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INFLUENCING FACTORS OF INTENTION TO PARTICIPATE IN FAMILY TAKAFUL PRODUCTS AMONG ACADEMICIANS IN PRIVATE ISLAMIC UNIVERSITIES

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Universiti Utara Malaysia

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INFLUENCING FACTORS OF INTENTION TO PARTICIPATE IN FAMILY TAKAFUL PRODUCTS AMONG ACADEMICIANS IN PRIVATE ISLAMIC UNIVERSITIES

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ABSTRACT

The development of the takaful industry in Malaysia was inspired by the prevailing needs of the Muslim society for a Shariah-compliant product. The market penetration rate for conventional life insurance and family takaful products for 2022 was 54 and 20.1 percent, respectively. It indicates that much of the Malaysian population is still uninsured/protected. Thus, this study incorporates the Theory of Planned Behaviour with other supporting behavioural-based theories, such as the Brand Association, Unified Theory of Acceptance and Use of Technology and Initial Trust Formation Model, in assessing the customers' intention to participate in the products. These theories highlighted crucial predictors for behavioural studies, including the influence of attitude, subjective norms, perceived behavioural control, halal brand association, facilitating condition and moderating effect of institutional trust on the behavioural intention. A questionnaire was conducted on academicians in seven Malaysian private Islamic universities. The data were analyzed using Covariance-Based Structural Equation Modelling (CB-SEM) and Statistical Package for the Social Sciences (AMOS). The result unveiled that attitude, subjective norms, and perceived behavioural control are positive and significantly influence the customers' intention to participate in the family takaful products. Meanwhile, the two variables, halal brand association and facilitating conditions, indicated unsupported insignificant evidence. Moreover, institutional trust has significantly moderated the relationship between attitude, subjective norms, and perceived behavioural control on behavioural intention, but not halal brand association and facilitating conditions. This study highlights the crucial importance of these factors, adding to the existing knowledge and literature. Takaful operators must utilize these findings to enhance their operations and effectively re-strategize their marketing of the products to the public.

Keywords: Family takaful product, Halal brand association, Theory of Planned Behaviour, Institutional trust, Behavioural intention.

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ABSTRAK

Pembangunan industri takaful di Malaysia diinspirasikan oleh keperluan masyarakat Muslim terhadap produk patuh Syariah. Kadar penembusan pasaran bagi produk insurans hayat konvensional dan takaful keluarga untuk tahun 2022 masing-masing adalah 54 dan 20.1 peratus. Ini jelas menunjukkan bahawa sebahagian besar penduduk Malaysia masih belum dilindungi atau belum mempunyai insurans. Oleh itu, kajian ini menggabungkan Teori Tingkah Laku Terancang dengan teori-teori sokongan berasaskan tingkah laku lain, seperti Perkaitan Jenama, Teori Bersepadu Penerimaan dan Penggunaan Teknologi dan Model Pembentukan Kepercayaan Awal, dalam menilai niat pelanggan untuk menyertai produk-produk tersebut. Teori-teori ini menekankan peramal penting untuk kajian tingkah laku, termasuk pengaruh sikap, norma subjektif, kawalan tingkah laku yang dirasakan, perkaitan jenama halal, keadaan yang memudahkan dan kesan penyederhanaan kepercayaan institusi terhadap niat tingkah laku. Soal selidik telah dijalankan ke atas ahli akademik di tujuh universiti Islam swasta di Malaysia. Data dianalisis menggunakan Pemodelan Persamaan Struktur Berasaskan Kovarians (CB-SEM) dan Pakej Statistik untuk Sains Sosial (AMOS). Hasil kajian menunjukkan bahawa sikap, norma subjektif, dan kawalan tingkah laku yang dirasakan, mempengaruhi niat pelanggan untuk menyertai produk takaful keluarga secara positif. Sementara itu, dua pemboleh ubah; perkaitan jenama halal dan keadaan yang memudahkan, menunjukkan bukti tiada sokongan signifikan. Selain itu, kepercayaan institusi telah menyederhanakan secara signifikan hubungan antara sikap, norma subjektif, dan kawalan tingkah laku yang dirasakan terhadap niat tingkah laku, tetapi bukan pada pemboleh ubah perkaitan jenama halal dan keadaan yang memudahkan. Kajian ini menekankan kepentingan faktor-faktor ini, dan menambahkan pengetahuan dan literatur sedia ada. Pengendali takaful perlu memanfaatkan penemuan ini untuk meningkatkan operasi mereka dan menyusun semula strategi pemasaran produk mereka kepada orang awam supaya lebih berkesan.

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Kata kunci: Produk takaful keluarga, Perkaitan jenama halal, Teori tingkah laku terancang, Kepercayaan institusi, Niat tingkah laku.

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Throughout this journey, I have encountered obstacles that tested my faith and perseverance. In those moments of doubt and uncertainty, it was His mercy that illuminated the way forward, reminding me of His words in the **Quran**, *"For indeed, with hardship [will be] ease" (Surah Ash-Sharh, 94:6).* This verse has been a source of comfort and strength, constantly reminding me that patience and trust in Allah's plan will always lead to relief and success. His protection has been my shield, and His divine guidance has been my light, allowing me to overcome every hurdle with a renewed sense of purpose and direction.

