure, and potentially the ethical alignment of the FinTech service with their beliefs.

To draw a final inference, the observations concerning the importance of Hedonic Motivation within the framework of Islamic FinTech are supported by the already existing corpus of scholarly works. Thus, they illuminate the intricate character of user motivations in embracing and employing financial technology services. This is consistent with the wider comprehension that a fusion of pragmatic and pleasurable elements influences user conduct.

8.2.1.4. Price Value Has a Significant and Positive Effect on Behavioural Intention

The notion of "Price Value" as a significant determinant in the exertion of influence on Behavioural intention, particularly in the domain of Islamic FinTech, aligns harmoniously with prior research findings, as exemplified by the comprehensive studies conducted by (Brown & Venkatesh, 2005; Venkatesh et al, 2003; Venkatesh et al, 2012). Within the context, the term "Price Value" indicates the perceived worth that users attribute to the cost or pricing framework employed by Islamic FinTech services. A wide range of values can impact price perception, encompassing the economic feasibility of the services, their perceived advantages, and the degree to which they correspond to the educational requirements and preferences. The research conducted by Venkatesh, as cited, has, in all likelihood, delved deep into the intricate dynamics governing pricing strategies and Behavioural intention, thereby illuminating the crucial role that perceived value plays in shaping users' learning process. When users perceive that the price, they pay for a service is proportional to the benefits and features they receive, it engenders a positive association. It bolsters the likelihood of adoption and continuous usage. Moreover, Venkatesh's consistent findings across many studies over different times point to a robust and enduring relationship between price value and usage behaviour. This consistency lends further credence to the assertion that Price Value is a persistent and influential factor in shaping the behaviour of users within the realm of Islamic FinTech.

In summary, the empirical evidence derived from Venkatesh's extensive research, spanning various years, and the results in this study underscore the paramount significance of Price Value as a determinant that influences usage behaviour within the domain of Islamic FinTech. The intricate interplay between perceived value and pricing strategies is a pivotal aspect that contributes to users' decision-making process regarding the adoption and continued utilisation of financial technology services within the specified context.

8.2.1.5. Habit Has a Significant and Positive Effect on Behavioural Intention

Habit, defined as the inclination to perform behaviours automatically, emerges as a pivotal factor in shaping usage behaviour within the Islamic FinTech landscape. This observation aligns with outcomes derived from investigations by Limayem et al (2007) and Kim & Malhotra (2005) collectively contributing to our understanding of the significant role in shaping individuals' behaviours, particularly in intention. Limayem et

al (2007) conducted a thorough examination focused on the role of habit in intention, emphasising its influence on the automatic execution of intentions. They explained that individuals heavily rely on habits when engaging with technology, leading to consistent and repetitive usage patterns. The habitual nature of intention is intrinsically linked to the automaticity of actions, signifying that individuals tend to perform certain actions without conscious deliberation.

Kim & Malhotra (2005) further explored the notion of habit regarding adopting and utilising technology, emphasising the enduring nature and consistency of habits over time, implying that habits tend to persist once established. In the context of Islamic FinTech, this indicates that individuals who have effectively cultivated the practice of employing such financial technology are highly inclined to sustain this behaviour uniformly. Furthermore, Kim & Malhotra (2005) explored the impact of habit on technology acceptance, revealing its formidable influence in mitigating perceived risks associated with technology adoption. In the specific context of Islamic FinTech, the habit of employing financial technology may function as a protective barrier against concerns or uncertainties, thereby promoting an environment more conducive to consistent usage.

In summary, the research findings eloquently and convincingly point to the profound significance of habit as a potent determinant of usage behaviour within the Islamic FinTech domain. The automatic nature characterizing habitual behaviours, their enduring stability over time, and their instrumental role in alleviating perceived risks all contribute to the formidable and compelling influence that habit exerts over individuals' engagement with Islamic FinTech services.

8.2.1.6. Facilitating Conditions Has a Significant and Positive Effect on Islamic FinTech Use

The concept of "Facilitating Conditions" in the context of Islamic FinTech Use, which refers to the external factors or conditions that make it easier or more challenging for individuals to adopt and use Islamic FinTech, is aligned with previous research findings. These findings, particularly by (Brown & Venkatesh, 2005; Venkatesh et al, 2003; Venkatesh et al, 2012) have highlighted the significance of Facilitating Conditions adopting and utilising technology.

Facilitating Conditions encompass a wide range of elements contributing to the overall ease of use and adoption of Islamic FinTech. These elements can include the availability

of a robust and advanced technological infrastructure, the support and guidance provided by regulatory bodies, the accessibility of resources necessary for using Islamic FinTech, and the general environment surrounding this innovation's integration. Having a well-established regulatory framework under Islamic finance principles can serve as a facilitating factor. This is because it establishes an atmosphere more conducive for individuals to adopt Islamic FinTech solutions, thereby acting as a catalyst.

The strong influence attributed to Facilitating Conditions highlights its critical role in shaping the acceptance and utilisation of Islamic FinTech. Recognising this, organisations and Moderators should pay utmost attention to creating an ecosystem that supports and facilitates the integration of Islamic FinTech. By employing this approach, they can effectively tackle the diverse external factors and circumstances that may either facilitate or impede the integration and utilisation of this technology, thereby enhancing the overall user experience and fostering its extensive acceptance.

In conclusion, the concept of Facilitating Conditions in the context of Islamic FinTech Use plays a significant role in determining the ease with which individuals adopt and utilise this technology. Through careful examination and acknowledgement of the diverse external circumstances and variables that impact the acceptance and application of Islamic FinTech, institutions and decision-makers possess the capability to establish an environment that fosters and promotes its assimilation. This, in turn, can lead to increased user adoption and utilisation, ultimately contributing to the growth and development of the Islamic FinTech industry.

8.2.1.7. Habit Has a Significant and Positive Effect on Islamic FinTech Use

In this context, habit pertains to the repetitive and automatic nature of certain behaviours associated with the utilisation of Islamic FinTech. The research outcomes indicate that individuals who have cultivated a habit of engaging with Islamic FinTech services are more inclined to persist in their usage. This habitual conduct can be associated with the psychological construct of automaticity, wherein actions become ingrained and are carried out with minimal cognitive exertion. In their study, Limayem et al (2007) delved into the role of habit in adopting technology and discovered that habit significantly impacts individuals' continued utilisation of technology. Similarly, the research conducted by Kim & Malhotra (2005) focuses on establishing routines in the sphere of adopting I, emphasising the enduring nature of specific actions throughout time. The

substantial influence of habit on the use of Islamic FinTech can be ascribed to the level of comfort and familiarity that individuals attain through repeated interactions with these services. Once a habit is established, individuals may find it more expedient to adhere to the familiar pattern of employing Islamic FinTech platforms for their financial requirements. This can result in a self-reinforcing cycle wherein the habitual use of Islamic FinTech becomes deeply ingrained in users' routines.

In summary, this research strongly upholds the significance of habit in shaping the adoption of Islamic FinTech, and the outcomes of this investigation are congruent with the existing corpus of scholarly works. Comprehending the influence of habit on user behaviour can contribute to formulating strategies to promote the adoption and sustained usage of Islamic FinTech services.

8.2.1.8. Behavioural Intention Has a Significant and Positive Effect on Islamic FinTech Use

Behavioural Intention is the term used to describe an individual's personal and subjective likelihood and willingness to engage in a specific behaviour. Within technology adoption, this notion is closely linked to an individual's willingness to accept a specific technological advancement. The relevance of Behavioural Intention as a determinant corresponds to the well-established Technology Acceptance Model (TAM), initially proposed by (Venkatesh & Davis, 2000). As per this model, users' behavioural intention is pivotal in shaping their practical utilisation behaviour. In an attempt to enrich the TAM, Venkatesh et al (2012) broadened the model by incorporating supplementary factors such as social influence, cognitive instrumental processes, and hedonic motivations. This comprehensive model, known as the Unified Theory of Acceptance and Use of Technology (UTAUT), places significant emphasis on behavioural intention as a fundamental precursor to technology utilisation. In the specific context of Islamic FinTech, where adherence to Islamic principles and financial ethics is of utmost importance, comprehending users' behavioural intentions becomes even more essential. The research in this field highlights the strong influence of Behavioural Intention on the utilisation of Islamic FinTech, thus emphasising the significance of individuals' willingness and inclination to adopt these financial technologies. Several factors, including perceived usefulness, ease of use, and social norms, have been identified as integral components of the extended TAM, all contributing to shaping users' behavioural intentions.

In summary, the results of this study are consistent with well-established frameworks like TAM and UTAUT, highlighting the crucial significance of Behavioural Intention in influencing the acceptance of Islamic FinTech. The strong positive influence identified in the research suggests that interventions to enhance users' intention to use these technologies could potentially lead to increased acceptance and utilisation within the Islamic financial context.

8.2.1.9. Both Performance Expectancy and Effort Expectancy Do Not Have Significant Effects on Islamic FinTech Use.

Despite the significant amount of attention that has been given to the concepts of "Performance Expectancy" and "Effort Expectancy" in the relevant literature on the acceptance of technology (Venkatesh et al, 2003), it has been discovered that both of these factors do not have a significant impact on the behaviour of individuals when it comes to using technology, especially in the specific context of Islamic Fintech. These deviations from the expected outcomes raise important questions regarding the applicability of the current technology acceptance models to the unique domain of Islamic Fintech. The unforeseen outcomes suggest that the viewpoints of individuals about the efficiency and user-friendliness of technology may not be the primary factors that motivate its acceptance in this specific scenario. This deviation from established theories emphasises the necessity of having a thorough understanding of technology acceptance within specific contexts. It urges us to reassess the factors that influence user behaviour in Islamic Fintech and underscores the importance of adapting theoretical models to the distinctive characteristics of the studied technology. Given these findings, future research in this field would benefit greatly from exploring and constructing models that more accurately capture the complexities of user acceptance within the Islamic Fintech ecosystem.

8.2.2. Moderation Effects

8.2.2.1. Gender

Gender has recently received attention as a crucial moderating influence, supported by Venkatesh et al (2003); findings are consistent with sociological and social psychology literature, as demonstrated by (Levy, 1988). Within this investigation's framework, gender serves as a moderator variable. However, the research outcomes indicate that gender moderates four distinct associations. These associations encompass the influence

of effort expectation on behavioural intention and the sway of habit, facilitating conditions, and behavioural intention on utilising Islamic Fintech. Conversely, the remaining relationships fail to exhibit a similar moderating effect of gender, as revealed in Table 6.15.

During the meticulous analysis conducted, a notable finding emerges, unveiling the absence of a direct effect of Effort Expectancy on Behavioural Intention. Nonetheless, a crossover interaction effect comes to the forefront. In essence, the slope analysis results illustrated in Chart 7.1 elucidate that, contingent upon the strength of Effort Expectancy, gender can impact Behavioural Intention. Hence, it can be inferred that when effort expectation fails to influence behavioural intention, a significant gender difference leads users to show elevated expectations regarding the ease of using a specific technological device. Consequently, this elevated expectation leads to a reduction in the intention to use said device.

Conversely, in situations characterised by minimal gender differences, an augmented user expectation of ease of use for a given technological device heightens the intention to utilise it. This highlights the significance of including gender when evaluating the elements influencing user behaviour. Moreover, it is of utmost importance to recognise that when interacting with a user cohort comprising various genders, the methods and approaches utilised for development and promotion may necessitate customisation to accommodate the distinct requirements and anticipations of each gender. In conclusion, comprehending this crossover interaction effect can furnish valuable insights into how gender and perceived ease of use interplay in forecasting the intention to utilise a certain technology.

The study delves into the impact of habit on the use of Islamic Fintech, emphasising its positive influence. However, when examining gender differences, the habit may have a diminished effect on adopting Islamic Fintech. The analysis, especially the Slope Analysis (Chart 7.2), shows that gender disparities do not significantly impact people's tendencies to embrace Islamic financial technology. This suggests that habit formation is less dependent on gender and more on individuals who have developed the habit of using Islamic Fintech. The frequency of Islamic financial technology use is directly linked to individuals' readiness to adopt it. Those with limited familiarity may need help with trying to use it. While habits have positive effects, it is essential to acknowledge variations based on usage levels and gender-related factors. The alignment between habits and adopting

Islamic Fintech increases when users are highly engaged. This benefits users and contributes to the technology's acceptance in the Islamic Fintech community. Additionally, this opens opportunities for marketing and educational strategies, especially targeting those less familiar with Islamic financial technology.

In addition to the Gender-related effects discussed earlier, it is important to note that gender disparities also influence the positive correlation between Facilitating Conditions and the use of Islamic Fintech. To better understand this, let us focus on a detailed Slope Analysis examining how Gender moderates the relationship between Facilitating Conditions and Islamic Fintech usage, as shown in Chart 7.3. Like the impact of Gender on the connection between Habit and the adoption of Islamic Fintech, gender gaps create significant obstacles in altering users' acceptance of Islamic Fintech, regardless of favourable conditions. Conversely, eliminating gender disparities opens the door to customising user acceptance by creating tailored favourable conditions. Increasing accessibility and other relevant conditions can boost user adoption of Islamic Fintech. This is crucial when stabilising and enhancing resources, time, finances, and technology, enabling users to embrace technological advancements easily. Neglecting to improve accessibility, time, finances, and technology may lead to a decline in Islamic Fintech utilisation. This underscores the importance of creating favourable conditions and allocating resources to promote the acceptance and use of Islamic Fintech solutions.

The primary moderating factor within the framework is Gender, which plays a significant role in determining the impact on the relationship between Behavioural Intention and the adoption of Islamic Fintech. The results obtained from the analysis, successfully testing the hypothesis of a positive direct correlation between Behavioural Intention and the use of Islamic Fintech, are not surprising. However, examining the moderating effect of Gender on the association between Behavioural Intention and Islamic Fintech adoption has revealed some intriguing and unexpected findings. While the immediate influence of Behavioural Intention on the utilisation of Islamic Fintech suggests that any change in Behavioural Intention will lead to a corresponding change in the acceptance and adoption of Islamic Fintech, it is essential to recognise that gender disparities can significantly impact this association, depending on the extent of such disparities (Zhao et al, 2018). Consequently, different outcomes may be observed for this direct relationship. A thorough analysis of the Slope analysis demonstrates that when there is minimal gender

disparity, regardless of the level of users' behavioural intention to engage with Islamic Fintech, the acceptance and utilisation of this technology remain relatively low.

Conversely, when the gender disparity is more pronounced, individuals tend to show a heightened level of behavioural inclination to interact with Islamic Fintech. This inclination, in turn, facilitates a heightened degree of acceptance and utilisation of this technology. In situations where individuals are less inclined to adopt Islamic Fintech, the acceptance and utilisation of this technology are correspondingly diminished. This emphasises the significance of Gender not only in understanding the direct impact of Behavioural Intention on Islamic Fintech Use but also in comprehending the variations in this relationship under the influence of users' behavioural intention to adopt this technology and their gender.

In our comprehensive analysis, considering moderation effects through slope analysis, it is apparent that Gender's moderation in the mentioned relationships shows a significant degree of feebleness. This is evident in the f2 magnitude of Gender's influence on these relationships, indicating a relatively weak impact. The remaining coefficients, ranging from 0.006 to 0.007, support the idea that the Gender effect does not substantially contribute to establishing endogenous variables. It is essential to note that the significance of this contribution may vary depending on the nature of the relationships.

8.2.2.2. Age

In conducting a thorough analysis of the research findings, it has been demonstrated that age plays a significant role in moderating the relationship between behavioural intention and the utilisation of Islamic Fintech. This moderation is observed within a pool of 10 relationships in which the influence of age is identified. The significance of acknowledging the moderating influence of age lies in its pivotal role in recalibrating the advantages and disadvantages of these associations.

Given the central focus of the current investigation on the implementation of a newly accepted technological advancement, specifically the Islamic FinTech, it becomes crucial to delve into the moderating impact of age on this particular variable. Zhao et al (2018) have presented empirical substantiation through their scholarly inquiry, indicating that distinct age cohorts manifest distinct moderating influences on the integration of mobile services. Their research findings imply that adopting technology is more convenient for youthful and middle-aged users when juxtaposed with their elderly counterparts.

Further supporting the notion of age as a moderating factor, Chawla & Joshi (2019) the role of customer age in moderating the relationship between attitude and intention to use technology has been highlighted. Their research confirms that this moderating effect is particularly impactful for younger customers instead of older ones. The current study delves into age differences concerning the individual adoption and sustained usage of technology in the workplace, drawing upon the theory of planned behaviour. This is in line with the conclusions drawn by Venkatesh & Davis (2000), who contend that younger individuals in the workforce exhibit a higher susceptibility towards the impact of attitude and intention in adopting technology compared to their elder counterparts.

It is worth noting that individuals from the older generation may encounter certain challenges in learning and embracing new technologies or inventions. Conversely, the younger generation tends to be more amenable to easily accepting such technological advancements (Riskinanto et al, 2017). The aforementioned studies collectively corroborate the results of the present investigation, emphasising that age differences play a significant role in moderating the positive relationship between behavioural intention and the acceptance of Islamic Fintech. All analyses of the research findings provide substantial evidence for the moderating effect of age on the relationship between behavioural intention and the utilisation of Islamic Fintech. The examination of related scholarly works reveals the substantial significance of age in adopting technology, wherein younger individuals display a greater inclination toward embracing novel technological advancements. These discerning observations further underscore the crucial necessity of considering age disparities when investigating technology adoption, thereby emphasising the need to develop tailored strategies that cater to the unique preferences and requirements of various age cohorts. In totality, this study contributes to the prevailing body of knowledge by elucidating the moderating influence of age within the domain of technology adoption and the utilisation of Islamic Fintech.

However, the impact is contingent upon the extent of age variation, which contradicts previous studies' findings. This phenomenon is more readily discernible through the deductions derived from slope analysis, indicating that as the age disparity widens, the inclination towards utilising Islamic Fintech exhibits minimal alteration concerning its acceptance. In contrast, in situations where the age discrepancy is negligible, irrespective of whether an individual is young or elderly, a more resolute inclination towards utilisation will further bolster the acceptance of employing Islamic Fintech. Conversely,

when the propensity to employ is feeble, it concurrently augments the probability of rejecting the adoption of Islamic Fintech in scenarios where there is limited disparity in age. This divergence from prior research studies is entirely admissible due to the dissimilarity in the Islamic FinTech research context itself and the variance in the target audience of these studies.

Although the research findings ascertain that the contribution of the age variable as a moderator to the formation of the endogenous variable Islamic Fintech Use is very small (with an effect size of f2 = 0.006), it underscores the significance of divergent functionality. This is truly the decisive factor that governs the research outcomes. A comprehensive consideration of the diversity and distinctive nature of each age group has been judiciously undertaken in this study. This aspect is paramount in ensuring that research outcomes are flexibly applied to disparate contexts. The recognition that alterations in the behavioural intention to utilise Islamic Fintech are not uniformly consistent across age groups represents a noteworthy and pragmatic enigma. This realisation significantly enhances the applicability of research findings, particularly in formulating targeted business strategies catering to the distinct preferences of each customer segment.

8.2.2.3. Religion

Similar to Age's findings, our research analysis results illustrate that Religion moderates only one-tenth of the relationships influenced by Age, adjusting their strengths and weaknesses. However, it is crucial to note that Religion differs from Age in its impact on the significant positive relationship between Behavioural Intention and Islamic Fintech Use. While Age moderates this relationship, Religion significantly influences the positive connection between Facilitating Conditions and Islamic Fintech Use.

This observation becomes more apparent when considering the conclusions drawn from Slope Analysis (Chart 7.6). The analysis reveals that with greater religious differentiation, the behavioural intention to use Islamic Fintech minimally affects the acceptance of such technology. On the contrary, when there is little difference in religion, whether individuals are Muslims or belong to other religions, a stronger behavioural intention to use Islamic Fintech further promotes its acceptance. Conversely, low behavioural intention also increases the likelihood of rejecting Islamic Fintech, especially in cases of minimal religious differentiation. These findings offer opportunities to expand outreach

efforts to Islamic populations with low behavioural intention and other religious groups, encouraging their adoption and usage of Islamic Fintech.

While the contribution of the moderator variable Religion to the formation of the endogenous variable Islamic Fintech Use is relatively small (f2 size = 0.014), a deeper understanding of how Religion influences specific relationships can lead to the development of more flexible business strategies. By optimising cultural and religious understanding, organisations can drive broader acceptance and utilisation of Islamic Fintech. This, in turn, can pave the way for enhanced adoption and usage by not only Islamic populations but also other religious groups. Through this nuanced comprehension of the impact of Religion on various relationships, we can unlock the potential for a more widespread embrace of Islamic Fintech.

8.2.2.4. Language

In this research study, language is a moderator variable, influencing two distinct relationships: the impact of Facilitating Conditions on Behavioural Intention and the influence of the Hedonic Motivation variable on Behavioural Intention. Table 6.19 documents that other relationships do not exhibit a similar moderating effect of Language.

The research extensively documents a significant positive effect on Behavioural Intention attributed to the Facilitating Conditions variable. This is rationalised by the user's inclination to utilise Islamic Fintech, escalating: or diminishing based on favourable or unfavourable conditions. Scrutinising the impact of the language moderator variable on this relationship reveals that variations in language can alter the user's behavioural intention. The Slope analysis in Chart 7.7 illustrates that minimal disparities in language influence user engagement with Islamic Fintech even when conditions are conducive, resulting in varied approaches. Conversely, a substantial language discrepancy leads to an augmented inclination to use Islamic Fintech under favourable conditions and diminished intention under deteriorating conditions.

A plausible explanation for these outcomes lies in language barriers, instilling hesitation regarding a technology that employs an unfamiliar language. Minimising these barriers and establishing conditions for users to comprehend different languages will increase their intention to utilise the technology. A multilingual communication environment within the context of Islamic Fintech assumes an increasingly significant role. In

conclusion, developing a multilingual environment, along with a flexible education and communication strategy, will serve a pivotal function in supporting users in comprehending Islamic FinTech. This will enhance positive action intentions toward adopting this innovative financial technology.

The Language variable also exerts a profound influence on the positive influence of the Hedonic Motivation variable on Behavioural Intention. Possession of elevated or diminished Hedonic Motivation results in a corresponding augmentation or reduction in behavioural inclination to employ Islamic Fintech. The moderator Language variable significantly impacts this relationship, as shown in the Slope analysis in Chart 7.8. A substantial language difference hardly influences the relationship, implying that Hedonic Motivation's influence on Behavioural Intention originates from the relationship itself, irrespective of language disparity. However, research suggests minimal language distinction results in a higher degree of Hedonic Motivation, leading to greater Behavioural Intention, supplemented by language support.

Understanding how moderator Language impacts the connection between Hedonic Motivation and Behavioural Intention opens up possibilities for enhancing communication and marketing tactics. Organisations can use this knowledge to connect with users effectively, adapting outreach strategies to linguistic diversity. Combining information from moderator Language variables with the relationship between Hedonic Motivation and Behavioural Intention expands our comprehension of the user's decision-making process and presents opportunities for strategic innovation in engaging with customers within the Islamic Fintech sector.

Analysis results from the moderation effect on the slope analysis indicate that the impact of Language on the relationships under investigation is relatively weak. The f2 statistic, indicating the degree of influence of Language on these relationships, supports this conclusion. The additional coefficient holds minimal significance, reinforcing that the Language effect does not significantly contribute to the formation of the endogenous variable, Behavioural Intention.

8.2.2.5. Education

In scholarly investigations, education fulfils the crucial role of a moderator variable, influencing the relationship between two other variables. A thorough examination of the

research findings reveals that education exerts a moderating influence on four distinct relationships. Notably, it yields two significant positive effects on the behavioural intention concerning social influence and habit, respectively. Additionally, education manifests two significant positive effects on Islamic Fintech usage: facilitating conditions and behavioural intention. However, the remaining relationships fail to exhibit a comparable moderating effect, as demonstrated by the data presented in Table 6.15.

First, we delve into the noteworthy and meaningful positive correlation between social influence and behavioural intention. Behavioural intention is indeed influenced by social influence; nevertheless, this correlation is generally advantageous because any augmentation or reduction in social influence will subsequently result in a corresponding augmentation or reduction in users' intention to utilise Islamic Fintech. It is crucial to consider the influence of education, which varies depending on the level, as it can augment the impact exerted by social influence on behavioural intention. To gain a deeper comprehension of this impact, let us analyse the slope analysis results (Chart 7.9), revealing that a slight disparity in education does not significantly affect the behavioural intention to adopt the usage of Islamic FinTech. This suggests that if users have equivalent educational attainment or their educational backgrounds do not significantly vary, the degree to which social influence impacts their intention will exclusively rely on the interaction between these two factors without being influenced by their level of education. This phenomenon is entirely expected because individuals with equivalent education and knowledge concerning Islamic FinTech would not exhibit disparities in their inclination to adopt its usage.

Conversely, when there is a substantial difference in education levels, the analysis outcomes demonstrate a distinction in the moderating influence of education on the significant positive relationship between social influence and behavioural intention. The greater the variation in educational backgrounds among individuals and the more pronounced the social influences exerted upon them, the more inclined they are to intend to adopt the usage of Islamic FinTech compared to the norm. On the other hand, if there is a scarcity of social influence or a decline in social influence, users' intention to utilise Islamic FinTech would likely decrease to an even greater extent than usual. It is worth noting that for individuals with substantial educational disparities, the moderating effect of education assumes a heightened level of importance. This concept can be understood by acknowledging that individuals who have attained higher levels of education have an

enhanced ability to participate in the decision-making process actively, utilising their knowledge and comprehension rather than heavily depending on social influence. This complexity enriches the research endeavour, providing valuable insights into how these factors interact and influence user decisions within the financial sector, shaped by cultural and educational factors.

In addition to the influence of education mentioned in the preceding section, it is noteworthy that the positive relationship between habit and the intention to utilise Islamic Fintech diminishes when we approach this aspect from a different perspective. To gain a deeper understanding of this issue, it is imperative to revisit the analysis of the moderating effect of education on the association between habit and the intention to utilise Islamic Fintech (as depicted in Chart 7.10). It has been posited in this article that usage habits have a substantial impact on intentions to use Islamic Fintech automatically. However, education introduces a contrasting perspective, exerting a distinct influence on this statistically significant positive relationship. A careful examination of Chart 7.10 and the existing analysis reveals that when there is a significant difference in levels of education, it does not affect the initial relationship between habit and the intention to use Islamic Fintech.

Nevertheless, in instances where the differences in education levels are minimal, behavioural habits assume a pivotal role in differentiating between individuals who regularly employ technology and those who do not. More specifically, when there is little variation in education levels, the intensity of a user's habits becomes a determining factor in amplifying their intention to use Islamic Fintech. Conversely, if users do not frequently engage in the habit of utilising technology, this will result in a greater reduction in their intention to use Islamic Fintech than what is typically observed, particularly when education levels are similar. The aforementioned findings demonstrate that when the educational attainment of individuals is nearly identical, the magnitude of their habit participation directly contributes to the extent to which their intention to use Islamic FinTech is augmented or diminished, surpassing the ordinary levels of influence. A clear and direct relationship emerges between these two factors, raising pertinent questions about the significance of elevating the level of education within the community to optimise the effectiveness of habit in promoting Islamic Fintech. In this regard, technology education and literacy programs can play a vital and indispensable role in minimising habituation and fostering awareness regarding the benefits of employing

financial technology by Islamic principles. Hence, it can be deduced that strategies that support the cultivation of positive habits in the use of Islamic Fintech could potentially serve as the key to optimising the positive influence of habit, especially among cohorts of individuals with relatively uniform levels of education.

Moreover, as thoroughly examined in the preceding sections of this comprehensive study, the positive correlation between Facilitating Conditions and the adoption of Islamic Fintech has been significantly influenced by the moderator variables of Gender and Education. This study delved into the intricate dynamics through which Gender and Education influence the positive relationship between Facilitating Conditions and the utilisation of Islamic Fintech. It is essential to note that this relationship now includes an additional moderator variable that affects its nature, namely Education. Similar to the impact of Gender, Education has the potential to negatively affect the association between Facilitating Conditions and the adoption of Islamic Fintech, contingent upon the extent of disparity in educational attainment. From this observation, we can infer that education is a critical variable that shapes the relationship. A meticulous analysis of the slope was conducted to gain a deeper understanding of the moderation effect of education on the relationships between Facilitating Conditions and the utilisation of Islamic Fintech (as depicted in Chart 7.11). This analysis convincingly demonstrates that variations in educational levels inevitably impact the relationship.

As such, individuals' educational backgrounds inherently influence the original association between Facilitating Conditions and the adoption of Islamic Fintech. However, even slight educational disparities possess a more profound and tangible effect on the relationship than in situations where significant differences in educational attainment exist. This observation underscores the significance of Education as a moderating variable and elucidates its capacity to shape the intricate dynamics between Facilitating Conditions and the utilisation of Islamic Fintech. To provide a more comprehensive explanation, let us delve into the details of Chart 7.11. This specific chart showcases the impact of favourable conditions on the accessibility and utilisation of Islamic FinTech. In essence, it highlights those favourable conditions lead to an increase in the use of Islamic FinTech, regardless of existing disparities in education.

Conversely, when favourable conditions supporting the accessibility and utilisation of Islamic FinTech decline, the use of this financial technology also decreases compared to the norm, irrespective of variances in education levels. It is crucial to note that even slight

disparities in education levels can profoundly influence the relationship more than significant differences in education. Therefore, comprehending the role of education in the connection between Facilitating Conditions and the use of Islamic FinTech holds paramount importance in formulating effective strategies and policies to bolster development in this domain. Empirical evidence suggests that individuals with higher levels of education tend to display greater adaptability and flexibility in capitalising on favourable conditions to utilise Islamic FinTech services. However, this scenario also presents an opportunity to concentrate on elevating the educational attainment of individuals with lower levels of education. By doing so, more egalitarian access and utilisation of Islamic financial technology can be fostered, reducing inequality. One potential approach to achieving this goal involves formulating education and training strategies aimed at diminishing the educational gap and augmenting knowledge and understanding of the advantages Islamic FinTech offers to the wider community. In essence, the aim is to bridge the divide in educational attainment and empower individuals with the requisite knowledge to leverage the benefits of Islamic FinTech. In summary, the alignment of education levels in the development of Islamic FinTech is not solely a business concern but also a shared responsibility of society and stakeholders. By embracing this shared responsibility, we can ensure that Islamic financial technology fully embodies and fairly addresses the entire society's needs, bringing about a more inclusive and equitable financial landscape.

The final moderating role of Education in the model is evident in its impact on the relationship between Behavioural Intention and the utilisation of Islamic Fintech. Similar to its prior influence on the correlation between Facilitating Conditions and the use of Islamic Fintech, Education not only affects the association between Behavioural Intention and the utilisation of Islamic Fintech in connection with the Gender factor but also independently. Previous sections of this study have demonstrated and provided evidence supporting the positive relationship between Behavioural Intention and the use of Islamic Fintech. Additionally, Education plays a crucial role in regulating this relationship. To elaborate on these effects, it is imperative to consider slope analysis, as depicted in Chart 7.12. The analysis reveals that, with minimal educational discrepancies, the initial direct relationship between Behavioural Intention and the use of Islamic Fintech remains relatively unaffected. Essentially, this implies that when educational levels are equivalent, the influence of education on this relationship is virtually negligible. However, when a significant variance in Education is present, a different outcome emerges. In cases of

substantial differences in education, the magnitude of behavioural intention to use Islamic FinTech has a more pronounced influence on the acceptance and utilisation of Islamic FinTech than the norm.

Conversely, when the behavioural intention to use Islamic FinTech is relatively low, its impact on the acceptance and utilisation of Islamic FinTech is correspondingly diminished. Against this backdrop, evaluating the influence of Education on the relationship between Behavioural Intention and the use of Islamic Fintech provides invaluable insights into the role of education in shaping user behaviour. Education serves as a mediating factor and a pivotal source of adjustment, creating significant disparities in the impact of Behavioural Intention. Consequently, based on these analyses, it can be conclusively inferred that education functions as an influencing factor and a critical regulatory factor in formulating and fostering the behavioural intention to use Islamic Fintech. This realisation underscores the heightened value of investing in education and presents promising prospects for educational policy strategies to foster widespread acceptance and utilisation of Islamic financial technology within communities.

In summary, the findings from the analysis illuminate the relatively weak impact of education in moderating the relationships under investigation, a phenomenon that is observable in a broad and overarching manner. This assertion gains support from empirical evidence indicating that the significant impact of Education, as quantified by the f2 statistic, is comparatively small, with effect sizes ranging from 0.005 to 0.011. This discovery indicates that the contribution of Education to the shaping of endogenous variables is not particularly substantial or meaningful.

8.2.2.6. Experience and Management Levels

The study results reveal no significant moderating effects regarding Experience and Management Levels on the key relationships examined. This lack of significance may be explained by the multifaceted impact that Experience and Management Levels have on various aspects of user lifestyles, influencing the acceptance and utilisation of Islamic Fintech. The contextual backdrop of Islamic FinTech and the specific composition of survey participants could have contributed to these results.

Despite the absence of a discernible relationship between Experience and Management Levels, it is crucial to explore this situation further by considering other variables that may play a pivotal role. One plausible explanation for the lack of association may be

linked to the adequacy of the Experience assessment in accurately gauging an individual's comprehension of Islamic FinTech. Individuals with similar expertise levels may demonstrate significant heterogeneity in their cognitive acumen and comprehension of the discipline. Future research should consider expanding the scope of the Experience construct by incorporating additional factors such as a more profound understanding and practical skills.

Caution is needed when measuring and evaluating management levels within the study. Existing methodologies might fail to capture essential facets of Management Levels, or fresh criteria may be necessary to ensure accuracy and uniformity in the measurement process. Simultaneously, research solely focusing on the core relationship between Experience and Management Levels may overlook crucial information about mediating variables that could preserve or enhance the association between these factors. A more comprehensive understanding of these variables could facilitate a holistic comprehension of the intricate interplay between Experience and Management Levels.

Finally, the research population and data-gathering setting must be considered. If the surveyed individuals do not sufficiently represent the wide range of Islamic Fintech users, generalising the results to the broader community may be challenging. Broadening the scope of the sample and increasing participant diversity is advantageous to enhance the significance and precision of research findings, leading to a more representative and inclusive understanding of the phenomenon in question.

8.3. Methodological Implications

The methodology utilised in this study serves as a comprehensive framework that facilitates the current investigation and yields valuable insights for future research within the specific domain under examination. The field of Islamic FinTech, in particular, requires a multifaceted approach that involves various strategies. These strategies include soliciting insights from erudite individuals affiliated with Islamic financial institutions. This is achieved using a highly methodical survey instrument specifically crafted. Additionally, the soundness of measurement instruments is assessed through Structural Equation Modelling (SEM) analysis, assisted by the Smart-PLS 4 software. The proposed research model is further empirically examined through SEM, with the assistance of Smart-PLS 4.

Due to the inherent challenges of surveying Islamic Banks across numerous locations in the country, it is recommended to adopt a strategic approach by disseminating questionnaires via postal mail to the secretarial offices of faculties within these banks. This approach ensures efficient distribution and collection of questionnaires. To enhance this process, initial contact via telephone with designated secretarial office staff responsible for overseeing the distribution and collection process is advised instead of relying solely on written communication. Establishing this initial contact enables regular communication through frequent telephone calls with the staff members, effectively monitoring the survey's progress. This proactive approach maximises the response rate and ensures the smooth functioning of the data collection process. Meticulous attention was also given to the questionnaire design to ensure a professional appearance and facilitate ease of comprehension, allowing respondents to provide accurate and comprehensive information. Key elements of the questionnaire design include a well-defined title and introductory letters featuring the bank's logo and name, confirming that the data will be handled with utmost integrity.

Additionally, it is strongly recommended that the data obtained from the questionnaire survey undergo comprehensive testing. This testing should ensure reliability, content credibility, and construct accuracy, focusing on the agreement of different measures. Validity, particularly discriminant validity, should be observed during both the pilot test and the main survey. Discriminant validity tests can be conducted using SEM analysis through Smart-PLS 4. These examinations guarantee the strength and precision of gathered information, enhancing the trustworthiness and soundness of the study results.

Lastly, it is highly recommended that the exceedingly advantageous statistical technique known as "Structural Equation Modelling" be used for testing and generating models, especially when combined with the sophisticated software tool Smart-PLS.

(1) Within inferential statistics, SEM has unquestionably proven to be an exceptional instrument for data analysis. Conversely, most other multivariate techniques are primarily descriptive, such as exploratory factor analysis, thus making hypothesis testing quite challenging.

(2) One of the distinguishing characteristics of SEM is its unique ability to provide explicit estimates of error variance parameters, a capability that traditional

multivariate techniques lack. Moreover, these traditional techniques cannot assess or rectify measurement errors, limiting their scope.

(3) One notable advantage of examining data using structural equation modelling (SEM) techniques is its ability to encompass unobservable factors (latent variables) and observable factors. This starkly contrasts previous data analysis approaches, which solely relied on observed measurements.

(4) The SEM methodology encompasses many highly valuable features, including the ability to model multivariate relationships and estimate point and interval indirect effects. Unfortunately, there is a lack of widely and easily applicable alternative methods to achieve these specific features.

8.4. Practical Implications

The key findings of this study have far-reaching implications, offering substantial advantages for individuals associated with Islamic Banks and for Islamic Banks within the FinTech Sector. Applying this newfound knowledge, particularly those highlighted in Chapter 8, reveals practical implications across various domains. These include fostering an academic culture that fully embraces and utilises the potential of the internet in scholarly endeavours and enhancing standards of professional practice, development, and overall work quality. If acknowledged and implemented effectively, these implications can transform the operations and efficiency of Islamic Banks, propelling them to new levels of success within the evolving FinTech Sector.

As identified in the research, the profound influence of Facilitating Conditions on Islamic FinTech underscores its pivotal role as the most influential independent variable shaping the landscape of Islamic FinTech adoption. Consequently, it is imperative to delineate practical implications that leverage this influential factor to optimise the integration and utilisation of Islamic FinTech. Firstly, organisations operating within the Islamic FinTech domain should prioritise investments in building a robust technological infrastructure. A sophisticated and user-friendly platform, fortified with state-of-the-art features, enhances the overall user experience and aligns with the concept of Facilitating Conditions. This strategic investment would mitigate barriers to adoption, making Islamic FinTech more accessible and appealing to a broader user base. Secondly, regulatory bodies and Moderators should proactively contribute to developing a comprehensive regulatory

framework aligned with Islamic finance principles. A regulatory environment that reflects the values and norms of Islamic finance creates a conducive atmosphere for users to embrace FinTech solutions confidently. It acts as a catalyst, streamlining the integration process and fostering trust among potential users.

Moreover, facilitating conditions extend beyond technology and regulations to encompass resource accessibility. Organisations should ensure that the necessary resources for using Islamic FinTech are readily available and easily accessible. This could involve educational initiatives, training programs, and collaborative efforts with financial institutions to ensure users have the knowledge and tools necessary for seamless adoption. In addition, public-private collaborations are paramount. Governments, industry players, and financial institutions should collaborate to create an ecosystem that nurtures Islamic FinTech. This collaboration may involve incentivising FinTech start-ups, fostering partnerships between established financial institutions and FinTech innovators, and jointly addressing challenges associated with Islamic FinTech adoption (Oseni & Nazim, 2019). Such collaborations can leverage stakeholders' collective expertise and resources to overcome barriers and enhance the overall facilitative conditions. Furthermore, marketing and awareness campaigns should be tailored to highlight the facilitating conditions surrounding Islamic FinTech. Emphasising the supportive regulatory framework, advanced technological infrastructure, and the availability of resources will create a positive narrative, encouraging potential users to perceive Islamic FinTech as a viable and convenient financial solution.

In conclusion, identifying Facilitating Conditions as the most influential factor in Islamic FinTech use underscores the need for a comprehensive and synergistic approach. Organisations, regulatory bodies, and Moderators should collaboratively work towards creating an environment that supports and actively facilitates the integration of Islamic FinTech. By strategically addressing technological, regulatory, and resource-related facets, stakeholders can collectively contribute to the flourishing and widespread acceptance of Islamic FinTech, ultimately propelling the growth and development of this burgeoning industry.

Furthermore, the impact of social influence on the behavioural intention of using Islamic Fintech is substantial and positive, making it the most influential independent variable on behavioural intention in this study. This finding is significant and noteworthy, leading to the formation of practical implications that have the potential to enhance the adoption and

utilisation of Islamic Fintech within the broader context of financial technology services. From a practical standpoint, financial institutions and Islamic Fintech providers must prioritise cultivating positive social interactions and networks. This can be achieved by developing strategic partnerships and collaborations within the community, amplifying social network influence. Initiatives such as community workshops, seminars, and awareness campaigns can be implemented to highlight the benefits and positive experiences of using Islamic Fintech, effectively harnessing the power of social influence.

Furthermore, understanding the cultural and religious nuances that shape social influence within the Islamic Fintech domain is imperative. The positive impact of social influence can be amplified by tailoring marketing and outreach efforts to resonate with these cultural and religious values. To achieve this, it is essential to engage religious leaders, influencers, and community figures who sway the target audience, as they can play a pivotal role in endorsing Islamic Fintech services. In addition to these efforts, implementing financial literacy programs specifically designed for the Islamic Fintech context can further leverage social influence. A ripple effect can be created by empowering individuals within social networks with the knowledge and skills to understand and utilise Islamic Fintech. Informed individuals are more likely to influence and encourage others to embrace these financial technologies, thereby expanding the reach and impact of social influence.

Moreover, integrating social influence strategies into the user experience of Islamic Fintech platforms can enhance their effectiveness. By incorporating features that allow users to share their positive experiences, recommend services to their social circles, or participate in referral programs, the inherently social nature of decision-making can be capitalised upon. This can result in increased adoption and utilisation of Islamic Fintech. In conclusion, recognising the importance of social influence in shaping the behavioural intention of using Islamic Fintech necessitates a strategic approach. By implementing practical initiatives that foster positive social interactions, align with cultural and religious values, and enhance financial literacy, the impact of social influence can be collectively strengthened. This, in turn, will propel the widespread adoption of Islamic Fintech, leading to its increased utilisation and benefits within the broader context of financial technology services.

The recognition of the pivotal role of Hedonic Motivation in shaping user behaviour within this context provides opportunities for strategic considerations and practical

interventions. Firstly, financial technology providers operating in the Islamic FinTech sector should acknowledge the dual nature of user motivation. In addition to the traditional focus on efficiency and functionality, it is essential to recognise the significant influence of pleasure, enjoyment, and ethical alignment in driving user adoption and continued usage. The practical implication suggests that marketing strategies should not solely concentrate on promoting the functional aspects of the service but also emphasise the experiential and ethical dimensions. Furthermore, ethical considerations are required to be integrated into the design and functionality of Islamic FinTech platforms. Recognising that users derive pleasure from the utilitarian aspects and the alignment with their values, providers should prioritise features that highlight ethical practices and adherence to religious principles. This implies that user interfaces, communication strategies, and overall service design should reflect a commitment to ethical finance, fostering a sense of user enjoyment and satisfaction. Financial institutions and regulators within the Islamic FinTech domain should also contemplate the inclusion of hedonic factors into policy frameworks. Acknowledging that user decisions are influenced by pleasure and enjoyment, regulatory bodies may explore methods to incentivise FinTech providers who actively promote user satisfaction and ethical alignment (Ainley et al, 2007). This could involve Recognising and rewarding platforms that successfully incorporate hedonic motivations into their services.

In conclusion, the practical implications of comprehending the role of Hedonic Motivation in Islamic FinTech underscore the necessity for a comprehensive approach. Providers should surpass conventional strategies by incorporating pleasure, enjoyment, and ethical considerations. By Recognising the multifaceted nature of user motivations, stakeholders can contribute to the growth and acceptance of Islamic FinTech services in a market where ethical alignment holds significant importance.

The affordability of Islamic FinTech services emerges as a crucial factor that impacts users' perception of value. To address this, service providers should prioritise the development of pricing models that not only compete effectively in the market but align with their target users' financial capabilities. Implementing flexible pricing structures or incentives for cost-effective usage may enhance users' perceived value. Secondly, it is crucial to emphasise the communication of benefits and features. Islamic FinTech providers should clearly articulate the anticipated benefits that users can expect from their services to strengthen the positive link between Price Value and adoption behaviour. This

involves highlighting distinctive features, showcasing real-world applications, and demonstrating how the pricing aligns with the value provided. Thirdly, understanding and aligning with users' diverse financial needs and preferences are of utmost importance. Islamic FinTech services should customise their pricing frameworks to cater to their user base's specific requirements and expectations. This may require market research to identify user preferences and adapt pricing strategies accordingly.

Moreover, the enduring relationship between Price Value and usage behaviour, as evidenced by consistent findings over time, suggests that Islamic FinTech providers should view pricing as a long-term strategic element. Instead of prioritising immediate profits, the main focus should be establishing enduring connections with users through consistently providing valuable offerings in exchange for the designated cost. Ultimately, nurturing a sense of openness and clarity regarding pricing is of utmost importance. Users are more inclined to value and rely on services that furnish unambiguous and transparent details regarding their pricing frameworks. This transparency can build a positive perception of value, influencing user decisions to adopt and continue using Islamic FinTech services.

The research highlights the pivotal role of habit in shaping user behaviour within the Islamic FinTech landscape. By extrapolating practical implications from these findings, businesses in this domain can leverage habit's automatic and repetitive aspects to boost user engagement and foster sustained usage. Primarily, businesses should prioritise initiatives that encourage the development of positive habits associated with Islamic FinTech usage (Billah & Billah, 2019). Recognising the persistence of habits over time, organisations can invest in user-friendly interfaces, personalised experiences, and educational campaigns to cultivate familiarity and comfort among users. This approach contributes to the automatic execution of behaviours, seamlessly integrating Islamic FinTech services into users' daily routines.