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LIST OF ABBREVIATIONS

Cases

ATT - Attitude..... 103, 105

AVE - Average Variance Extracted..... 150

BNM - Bank Negara Malaysia..... 15

CAGR - Compound Annual Growth Rate..... 3

CFA - Confirmatory Factor Analysis..... 149

CFI - Comparative Fit Index..... 152

CSR - Corporate Social Responsibility..... 72

CSRA - CSR Association..... 76

DTPB - Decomposed Theory of Planned Behaviour..... 92

EE - Effort Expectancy..... 80

FSMP - Financial Sector Master Plan..... 61

FTP - Family Takaful Products..... 159

GCA - God-consciousness Association..... 76

GCC - Gulf Cooperation Council..... 2

GFI - Goodness-of-Fit Index..... 152

HBA - Halal Brand Association..... 16

IHEI - Islamic Higher Education Institutions..... 19

IMF - International Monetary Fund..... 6

ITFM - Initial Trust Formation Model..... 17

ITO - International Takaful Operators..... 61

MCO - Movement Control Order..... 6

PCB - Perceived Behavioural Control..... 103, 105

PE - Performance Expectancy..... 80

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PHI - Personal Health Insurance 9

RMSEA - Root Mean Square Error of Approximation 152

SCA - Shariah-compliant Association 76

SN - Subjective Norms..... 103, 105

TOF - Takaful Operational Framework 49

TRA - Theory Reasoned Action 63

UTAUT - Unified Theory of Acceptance and Used of Technology..... 17

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CHAPTER ONE

INTRODUCTION

This chapter introduces the broad and specific scope of the study, problem statement, research questions, research objectives, study significance, scope and limitations, and thesis organization.

1.1 Background of Study

The Islamic finance and banking industry has existed in Malaysia since 1983 and has grown tremendously over the last 30 years. The practice of Islamic finance and banking brought a significant shift in the mindset of Malaysian society. Therefore, the Islamic finance and banking industry increased in demand due to the awareness of Muslim people to participate in Islamic finance and banking products. According to the Islamic Finance Development Report, the total assets of the global Islamic finance industry grew from USD 2.5 trillion to USD 2.9 trillion and USD 3.3 trillion for the consecutive years starting 2018 to 2020 (Refinitiv, 2019, 2020, 2021). Thus, establishing an Islamic finance and banking system provides a good alternative for Malaysian society to participate in products and services that adhere to Shariah principles. Figure 1 indicates the global Islamic Finance industry's asset growth from 2014 to 2020.

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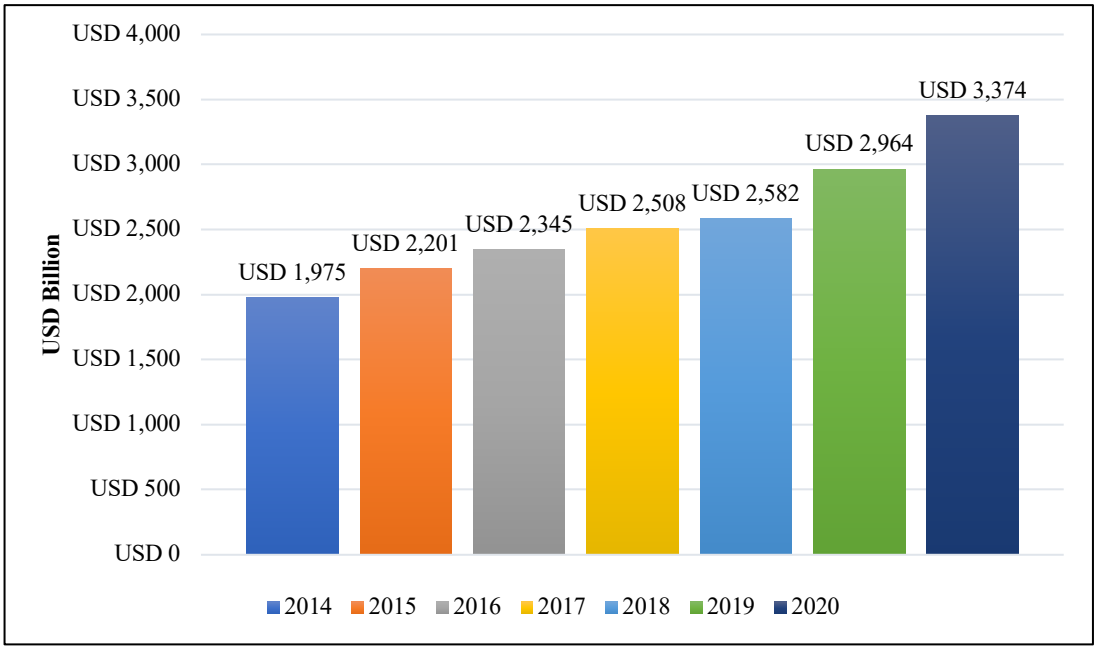

Figure 1 Asset Growth for the Global Islamic Finance

Sources: Refinitiv (2021)

Besides developing Islamic finance and banking, Malaysia also introduced Islamic insurance in 1984, known as takaful. The development of the takaful industry in Malaysia was inspired by the prevailing needs of the Muslim society for a Shariah-compliant product. Takaful is served as an alternative to the conventional insurance product for Muslim consumers. Furthermore, the emergence of the Takaful sector in Malaysia supports the Islamic bank's operations, which began in 1983 (Bank Negara Malaysia, 2005). The first Islamic insurance (takaful) company based in Malaysia was Syarikat Takaful Malaysia Berhad in 1984. To date, it has recorded 11 local and four foreign companies with up to 15 takaful companies operating in Malaysia.

Various factors contribute to the growth of the takaful market worldwide, including financial planning for retirement, health problem indemnity, death, and other factors. Shaikh et al. (2019) suggested that the factors contributing to the customer's adoption

of family takaful are consumers' awareness of participation in Islamic products and religious beliefs (Shaikh et al., 2019). Thus, takaful companies need to promote their products among Muslim consumers due to the basic regulation in Shariah principles. Besides, it is crucial to understand that Muslim peoples are sensitive to the issues of Islamic tenets. In line with Islamic principles, such as the takaful products must be in halal condition, takaful companies must show a good reputation to represent the image of Islam. The differences in the contract feature significantly impact the participation and selection of Muslim consumers toward conventional or Islamic insurance products. Thus, those who have not participated in insurance products will continue to be confused until an explanation is obtained. Meanwhile, those who have experienced conventional insurance will be in endless confusion about the differences between these two types of insurance.

The Takaful industry achieved accelerated growth in the Asia Pacific and the Gulf Cooperation Council (GCC) region, which consisted of a sizeable Muslim population (IMARC Group, 2020). Positive growth in the takaful industry aligns with Islamic finance and banking development. Takaful products are supposed to alternate the conventional insurance products to all Muslims worldwide, which require protection products based on Shariah concepts. Therefore, it is deemed an excellent alternative approach when dealing with risk management based on Islamic principles and guidelines. Additionally, the takaful industry in Malaysia, established in the early 1980s, was to complement the operation of the Islamic bank established in 1983 (Bank Negara Malaysia, 2005).

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According to a statistical report, the total asset for the global takaful industry indicated tremendous growth despite the hit of the Covid-19 pandemic in 2020. The total asset of the global takaful industry was recorded at USD 62 billion for the year 2020 (Refinitiv, 2021). The same report also indicated the total asset growth at USD 46 billion to USD 47 billion and USD 54 billion for three consecutive years, starting 2017 to 2019. The figure represents 16 percent of takaful assets growth in 2020. To date, the number of global takaful operators was recorded at 323. Furthermore, the takaful operators have marked a 75 percent positive performance, indicating an increase in net income, a decrease in net loss or a turn to profit from loss. This positive performance is reflected by 85 percent of net profit for the year 2020. Figure 2 indicates the asset growth of the global takaful industry starting 2014 to 2020.

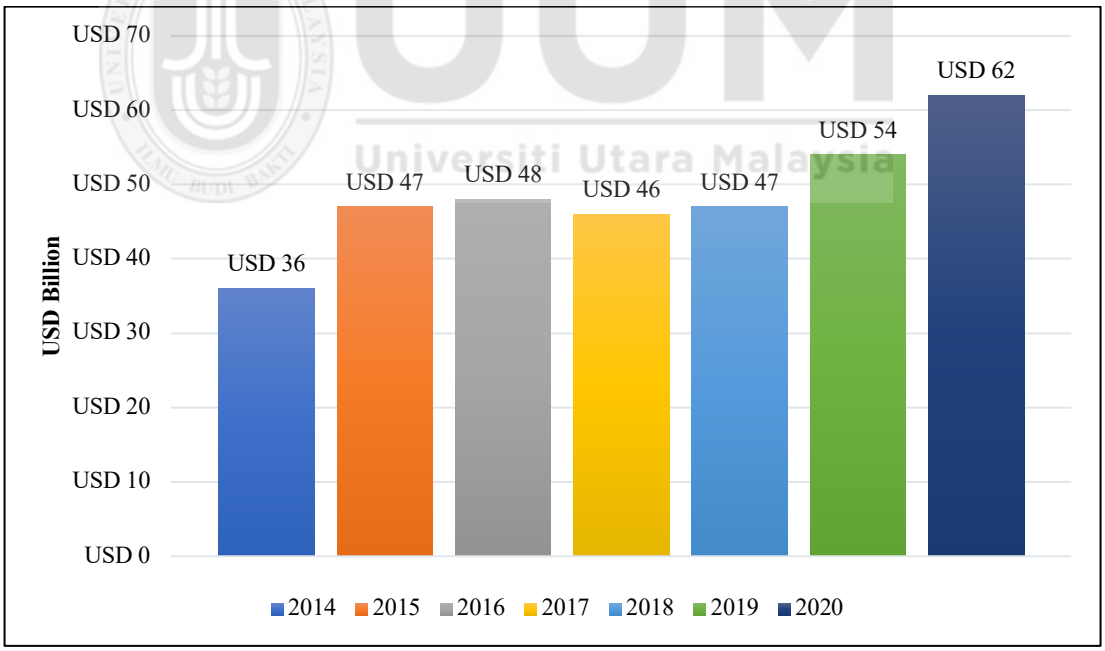

Figure 2 Asset Growth for the Global Takaful Industry

Sourse: Refinitiv (2021)