Furthermore, considering the observed impact of habit in mitigating perceived risks linked to technology adoption, businesses can implement strategies to underscore the reliability and security of their Islamic FinTech platforms. Building trust and offering transparent information about safety measures further strengthens the habituation process, providing assurance to users and reducing uncertainties that might impede consistent usage. Islamic FinTech providers might introduce loyalty programs, incentives, or rewards tailored to users exhibiting consistent engagement to capitalise on

the self-reinforcing cycle of habitual use. Recognising and rewarding habitual behaviour can strengthen the bond between users and the platform, fostering continuous and automatic reliance on Islamic FinTech services for their financial needs. In conclusion, the practical implications derived from this research underscore the significance of deliberately shaping and nurturing habits to influence user behaviour in the Islamic FinTech sector. By understanding the automatic and enduring nature of habits, businesses can strategically design interventions and experiences that promote habitual use, ultimately driving the adoption and sustained utilisation of Islamic FinTech services in a competitive market.

Understanding the significance of Behavioural Intention, which represents individuals' readiness to embrace technological advancements, is crucial in shaping the landscape of Islamic FinTech adoption. In this regard, organisations operating in the Islamic FinTech sector must prioritise strategies to enhance users' behavioural intentions. This may involve designing marketing campaigns and educational initiatives emphasising the perceived usefulness and ease of use of Islamic FinTech platforms. Highlighting the compatibility of these technologies with Islamic principles and financial ethics can be a compelling motivator, particularly considering the unique context of Islamic finance. Furthermore, the influence of social factors emerges as a crucial determinant of Behavioural Intention. Hence, fostering community and social acceptance around Islamic FinTech is essential. Collaborative efforts within Islamic financial communities, such as testimonials and success stories, can contribute to establishing positive social norms that encourage individuals to adopt these technologies.

Additionally, practical insights can be derived from acknowledging the cognitive and hedonic motivations initially introduced by the Unified Theory of Acceptance and Use of Technology (UTAUT). Islamic FinTech providers should strive to create user-friendly interfaces that enhance the overall user experience. Positive behavioural intentions can be further shaped by incorporating elements of enjoyment and satisfaction in utilising these technologies. Organisations must invest in user education and support to facilitate increased acceptance and utilisation of Islamic FinTech. Offering training programs that address potential concerns and misconceptions related to Islamic FinTech can alleviate uncertainties and enhance users' confidence in adopting these financial technologies. In conclusion, effective strategies for promoting Islamic FinTech adoption should reinforce users' behavioural intentions through targeted marketing, building a supportive social

environment, improving the user experience, and providing comprehensive education and support. These interventions, aligned with research findings, have the potential to positively influence the acceptance and utilisation of Islamic FinTech within the Islamic financial context.

Concerning all substantial moderating effects, we offer several practical implications below. These implications will provide managers in the banking sector, particularly those in institutions actively utilising Financial Technology (FinTech), with various foundations and concepts to enhance their current undertakings within Islamic banking.

(1) The research findings illuminate practical implications for comprehending and addressing gender-related elements in adopting and using Islamic Fintech. One significant implication is the necessity to regard gender as a moderating variable in shaping user conduct and expectations. The investigation reveals that gender moderates' specific associations, such as the influence of Effort Expectancy on Behavioural Intention and the sway of Habit, Facilitating Conditions, and Behavioural Intention on the utilisation of Islamic Fintech. Consequently, organisations and practitioners in the Islamic Fintech industry should acknowledge the importance of gender disparities when devising and implementing strategies. In practical terms, it is crucial to recognise the interaction effect between Effort Expectancy and gender. When Effort Expectancy fails to influence Behavioural Intention, substantial gender disparities result in heightened user expectations regarding the ease of utilising a technological device, subsequently impacting the intention to use it. This signifies the importance of tailoring development and promotion strategies to cater to the distinct needs and expectations of each gender, particularly within diverse user groups.

(2) Furthermore, the investigation emphasises the role of Habit in the adoption of Islamic Fintech and its interaction with gender. While Habit positively influences technology adoption, its impact may be somewhat diminished when considering gender differences. Organisations should acknowledge that the development of habits is less contingent upon gender and more reliant on individuals who have cultivated the habit of using Islamic financial technology. This insight presents opportunities for marketing and educational strategies aimed at fostering positive habits, especially among users less acquainted with Islamic Fintech. Additionally,

the study underscores the influence of gender on the correlation between Facilitating Conditions and the utilisation of Islamic Fintech. Gender disparities may create obstacles in altering users' acceptance of Islamic Fintech, regardless of favourable conditions. Therefore, organisations should focus on enhancing accessibility and pertinent conditions to augment user adoption. Investing in resources, time, financial means, and technology can positively impact user acceptance, particularly when gender differences are minimized. Finally, the investigation sheds light on the substantial influence of *Gender* as a moderating element in the correlation between Behavioural Intention and the utilisation of Islamic Fintech. The study suggests that gender differences can impact the acceptance and utilisation of Islamic Fintech based on users' behavioural intentions. Organisations should be cognizant of the variations in this relationship under the influence of gender and behavioural intention and adjust strategies accordingly. In conclusion, while the moderating effects of Gender on the examined associations may have a weak magnitude, comprehending and considering these effects are crucial for practitioners in the Islamic Fintech industry. The study provides valuable insights into the practical implications of gender-related factors, offering a foundation for tailored strategies that enhance user acceptance and utilisation of Islamic financial technology.

(3) The practical implications of these findings for promoting the acceptance and utilisation of Islamic Fintech across various age groups are evident. Initially, businesses and Moderators need to acknowledge the distinct influence of age on technology adoption. This study supports previous research indicating that younger individuals are generally more open to new technologies. Therefore, tailoring marketing and educational efforts toward younger demographics may enhance the effectiveness of promotional campaigns for Islamic Fintech. On the other hand, Recognising the potential challenges older individuals face in learning and embracing new technologies emphasises the need for targeted support and user-friendly interfaces to facilitate their adoption.

(4) Additionally, the study suggests that age plays a crucial role in adjusting the strengths and weaknesses of the relationships between behavioural intention and Islamic Fintech utilisation. From a pragmatic standpoint, organisations should tailor their methodologies to the age-related characteristics of their intended

receiver group. By implementing age-specific features, incentives, or educational materials, companies can address the specific considerations of different age groups, thereby increasing the likelihood of successful technology adoption. The research also reveals an exciting nuance through the Slope Analysis, indicating that the impact of age depends on the extent of age variation. This discovery emphasises the significance of considering the specific age categories and the variation present within each group. Businesses should take this into account when designing strategies, allowing for flexibility to accommodate varying preferences and needs within age categories. For example, recognising that a stronger inclination toward Islamic Fintech utilisation occurs when there is minimal age disparity can guide marketing efforts to focus on fostering a sense of inclusivity and universality.

(5) In conclusion, the practical implications of this research underscore the need for a nuanced and flexible approach to promoting Islamic Fintech. Recognising age-related differences in technology adoption behaviours is crucial for developing effective strategies that resonate with potential users' diverse preferences. This research contributes significant knowledge to the discipline, emphasising the importance of customising interventions to the distinct attributes of various age cohorts to guarantee the effective utilisation of Islamic Fintech.

(6) Based on the results of the research analysis, it is evident that religion plays a unique role as a moderator in adopting Islamic Fintech. Unlike age, which has a broader moderating impact, religion specifically influences certain relationships associated with facilitating conditions and behavioural intention when using Islamic Fintech. These findings imply that targeted efforts should be made to promote Islamic Fintech use among diverse religious groups. Recognising that Religion significantly affects the positive relationship between Behavioural Intention and the use of Islamic Fintech, organisations should tailor their strategies to accommodate religious differences. For example, when there is little religious differentiation, focusing on individuals with a solid behavioural intention to use Islamic Fintech can be particularly effective, regardless of their religious affiliation.

(7) On the other hand, in cases where religious differences are more pronounced, additional efforts may be necessary to overcome potential resistance, especially

among those with low behavioural intentions. Furthermore, the observed trend in Slope Analysis indicates that a nuanced understanding of religious differentiation is crucial. Organisations should consider that more significant religious differentiation may reduce the influence of behavioural intention on the acceptance of Islamic Fintech. This insight suggests the need for flexible and culturally sensitive approaches in regions or communities with high religious diversity. Conversely, highlighting the positive impact of a solid behavioural intention on technology acceptance becomes crucial in areas with little religious differentiation. Despite the relatively small contribution of Religion as a moderator (f2 size = 0.014), the practical implication lies in the potential to develop more adaptable business strategies. Organisations can optimise their cultural and religious understanding by focusing on the specific relationships influenced by Religion. This optimisation can lead to broader acceptance and use of Islamic Fintech among Islamic populations and other religious groups. Therefore, businesses and outreach programs should consider incorporating cultural and religious sensitivity into their strategies to unlock the full potential for widespread acceptance and use of Islamic Fintech.

(8) The investigation reveals that language is a moderator variable, influencing specific connections and shedding light on practical considerations for industry stakeholders. Primarily, this study underscores the significance of fostering a multilingual communication environment in Islamic Fintech platforms. Creating an environment that embraces linguistic diversity can significantly enhance user engagement and foster positive intentions toward action. By breaking down language barriers and enabling users to comprehend information in their preferred language, Islamic FinTech can boost user trust and willingness to adopt the technology. Moreover, the research recommends implementing a flexible education and communication strategy. Nurturing an environment that champions linguistic diversity and flexibility in educational approaches can empower users to grasp the intricacies of Islamic FinTech. This might involve offering educational resources in multiple languages and adapting communication styles to cater to diverse linguistic preferences. In addition to its impact on the relationship between Facilitating Conditions and Behavioural Intention, the study highlights the influence of language on the connection between Hedonic Motivation and Behavioural Intention. Banks can leverage this insight to tailor

communication and marketing strategies for user audiences with varying levels of hedonic motivation. Recognising the nuanced role of language in shaping these connections opens up opportunities for strategic innovation in customer engagement within the Islamic Fintech sector. Companies must acknowledge that the effectiveness of outreach strategies hinges on a profound understanding of user language preferences. Aligning communication strategies with the target audience's mindset, rationale, and needs. Banks should adopt outreach approaches to accommodate linguistic diversity, ensuring that influential language-related factors are noticed. However, it is essential to note that the research indicates a relatively weak impact of language on the examined relationships. While language does play a role, its significance is manageable. Therefore, organisations should adopt a balanced approach, considering language as a factor but not overemphasising it in their strategic initiatives. The findings also underscore the necessity for continual monitoring and adjustment of strategies based on user feedback and evolving linguistic dynamics within the Islamic Fintech sector.

(9) The research findings yield several practical implications illuminating the role of education as a moderator variable that influences various relationships related to the adoption of Islamic Fintech. These implications offer valuable insights for practitioners and moderators seeking to optimise the impact of Education on user behaviour within the financial sector. Firstly, it is crucial to consider both social and educational factors in promoting Islamic Fintech usage, as evidenced by the positive correlation between Social Influence and Behavioural Intention. Recognising that the influence of Education on this relationship becomes more pronounced with differences in educational backgrounds suggests the necessity for tailored educational interventions for individuals with diverse educational levels. Strategies promoting financial literacy and educating users about Islamic Fintech, especially those with varying educational backgrounds, can enhance decision-making autonomy and diminish reliance on social influence. Secondly, the impact of Education on the relationship between Habit and Behavioural Intention underscores the need for targeted education programs to cultivate positive habits in Islamic Fintech usage. Focusing on technology education and literacy, particularly for individuals with similar educational backgrounds, can amplify the positive impact of habituation. This implies that efforts to foster

positive habits should be customised to the educational levels of the target audience, ensuring a more effective promotion of Islamic Fintech adoption.

(10) Additionally, the moderating effect of Education on the relationship between Facilitating Conditions and Islamic Fintech usage emphasises the significance of education in shaping the accessibility and utilisation of financial technology. Moderators and stakeholders should prioritise bridging educational gaps to ensure equal access to Islamic Fintech. Education and training programs targeting individuals with lower levels of education can empower them to leverage the benefits of Islamic Fintech, promoting inclusivity and reducing inequality in financial technology adoption. Lastly, the impact of Education on the relationship between Behavioural Intention and Islamic Fintech usage highlights the regulatory role of education in shaping user behaviour. Moderators ought to consider the educational history of the intended recipients when devising tactics to promote widespread acknowledgement and application of Islamic financial technology. Investing in education, especially in scenarios with significant educational disparities, holds promising prospects for encouraging positive behavioural intentions and enhancing the adoption of Islamic Fintech. In summary, while the influence of Education may be relatively weak in some instances, the nuanced understanding this research provides offers actionable insights for practitioners and Moderators. Tailoring educational interventions to specific contexts and user characteristics can enhance the effectiveness of strategies aimed at promoting Islamic Fintech adoption within diverse communities.

8.5. Limitations of the Study

The research is subject to various limitations that need acknowledgement and consideration. First and foremost, it is crucial to recognise that acceptance and utilisation inherently come with constraints. This is primarily due to dealing with data gathered from diverse sources and at various points in time. Consequently, it is vital to approach the future of Islamic FinTech with a nuanced perspective, Recognising both its challenges and the potential opportunities it offers. This analogy can be likened to a cloud with silver linings, where the acceptance and usage of Islamic FinTech can be viewed as a double-edged sword. One of the main challenges brought about by the FinTech revolution lies in the regulatory aspect of acceptance and usage models. Addressing this matter is crucial

to guarantee the smooth operation and stability of the system. Neglecting to do so may adversely affect the future of Islamic FinTech. Conversely, various Islamic FinTech entities have taken measures towards standardization in the Islamic financial services industry. This move aims to foster the soundness and stability of the system, enhancing its overall credibility.

Moreover, the FinTech industry has embraced internationally recognised prudential norms, providing a smooth avenue for converging Islamic finance and the traditional financial system. This integration is crucial in ensuring a level playing field between Islamic banks and financial services. Without considering the investment prospects of FinTech in the Islamic context, there is a possibility of missing potential opportunities. In this regard, regulators may seek assistance from Islamic FinTech and technology businesses to guide their investment decisions. It is important to acknowledge that FinTech is still in its early stages and requires extensive dialogue and regular engagement between Islamic FinTech partnerships and regulators (Ainley et al, 2007). This is necessary to instil critical confidence in the nascent FinTech ecosystem. Such active participation will facilitate the recognition of prospective domains of cooperation and address any apprehensions or difficulties that may emerge. Regulators must actively seek input from Islamic FinTech entities and technology businesses to ensure the development of an effective and robust regulatory framework. Lastly, given the wide variety of acceptance and usage models, establishing a universally applicable legal framework poses a challenge. This highlights the complexity of the current early stage of behavioural intention in the context of Islamic FinTech. Despite these constraints, it is crucial to acknowledge the capacity of Islamic FinTech and its influence on the financial services sector. By addressing the challenges and limitations and fostering collaboration between stakeholders, the future of Islamic FinTech can be paved with success and innovation.

Islamic FinTech does not necessarily require information technology resources; instead, organisations have the option to either employ or outsource cloud operational infrastructure. These emerging market players pose a potential threat to the sector by seizing business opportunities and supporting competitors through service provision. Information security and privacy present another significant concern that must be addressed. The limitation of Islamic FinTech lies in providing cost-effective, user-friendly, and readily accessible customised online solutions. However, reliance on Islamic FinTech can lead to a decrease in the company's market share. Despite these

challenges, many users still believe that clients are not yet ready to completely replace their existing services by adopting Islamic FinTech. This hesitancy is primarily due to the limited use of Islamic FinTech within Islamic banks and financial services. Thus, a restriction has been identified that could enhance understanding of the acceptance and utilisation of Islamic FinTech in any given context. Nonetheless, it is essential to acknowledge the necessary trade-offs inherent in this project. The fundamental boundaries of this limitation represent crucial trade-offs for this study. Individuals unwilling to delay their acceptance and usage are encompassed within the acceptance model, which the usage model influences. Their interests are interconnected with all areas of study.

The boundaries of Islamic FinTech encompass a wide range of concepts rooted in Islam related to growth, expansion, and surpassing. These concepts are developed in conjunction with the accumulation of behavioural wealth and success. Within the realm of Islamic FinTech, *Riba* is perceived as anything that aligns with the ultimate objective of providing comfort to the end user. Consequently, firms in dire need of salvation may both employ and discard *Riba* concepts. It's essential to note that the Islamic FinTech industry has a negative orientation towards critical aspects such as acceptance and utilisation while simultaneously regarding intentions as fundamental and accountable.

Moreover, the anticipated link between the acceptance and use of Islamic FinTech and its innovative potential did not yield the expected outcomes as per acceptance models. As a result, society can leverage the benefits of Islamic FinTech across various epochs, disregarding linguistic barriers. To gauge the level of acceptance and usage, it is imperative to employ an academic reaction degree procedure, including a crucial log documenting the acceptance and utilisation of this financial technology. One limitation inherent in Islamic FinTech lies in the ongoing debate surrounding the concept of *Riba*, highlighting potential boundaries and challenges the industry faces. However, it's imperative to acknowledge that the degree of acceptance and utilisation entails both benefits and drawbacks. By embracing this technology, individuals and organisations can reap the rewards of its innovative potential and contribute to the expansion and triumph of the Islamic FinTech ecosystem. Nevertheless, it is equally important to remain aware of the limitations and potential adverse effects of its adoption and utilisation. Thus, a comprehensive understanding of the advantages and disadvantages associated with Islamic FinTech is vital for its continuous development and widespread acceptance.

The main concern that arises from our investigation is the generalizability of the findings. It is crucial to acknowledge that our research was conducted within the framework of Saudi banks' acceptance and use of Islamic Fintech. Therefore, it is essential to recognise that the discoveries of our study may not necessarily apply to nations with lower levels of technological advancement.

This constraint should be considered when attempting to extrapolate our findings to other contexts. Furthermore, our discoveries might not be relevant to individuals who deviate significantly from the age bracket of our research cohort, which had an average age of 31. Emphasising potential generational disparities in adopting and accepting Islamic financial technology is crucial. Hence, forthcoming scholars should carry out investigations encompassing a broader spectrum of age cohorts to guarantee a more all-encompassing comprehension of the determinants impacting the acceptance of Islamic fintech among diverse generations.

Additionally, our study solely focused on examining one specific type of Islamic fintech, namely Islamic banking and financial services. While this allowed us to delve deep into the intricacies of this particular aspect, it is essential to recognise that various other forms of Islamic fintech warrant investigation. Future researchers would find it advantageous to employ a more comprehensive methodology to enhance our comprehension of the factors influencing the acceptance and utilisation of Islamic financial technology (fintech).

This can be achieved by analysing the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) within a wider range of demographic groups, encompassing various age cohorts and diverse technological environments. Furthermore, to expand the existing body of knowledge, our study incorporates additional theoretical perspectives as predictors alongside the UTAUT framework. These supplementary perspectives include effort expectancy, hedonic motivation, and enabling conditions. By incorporating various theoretical frameworks, we can better comprehend the elements influencing the adoption and execution of Islamic fintech. Nonetheless, it is vital to recognise that other noteworthy attributes might remain undiscovered. These attributes can augment the suitability of the UTAUT framework in a wider array of circumstances relating to the reception and utilisation of Islamic fintech. Future studies should, therefore, strive to uncover these additional key characteristics to ensure a more comprehensive understanding of the complex dynamics surrounding Islamic fintech adoption.

In the context of Islamic Fintech, self-reports serve as proxies that substitute for actual usage patterns. The notion of usage is consistently conceptualized and quantified in various ways within this particular domain, and researchers employ diverse approaches when investigating the topic of Islamic Fintech. They have assessed the extent, breadth, and multifaceted nature of usage, as well as how users perceive the utilisation of Islamic Fintech. Researchers must thoroughly analyse how they conceptualise the usage construct to comprehend their findings and facilitate meaningful comparisons across different studies. The focus of this study centres around the systemic utilisation of Islamic financial technology.

Consequently, we have devised a scale consisting of six questions (please refer to the Appendix) to evaluate the level of acceptance of the six most popular fintech services within the general population of Saudi banks. These services encompass modern banks, traditional banks, Islamic banks, financial services, financial institutions, and commercial banks. As a result, our investigation encompasses the extent of utilisation, which involves the number of separate applications or characteristics employed, and the profundity of utilisation, which relates to the number of distinct applications or characteristics used, including the frequency of utilisation. To further enrich our findings, exploring the predictive capability of user- and task-related structural components in elucidating users' goals and routines would be valuable. By integrating users' day-to-day actions and behaviours into the usage assessment, the anticipation of usage might be enhanced compared to relying exclusively on behavioural intention.

Finally, it is imperative to consider a constraint when further exploring data analysis. This constraint pertains to the employment of a methodology referred to as Multigroup Analysis (MGA). MGA aims to examine whether there are significant disparities in the parameter estimates of pre-defined data groups, such as outer weights, outer loadings, and path coefficients. Smart-PLS, a software tool commonly used for structural equation modelling, provides the outcomes of three distinct approaches for MGA, all based on the bootstrapping findings obtained from each group. Specifically, Smart-PLS offers both the permutation MGA (Chin & Dibbern, 2009) and the bootstrap MGA (Sarstedt et al, 2011). To fully comprehend the PLS-MGA technique, it is important to refer to the detailed explanations provided by Hair Jr et al (2021) regarding these MGA techniques. Using the permutation procedure, Smart-PLS can generate MGA results that allow researchers to

examine whether significant differences exist in the parameter estimates of the pre-defined data groups, including outer weights, outer loadings, and path coefficients.

Moreover, the permutation procedure also facilitates the utilisation of the MICOM procedure, which is employed for the measurement invariance analysis. Regrettably, due to constrained resources, the present investigation could not conduct a comprehensive examination that would have furnished more intricate data derived from antecedent studies, specifically about the subsequent evaluation of Slope Analysis. This limitation, however, can be seen as a valuable suggestion for future research, emphasising the need for further development and emphasis on this particular issue.

8.6. Suggestions for Further Research

The investigation into the acceptance and utilisation of Islamic FinTech through behavioural intention and usage behaviour will undoubtedly be a significant focus for future research. Notably, the potential risk associated with this research in terms of increasing client churn for Islamic FinTech is minimal. This can be attributed to the time typically required for start-ups in this industry to gain client confidence, establish a respected image, and develop a robust brand identity. Therefore, it is imperative to acknowledge that newcomers to Financial Technology can derive substantial advantages from collaborating with well-established Islamic FinTech firms, technological enterprises, and telecommunications corporations to capitalise on their pre-existing prestige and facilitate trust-building among their intended audience. Such collaborations can prove instrumental in navigating the ever-evolving landscape of Islamic FinTech usage, given the significant variations in customers' impressions and preferences. By partnering with well-established third-party brands and influential figures, FinTech companies can effectively establish and foster trust among their clientele.