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South Asia imposes fast growth in the takaful industry with its core market. The development of the takaful industry in South Asia is due to the various regulatory changes in shaping industry governance and expanding the range of Shariah-compliant investments. An interesting fact to note is that Iran, Pakistan and Malaysia were the fastest-growing markets in takaful assets in 2020 (Refinitiv, 2021). Focusing on the Malaysian scenario, the market share for the takaful industry, specifically family takaful products, has collected RM10.06 billion of the new business total contribution for 2022. There is a double-digit growth of 18.3 percent (RM1.56 billion) compared to the previous year, 2021, which amounted to RM8.5 billion (Malaysian Takaful Association, 2023). The family takaful business growth indicates a suitable catalyst for the industry to forge ahead and give its best efforts. Figure 3 illustrates the new businesses total contributions for family takaful in Malaysia starting 2016 till 2022.

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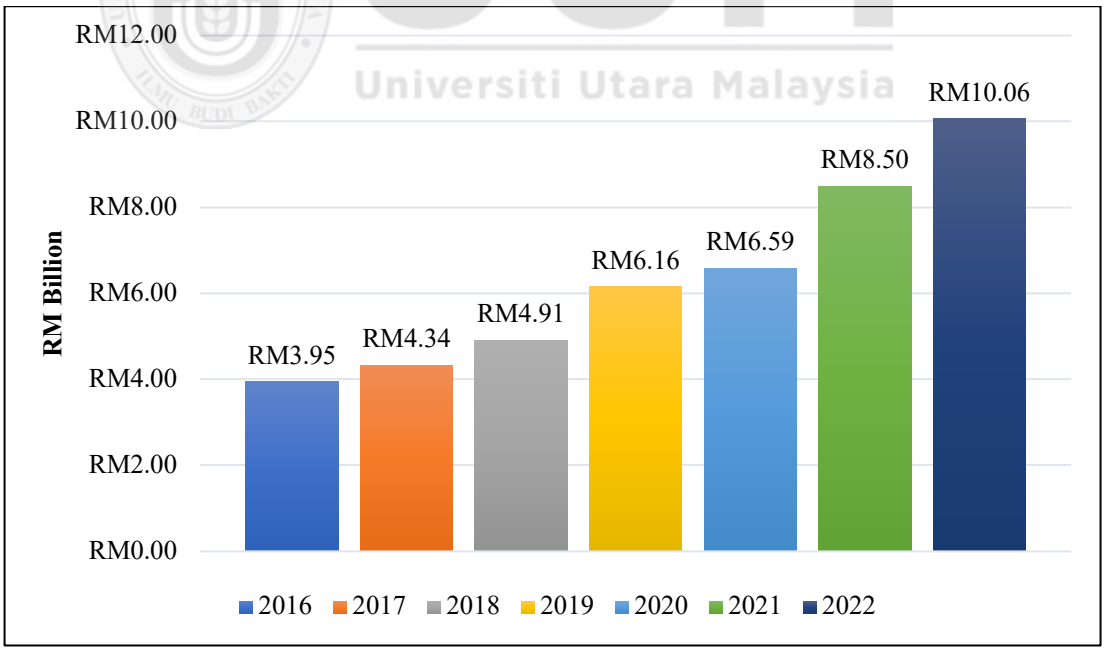

Figure 3 New Business Total Contributions for Family Takaful

Source: Malaysian Takaful Association (2023)

The financial position of insurance and takaful funds increased in the second half of 2022 compared to the first due to higher investment returns. Bond yields decreased, and equity markets strengthened, especially toward the end of the year, leading to positive excess income over outgo for life insurance and family takaful funds. The profitability of life insurance and family takaful funds did, however, remain below pre-pandemic levels for the entire year, reflecting the erratic financial market conditions, particularly in the first half of the year. Figure 4 below illustrates the composition of income and outgo for life insurance and family takaful for the year 2022 (Bank Negara Malaysia, 2023).

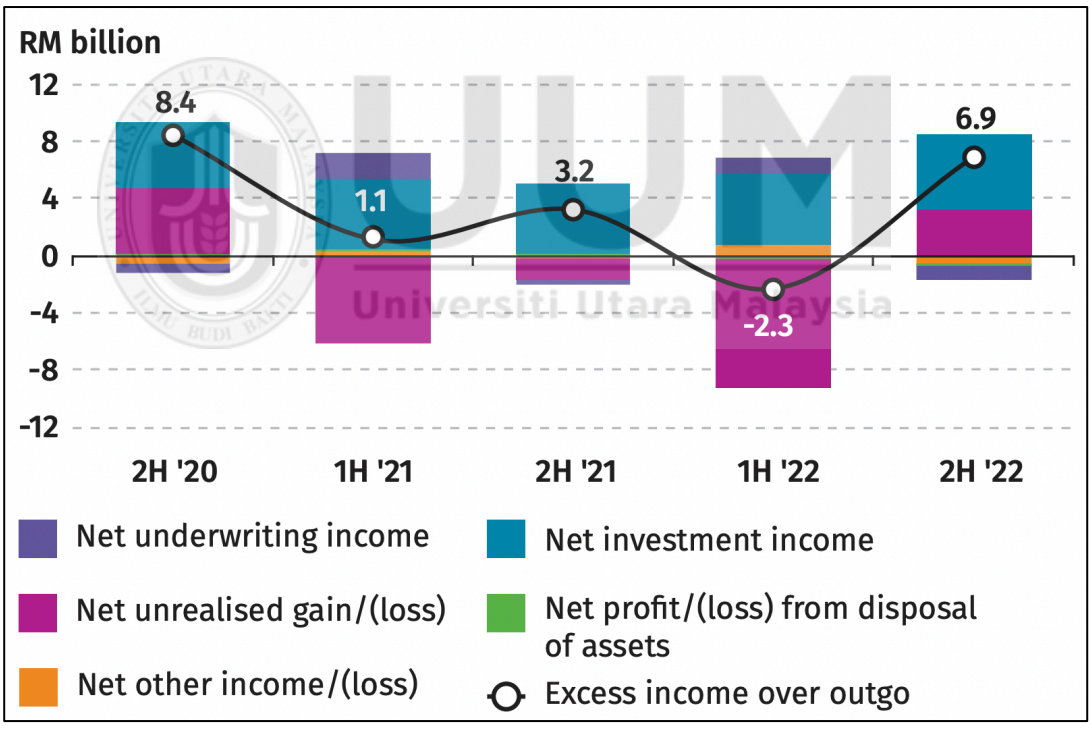

Figure 4 Composition of income and outgo for life insurance and family takaful

Source: Bank Negara Malaysia (2023)

Additionally, a rise in medical payouts negatively impacted underwriting performance (2H 2022: RM4.3 billion; 1H 2022: RM3.5 billion; 2020-2021 half-yearly average:

RM2.9 billion). Higher claims for critical and optional medical procedures that were put off during the pandemic and medical inflation were the main causes of this. New business premium declines have also contributed to the decrease in underwriting income. This was in line with overall seasonal trends, with the exception of Mortgage Reducing Term Takaful products, which continued to trend upward in response to an uptick in real estate market activity. In the year's second half, investment-linked new business premiums also increased by 12.5 percent (2H 2015–2019 average: 17.4 percent), reflecting ITOs' intensifying campaign rollouts to meet year-end sales goals (Bank Negara Malaysia, 2023).

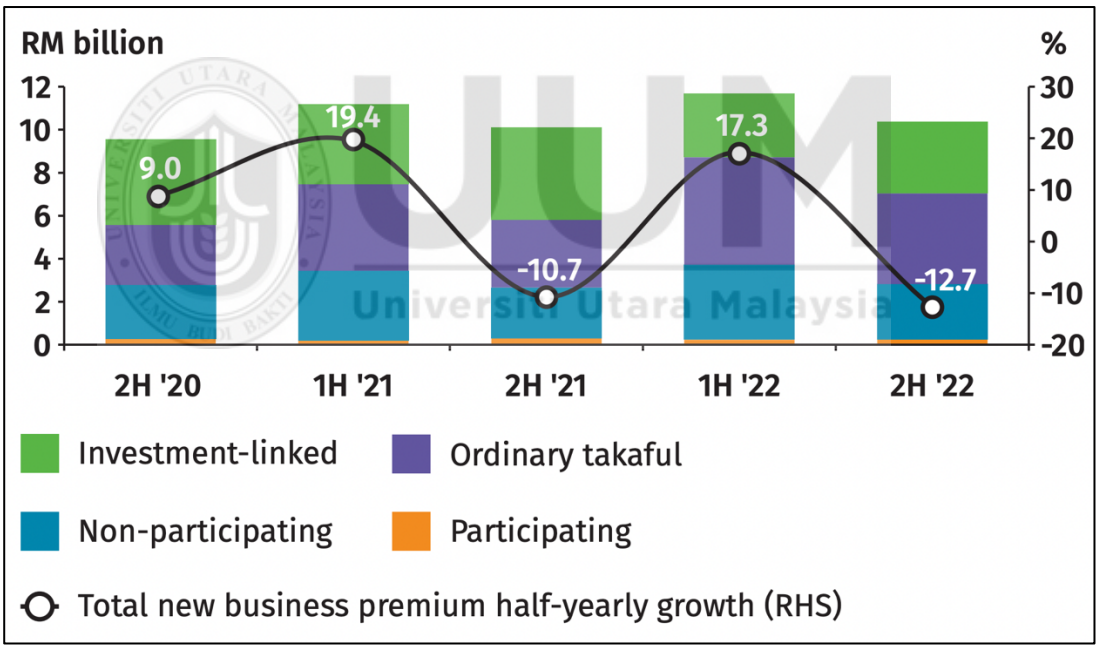

Figure 5 New Business Premium Growth for life insurance and family takaful

Source: Bank Negara Malaysia (2023)