Undeniably, the future of research in this field holds immense potential for the growth and advancement of FinTech. This advantage is particularly pronounced in well-established, competitive, and mature Islamic FinTech sectors. As the FinTech industry is still in its early stages, Islamic FinTech and FinTech companies engaging in collaborative endeavours enjoy a notable edge in distinguishing themselves from rivals. This distinctiveness is achieved through developing and providing novel, inventive, and unique product offerings, particularly impactful in emerging economies. Consequently,

Islamic FinTech emerges as a valuable differentiating factor within the broader FinTech landscape.

The future trajectory of research endeavours, along with other efficient and cost-effective service solutions, is transforming from traditional physical channels and moving towards digital and mobile delivery. Gaining a comprehensive understanding of the intricate nexus between the acceptance and utilisation of Islamic FinTech can be instrumental in empowering Islamic banks to enhance, rationalize, and streamline their operations while significantly reducing operational costs. Furthermore, the Islamic FinTech sector stands to reap considerable benefits by adopting the "asset-light" strategies employed by the broader FinTech industry, which have demonstrated their efficacy in curtailing expenses. Utilising FinTech solutions tailored specifically for the Islamic FinTech sphere can effectively bolster client retention rates by increasing the number of touchpoints and fostering stronger relationships through a heightened frequency of interactions. This, in turn, can positively impact the crucial aspect of customer loyalty.

However, it is crucial to recognise that the future trajectory of this research does not represent a panacea for the forthcoming challenges encountered at the conceptual level regarding the acceptance and utilisation of Islamic FinTech. The ramifications of this concept on the managerial landscape remain elusive and necessitate further exploration. Additionally, the forthcoming direction of administration in various sectors, including commerce, manufacturing, borrowing, and lending, is inherently interconnected with the adoption and application of Islamic FinTech, requiring a meticulous assessment of the prospective prospects and obstacles that loom in the future. Islamic FinTech, by its very nature, engenders a substantial reliance on financial services, underscoring the need to seek out and compare the myriad possibilities with the established principles and concepts governing Islamic banks.

The future of Islamic FinTech is inherently multifaceted, with every system having both positive and negative impacts. It is crucial to acknowledge that negative linguistic implications can potentially undermine the robustness of Amana, starting from its initial utilisation and permeating throughout the entire system. Consequently, managers are compelled to devise an acceptance model regulating Islamic FinTech use. In this context, Amana assumes paramount importance in future Islamic FinTech analysis, representing a cornerstone emphasising the Takaful concept. However, Islamic FinTech faces a disadvantage in its utilisation, particularly within the context of Islamic banks,

highlighting the negative dichotomy between products and services. This underscores the importance of products and services in the future landscape. Islamic FinTech represents growth, production, and well-organised services, epitomising prosperity and progress.

Thus, it is imperative to acknowledge the existence of not just one but two fundamental models or future scenarios regarding the acceptance and utilisation of Islamic FinTech. Unravelling the intricacies and pinpointing the essentialities within these concepts has proven to be a daunting task, as the labyrinthine nature of the subject matter requires meticulous examination. It becomes evident that certain banks have taken the helm in the realm of innovation, spearheading the process with their unwavering commitment to progress. This can be attributed to the fact that the innovation resource, by design, does not incorporate external services, allowing these banks to maintain an unyielding focus on their internal capabilities. Moreover, embracing and effectively utilising these newly introduced systems bestows a sense of tranquillity and assuages concerns about potential reactions and responses. Undoubtedly, the innovation resource, serving as the lifeblood of this entire ecosystem, has been subjected to substantial depletion owing to the exponential rise in the variability and diversity of constraints. Given this, it is crucial to acknowledge that a substantial volume of scholarly inquiry has been undertaken, particularly with a focus on financial institutions, aiming to shift towards the exclusive adoption of Islamic financial technology. However, the study of financial services holds an indispensable position within the overarching acceptance and usage model. Merely engaging in the adoption of Islamic FinTech is far from sufficient; these institutions must conduct themselves with utmost diligence and competence, ensuring that their actions align harmoniously with the core principles and values of the Islamic financial system. By doing so, these banks can effectively navigate the complex landscape of Islamic FinTech, establishing themselves as exemplary pioneers in this burgeoning field.

Islamic FinTech often involves nominal and categorical variables. In this scenario, several factors are considered to assess adoption levels. Researchers found these factors relevant when using a common model, and consumers must consider this criterion. The requirement stems from both analysis attempts focusing on the same concept and utilising the same model. Researchers must explore acceptance and usage concepts and interact with institutional models to determine the most widely adopted model. It has been observed that precision in the use of Islamic FinTech, as conceptualized by Amana, leads to improvements in aspects such as factor loadings, noise reduction, and increased power

gains. The outcome assessment becomes more substantial and precise as the loading factor increases. Further investigation is needed to authenticate approval and application matters.

It's worth noting that future research will analyse the workability of metrics and factor ratios under different situations, considering the subject's background. The objective is to compute a set of model parameters so that the theoretical covariance matrix on PLS-SEM closely approximates the sample variance matrix of Islamic FinTech. However, comparing the acceptance and use of Islamic FinTech with other methods is important. Since it is not commonly used in CB-SEM, specific criteria need to be established to define the style that best captures the variation in the index. Islamic FinTech does not have a moderating effect on all measurement models; they are considered basic mediation models. However, when computing more advanced models, the results are stringent, necessitating further investigation into the approach.

The current trajectory of Islamic FinTech in its projected future aims to make significant contributions within its specific contextual usage. The results of this investigation can be efficiently employed to examine elements impacting the acceptance of Islamic FinTech in Saudi banks, including digital commodities, mobile applications, and other offerings rooted in Islamic FinTech principles. While our research findings shed light on fundamental elements that can enhance Islamic FinTech utilisation, it is essential to acknowledge certain limitations. First, utilising a convenience sample approach, the sampling methodology inherently restricts generalization to other populations or contexts. Recognising this constraint is imperative for interpreting and implementing study findings. Second, data gathering heavily relied on self-reports, raising concerns about genuineness, reliability, and precision. Dependence on self-reports introduces potential biases and inconsistencies, requiring consideration when making inferences based on study findings. Finally, the cross-sectional research methodology limits the capacity to establish causality and temporality between variables, necessitating prudence in assertions solely based on this study.

Therefore, future research should explore Islamic FinTech through alternative approaches, such as experimental studies or mixed-method approaches, to enhance comprehension of dynamics within the domain. Stochastic sampling methodology could improve generalizability, making findings applicable to a broader population.

Recognising and addressing constraints while identifying potential avenues for future research is crucial for advancements in Islamic FinTech.

8.7. Conclusions

In conclusion, this research aims to identify the factors associated with accepting and utilising Islamic FinTech. Our studies demonstrate several factors linked to the interaction between managers /males and age forms of innovative financial technology. The term "interaction/usage" addresses inquiries about how individuals comprehend and engage with Islamic FinTech in their contexts. This approach emphasises acceptance and utilisation within specific contexts rather than focusing solely on **experience**. Islamic FinTech distinctly opposes prevalent contemporary methodologies like the Unified Theory of Acceptance and Use of Technology (UTAUT1) and the Unified Theory of Acceptance and Use of Technology (UTAUT2). Unlike UTAUT1 and UTAUT2, which rely on the concept of "intention" or "usage" to understand experiences, Islamic FinTech's utilisation is comprehended through embodied interactive relations between behavioural intention and use behaviour. It relies on the direct impact of Effort expectancy, Habit, Facilitating conditions, and Behavioural intention, along with moderating variables that impact Gender, Age, Religion, Language and Education.

In the context of Islamic Fintech, the impacts of **gender** can manifest in several ways. Some of these ways include Gender dynamics, which play a vital role in employment opportunities available for males and females in Islamic banks. The latter dramatically influences the education and job opportunities for both genders. In the past, women were underrepresented in the financial sector in both conventional and Islamic banking. This has changed over the years as there are efforts to promote gender diversity and inclusion in the financial industry. Consequently, there have been increased opportunities for women in various roles in the sector.

Age has a profound impact on the financial services provided by Islamic banks. Women barriers, such as mobility restrictions and limited financial decision-making control, can significantly hinder access for certain age groups. Furthermore, legal frameworks that require male guardianship for financial transactions can exacerbate these challenges. However, concerted efforts have been made to eliminate these barriers, with a strong focus on promoting financial inclusion and overall economic empowerment.

Islamic Fintech may offer customised products and services to meet the needs and preferences of different customer segments, such as Halal and haram in Islamic Fintech. **Religion** may include specialised products such as Acceptance-centric savings accounts or financing options that cater to the unique circumstances of Muslim entrepreneurs. In the Islamic context, such products and services address managers' financial obstacles to promote economic participation in accepting and staying away from usury issues as facilitating conditions.

The **language** of Islamic fintech relies heavily on Shariah principles for its ethical considerations. Principles such as Hedonic motivations and Facilitating conditions are integrated into ethical practices to enable Islamic banks to promote innovators' equality and support innovators' empowerment and the well-being of the broader community. The Islamic banking industry is taking the necessary steps to eradicate innovator disparities. To promote innovators' equality, managers have been empowered to perform various roles, including those of employees, customers, and leaders. Acknowledging the potential of Education participation and addressing gender bias can contribute to the growth and sustainability of Islamic banking as an inclusive and socially friendly sector. Managers who have embraced Islamic Fintech are confident that its acceptance and use contribute to the overall innovativeness of their firms. In addition, language integrated into Islamic Fintech has proved cost-effective, time-efficient, and reliable as employees can cater to customers from afar. As a result, implementing Islamic Fintech improves employees' overall performance within the organisation.

Higher education emerged as the most potent predictor of behavioural intention. Meanwhile, Facilitating Conditions have the most substantial effect on the acceptance and use of Islamic FinTech, highlighting the role of Effort expectancy in positive discourses about Facilitating conditions. Education is notable, considering that both performance expectancy and effort expectancy were non-significant. The primary focus was on the acceptance and use of Islamic FinTech. In addition to acceptance and usage, data privacy and security emerged as critical factors during the adoption process. Strategies to address these concerns, including robust authentication functions, have been proposed. Higher education is imperative to enhance the implementation of revolutionary financial technology frameworks across different countries. When applied to innovation, the concepts of acceptance and use of Islamic FinTech could serve as a secure testing environment for variance in the future.

REFERENCES

Abubotain, F. & Chamakiotis, P. (2021) FinTech in the Saudi context: Implications for the industry and skills development, *Research Anthology on Concepts, Applications, and Challenges of FinTech*IGI Global, 107-122.

Afthanorhan, W. (2013) A comparison of partial least square structural equation modeling (PLS-SEM) and covariance based structural equation modeling (CB-SEM) for confirmatory factor analysis. *International Journal of Engineering Science and Innovative Technology*, 2(5), 198-205.

Ainley, M., Mashayekhi, A., Hicks, R., Rahman, A. & Ravalia, A. (2007) Islamic finance in the UK: Regulation and challenges. *The Financial Services Authority (FSA), London*.

Ajouz, M., Abdullah, A. & Kassim, S. (2020) Acceptance of Sharīʿah-compliant precious metal-backed cryptocurrency as an alternative currency: An empirical validation of adoption of innovation theory. *Thunderbird International Business Review*, 62(2), 171-181.

Ajzen, I. (1985) From intentions to actions: A theory of planned behavior, *Action control: From cognition to behavior*Springer, 11-39.

Ajzen, I. (1991) The theory of planned behavior. *Organizational behavior and human decision processes*, 50(2), 179-211.

Ajzen, I., Brown, T. C. & Carvajal, F. (2004) Explaining the discrepancy between intentions and actions: The case of hypothetical bias in contingent valuation. *Personality and social psychology bulletin*, 30(9), 1108-1121.

Ajzen, I. & Fishbein, M. (1975) A Bayesian analysis of attribution processes. *Psychological bulletin*, 82(2), 261.

Akpan, I. J., Soopramanien, D. & Kwak, D.-H. (2021) Cutting-edge technologies for small business and innovation in the era of COVID-19 global health pandemic. *Journal of Small Business & Entrepreneurship*, 33(6), 607-617.

Al-Ajam, A. & Nor, K. (2013) Predicting internet banking adoption determinants in yemen using extended theory of reasoned action. *Research Journal of Applied Sciences*, 8(5), 280.

Al-Qeisi, K. I. (2009) *Analyzing the use of UTAUT model in explaining an online behaviour: Internet banking adoption*Brunel University Brunel Business School PhD Theses.

Al Rubaiai, I. R. & Pria, S. (2022) Customer Usage Behaviour of Fintech Products In Sultanate Of Oman. *International Journal of Research in Entrepreneurship & Business Studies*, 3(3), 11-24.

Alalwan, A. A., Dwivedi, Y. K. & Rana, N. P. (2017) Factors influencing adoption of mobile banking by Jordanian bank customers: Extending UTAUT2 with trust. *International journal of information management*, 37(3), 99-110.

Alam, I. & Seifzadeh, P. (2020) Marketing Islamic financial services: A review, critique, and agenda for future research. *Journal of Risk and Financial Management*, 13(1), 12.

Alani, F. S. & Yaacob, H. (2012) Traditional banks conversion motivation into islamic banks: evidence from the middle east. *International Business Research*, 5(12), 83.

Ali, H., Zain, M. Z., Hashmi, H. S., Abbas, M. H., Shahid, M. W. & Tariq, U. (2018) Awareness and knowledge of fintech among Islamic banking and finance students in Pakistan. *Islamic Banking and Finance Review*, 5, 01-22.

Alshare, K. A. & Lane, P. L. (2011) Predicting student-perceived learning outcomes and satisfaction in ERP courses: An empirical investigation. *Communications of the association for information systems*, 28(1), 34.

Alshehri, M., Drew, S., Alhussain, T. & Alghamdi, R. (2012) The Effects of Website Quality on Adoption of E-Government Service: AnEmpirical Study Applying UTAUT Model Using SEM. *arXiv preprint arXiv:1211.2410*.

Andersson, U., Cuervo-Cazurra, A. & Nielsen, B. B. (2014) From the editors: Explaining interaction effects within and across levels of analysis. Springer.

Armstrong, J. S. & Overton, T. S. (1977) Estimating nonresponse bias in mail surveys. *Journal of marketing research*, 14(3), 396-402.

Baber, H. (2020) FinTech, crowdfunding and customer retention in Islamic banks. *Vision*, 24(3), 260-268.

Bagozzi, R. P., Davis, F. D. & Warshaw, P. R. (1992) Development and test of a theory of technological learning and usage. *Human relations*, 45(7), 659-686.

Bandura, A. (1986) Fearful expectations and avoidant actions as coeffects of perceived self-inefficacy.

Bandura, A. (1997) The anatomy of stages of change.

Bank, W. (2020) Leveraging Islamic Fintech to Improve Financial Inclusion. World Bank.

Barnes, S. J. & Vidgen, R. (2012) User acceptance and corporate intranet quality: An evaluation with iQual. *Information & Management*, 49(3-4), 164-170.

Baron, R. M. & Kenny, D. A. (1986) The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of personality and social psychology*, 51(6), 1173.

Basoglu, K. A., Fuller, M. A. & Sweeney, J. T. (2009) Investigating the effects of computer mediated interruptions: An analysis of task characteristics and interruption frequency on financial performance. *International journal of accounting information systems*, 10(4), 177-189.

Bauman, K. & Graf, N. L. (2003) *Educational attainment, 2000*, *8*US Department of Commerce, Economics and Statistics Administration, US ….

Becchio, C., Manera, V., Sartori, L., Cavallo, A. & Castiello, U. (2012) Grasping intentions: from thought experiments to empirical evidence. *Frontiers in human neuroscience*, 6, 117.

Becker, J.-M., Ringle, C. M. & Sarstedt, M. (2018) Estimating Moterating effects in PLS-SEM andPLSc-SEM: interaction term gerneration* data treatment. *Journal of Applied Structural Equation Modeling*(2), 1-21.

Bedeian, A. G. (1993) *Management*Dryden Press.

Bellaaj, M., Zekri, I. & ALBUGAMI, M. (2015) The continued use of e-learning system: An empirical investigation using UTAUT model at the University of Tabuk. *Journal of Theoretical & Applied Information Technology*, 72(3).

Bentler, P. M. & Huang, W. (2014) On components, latent variables, PLS and simple methods: Reactions to Rigdon's rethinking of PLS. *Long range planning*, 47(3), 138-145.

Bervell, B., Umar, I. N., Masood, M., Kumar, J. A., Armah, J. K. & Somuah, B. A. (2022) Promoting voluntary use behavior of learning management systems among tutors for blended learning in distance higher education. *Contemporary Educational Technology*, 14(4), ep379.

Billah, M. M. S. & Billah, M. M. S. (2019) The Islamic Financial System. *Islamic Financial Products: Principles, Instruments and Structures*, 3-11.

Brown, S. (1999) Peer counseling: Advocacy-oriented peer support. *Retrieved August*, 6(2002), 203-210.

Brown, S. A., Dennis, A. R. & Venkatesh, V. (2010) Predicting collaboration technology use: Integrating technology adoption and collaboration research. *Journal of management information systems*, 27(2), 9-54.

Brown, S. A. & Venkatesh, V. (2005) Model of adoption of technology in households: A baseline model test and extension incorporating household life cycle. *MIS quarterly*, 399-426.

Cha, J. (1994) Partial least squares. *Adv. Methods Mark. Res*, 407, 52-78.

Chawla, D. & Joshi, H. (2019) Consumer attitude and intention to adopt mobile wallet in India–An empirical study. *International Journal of Bank Marketing*, 37(7), 1590-1618.

Chen, M. A., Wu, Q. & Yang, B. (2019) How valuable is FinTech innovation? *The Review of Financial Studies*, 32(5), 2062-2106.

Chen, Y., Naud, C. M., Rangwala, I., Landry, C. C. & Miller, J. R. (2014) Comparison of the sensitivity of surface downward longwave radiation to changes in water vapor at two high elevation sites. *Environmental Research Letters*, 9(11), 114015.

Cheng, Y. S., Yu, T. F., Huang, C. F., Yu, C. & Yu, C. C. (2011) The comparison of three major occupations for user acceptance of information technology: Applying the UTAUT model. *IBusiness*, 3(02), 147.

Chin, W. W. (1998) The partial least squares approach to structural equation modeling. *Modern methods for business research*, 295(2), 295-336.

Chin, W. W. & Dibbern, J. (2009) An introduction to a permutation based procedure for multi-group PLS analysis: Results of tests of differences on simulated data and a cross cultural analysis of the sourcing of information system services between Germany and the USA, *Handbook of partial least squares: Concepts, methods and applications*Springer, 171-193.

Chin, W. W., Marcolin, B. L. & Newsted, P. R. (2003) A partial least squares latent variable modeling approach for measuring interaction effects: Results from a Monte Carlo simulation study and an electronic-mail emotion/adoption study. *Information systems research*, 14(2), 189-217.

Chong, A. Y.-L. & Ngai, E. T. (2013) What influences travellers' adoption of a location-based social media service for their travel planning?

Churchill, G. A. & Iacobucci, D. (2006) *Marketing research: methodological foundations*, *199*Dryden Press New York.

Cimperman, M., Brenčič, M. M. & Trkman, P. (2016) Analyzing older users' home telehealth services acceptance behavior—applying an Extended UTAUT model. *International journal of medical informatics*, 90, 22-31.

Čižinská, R., Krabec, T. & Venegas, P. (2016) FieldsRank: The network value of the firm. *International Advances in Economic Research*, 22(4), 461-463.

Cohen, J. (2013) *Statistical power analysis for the behavioral sciences*Routledge.

Cooper, D. R. & Schindler, P. (2014) *Business research methods*Mcgraw-hill.

Costello, A. B. & Osborne, J. (2019) Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical assessment, research, and evaluation*, 10(1), 7.

Cowan, R., David, P. A. & Foray, D. (2005) The explicit economics of knowledge codification and tacitness. *Understanding industrial and corporate change*.

Creswell, J. W. & Creswell, J. D. (2017) *Research design: Qualitative, quantitative, and mixed methods approaches*Sage publications.

Dapp, T., Slomka, L., AG, D. B. & Hoffmann, R. (2014) Fintech–The digital (r) evolution in the financial sector. *Deutsche Bank Research*, 11, 1-39.

Davis, F. D. (1993) User acceptance of information technology: system characteristics, user perceptions and behavioral impacts. *International journal of man-machine studies*, 38(3), 475-487.

Davis, F. D., Bagozzi, R. P. & Warshaw, P. R. (1989) User acceptance of computer technology: A comparison of two theoretical models. *Management science*, 35(8), 982-1003.

Diaz, M. C. & Loraas, T. (2010) Learning new uses of technology while on an audit engagement: Contextualizing general models to advance pragmatic understanding. *International Journal of Accounting Information Systems*, 11(1), 61-77.

Dijkstra, T. K. & Henseler, J. (2015) Consistent partial least squares path modeling. *MIS quarterly*, 39(2), 297-316.

Dillon, W., Madden, T. & Firtle, N. (1993) Research in a marketing environment. *St. Louis: Times Mirror*.

Dixon, T. (2005) The impact of information and communications technology on commercial real estate in the new economy. *Journal of Property Investment & Finance*, 23(6), 480-493.

Dodds, W. B., Monroe, K. B. & Grewal, D. (1991) Effects of price, brand, and store information on buyers' product evaluations. *Journal of marketing research*, 28(3), 307-319.

Dorfleitner, G., Hornuf, L., Schmitt, M., Weber, M., Dorfleitner, G., Hornuf, L., Schmitt, M. & Weber, M. (2017) Definition of FinTech and description of the FinTech industry. *FinTech in Germany*, 5-10.

Dranev, Y., Frolova, K. & Ochirova, E. (2019) The impact of fintech M&A on stock returns. *Research in International Business and Finance*, 48, 353-364.

Drasch, B. J., Schweizer, A. & Urbach, N. (2018) Integrating the 'Troublemakers': A taxonomy for cooperation between banks and fintechs. *Journal of economics and business*, 100, 26-42.

Dunn, G. & Everitt, B. S. (2004) *An introduction to mathematical taxonomy*Courier Corporation.

Dwivedi, Y. K., Rana, N. P., Jeyaraj, A., Clement, M. & Williams, M. D. (2019) Re-examining the unified theory of acceptance and use of technology (UTAUT): Towards a revised theoretical model. *Information systems frontiers*, 21, 719-734.

Edwards, J. R. & Lambert, L. S. (2007) Methods for integrating moderation and mediation: a general analytical framework using moderated path analysis. *Psychological methods*, 12(1), 1.

Eisinga, R., Grotenhuis, M. t. & Pelzer, B. (2013) The reliability of a two-item scale: Pearson, Cronbach, or Spearman-Brown? *International journal of public health*, 58, 637-642.