Despite the high growth of new business contributions, the Takaful industry in Malaysia faces the enormous challenge of continuously growing in 2021. The main challenges faced by the Takaful industry are due to the spread of Coronavirus disease

(Covid-19). Many business sectors in affected countries have struggled to maintain their business performance due to implementing Movement Control Orders (MCO), travel restrictions, and large-scale quarantine (Abu Bakar & Rosbi, 2020). Even though on February 28, 2020, the International Monetary Fund (IMF) announced that the Malaysian economy was stable despite the internal and external gruelling globally based on 2019 performance. It was said that the government is tremendously improving the country's economic growth (Islamic Financial Services Board, 2020). Besides, instead of badly impacting the takaful industry, the market is growing steadily amid Covid-19 (The Star, 2020). An approach has been considered to mitigate the spread of Covid-19 in society.

Additionally, things are improving for airlines and hospitality industry partners as countries re-open their borderlines. The insurance and takaful industry is also anticipating increased demand for travel insurance/takaful, which has become critical following the Covid-19 outbreak. This is supported by news that more countries require inbound visitors to have travel insurance/takaful, including a minimum coverage for Covid-19-related medical expenses (Kang, 2021). According to reports, countries like Singapore, Thailand, Vietnam, the UAE, Turkey, and Portugal require mandatory travel insurance that covers essential medical costs related to Covid-19. Mandatory Covid-19 coverage will largely depend on the country's government enforcing such requirements. Thailand and Singapore, for example, require all inbound travellers to have travel insurance with a minimum coverage level of US$100,000 and S$30,000, respectively.

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1.2 Problem Statement

This section discusses the problem statements of the study in terms of three main gaps; contextual, empirical, and theoretical.

1.2.1 Contextual Gap

The takaful industry is overgrowing internationally, especially in Islamic countries. Malaysia is an Islamic country, where most of the population is Muslim. As of 2020, the Muslim population in Malaysia has reached 63.5 percent, Buddha 18.7 percent, Cristian 9.1 percent, Hindu 6.1 percent, and 0.9 percent of other religions (Department of Statistics Malaysia, 2022). Therefore, there is great potential for the takaful industry to expand its business in the Malaysian market. However, although there is significant growth in the takaful industry in Malaysia, many Muslim consumers still do not have takaful protection. As for the proof, the market penetration of Malaysia's family takaful industry was far left behind conventional life insurance, which is at 20.1 percent (The Edge Malaysia, 2023) and 54 percent (PwC, 2023), respectively, for the year 2022. Therefore, we can conclude that only 20 percent of Malaysian citizens have participated in family takaful products.

However, Islamic and conventional insurance failed to achieve the targeted rate according to Bank Negara Malaysia's Financial Sector Blueprint 2011-2020, at 25 percent and 75 percent of penetration rates, respectively (Ching, 2019; Olano, 2019). The latest annual report for the year 2022 has mentioned that Malaysia's family takaful industry's penetration rate was 20.1 percent (The Edge Malaysia, 2023). In 2019, the Malaysian Takaful Association, in their report, mentioned a significant gap in the total assets for the insurance and takaful industry. The total asset for life insurance was

recorded at RM286.6 billion, while the total asset for family takaful was recorded at RM31.4 billion for the same year. Nevertheless, to the best researcher's knowledge, no available data is found for the latest total asset for family takaful and life insurance. Figure 6 indicates the total assets for life insurance and family takaful for seven years, from 2014 to 2019.