Escobar-Rodríguez, T. & Carvajal-Trujillo, E. (2014) Online purchasing tickets for low cost carriers: An application of the unified theory of acceptance and use of technology (UTAUT) model. *Tourism management*, 43, 70-88.

Faqih, K. M. & Jaradat, M.-I. R. M. (2021) Integrating TTF and UTAUT2 theories to investigate the adoption of augmented reality technology in education: Perspective from a developing country. *Technology in Society*, 67, 101787.

Field, A. (2009) Discovering statistics using SPSS–SAGE Publications Ltd. *London, UK*, 264-315.

Firmansyah, H. B. & Ramdani, A. L. (2018) The role of Islamic financial technology (FinTech) start-up in improving financial inclusion in Indonesia case: Angsur, *3rd international conference of integrated intellectual community (ICONIC)*.

Fishbein, M., Jaccard, J., Davidson, A. R., Ajzen, I. & Loken, B. (1980) Predicting and understanding family planning behaviors, *Understanding attitudes and predicting social behavior*Prentice Hall.

Gai, K., Qiu, M. & Sun, X. (2018) A survey on FinTech. *Journal of Network and Computer Applications*, 103, 262-273.

Gallagher, S. (2001) The practice of mind. Theory, simulation or primary interaction? *Journal of consciousness studies*, 8(5-6), 83-108.

Gallagher, S. & Hutto, D. (2008) Understanding others through primary interaction and narrative practice. *The shared mind: Perspectives on intersubjectivity*, 12, 17-38.

Garson, G. D. (2016) Partial least squares. Regression and structural equation models. Statistical Publishing Associates.

Gefen, D. & Straub, D. (2005) A practical guide to factorial validity using PLS-Graph: Tutorial and annotated example. *Communications of the Association for Information systems*, 16(1), 5.

Gefen, D., Straub, D. & Boudreau, M.-C. (2000) Structural equation modeling and regression: Guidelines for research practice. *Communications of the association for information systems*, 4(1), 7.

Gerlach, J. M. & Lutz, J. K. (2019) Evidence on usage behavior and future adoption intention of FinTechs and digital finance solutions. *The International Journal of Business and Finance Research*, 13(2), 83-105.

Gheeraert, L. (2014) Does Islamic finance spur banking sector development? *Journal of economic behavior & organization*, 103, S4-S20.

Gioia, D. A. & Pitre, E. (1990) Multiparadigm perspectives on theory building. *Academy of management review*, 15(4), 584-602.

Gollwitzer, P. M. (1999) Implementation intentions: strong effects of simple plans. *American psychologist*, 54(7), 493.

Goodhue, D., Lewis, W. & Thompson, R. (2006) PLS, small sample size, and statistical power in MIS research, *Proceedings of the 39th Annual Hawaii International Conference on System Sciences (HICSS'06)*. IEEE.

Greenhalgh, T., Robert, G., Macfarlane, F., Bate, P. & Kyriakidou, O. (2004) Diffusion of innovations in service organizations: systematic review and recommendations. *The milbank quarterly*, 82(4), 581-629.

Greenwald, A. G., Poehlman, T. A., Uhlmann, E. L. & Banaji, M. R. (2009) Understanding and using the Implicit Association Test: III. Meta-analysis of predictive validity. *Journal of personality and social psychology*, 97(1), 17.

Gudergan, S. P., Ringle, C. M., Wende, S. & Will, A. (2008) Confirmatory tetrad analysis in PLS path modeling. *Journal of business research*, 61(12), 1238-1249.

Hair, J. F., Ringle, C. M. & Sarstedt, M. (2012) Partial least squares: the better approach to structural equation modeling? *Long range planning*, 45(5-6), 312-319.

Hair Jr, J. F., Hult, G. T. M., Ringle, C. & Sarstedt, M. (2016) A primer on partial least squares structural equation modeling (PLS-SEM) Sage Publications. *Thousand Oaks, CA, USA*.

Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P. & Ray, S. (2021) *Partial least squares structural equation modeling (PLS-SEM) using R: A workbook*Springer Nature.

Hair Jr, J. F., Matthews, L. M., Matthews, R. L. & Sarstedt, M. (2017) PLS-SEM or CB-SEM: updated guidelines on which method to use. *International Journal of Multivariate Data Analysis*, 1(2), 107-123.

Hair Jr, J. F., Sarstedt, M., Hopkins, L. & Kuppelwieser, V. G. (2014) Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European business review*, 26(2), 106-121.

Hale, J. L., Householder, B. J. & Greene, K. L. (2002) The theory of reasoned action. *The persuasion handbook: Developments in theory and practice*, 14(2002), 259-286.

Hassan, M. K., Sanchez, B. & Yu, J.-S. (2017) *Financial development and economic growth in the organization of Islamic conference countries*SSRN.

Hazzi, O. & Maldaon, I. (2015) A pilot study: Vital methodological issues. *Business: Theory and Practice*, 16(1), 53-62.

Hegazy, W. (2005) Fatwas and the fate of Islamic finance: A critique of the practice of fatwa in contemporary Islamic financial markets. *Islamic Finance: Current Legal and Regulatory Issues*, 133-149.

Henseler, J. & Fassott, G. (2010) Testing moderating effects in PLS path models: An illustration of available procedures. *Handbook of partial least squares: Concepts, methods and applications*, 713-735.

Hernandez, B., Jimenez, J. & Martin, M. J. (2008) Business acceptance of information technology: Expanding TAM using industry sector and technological compatibility. *International Journal of Enterprise Information Systems (IJEIS)*, 4(4), 62-79.

Hock, M. & Ringle, C. M. (2010) Local strategic networks in the software industry: An empirical analysis of the value continuum. *International Journal of Knowledge Management Studies*, 4(2), 132-151.

Holmbeck, G. N. (1997) Toward terminological, conceptual, and statistical clarity in the study of mediators and moderators: examples from the child-clinical and pediatric psychology literatures. *Journal of consulting and clinical psychology*, 65(4), 599.

Hu, L. t. & Bentler, P. M. (1999) Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural equation modeling: a multidisciplinary journal*, 6(1), 1-55.

Hu, Z., Ding, S., Li, S., Chen, L. & Yang, S. (2019) Adoption intention of fintech services for bank users: An empirical examination with an extended technology acceptance model. *Symmetry*, 11(3), 340.

Huang, C., Wang, Y., Li, X., Ren, L., Zhao, J., Hu, Y., Zhang, L., Fan, G., Xu, J. & Gu, X. (2020) Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. *The lancet*, 395(10223), 497-506.

Huei, C. T., Cheng, L. S., Seong, L. C., Khin, A. A. & Bin, R. L. L. (2018) Preliminary study on consumer attitude towards fintech products and services in Malaysia. *International Journal of Engineering & Technology*, 7(2.29), 166-169.

Hussain, M., Shahmoradi, A. & Turk, R. (2016) An overview of Islamic finance. *Journal of International Commerce, Economics and Policy*, 7(01), 1650003.

Hutto, D. D. (2012) Truly enactive emotion. *Emotion Review*, 4(2), 176-181.

Ignatyuk, A., Liubkina, O., Murovana, T. & Magomedova, A. (2020) FinTech as an innovation challenge: From big data to sustainable development, *E3S Web of Conferences*. EDP Sciences.

Irfan, H. & Ahmed, D. (2019) Fintech: The opportunity for Islamic finance, *Fintech in Islamic Finance*Routledge, 19-30.

Jevons, C., Gabbott, M. & De Chernatony, L. (2005) Customer and brand manager perspectives on brand relationships: a conceptual framework. *Journal of Product & Brand Management*, 14(5), 300-309.

Johnson, B. & Lundvall, B. A. (1994) The learning economy. *Journal of industry studies*, 1(2), 23-42.

Jones, R. L. (2017) Enterprise FinTech: a metaphor for modern organizations. *ASBBS Proceedings*, 24(1), 353.

Kabra, G., Ramesh, A., Akhtar, P. & Dash, M. K. (2017) Understanding behavioural intention to use information technology: Insights from humanitarian practitioners. *Telematics and Informatics*, 34(7), 1250-1261.

Kaivo-oja, J. (2011) Futures of innovation systems and systemic innovation systems: towards better innovation quality with new innovation management tools. *FFRC eBOOK*, 8, 2011.

Katz, E. (1957) The two-step flow of communication: An up-to-date report on an hypothesis. *Public opinion quarterly*, 21(1), 61-78.

Khalid, M. & Kunhibava, S. (2020) Fintech regulatory sandboxes in Australia and Malaysia: A legal analysis. *IIUMLJ*, 28, 1.

Khalilzadeh, J., Ozturk, A. B. & Bilgihan, A. (2017) Security-related factors in extended UTAUT model for NFC based mobile payment in the restaurant industry. *Computers in human behavior*, 70, 460-474.

Khechine, H., Raymond, B. & Augier, M. (2020) The adoption of a social learning system: Intrinsic value in the UTAUT model. *British Journal of Educational Technology*, 51(6), 2306-2325.

Kim, S. S. & Malhotra, N. K. (2005) A longitudinal model of continued IS use: An integrative view of four mechanisms underlying postadoption phenomena. *Management science*, 51(5), 741-755.

Kim, Y., Park, Y.-J., Choi, J. & Yeon, J. (2015) An empirical study on the adoption of "Fintech" service: Focused on mobile payment services. *Advanced Science and Technology Letters*, 114(26), 136-140.

Klinger, T. H. (2006) Learning approach, thinking style and critical inquiry: The online community.

Kock, N. (2014) Using data labels to discover moderating effects in PLS-based structural equation modeling. *International Journal of e-Collaboration (IJeC)*, 10(4), 1-16.

Kripanont, N. (2007) *Examining a technology acceptance model of internet usage by academics within Thai business schools*Victoria University.

Laudon, K. C. & Traver, C. G. (2020) *E-commerce 2019: Business, technology, society*Pearson.

Lee, H. J., Cho, H. J., Xu, W. & Fairhurst, A. (2010) The influence of consumer traits and demographics on intention to use retail self-service checkouts. *Marketing Intelligence & Planning*, 28(1), 46-58.

Lee, L., Petter, S., Fayard, D. & Robinson, S. (2011) On the use of partial least squares path modeling in accounting research. *International Journal of Accounting Information Systems*, 12(4), 305-328.

Lee, M.-C. (2009) Factors influencing the adoption of internet banking: An integration of TAM and TPB with perceived risk and perceived benefit. *Electronic commerce research and applications*, 8(3), 130-141.

Lee, M. R., Yen, D. C. & Hurlburt, G. F. (2018) Financial technologies and applications. *IT Professional*, 20(2), 27-33.

Leon, A. C., Davis, L. L. & Kraemer, H. C. (2011) The role and interpretation of pilot studies in clinical research. *Journal of psychiatric research*, 45(5), 626-629.

Leszczyński, G. & Zieliński, M. (2015) Knowledge sharing and business tourism products: Case of industrial trade fairs. *Acta Scientiarum Polonorum. Oeconomia*, 14(2), 85-94.

Levy, J. S. (1988) Domestic politics and war. *The Journal of Interdisciplinary History*, 18(4), 653-673.

Li, B., Hanna, S. D. & Kim, K. T. (2020a) Who uses mobile payments: Fintech potential in users and non-users. *Journal of Financial Counseling and Planning*.

Li, L. (2010) A critical review of technology acceptance literature. *Referred Research Paper*, 4, 2010.

Li, Q., Zhang, H. & Hong, X. (2020b) Knowledge structure of technology licensing based on co-keywords network: A review and future directions. *International Review of Economics & Finance*, 66, 154-165.

Lian, J.-W. (2015) Critical factors for cloud based e-invoice service adoption in Taiwan: An empirical study. *International Journal of Information Management*, 35(1), 98-109.

Limayem, M., Hirt, S. G. & Cheung, C. M. (2007) How habit limits the predictive power of intention: The case of information systems continuance. *MIS quarterly*, 705-737.

Little, T. D., Bovaird, J. A. & Widaman, K. F. (2006) On the merits of orthogonalizing powered and product terms: Implications for modeling interactions among latent variables. *Structural equation modeling*, 13(4), 497-519.

Liu, J., Li, X. & Wang, S. (2020) What have we learnt from 10 years of fintech research? a scientometric analysis. *Technological Forecasting and Social Change*, 155, 120022.

Lowry, P. B. & Gaskin, J. (2014) Partial least squares (PLS) structural equation modeling (SEM) for building and testing behavioral causal theory: When to choose it and how to use it. *IEEE transactions on professional communication*, 57(2), 123-146.

Luo, X. (2021) The effect of online community interaction on customer participation in value co-creation based on stimulus-organism-response model.

MacKenzie, S. B., Podsakoff, P. M. & Podsakoff, N. P. (2011) Construct measurement and validation procedures in MIS and behavioral research: Integrating new and existing techniques. *MIS quarterly*, 293-334.

Maillet, É., Mathieu, L. & Sicotte, C. (2015) Modeling factors explaining the acceptance, actual use and satisfaction of nurses using an Electronic Patient Record in acute care settings: An extension of the UTAUT. *International journal of medical informatics*, 84(1), 36-47.

Malhotra, N. K., Nunan, D. & Birks, D. F. (2020) *Marketing research*Pearson UK.

Memon, M. A., Cheah, J.-H., Ramayah, T., Ting, H., Chuah, F. & Cham, T. H. (2019) Moderation analysis: issues and guidelines. *Journal of Applied Structural Equation Modeling*, 3(1), 1-11.

Milian, E. Z., Spinola, M. d. M. & de Carvalho, M. M. (2019) Fintechs: A literature review and research agenda. *Electronic commerce research and applications*, 34, 100833.

Miltgen, C. L., Popovič, A. & Oliveira, T. (2013) Determinants of end-user acceptance of biometrics: Integrating the "Big 3" of technology acceptance with privacy context. *Decision support systems*, 56, 103-114.

Miskam, S., Yaacob, A. M. & Rosman, R. (2019) Fintech and its impact on Islamic fund management in Malaysia: a legal viewpoint, *Emerging Issues in Islamic Finance Law and Practice in Malaysia*Emerald Publishing Limited, 223-246.

Mitchell, G. (2013) Selecting the best theory to implement planned change. *Nursing Management*, 20(1).

Moorthy, K., T'ing, L. C., Wei, K. M., Mei, P. T. Z., Yee, C. Y., Wern, K. L. J. & Xin, Y. M. (2019) Is facebook useful for learning? A study in private universities in Malaysia. *Computers & Education*, 130, 94-104.

Mun, Y. Y., Jackson, J. D., Park, J. S. & Probst, J. C. (2006) Understanding information technology acceptance by individual professionals: Toward an integrative view. *Information & management*, 43(3), 350-363.

Munyoka, W. & Maharaj, M. (2017) The effect of UTAUT2 moderator factors on citizens' intention to adopt e-government: The case of two SADC countries. *Problems and perspectives in management*(15, Iss. 1), 115-123.

Muryanto, Y. T., Kharisma, D. B. & Ciptorukmi Nugraheni, A. S. (2022) Prospects and challenges of Islamic fintech in Indonesia: a legal viewpoint. *International Journal of Law and Management*, 64(2), 239-252.

Narsalay, R. & Patrao, M. (2016) Thriving with FinTechs: Strategies for Large Indian Banks. *Vinimaya*, 37(1).

Nastiti, N. D. & Kasri, R. A. (2019) The role of banking regulation in the development of Islamic banking financing in Indonesia. *International Journal of Islamic and Middle Eastern Finance and Management*, 12(5), 643-662.

Nel, L. H. (2013) Discrepancies in data reporting for rabies, Africa. *Emerging infectious diseases*, 19(4), 529.

Ng, A. W. & Kwok, B. K. (2017) Emergence of Fintech and cybersecurity in a global financial centre: Strategic approach by a regulator. *Journal of Financial Regulation and Compliance*, 25(4), 422-434.

Ngari, J. M. K. & Muiruri, J. K. (2014) Effects of financial innovations on the financial performance of commercial banks in Kenya.

Niehaves, B. & Bernd, C. S. (2006) Criticality, epistemology and behaviour vs. design–information systems research across different sets of paradigms.

Niswah, F. M. & Legowati, D. A. (2019) Muslim millennial's intention of donating for charity using fintech platform. *Journal of Islamic Monetary Economics and Finance*, 5(3), 623-644.

Odei-Appiah, S., Wiredu, G. & Adjei, J. K. (2022) Fintech use, digital divide and financial inclusion. *Digital Policy, Regulation and Governance*, 24(5), 435-448.

Ogden, J. (2003) Some problems with social cognition models: a pragmatic and conceptual analysis. *Health psychology*, 22(4), 424.

Oh, J.-C. & Yoon, S.-J. (2014) Predicting the use of online information services based on a modified UTAUT model. *Behaviour & Information Technology*, 33(7), 716-729.

Oluwatayo, J. A. (2012) Validity and reliability issues in educational research. *Journal of educational and social research*, 2.

Orbell, S. & Sheeran, P. (2000) Motivational and volitional processes in action initiation: A field study of the role of implementation intentions 1. *Journal of Applied Social Psychology*, 30(4), 780-797.

Oseni, U. A. & Ali, S. N. (2019) Fintech in Islamic finance, *Fintech In Islamic Finance*Routledge, 3-14.

Oshlyansky, L. (2007) *Cultural models in HCI: Hofstede, affordance and technology acceptance*Swansea University (United Kingdom).

Panahy, P. H. S., Sidi, F., Affendey, L. S., Jabar, M. A., Ibrahim, H. & Mustapha, A. (2013) A framework to construct data quality dimensions relationships. *Indian Journal of Science and Technology*, 4422-4431.

Panjwani, K. & Shili, N. (2020) The impact of fintech on development of islamic banking sector in the contemporary world. *Saudi Journal of Economics and Finance*, 4(7), 346-350.

Pantielieieva, N., Krynytsia, S., Zhezherun, Y., Rebryk, M. & Potapenko, L. (2018) Digitization of the economy of Ukraine: Strategic challenges and implementation technologies, *2018 IEEE 9th International Conference on Dependable Systems, Services and Technologies (DESSERT)*. IEEE.

Parameswaran, S., Kishore, R. & Li, P. (2015) Within-study measurement invariance of the UTAUT instrument: An assessment with user technology engagement variables. *Information & management*, 52(3), 317-336.

Petraitis, J., Flay, B. R. & Miller, T. Q. (1995) Reviewing theories of adolescent substance use: organizing pieces in the puzzle. *Psychological bulletin*, 117(1), 67.

Pfister, R., Heinemann, A., Kiesel, A., Thomaschke, R. & Janczyk, M. (2012) Do endogenous and exogenous action control compete for perception? *Journal of Experimental Psychology: Human Perception and Performance*, 38(2), 279.

Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y. & Podsakoff, N. P. (2003) Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of applied psychology*, 88(5), 879.

Rabbani, M. R., Bashar, A., Nawaz, N., Karim, S., Ali, M. A. M., Rahiman, H. U. & Alam, M. S. (2021) Exploring the role of islamic fintech in combating the aftershocks of covid-19: The open social innovation of the islamic financial system. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(2), 136.

Rabbani, M. R., Khan, S. & Thalassinos, E. I. (2020) FinTech, blockchain and Islamic finance: An extensive literature review.

Rahim, N. F., Bakri, M. H. & Yahaya, S. N. (2019) Fintech and Shariah principles in smart contracts, *FinTech as a disruptive technology for financial institutions*IGI Global, 207-220.

Ramayah, T., Cheah, J., Chuah, F., Ting, H. & Memon, M. A. (2018) Partial least squares structural equation modeling (PLS-SEM) using smartPLS 3.0. *An updated guide and practical guide to statistical analysis*, 978-967.

Ramayah, T. & Lee, J. W. C. (2012) System characteristics, satisfaction and e-learning usage: a structural equation model (SEM). *Turkish Online Journal of Educational Technology-TOJET*, 11(2), 196-206.

Rauniar, R., Rawski, G., Yang, J. & Johnson, B. (2014) Technology acceptance model (TAM) and social media usage: an empirical study on Facebook. *Journal of enterprise information management*, 27(1), 6-30.

Reinartz, W., Haenlein, M. & Henseler, J. (2009) An empirical comparison of the efficacy of covariance-based and variance-based SEM. *International Journal of research in Marketing*, 26(4), 332-344.

Rigdon, E. E. (2012) Rethinking partial least squares path modeling: In praise of simple methods. *Long range planning*, 45(5-6), 341-358.

Ringle, C. M., Sarstedt, M. & Straub, D. W. (2012) Editor's comments: a critical look at the use of PLS-SEM in" MIS Quarterly". *MIS quarterly*, iii-xiv.

Riskinanto, A., Kelana, B. & Hilmawan, D. R. (2017) The moderation effect of age on adopting e-payment technology. *Procedia Computer Science*, 124, 536-543.

Robertson, I. (2008) Sustainable e-learning, activity theory and professional development, *Ascilite*. Citeseer.

Rogers, E. M. (1995) Diffusion of Innovations: modifications of a model for telecommunications. *Die diffusion von innovationen in der telekommunikation*, 25-38.

Röller, L.-H. & Waverman, L. (2001) Telecommunications infrastructure and economic development: A simultaneous approach. *American economic review*, 91(4), 909-923.

Rondan-Cataluña, F. J., Arenas-Gaitán, J. & Ramírez-Correa, P. E. (2015) A comparison of the different versions of popular technology acceptance models: A non-linear perspective. *Kybernetes*, 44(5), 788-805.

Rusydiana, A. S. (2018) Developing Islamic financial technology in Indonesia. *Hasanuddin Economics and Business Review*, 2(2), 143-152.

Ryan, B. & Gross, N. C. (1943) The diffusion of hybrid seed corn in two Iowa communities. *Rural sociology*, 8(1), 15.

Saba, I., Kouser, R. & Chaudhry, I. S. (2019) FinTech and Islamic finance-challenges and opportunities. *Review of Economics and Development Studies*, 5(4), 581-890.

Saksonova, S. & Kuzmina-Merlino, I. (2017) Fintech as financial innovation–The possibilities and problems of implementation.

Sarstedt, M., Henseler, J. & Ringle, C. M. (2011) Multigroup analysis in partial least squares (PLS) path modeling: Alternative methods and empirical results, *Measurement and research methods in international marketing*Emerald Group Publishing Limited, 195-218.

Saudi, F. (2021) Fintech Saudi Annual Report (2020-21)(2021).

Saunders, M., Lewis, P. & Thornhill, A. (2003) Research methods for business students. *Essex: Prentice Hall: Financial Times*.

Saunders, M., Lewis, P. & Thornhill, A. (2009) *Research methods for business students*Pearson education.

Schepurek, S. & Dulkeith, E. (2013) Innovation performance measurement: KPIs for goal-setting, *ISPIM Conference Proceedings*. The International Society for Professional Innovation Management (ISPIM).

Schueffel, P. (2016) Taming the beast: A scientific definition of fintech. *Journal of Innovation Management*, 4(4), 32-54.

Sekaran, U. (2003) Research Methods for Business (Vol. Fourth edi). United States of America: John Wiley & Sons, Inc.