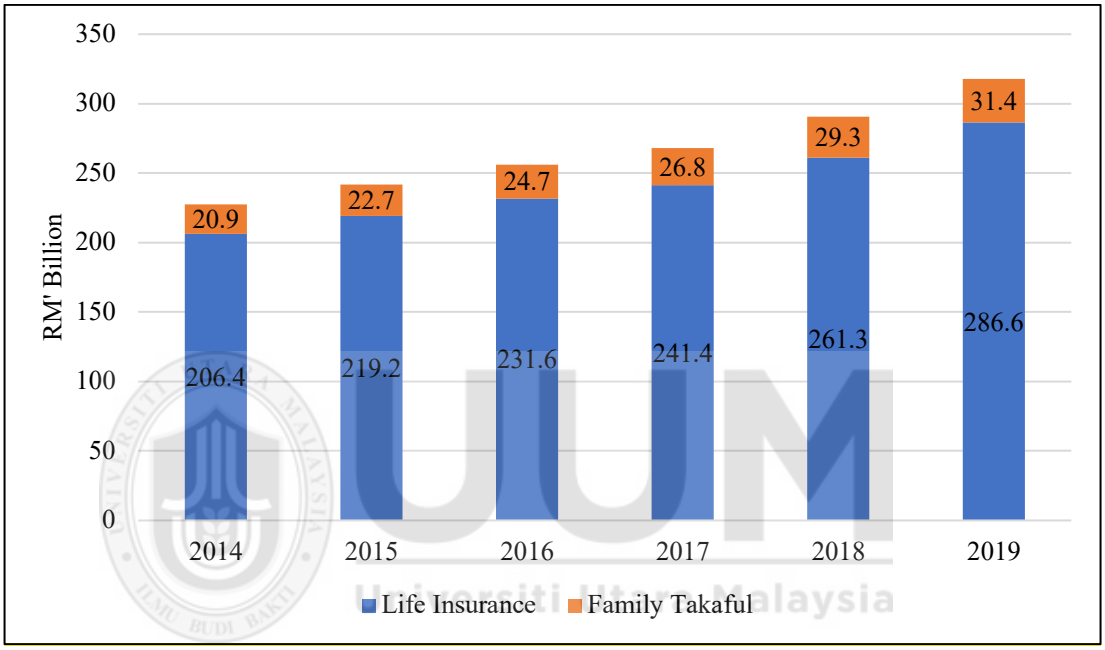

Figure 6 Total Asset for Life Insurance and Family Takaful (2014-2019)

Source: Malaysian Takaful Association (2020)

Additionally, a report by Bank Negara Malaysia has concluded that only 36.5 percent of a total of 29 million Malaysian citizens own at least a life insurance or family takaful policy (Hui Lin, 2018). Furthermore, out of the sum of Malaysian citizens, 18.8 percent were children aged 19 and below, 50.4 percent of the adult-aged 20 to 59 years old and 22.7 percent of the adults aged 60 and above. Moreover, referring to Personal Health Insurance (PHI), the National Health and Morbidity Survey 2019 concluded that only 22 percent of the Malaysian population is insured with personal health insurance

(National Institutes of Health, 2019). Additionally, 36 percent of the uninsured population claimed personal health insurance was unnecessary, and another 43 percent could not afford the PHI. Thus, it can be concluded that Malaysian individuals' level of participation in takaful products, especially family takaful, is still low. Therefore, there is a need to examine the contextual gap in assessing the factors influencing the customer's intention to participate in family takaful products.

Several research looks at the elements that affect customers' willingness to join in takaful or conventional insurance (Aziz et al., 2019; Bhatti & Md Husin, 2019; Md Husin & Ab Rahman, 2016a, 2016b; Omar & Owusu-Frimpong, 2007). Most of the previous empirical works have indicated that behavioural intention is the key predictor of actual behaviour. For example, the intention to purchase is defined as the willingness of the customer to buy a specific product or service (Shao et al., 2004). As a result, purchasing intention denotes a link between willingness to buy and purchase intention (Karim et al., 2011). Furthermore, intentions are the most potent approach to explaining actual behaviour; the greater the intention, the more probable it is to perform the exact behaviour intended (Ajzen & Fishbein, 1980). However, even though behavioural intention plays an essential role in influencing human behaviour, it remains incapable of increasing the penetration rate of the family takaful industry in Malaysia. Thus, there is a need to research further the ability of behavioural intention to influence consumers to participate in family takaful products.

1.2.2 Empirical Gap

The empirical gap is consistent with earlier concerns. Family takaful product enables the participants or consumers not only to secure protection against a specific type of

risk but more than that, such as saving and investment benefits (Aziz et al., 2017). As the family takaful product offers an investment scheme in its nature, the participants should enjoy the return on investment based on their risk appetite. Nevertheless, a report by the Galen Centre for Health and Social Policy CEO mentioned that recognizing the life insurance/family takaful product as an investment platform is still lacking (Rao, 2019). The report also noted three main reasons for the lack of acceptance of life insurance or family takaful product among the Malaysian young generation. These three main reasons are the preferences not to commit to long-term financial commitment, inability to pay the premium and considering that the agents are only concerned about their sales targets. Besides, the participants' fear of investment risk when purchasing an investment-linked takaful product is another reason for the above problem.

A study assessed consumers' attitudes toward purchasing life insurance in Nigeria. The study has indicated that the investment plan is an influential determinant of attitude toward consumers' participation in life insurance (Omar & Owusu-Frimpong, 2007). Previous studies have suggested that attitude significantly influences human behaviour to participate in takaful products, especially family takaful products (Ab Rahim & Amin, 2011; Amin et al., 2014; Aziz et al., 2019; Maiyaki & Ayuba, 2015; Md Husin & Ab Rahman, 2016b, 2016a; Omar & Owusu-Frimpong, 2007). However, the item of saving and investment benefits in explaining and assessing the influence of attitude to participate in family takaful products in Malaysia is still scant to the best of the researcher's knowledge. Therefore, it is necessary to include investment plans to explain and influence customers' attitudes toward family takaful products.

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Further to the discussion on the empirical gap, the CEO of AIA Berhad has stated that the capabilities of insurance/takaful agents in convincing Malaysian consumers of the importance of having protection products is one of the primary reasons for the low penetration rate (Subramaniam & Vanessa, 2019). Comparing the role of insurance/ takaful agents in Singapore and Hong Kong shows more seriousness as the agent or adviser is considered a full-time occupation. As of 31st December 2022, the number of registered agents for family takaful in Malaysia was 95,253, which consists of Banca and non-Banca agents (Malaysian Takaful Association, 2023).