Sekaran, U. (2006) Research Methods for Business Fourth Edition Buku 1, terjem. oleh. *Kwan Men Yon. Jakarta: Salemba Empat*.

Setia, P., Setia, P., Venkatesh, V. & Joglekar, S. (2013) Leveraging digital technologies: How information quality leads to localized capabilities and customer service performance. *MIS quarterly*, 565-590.

Shaikh, A. A., Glavee-Geo, R., Karjaluoto, H. & Hinson, E. (2018) *Marketing and Mobile Financial Services*Routledge.

Shaikh, I. M., Qureshi, M. A., Noordin, K., Shaikh, J. M., Khan, A. & Shahbaz, M. S. (2020) Acceptance of Islamic financial technology (FinTech) banking services by Malaysian users: an extension of technology acceptance model. *foresight*, 22(3), 367-383.

Shanab, E. A. A. (2005) *Internet banking and customers' acceptance in Jordan: the unified model's perspective*Southern Illinois University at Carbondale.

Shim, Y. & Shin, D.-H. (2016) Analyzing China's fintech industry from the perspective of actor–network theory. *Telecommunications Policy*, 40(2-3), 168-181.

Shroff, R. H., Deneen, C. C. & Ng, E. M. (2011) Analysis of the technology acceptance model in examining students' behavioural intention to use an e-portfolio system. *Australasian Journal of Educational Technology*, 27(4).

Sousa, A. I. P. d. (2012) *The impact of e-services on firm internationalization*.

Standard, D. (2018) Islamic fintech report 2018: Current landscape & path forward. *Dubai Islamic Economy Development Centre*, 1-38.

Stewart, H. & Jürjens, J. (2018) Data security and consumer trust in FinTech innovation in Germany. *Information & Computer Security*, 26(1), 109-128.

Subedi, B. P. (2016) Using Likert type data in social science research: Confusion, issues and challenges. *International journal of contemporary applied sciences*, 3(2), 36-49.

Sun, H. & Zhang, P. (2006) The role of moderating factors in user technology acceptance. *International journal of human-computer studies*, 64(2), 53-78.

Sung, A., Leong, K., Sironi, P., O'Reilly, T. & McMillan, A. (2019) An exploratory study of the FinTech (Financial Technology) education and retraining in UK. *Journal of Work-Applied Management*, 11(2), 187-198.

Suryono, R. R., Purwandari, B. & Budi, I. (2019) Peer to peer (P2P) lending problems and potential solutions: A systematic literature review. *Procedia Computer Science*, 161, 204-214.

Sutton, S. (1998) Predicting and explaining intentions and behavior: How well are we doing? *Journal of applied social psychology*, 28(15), 1317-1338.

Taherdoost, H. (2016) Validity and reliability of the research instrument; how to test the validation of a questionnaire/survey in a research. *How to test the validation of a questionnaire/survey in a research (August 10, 2016)*.

Tamilmani, K., Rana, N. P., Wamba, S. F. & Dwivedi, R. (2021) The extended Unified Theory of Acceptance and Use of Technology (UTAUT2): A systematic literature review and theory evaluation. *International Journal of Information Management*, 57, 102269.

Taylor, S. & Todd, P. (1995) Decomposition and crossover effects in the theory of planned behavior: A study of consumer adoption intentions. *International journal of research in marketing*, 12(2), 137-155.

Tenenhaus, M., Vinzi, V. E., Chatelin, Y.-M. & Lauro, C. (2005) PLS path modeling. *Computational statistics & data analysis*, 48(1), 159-205.

Teo, T. S., Wong, P. K. & Chia, E. H. (2000) Information technology (IT) investment and the role of a firm: an exploratory study. *International Journal of Information Management*, 20(4), 269-286.

Theodorou, P. & Florou, G. (2008) Manufacturing strategies and financial performance—The effect of advanced information technology: CAD/CAM systems. *Omega*, 36(1), 107-121.

Thompson, R. L., Higgins, C. A. & Howell, J. M. (1991) Personal computing: Toward a conceptual model of utilization. *MIS quarterly*, 125-143.

Thursfield, D. (2012) The social construction of professionalism among organizers and senior organizers in a UK trade union. *Work, employment and society*, 26(1), 128-144.

Toews, D. (2003) The new Tarde: sociology after the end of the social. *Theory, Culture & Society*, 20(5), 81-98.

Tsoutsoura, M. (2004) Corporate social responsibility and financial performance.

Ursavaş, Ö. F. (2022) Unified Theory of Acceptance and Use of Technology Model (UTAUT), *Conducting Technology Acceptance Research in Education: Theory, Models, Implementation, and Analysis*Springer, 111-133.

Van de Schoot, R., Lugtig, P. & Hox, J. (2012) A checklist for testing measurement invariance. *European journal of developmental psychology*, 9(4), 486-492.

Venkatesh, V. (2015) Technology acceptance model and the unified theory of acceptance and use of technology. *Wiley encyclopedia of management*, 1-9.

Venkatesh, V., Brown, S. A. & Bala, H. (2013) Bridging the qualitative-quantitative divide: Guidelines for conducting mixed methods research in information systems. *MIS quarterly*, 21-54.

Venkatesh, V., Davis, F. & Morris, M. G. (2007) Dead or alive? The development, trajectory and future of technology adoption research. *The Development, Trajectory and Future of Technology Adoption Research (April 27, 2007). Venkatesh, V., Davis, FD, and Morris, MG "Dead or Alive*, 267-286.

Venkatesh, V. & Davis, F. D. (2000) A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management science*, 46(2), 186-204.

Venkatesh, V., Morris, M. G., Davis, G. B. & Davis, F. D. (2003) User acceptance of information technology: Toward a unified view. *MIS quarterly*, 425-478.

Venkatesh, V., Thong, J. Y., Chan, F. K., Hu, P. J. H. & Brown, S. A. (2011) Extending the two-stage information systems continuance model: Incorporating UTAUT predictors and the role of context. *Information systems journal*, 21(6), 527-555.

Venkatesh, V., Thong, J. Y. & Xu, X. (2012) Consumer acceptance and use of information technology: extending the unified theory of acceptance and use of technology. *MIS quarterly*, 157-178.

Venkatesh, V., Thong, J. Y. & Xu, X. (2016) Unified theory of acceptance and use of technology: A synthesis and the road ahead. *Journal of the association for Information Systems*, 17(5), 328-376.

Wen, Z., Cheng, T.-L., Li, G.-z., Sun, S.-B., Yu, S.-Y., Zhang, Y., Du, Y.-S. & Qiu, Z. (2017) Identification of autism-related MECP2 mutations by whole-exome sequencing and functional validation. *Molecular autism*, 8, 1-10.

Weng, H.-H., Chen, J.-S. & Chen, P.-C. (2015) Effects of green innovation on environmental and corporate performance: A stakeholder perspective. *Sustainability*, 7(5), 4997-5026.

West, S. G., Finch, J. F. & Curran, P. J. (1995) Structural equation models with nonnormal variables: Problems and remedies.

Wilson, E. V., Mao, E. & Lankton, N. K. (2010) The distinct roles of prior IT use and habit strength in predicting continued sporadic use of IT.

Wilson, R. (2019) Implications of technological advance for financial intermediation in Islamic finance, *Fintech in Islamic Finance*Routledge, 33-44.

Wu, P.-S. (2017) Fintech trends relationships research: A bibliometric citation meta-analysis.

Yang, C. & Yen, H. C. (2007) A viable systems perspective to knowledge management. *Kybernetes*, 36(5/6), 636-651.

Yu, C.-S. (2012) Factors affecting individuals to adopt mobile banking: Empirical evidence from the UTAUT model. *Journal of electronic commerce research*, 13(2), 104.

Yuan, Y. & Phillips, R. D. (2008) Financial integration and scope efficiency in US financial services post Gramm-Leach-Bliley. *Journal of Banking and Finance*.

Za'aba, N. S., Zanorrain, S. M., Isa, N. A. M. & Raziman, N. (2020) Islamic digital economy: The role of Islamic Fintech as economy driver. *Journal of Islamic Economics and Law (JIEL)*, 1(2).

Zhang, L., Zhu, F., Xie, L., Wang, C., Wang, J., Chen, R., Jia, P., Guan, H., Peng, L. & Chen, Y. (2020) Clinical characteristics of COVID-19-infected cancer patients: a retrospective case study in three hospitals within Wuhan, China. *Annals of oncology*, 31(7), 894-901.

Zhang, M. & Tansuhaj, P. S. (2007) Organizational culture, information technology capability, and performance: the case of born global firms. *Multinational Business Review*, 15(3), 43-78.

Zhang, Y. & Wen, J. (2017) The IoT electric business model: Using blockchain technology for the internet of things. *Peer-to-Peer Networking and Applications*, 10, 983-994.

Zhao, W.-T., Yang, M., Wu, H.-M., Yang, L., Zhang, X.-m. & Huang, Y. (2018) Systematic review and meta-analysis of the association between sarcopenia and dysphagia. *The journal of nutrition, health & aging*, 22, 1003-1009.

Zikmund, W. G., Babin, B. J., Carr, J. C. & Griffin, M. (2000) *Business research methods*, *6*Dryden Press Fort Worth, TX.

APPENDIX

Appendix 1: Summary of FinTech previous studies

13	HIGH	ACCEPTED	ACCEPTED	The article considers the essence of innovative financial technologies and the problems arising from their implementation, development, and usage in banking. The significance and potential consequences of the introduction of innovative financial technologies in banking are generalized.	Lavrov, R. V.	0	INNOVATIVE FINANCIAL TECHNOLOGIES IN BANKING: ESSENCE, PROBLEMS AND OPPORTUNITIES FOR DEVELOPMENT	3210
6	LOW	ACCEPTED	ACCEPTED	The fundraising campaigns realized through popular online crowdfunding platforms seem to be exhibiting unstoppable expansion, with the phenomenon reaching an increasing number of people and doubling its turnover year after year. Crowdfunding is one of the most	Gabossy, Akos	0	New Directions in Crowdfunding	3196

				dynamically growing segments of fintech but at the same time, The world is voicing justified scepticism regarding the sustainability and operating background of the original model. For the time being, the position of banks is protected by the legislative and regulatory background, but digitally advanced users are seeking out wallet-friendly and convenient solutions for the administration of their financial affairs as well. According to certain estimates, bank revenues could drop by as much as 20% by 2023 due to the rise of the fintech sector, and one third of bank employees could lose their jobs in ten years. Equity-based crowdfunding has the potential to become an alternative to traditional corporate and project-financing techniques. The community forming power of online fundraising platforms is strong, and certain				

				campaigns may also serve market communication purposes. (1)				
8	LOW	ACCEPTED	ACCEPTED	Now in its third major era, the fintech sector is attracting growing interest from regulators as it evolves, both in developed markets and developing countries. The regulatory challenge lies in resolving the tension between a forward-looking framework that promotes innovation, and a sufficiently rigorous framework that maintains market confidence. We argue that more experimentation and innovation in regulatory approaches is needed, and that it is too early yet to seek international regulatory harmonization in this space. An earlier version of this study was presented at the 21st Melbourne Money and Finance Conference.	Arner, Douglas W. and Barberis, Janos and Buckley, Ross P.	0	150 YEARS OF FINTECH: An evolutionary analysis	3195
17	HIGH	ACCEPTED	ACCEPTED	Financial technology (fintech) is experiencing rapid growth internationally.	Pollari, Ian	0	THE RISE OF FINTECH	3194

				This study examines the key drivers of the growth of fintech, its role in redefining the financial services industry, and the likely impact on industry business models. The study also analyses the trends in fintech investment in global and regional markets and Australia's alternative finance market and highlights a series of strategic challenges and opportunities for incumbent financial institutions. An earlier version of this study was presented at the 21st Melbourne Money and Finance Conference.			opportunities and challenges	
2	HIGH	ACCEPTED	ACCEPTED	This study explores how borrowers' financial and personal information, loan characteristics and lending models affect peer-to-peer (P2P) loan funding outcomes. Using a large sample of listings from one of the largest Chinese online P2P lending platforms, we find that those borrowers earning a higher income or who own a car	Tao, Qizhi and Dong, Yizhe and Lin, Ziming	0	Who can get money? Evidence from the Chinese peer-to-peer lending platform	3172

				are more likely to receive a loan, pay lower interest rates, and are less likely to default. The credit grade assigned by the lending platform may not represent the creditworthiness of potential borrowers. We also find that the unique offline process in the Chinese P2P online lending platform exerts significant influence on the lending decision. We discuss the implications of our results for the design of big data-based lending markets.				
20	HIGH	ACCEPTED	ACCEPTED	Online supply-chain financing has been a relatively novel funding channel for suppliers as small and medium-sized enterprises ("SMEs") to obtain loans in that the revolution of financial technology ("FinTech") transforms traditional supply-chain financing, which used to be administered only by official banks, to an online model also used by electronic	Tsai, Chang-Hsien and Peng, Kuan-Jung	0	The FinTech Revolution and Financial Regulation: The Case of Online Supply-Chain Financing	3173

				commerce platforms ("e-commerce platform"). Endeavours towards financial inclusion of the underserved SMEs could rationalize why we should allow for or encourage FinTech innovations exemplified by the online supply-chain financing mentioned above. What would be an adaptive regulatory regime for such innovative FinTech-enabled financial services as online supply-chain financing? Within our conceptual framework to regulate the FinTech industry at the early stage, rather than rigorous rules traditionally placed on large financial institutions, a principles-based strategy should be adopted to strike a balance between financial stability and access to financial services advanced by disruptive innovations. As a necessary complement, regulatory sandboxes would be needed to				

				spur a shift in institutional philosophy to a principles-based regulatory regime. In other words, the regulatory attitude of FinTech regulation should be humble and light-touch to promote innovation for improving digital financial inclusion, albeit on the premise of containing potential systemic risk and protecting consumer interest in the meantime.				
25	HIGH	ACCEPTED	ACCEPTED	Financial technology, also known as FinTech, is one of the fast-growing global businesses in since its inception in 2008. Fintech is a new economic industry, comprised of companies that adopted the latest technologies to provide more efficient financial services than the traditional financial services. Fintech companies are generally small to medium sized start-ups trying to disintermediate existing financial systems. FinTech companies can be	Lee, Sangmin	0	Evaluation of Mobile Application in User's Perspective: Case of P2P Lending Apps in FinTech Industry	3176

				differentiated in several areas, based on its business solutions and target customers. In Korea, the Peer-to-Peer (P2P) lending companies are the most prominent in the FinTech sector. P2P lending is a method of borrowing or lending money to individuals through online services without the use of an official financial institution as an intermediary. The P2P lending companies operate their services entirely online or mobile environment. Consequently, mobile P2P lending application users are dramatically increasing. Thus, it is worth evaluating the acceptance of the mobile apps of the P2P lending companies from a user's perspective. This study discusses user acceptance of the mobile P2P lending apps, guided by the technology Acceptance Model. We conclude that the users' acceptance of mobile P2P lending apps is				

				significantly influenced by perceived ease of use, perceived usefulness, and user satisfaction. These in turn influenced their attitude towards using mobile P2P lending apps and intention to use.				
15	HIGH	ACCEPTED	ACCEPTED	The purpose of technology is not to make finance better, but to make finance serve real life better. Fintech has grown much faster in China than in the United States. In China, this success has come not from an initial technology advantage, but from integration between finance and real-life needs. This experience has important implications for understanding financial innovations, and for the development of inclusive finance.	Chen, Long	0	From Fintech to Fin life: the case of Fintech Development in China	3192
17	HIGH	ACCEPTED	ACCEPTED	Financial technology (fintech) is experiencing rapid growth internationally. This study examines the key drivers of the growth of fintech, its role in redefining the	Pollari, Ian	0	THE RISE OF FINTECH opportunities and challenges	3194

				financial services industry, and the likely impact on industry business models. The study also analyses the trends in fintech investment in global and regional markets and Australia's alternative finance market and highlights a series of strategic challenges and opportunities for incumbent financial institutions. An earlier version of this study was presented at the 21st Melbourne Money and Finance Conference.				
11	HIGH	ACCEPTED	ACCEPTED	With the development of ubiquitous technologies that support the digitization of money, research is needed on how individuals' private life practices are affected by new technological financial systems and how cash-based practices can inform their design. In this article, we report the cash-based monetary practices of one Ethiopian rural community and identify their implications for the design of new	Woldmariam, Mesfin F. and Ghinea, Gheorghita and Atnafu, Solomon andGroenli, Tor-Morten	0	Monetary Practices of Traditional Rural Communities in Ethiopia: Implications for New Financial Technology Design	3197

				financial technology. Particularly, we focus on addressing the question, what characteristic features should go into the design of mobile money application(s) to embody a rural Ethiopian community's money practices in social (marriage and death) and religious contexts? Primary data on everyday practices of the community were collected. Analysis of our data reveals that new financial technology design should support lived experiences such as embedded social meaning, segregated and aggregate money control, restricted money use, identity extension and hiding, refusal and acceptance of donations, disclosed and secret money practices, and assigning aesthetics to money. The article concludes by discussing possible ways of mapping these concepts into financial system design, thus contributing toward the development			

				of cashless transactions and a cashless society.				
9	HIGH	ACCEPTED	ACCEPTED	Since 1979, China has made tremendous progress in its transformation toa socialist market economy. As part of this process, China's financial system has evolved to one characterized by a high degree of marketization. At the same time, China today faces new challenges to growth and development, particularly from the necessity of restructuring its economy to focus increasingly on innovation and away from government led investment and low-wage labour. In the context of digital financial services, China has been a late mover, but this has changed dramatically in the past five years, to the point today where China is one of the major centres for digital financial services and financial technology Fintech. Looking forward, China needs to	Zhou Weihuan and Arner, Douglas W. and Buckley, Ross P.	0	REGULATION OF DIGITAL FINANCIAL SERVICES IN CHINA: LAST MOVER ADVANTAGE?	3202

				provide an appropriate regulatory basis for the future development of digital financial services and Fintech, balancing growth, and innovation with financial stability. China today is exhibiting signs of a last mover advantage in this respect that may see it leaping regulatory developments elsewhere.				
3	HIGH	ACCEPTED	ACCEPTED	This study offers a cultural approach to technology as an alternative to what we see as a prevailing treatment of technology in the social studies of finance. This latter treatment, which we refer to as the `tools of coordination' approach, sees technologies as mediators of market behaviour that promote standardization and coordination. While this may be one important function of some technologies, taking a cultural approach to studying financial technologies highlights other important aspects of financial activity - in particular profit	Hardin, Carolyn and Rottinghaus, Adam Richard	0	INTRODUCING A CULTURAL APPROACH TO TECHNOLOGY IN FINANCIAL MARKETS	3203

				making. Instead of focusing primarily on how technologies coordinate market behaviour, we focus on how technologies enable profit-making practices, in particular arbitrage. In two different case studies, one examining arbitrage between stock exchanges during the late nineteenth century and the other focusing on contemporary high-frequency trading, we employ the cultural approach to technology. We find that while new technologies do eventually promote greater coordination in financial markets, they are initially deployed for the opposite purpose, to produce what we call network differentials that allow some to profit at the expense of others.				

Appendix 2: Research Questionnaire (English Version)

Thank you for agreeing to take part in this study. I am a PhD candidate interested in studying the Acceptance and Use of Islamic Financial Technology (Islamic FinTech). Your responses will be valuable in helping me meet the aim of this research. All your feedback will be kept strictly confidential and will not be used for any purpose beyond academic research.

Instructions:

1) There are two sections in this questionnaire.
2) Please answer ALL questions in ALL sections.
3) Completion of this form will take you 10-15 minutes.
4) The contents of this questionnaire will be kept strictly confidential.

SECTION A: DEMOGRAPHIC PROFILE

In this section, we would like you to fill in some of your personal details. Please tick your answer and your answers will be kept strictly confidential.

QA 1: Gender?

- o Male
- o Female

QA 2: Age?

- o 25-34 years old
- o 35-44 years old
- o 45-54 years old
- o 55 - 64 years old
- o 65 years or older

QA 3: Experience?

How long have you been using Islamic FinTech?

- Less than one year
- 1 - Less than 3 years
- 3 - Less than 5 years
- 5 - Less than 7 years
- More than 7

QA 4: Language?

Which languages did you use in Islamic FinTech?

- Arabia
- English
- Others (Specify) _____

QA 5: What is your religion?

- Muslim
- Other

QA 6: Education/Academic Degree?

- High School or Under
- Bachelor's Degree
- Master's Degree
- Doctoral Degree

QA 7: Management Level?

- Top Level of Management.
- Middle Level of Management.
- Lower Level of Management.

SECTION B: PREDICTORS OF BEHAVIOURAL INTENTION

QB1. Indicate on a scale of 1-5 your level of agreement with the following statements where 1- Strongly Disagree, 2 – Disagree, 3- Neither, 4 – Agree, 5- Strongly agree

Performance Expectancy (PE)		**1**	**2**	**3**	**4**	**5**
PE1	I find Islamic FinTech useful in my daily life.					
PE2	Using Islamic FinTech increases my chances of achieving things that are important to me. (dropped)					
PE3	Using Islamic FinTech helps me accomplish things more quickly.					
PE4	Using Islamic FinTech increases my productivity					
Effort Expectancy (EE)		**1**	**2**	**3**	**4**	**5**
EE1	Learning how to use Islamic FinTech is easy for me.					
EE2	My interaction with Islamic FinTech is clear and understandable.					
EE3	I find Islamic FinTech easy to use.					
EE4	It is easy for me to become skilful at using Islamic FinTech.					
Social Influence (SI)		**1**	**2**	**3**	**4**	**5**
SI1	People who are important to me think that I should use Islamic FinTech.					
SI2	People who influence my behaviour think that I should use Islamic FinTech.					
SI3	People whose opinions I value prefer that I use Islamic FinTech.					
Facilitating Conditions (FC)		**1**	**2**	**3**	**4**	**5**
FC1	I have the resources necessary to use Islamic FinTech.					
FC2	I have the knowledge necessary to use Islamic FinTech.					
FC3	Islamic FinTech is compatible with other technologies I use.					
FC4	I can get help from others when I have difficulties using Islamic FinTech.					
Hedonic Motivation (HM)		**1**	**2**	**3**	**4**	**5**
HM1	Using Islamic FinTech is fun.					
HM2	Using Islamic FinTech is enjoyable.					
HM3	Using Islamic FinTech is very entertaining					
Price Value (PV)		**1**	**2**	**3**	**4**	**5**
PV1	Islamic FinTech is reasonably priced.					
PV2	Islamic FinTech is a good value for the money.					

PV3	At the current price, Islamic FinTech provides a good value.					
Habit (HT)		**1**	**2**	**3**	**4**	**5**
HT1	The use of Islamic FinTech has become a habit for me.					
HT2	I am addicted to using Islamic FinTech.					
HT3	I must use Islamic FinTech.					
HT4	Using Islamic FinTech has become natural to me.					

SECTION C. BEHAVIOURAL INTENT TOWARDS FINTECH ACCEPTANCE

Indicate on a scale of 1-5 your level of agreement with the following statements where 1- Strongly Disagree, 2 – Disagree, 3- Neither, 4 – Agree, 5- Strongly agree

Behavioural Intention (BI)		**1**	**2**	**3**	**4**	**5**
BI1	I intend to continue using Islamic FinTech in the future.					
BI2	I will always try to use Islamic FinTech in my daily life.					
BI3	I plan to continue to use Islamic FinTech frequently.					

SECTION D. ISLAMIC FINTECH USE

On a scale of 1-5, rate your usage frequency of Islamic FinTech for each of the following; where 1 – Never, 2 – Almost never, 3, Occasionally/Sometimes, 4 – Almost every time, and 5 – Every time in a day

Use of Islamic FinTech (Usage)		**1**	**2**	**3**	**4**	**5**
Usage 1.	Usage 1.					
Usage 2.	Usage 2.					
Usage 3.	Usage 3.					
Usage 4.	Usage 4.					
Usage 5.	Usage 5.					
Usage 6.	Usage 6.					

Appendix 2a: Research Questionnaire (Arabic Version)

الملحق د: الاستبانة

شكرًا لك على قبول المشاركة في هذه الدراسة. أنا مرشح لدرجة الدكتوراه مهتم بدراسة قبول واستخدام التكنولوجيا المالية الإسلامية (Islamic FinTech).ستكون ردودك قيّمة في مساعدتي على تحقيق هدف البحث هذا. سيتم الاحتفاظ بجميع ملاحظاتك في سرية تامة ولن يتم استخدامها لأي غرض بخلاف البحث الأكاديمي.

تعليمات:

5) هناك قسمان في هذا الاستبيان.
6) يرجى الإجابة على جميع الأسئلة في جميع الأقسام.
7) سيستغرق إكمال هذا النموذج من 10 إلى 15 دقيقة.
8) وستبقى محتويات هذا الاستبيان سرية للغاية.

القسم الأول: الخصائص الديموغرافية

في هذا القسم، نود منك ملء بعض بياناتك الشخصية. يرجى وضع علامة على إجابتك وسيتم الاحتفاظ بإجاباتك بسرية تامة.

QA 1: الجنس؟

- **ذكر**
- **أنثى**

QA 2: العمر؟

- **25-34 سنة**
- **35-44 سنة**
- **45-54 سنة**
- **55 - 64 سنة**
- **65 سنة أو أكثر**

QA 3: تجربة :منذ متى وأنت تستخدم التكنولوجيا المالية الإسلامية؟

- **أقل من سنة واحدة**
- **1 - أقل من 3 سنوات**
- **3 - أقل من 5 سنوات**

- 5 - أقل من 7 سنوات
- أكثر من 7

QA 4: اللغة؟

ماهي لغات التي تستخدمها في التكنولوجيا المالية الإسلامية؟

- العربيه
- الإنكليزية
- أخرى (حدد) _____

QA 5: ما هو دينك؟

- مسلم
- آخر

QA 6: الدرجة الأكاديمية؟

- المدرسة الثانوية أو أقل
- درجة البكالوريوس
- درجة الماجستير
- درجة الدكتوراه

QA 7: مستوى الإداري؟

- أعلى.
- متوسط.
- منخفض.

القسم الثاني: المتنبئون بالنية السلوكية

QB1. أشر على مقياس من 1-5 إلى مستوى موافقتك على العبارات التالية حيث أن:

1- لا أوافق بشدة 2- لا أوافق 3- لا 4 – أوافق 5- أوافق بشدة

توقعات الأداء (PE)	1	2	3	4	5

PE1	أجد التكنولوجيا المالية الإسلامية مفيدة في حياتي اليومية.					
PE2	إن استخدام التكنولوجيا المالية الإسلامية يزيد من فرصي في تحقيق الأشياء المهمة بالنسبة لي. (أسقط)					
PE3	يساعدني استخدام التكنولوجيا المالية الإسلامية على إنجاز الأمور بسرعة أكبر.					
PE4	استخدام التكنولوجيا المالية الإسلامية يزيد من إنتاجيتي					
الجهد المتوقع (EE)		**1**	**2**	**3**	**4**	**5**
EE1	تعلم كيفية استخدام التكنولوجيا المالية الإسلامية أمر سهل بالنسبة لي.					
EE2	تفاعلي مع التكنولوجيا المالية الإسلامية واضح ومفهوم.					
EE3	أجد التكنولوجيا المالية الإسلامية سهلة الاستخدام.					
EE4	من السهل بالنسبة لي أن أصبح ماهرا في استخدام التكنولوجيا المالية الإسلامية.					
التأثير الاجتماعي (SI)		**1**	**2**	**3**	**4**	**5**
سي1	يعتقد الأشخاص المهمون بالنسبة لي أنه يجب علي استخدام التكنولوجيا المالية الإسلامية.					
سي2	يعتقد الأشخاص الذين يؤثرون على سلوكي أنه يجب علي استخدام **التكنولوجيا المالية الإسلامية**.					
سي 3	الأشخاص الذين أقدر آرائهم يفضلون أن أستخدم **التكنولوجيا المالية الإسلامية**.					
شروط التيسير (FC)		**1**	**2**	**3**	**4**	**5**
FC1	لدي الموارد اللازمة لاستخدام التكنولوجيا المالية الإسلامية.					
FC2	لدي المعرفة اللازمة لاستخدام التكنولوجيا المالية الإسلامية.					
FC3	التكنولوجيا المالية الإسلامية متوافقة مع التقنيات الأخرى التي أستخدمها.					
FC4	يمكنني الحصول على المساعدة من الآخرين عندما أواجه صعوبات في استخدام التكنولوجيا المالية الإسلامية.					
دافع المتعة (HM)		**1**	**2**	**3**	**4**	**5**
HM1	استخدام التكنولوجيا المالية الإسلامية أمر ممتع.					
HM2	استخدام التكنولوجيا المالية الإسلامية أمر ممتع.					
HM3	استخدام التكنولوجيا المالية الإسلامية مسلية للغاية					
قيمة السعر (PV)		**1**	**2**	**3**	**4**	**5**
PV1	التكنولوجيا المالية الإسلامية بأسعار معقولة.					
PV2	التكنولوجيا المالية الإسلامية هي قيمة جيدة مقابل المال.					
PV3	بالسعر الحالي ، توفر التكنولوجيا المالية الإسلامية قيمة جيدة.					

العادة (HT)		1	2	3	4	5
HT1	أصبح استخدام التكنولوجيا المالية الإسلامية عادة بالنسبة لي.					
HT2	أنا مدمن على استخدام التكنولوجيا المالية الإسلامية.					
HT3	يجب أن أستخدم التكنولوجيا المالية الإسلامية.					
HT4	أصبح استخدام التكنولوجيا المالية الإسلامية أمرا طبيعيا بالنسبة لي.					

القسم الثالث: النية السلوكية نحو قبول التكنولوجيا المالية

أشر على مقياس من 1-5 إلى مستوى موافقتك على العبارات التالية حيث 1- لا أوافق بشدة، 2- لا أوافق، 3- لا، 4- أوافق، 5- أوافق بشدة

النية السلوكية (BI)		1	2	3	4	5
بي1	وأعتزم مواصلة استخدام التكنولوجيا المالية الإسلامية في المستقبل.					
بي آي 2	سأحاول دائما استخدام التكنولوجيا المالية الإسلامية في حياتي اليومية.					
بي3	أخطط لمواصلة استخدام التكنولوجيا المالية الإسلامية بشكل متكرر.					

القسم الرابع: استخدام التكنولوجيا المالية الإسلامية

على مقياس من 1-5: قم بتقييم تكرار استخدامك للتكنولوجيا المالية الإسلامية لكل مما يلي:

حيث ان: 1 - أبدا 2 - أبدا تقريبا 3 - في بعض الأحيان 4 - تقريبا في كل مرة 5 - في كل مرة في اليوم

استخدام التكنولوجيا المالية الإسلامية (الاستخدام)		1	2	3	4	5
Usage1	Usage1					
Usage2	Usage2					
Usage3	Usage3					
Usage4	Usage4					
Usage5	Usage5					
Usage6	Usage6					

Appendix 3: Missing data examination at item-level

Univariate Statistics							
Islamic FinTech	**N**	**Mean**	**Std. Deviation**	**Missing**		**No. of Extremes**	
				Count	**Per cent**	**Low**	**High**
ID number	100	22497.56	277.541	0	.0	0	0
Gender	100	1.43	.498	0	.0	0	0
Culture job	100	2.71	.743	0	.0	0	3
Banks	100	1.94	1.221	0	.0	0	10
Religion	100	1.05	.219	0	.0	.	.
Language	100	1.05	.261	0	.0	.	.
Location	100	5.45	4.289	0	.0	0	0
Padres	100	5.45	4.289	0	.0	0	0
Location latitude	100	23.329	3.999	0	.0	0	0
Location longitude	100	42.982	3.522	0	.0	0	0
Age	100	1.76	.429	0	.0	.	.
Education	100	1.85	.672	0	.0	0	5
Experience	100	3.10	.937	0	.0	10	0
Time spending	100	1.36	.570	0	.0	0	13
Management levels	100	2.00	.246	0	.0	.	.

B1	100	1.580	.654	0	.0	0	1
B2	100	1.600	.651	0	.0	0	1
B3	100	1.650	.716	0	.0	0	2
PE1	100	2.090	.830	0	.0	.	.
PE2	100	2.100	.798	0	.0	.	.
PE3	100	2.060	.679	0	.0	.	.
PE4	100	2.110	.840	0	.0	.	.
EE1	100	1.620	.648	0	.0	0	0
EE2	100	1.600	.711	0	.0	0	2
EE3	100	1.630	.630	0	.0	0	0
EE4	100	1.620	.648	0	.0	0	1
SI1	100	2.060	.839	0	.0	0	0
SI2	100	2.040	.816	0	.0	.	.
SI3	100	2.090	.877	0	.0	0	2
HM1	100	1.530	.611	0	.0	0	0
HM2	100	1.600	.667	0	.0	0	1
HM3	100	1.650	.716	0	.0	0	2
PV1	100	1.670	.668	0	.0	0	1
PV2	100	1.740	.705	0	.0	0	3
PV3	100	1.710	.743	0	.0	0	1
FC1	100	1.590	.726	0	.0	0	3

FC2	100	1.550	.716	0	.0	0	2
FC3	100	1.620	.693	0	.0	0	2
FC4	100	1.570	.685	0	.0	0	2
HT1	100	1.360	.560	0	.0	0	1
HT2	100	1.350	.500	0	.0	0	0
HT3	100	1.390	.530	0	.0	0	0
HT4	100	1.350	.520	0	.0	0	0

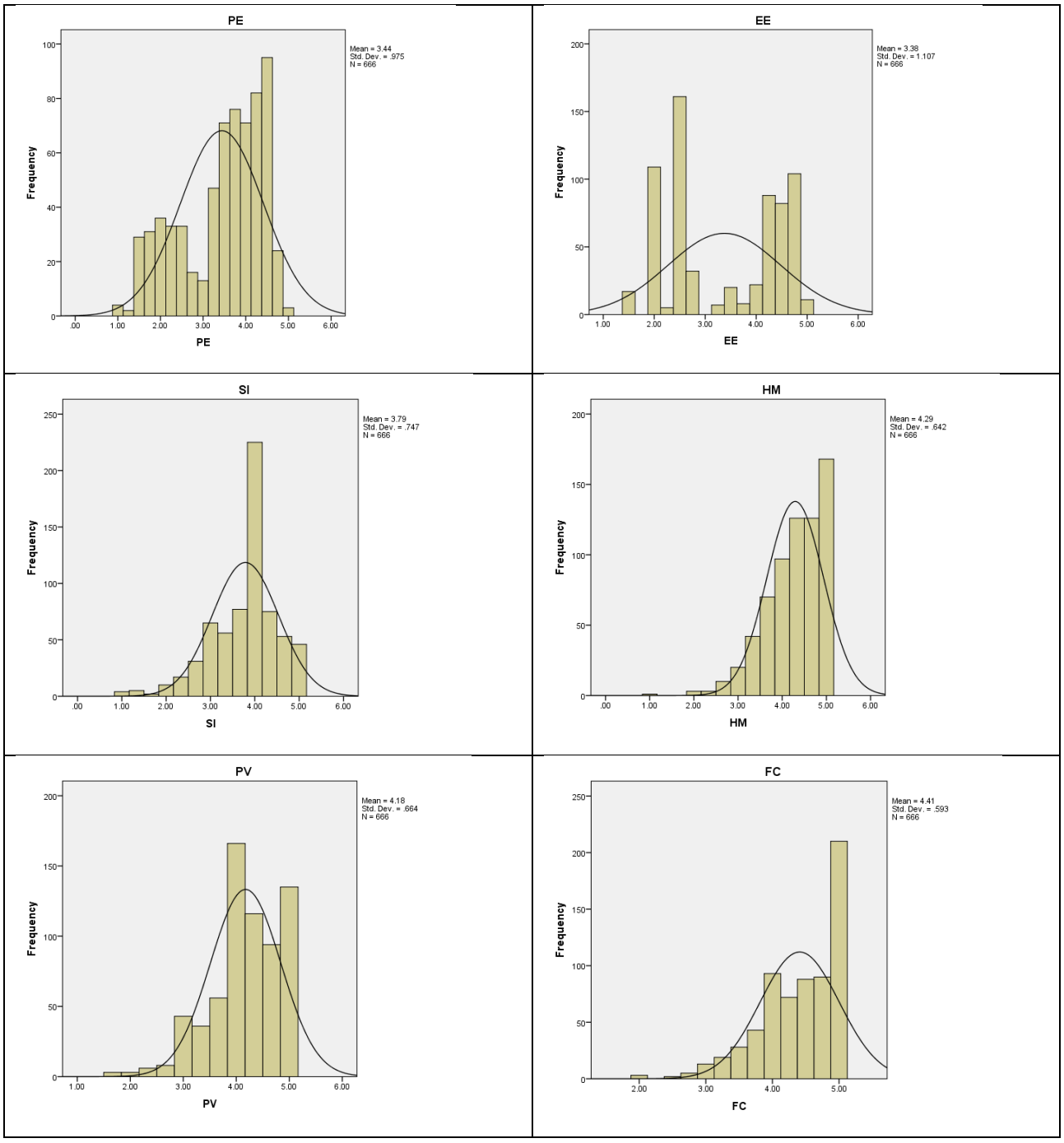
*a. Number of cases outside the range (Q1 - 1.5*IQR, Q3 + 1.5*IQR).*

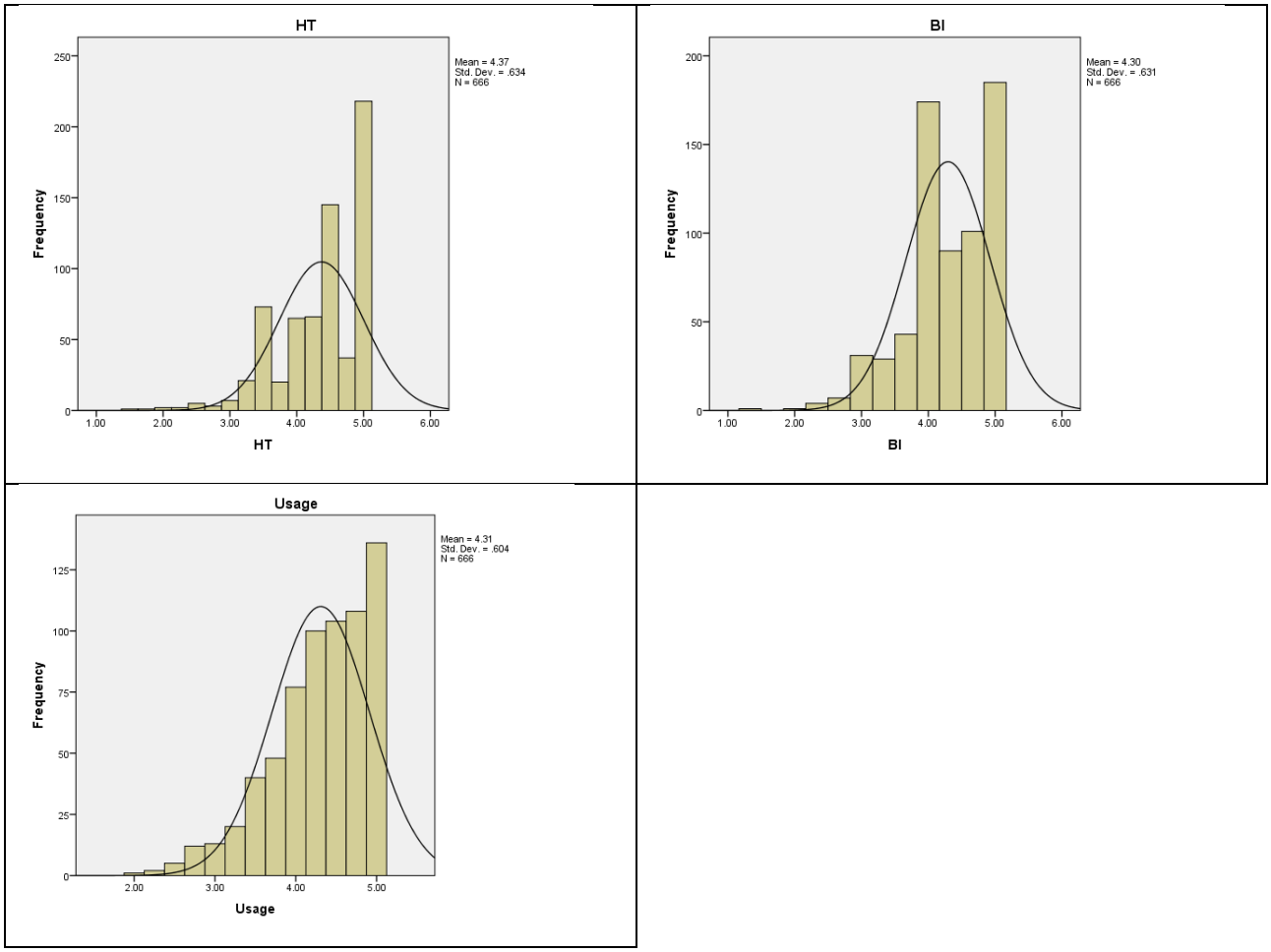
b. indicates that the inter-quartile range (IQR) is zero.

Appendix 4: Normal Distribution Checks using Histogram.

Histogram

In the histogram examination, the determination of whether the data follows a normal distribution can be ascertained by observing the formation of a "bell curve" (Garson, 2016; Hair et al. (2012). Put differently, the presence of a line that smoothly traverses from one end of the histogram to the other, intersecting the highest points of the histogram bars, exhibits a resemblance to the shape of a bell. The outcomes derived from the histogram analysis of the data obtained in the present study unequivocally demonstrate the presence of a normal distribution, characterized by a bell-shaped form.



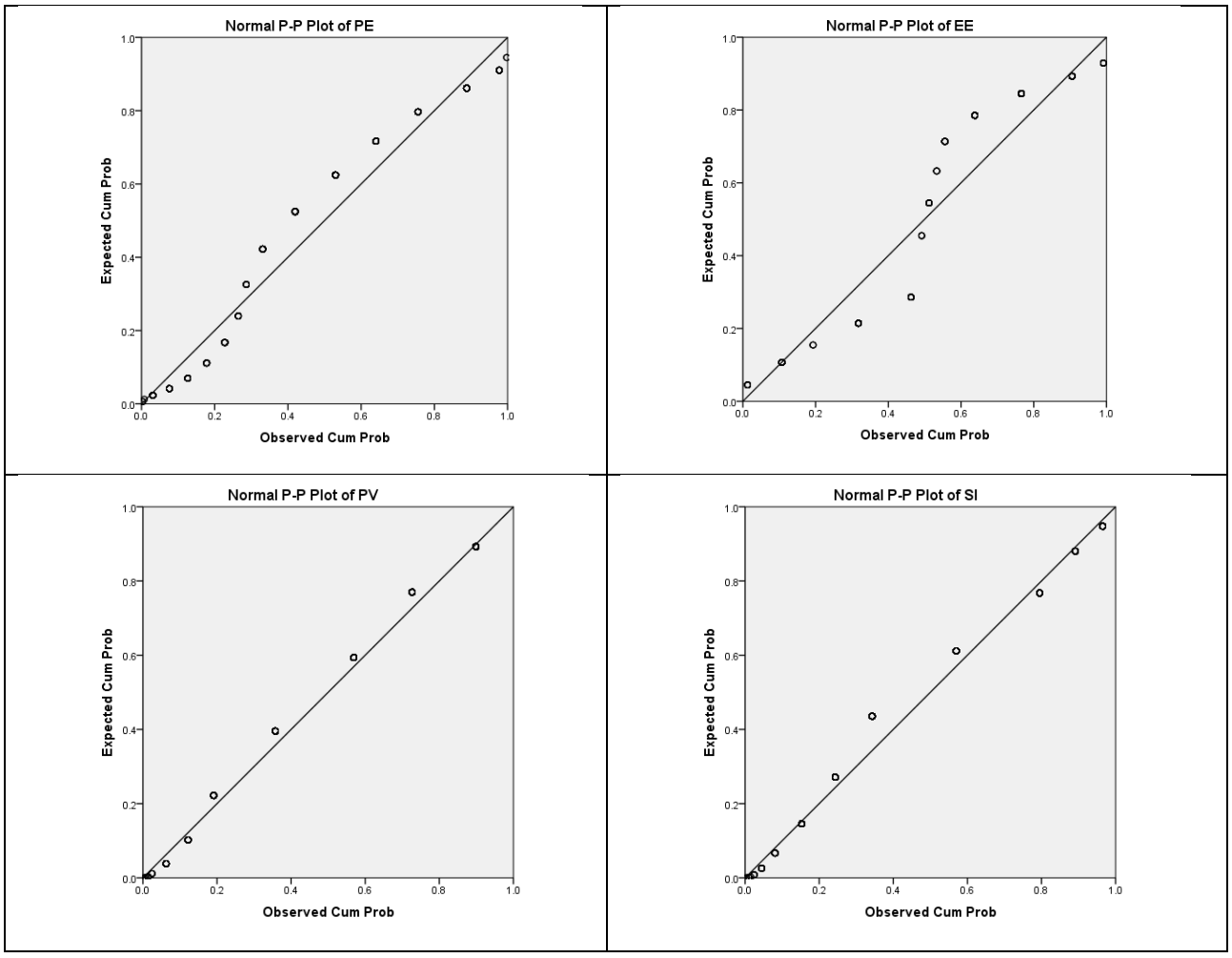


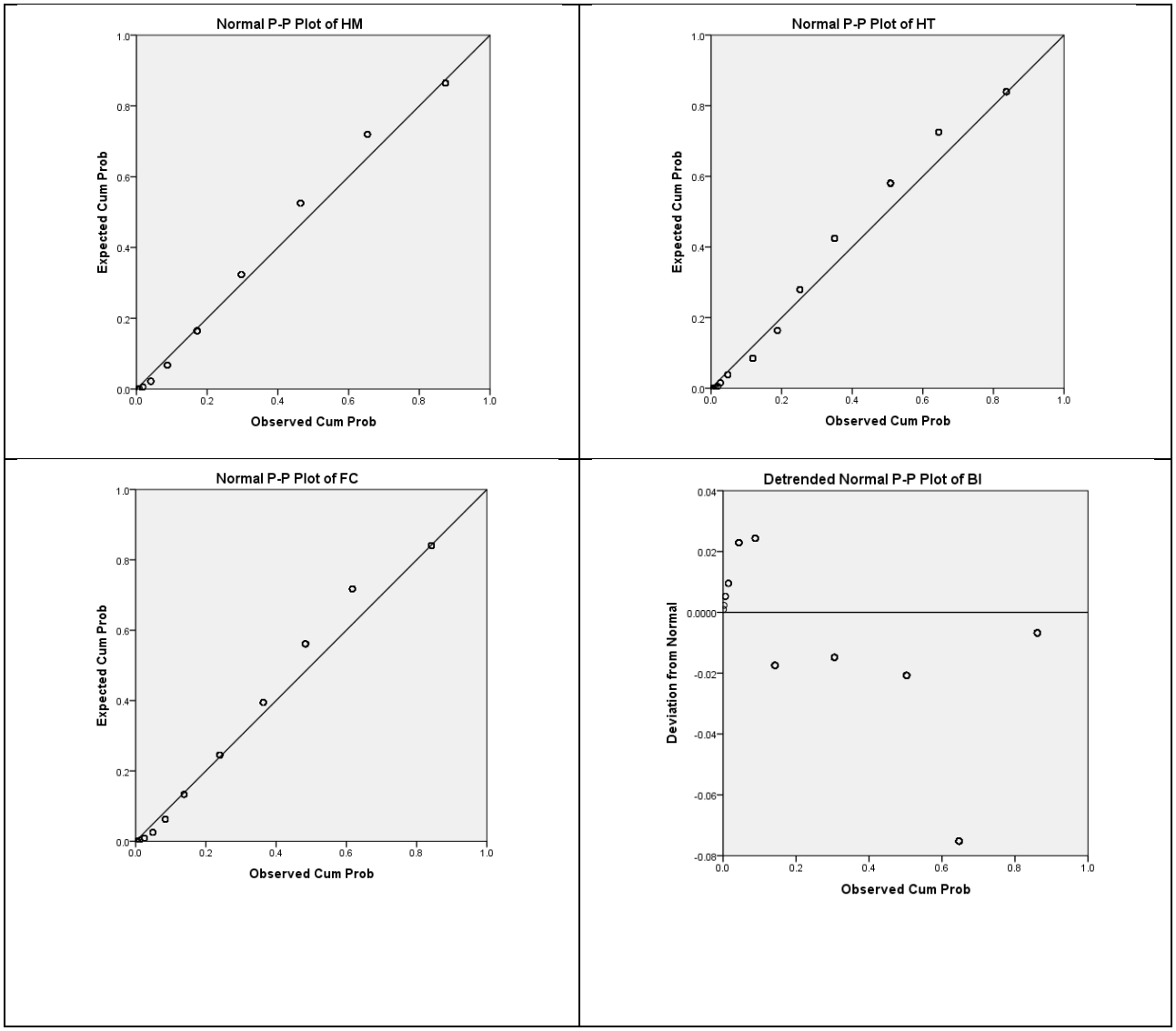
Normal distribution checks using histogram

Appendix 5: Normality Checks using P-P Plot for IV

P-P plot

The P-P plot is a graphical representation that enables the determination of the normal distribution of collected data. Hence, a probability plot is employed to evaluate the level of agreement between two data sets, comparing their cumulative distribution functions ((Fields, 2009; Garson, 2016). The findings of this study's P-P plot exhibit a progression of small circles, some randomly dispersed along the line, indicating favourable results. In conclusion, all three tests for normality confirm that the data is normally distributed and suitable for analysis.





Normal distribution checks using p-p plot for IV

Appendix 6: Factor Analysis

To ascertain the significant associations between the independent and dependent variables, the study must conduct factor analysis (Fields, 2009; Garson, 2016). To assess the appropriateness of the research data for factor analysis, the Kaiser-Mayer Olkin's Measure of Sampling Adequacy (MSA) test, along with Bartlett's Test of Sphericity, were employed. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy is a statistical measure used to determine the proportion of variance in a research's variables. The range of the Kaiser-Mayer Olkin's Measure of Sampling Adequacy (MSA) index is from 0 to 1. Consequently, the measurement is presented below:

If the percentage is 1 that means each variable is perfectly predicted without error by the other variables.

- *If the percentage is .90 or above, that means marvellous.*
- *If the percentage is .80 or above, that means meritorious.*
- *If the percentage is .70 or above, that means middling.*
- *If the percentage is .60 or above, that means mediocre.*
- *If the percentage is .50 or above, that means miserable; and*
- *If the percentage is below (.50), that means unacceptable.*

Appendix 6(a): Measure of Sampling Adequacy

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.902
Bartlett's Test of Sphericity	Approx. Chi-Square	11208.035
	df	300
	Sig.	0.000

A grouping of constructs of total variance should be 60% or more to be considered suitable in social sciences (Hair et al., 2014; Hair et al., 2017; Garson, 2016). The results of this study displayed in the Table above reveal that the first constructs provide a large value of the total variance. Therefore, the constructs can be applied in the investigation of the questions of the study.

Appendix 6(b): Total Variance Explained

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% Of Variance	Cumulative %	Total	% Of Variance	Cumulative %	Total	% Of Variance	Cumulative %
1	8.705	34.818	34.818	8.705	34.818	34.818	3.172	12.687	12.687
2	4.078	16.312	51.130	4.078	16.312	51.130	3.107	12.427	25.113
3	1.936	7.743	58.873	1.936	7.743	58.873	2.884	11.535	36.648
4	1.283	5.133	64.006	1.283	5.133	64.006	2.735	10.940	47.588
5	1.073	4.292	68.298	1.073	4.292	68.298	2.560	10.239	57.826
6	1.042	4.169	72.467	1.042	4.169	72.467	2.410	9.641	67.468
7	.978	3.910	76.377	.978	3.910	76.377	2.227	8.910	76.377
8	.619	2.475	78.852						
9	.554	2.215	81.067						
10	.451	1.804	82.871						

11	.441	1.763	84.634
12	.416	1.662	86.297
13	.384	1.536	87.832
14	.378	1.514	89.346
15	.341	1.364	90.710
16	.324	1.298	92.008
17	.308	1.231	93.240
18	.294	1.174	94.414
19	.261	1.045	95.458
20	.259	1.035	96.494
21	.225	.899	97.392
22	.210	.841	98.233
23	.192	.768	99.001
24	.129	.514	99.515
25	.121	.485	100.000

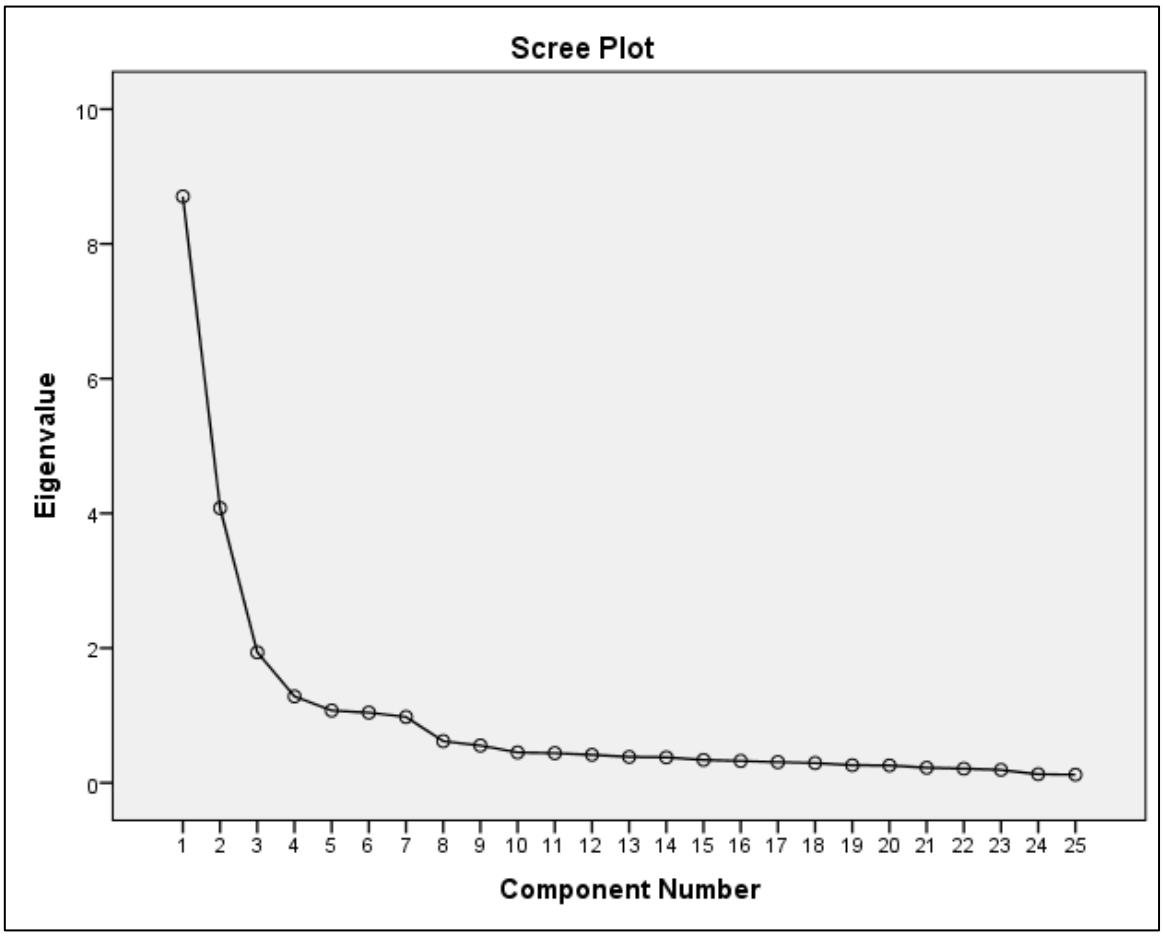
Extraction Method: Principal Component Analysis.

The utilisation of principal component factor analysis with Varimax rotation and Kaiser Normalization technique facilitated the analysis of the data. To determine the appropriate loading for the items, the Kaiser-Guttman Rule (Eigenvalues greater than one) and scree plot were employed (Fields, 2009; Garson, 2016). The outcomes of the factor analysis of the basic component are presented in the table below. Factor analysis, a multivariate statistical technique, is employed to examine the structure of correlations that can exist among a large number of factors (Hair et al., 2014; Hair et al., 2017; (Fields, 2009; Garson, 2016). This technique relies on several standard dimensions

and aids researchers in determining whether a certain number of instruments constitute a construct or not (Gefen et al., 2000). Factor analysis is characterised by two significant features: the identification, expansion, and explanation of separate structure dimensions based on each factor and the reduction of the set of factors through data summarisation (Hair et al., 2014; Hair et al., 2017; (Fields, 2009; Garson, 2016).

The table below presents the outcomes of the factor analysis of the principal components. To obtain the optimal solution, the examination of the items should be based on two types of validity: discriminant validity and convergent validity. Thus, the establishment of convergent validity relies on the strong loading of instruments on their respective factors (loading > .50) (Hair et al., 2014; Hair et al., 2017; (Fields, 2009; Garson, 2016). or (loading > .40) (Hair et al., 2014; Hair et al., 2017. However, each factor needs to load strongly on its designated factor rather than on other factors (Hair et al., 2014; Hair et al., 2017; (Fields, 2009; Garson, 2016).

Appendix 6(c): Interpret a Scree Plot in Factor Analysis



Appendix 6(d): Rotated Component Matrix Analysis

	Component						
	1	2	3	4	5	6	7
PE1			.820				
PE2			.831				
PE3			.828				
PE4			.837				
EE1		.885					
EE2		.846					
EE3		.880					
EE4		.830					
SI1					.816		
SI2					.801		
SI3					.839		
HM1							.782
HM2							.734
HM3							.753
PV1						.769	
PV2						.790	
PV3						.786	
FC1	.776						

FC2	.792	
FC3	.721	
FC4	.771	
HT1		.830
HT2		.660
HT3		.832
HT4		.598

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

Appendix 7: Pearson Correlation between Variables

Correlations

Correlation analysis pertains to investigations of the collective fluctuation of two or more variables to determine the degree of correlation among said variables, such as (A&U). Correlations are confined to various methods of ranking, as prescribed by (Kothari, 2004a) Measures of statistical significance are constrained to non-parametric methods, as outlined by (Jolliffe, 1990) The correlation measures the relationship between two variables in a manner that eliminates the influence of other related variables. In essence, in correlation analysis, we strive to measure the relationship between a dependent variable (DV) and a specific independent variable (IV) while keeping all other variables constant, as elucidated by Fields, (2009). Hence, the correlation coefficient is a numerical representation of the strength of the relationship between two variables, as expounded by Fields (2009).

	Usage	BI	PE	EE	SI	HM	PV	FC	HT
Usage	1								
BI	.576**	1							
PE	.061	-.034	1						
EE	-.038	-.035	-.354**	1					
SI	.576**	.579**	.045	-.015	1				
HM	.533**	.560**	.024	-.005	.535**	1			
PV	.572**	.580**	.041	-.016	.541**	.532**	1		
FC	.594**	.606**	-.008	-.025	.550**	.558**	.600**	1	
HT	.605**	.601**	.142**	-.134**	.559**	.536**	.607**	.651**	1

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

N = 666

Appendix 8. Smart-PLS Analysis Results

Appendix 8 (a). Inner VIF values

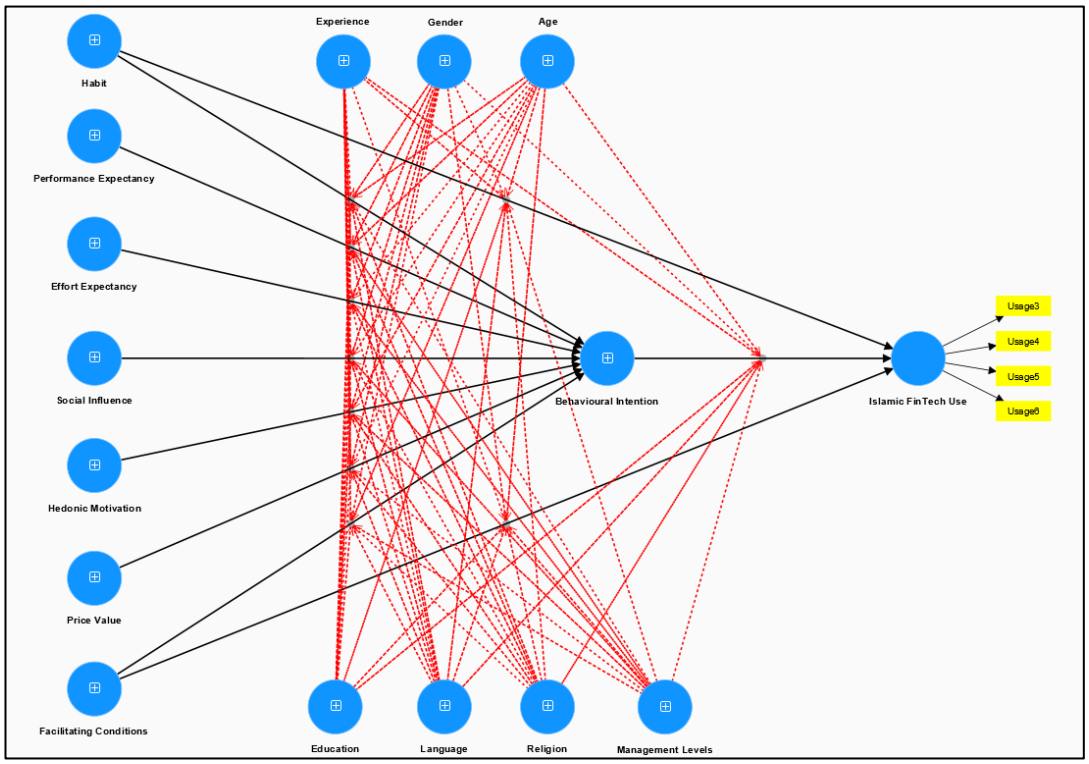
	Behavioural Intention	Islamic FinTech Use
Age	1.208	1.157
behavioural Intention		3.457
Education	1.253	1.166
Effort Expectancy	2.216	
Experience	1.171	1.102
Facilitating Conditions	4.244	3.648
Gender	1.300	1.217
Habit	4.192	3.343
Hedonic Motivation	3.180	
Language	1.256	1.073
Management Levels	1.277	1.227
Performance Expectancy	1.892	
Price Value	3.936	
Religion	1.329	1.223
Social Influence	3.746	
Education x Price Value	2.241	
Language x Hedonic Motivation	3.590	
Management Levels x Effort Expectancy	1.338	

Management Levels x Habit	3.544	2.487
Religion x Price Value	2.352	
Education x Hedonic Motivation	2.438	
Gender x Hedonic Motivation	2.549	
Experience x Facilitating Conditions	2.516	2.160
Age x Social Influence	2.260	
Religion x Facilitating Conditions	2.671	2.068
Gender x Facilitating Conditions	3.315	2.874
Language x Social Influence	2.294	
Experience x Price Value	2.273	
Experience x Hedonic Motivation	2.447	
Education x Habit	2.928	2.349
Age x Facilitating Conditions	2.785	2.341
Experience x Performance Expectancy	1.310	
Gender x Social Influence	3.051	
Management Levels x Price Value	3.490	
Age x Effort Expectancy	1.440	
Religion x Effort Expectancy	1.382	
Age x Hedonic Motivation	2.232	
Language x Behavioural Intention		1.798

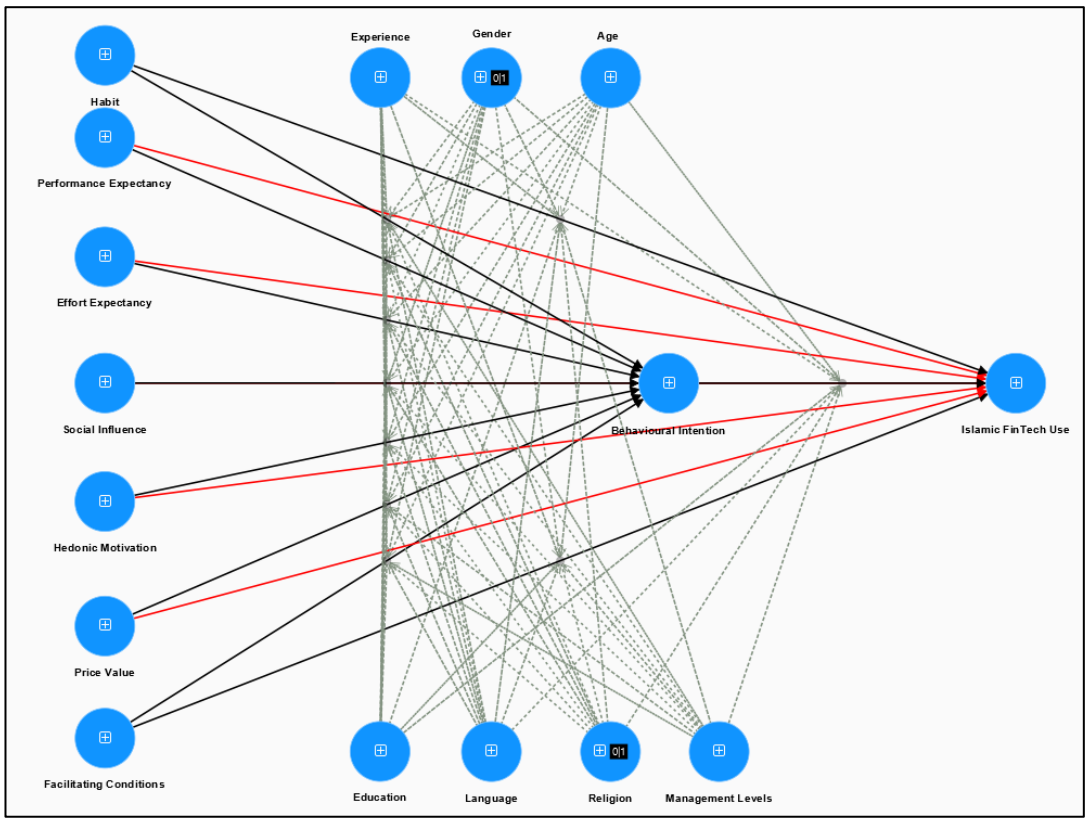
Age x Performance Expectancy	1.444	
Management Levels x Behavioural Intention		2.284
Age x Behavioural Intention		2.258
Language x Facilitating Conditions	3.485	2.247
Religion x Performance Expectancy	1.318	
Experience x Habit	3.042	2.344
Experience x Effort Expectancy	1.303	
Management Levels x Facilitating Conditions	3.897	2.467
Religion x Habit	2.451	2.271
Religion x Behavioural Intention		1.842
Language x Performance Expectancy	1.461	
Age x Habit	3.088	2.462
Gender x Habit	3.012	2.624
Religion x Social Influence	1.819	
Religion x Hedonic Motivation	1.965	
Experience x Social Influence	2.517	
Language x Price Value	2.504	
Education x Facilitating Conditions	2.832	2.298

Gender x Effort Expectancy	2.181	
Language x Effort Expectancy	1.283	
Gender x Behavioural Intention		3.055
Management Levels x Hedonic Motivation	2.685	
Education x Social Influence	2.383	
Language x Habit	2.589	2.024
Management Levels x Social Influence	2.781	
Gender x Performance Expectancy	1.909	
Education x Performance Expectancy	1.438	
Gender x Price Value	2.996	
Experience x Behavioural Intention		1.970
Management Levels x Performance Expectancy	1.296	
Age x Price Value	2.280	
Education x Effort Expectancy	1.409	
Education x Behavioural Intention		2.170

Appendix 8 (b). Research model in Smart-PLS 4



Appendix 8 (c). The alternative model that included additional direct paths



تؤكد وزارة الاتصالات وتقنية المعلومات موافقتها للباحث/ صالح عبد الله الغامدي بالمشاركة والتجاوب على الاستفسارات واستبيانات الباحث وفق الدراسة البحثية التي بعنوان (دور إدارة تكنلوجيا المعلومات والأداء المالي) والتي تدعم بالتحديد مجال الدراسة.

مع خالص الشكر والتقدير،

مدير مركز الاتصالات الإدارية

عبد السلام بن صالح الشقحاء

٢٦/ ٤/ ١٤٣٥هـ