Figure 7 indicates the number of registered agents for family takaful in Malaysia from 2015 to 2022. Additionally, the number of agents for family takaful was recorded at 95,253 for the year 2022, indicating an increment of 0.5 percent compared to 2021. This massive number of agents in Malaysia should have enough capacity to increase the penetration rate for the takaful industry, especially for family takaful products. Thus, the role of takaful agents has been included to assess and explain the influences of subjective norms on the participation of customers in family takaful products.

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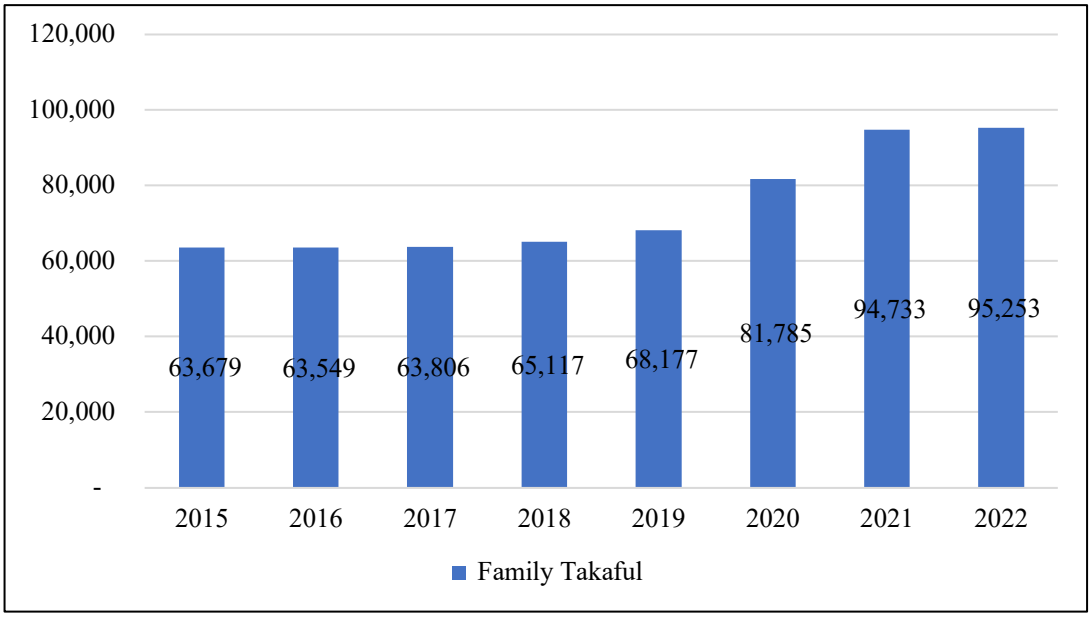

Figure 7 Number of Registered Agents for General and Family Takaful

Source: Malaysian Takaful Association (2021)

Furthermore, many past studies have included religiosity in explaining the attitude toward the participation of customers in takaful products. Interestingly, one of the studies mentioned that religiosity could shape a man's conduct choices, consisting of economic and commercial activities (Wan Ahmad et al., 2008). Religiosity, in any way, should be able to control the ethical beliefs of human beings, which could reflect human daily conduct and commitment (Conroy & Emerson, 2004). As a Muslim consumer, Islam is a religion of submission that comprehensively includes faith (*iman*), the conduct of *mukallaf* (shariah) and virtues and vices (*akhlaq*). At this moment, several studies have been done to assess religiosity in the context of consumers' participation in takaful products in general (Aziz et al., 2019; H. A. Hassan & Abbas, 2019; Md Husin & Ab Rahman, 2013; Parveen et al., 2019a, 2019b). The studies prove that religiosity significantly influences the attitude toward consumers' participation.

Despite that, the previous studies mainly focused on measuring religiosity in terms of ritual and belief aspects of Islam, exclusive of the attitude (*akhlaq*) component. In their study, Wan Ahmad et al. (2008) have suggested considering the various levels of Islamic ruling (*hukum*). Islamic financial industries, including takaful, must be competitive to ensure their continued existence. To deal with this issue, takaful companies should implement brand equity as one of the marketing strategies to achieve long-term sustainability and increase the participation level of the customers (Kamarulzaman & Madun, 2013). Brand equity has attracted interest from academics and industry players because it is considered the most potent factor in achieving sustainability in competitive circumstances (Aaker, 1992). Aaker (1992) suggests that brand association is one of the core dimensions of brand equity. The brand association has the potential to provide value and reasons for consumers to purchase a brand.

Halal is a distinct brand association influencing customers to participate in a takaful product over a conventional insurance product. The halal element presented in a brand can resonate among Muslim and non-Muslim consumers (Wilson & Liu, 2010). According to the Shariah principle, takaful products are lawful or halal, free from prohibited elements such as *riba, gharar* and *maysir*. However, takaful products should not solely limit the view of halalness as free from prohibited elements but should also achieve the Shariah objectives (*maqasid* Shariah). Several studies have used the halal brand association to investigate the selection factors on Islamic banks' products and services, but not on takaful products. To the best researcher's knowledge, the study on halal brand association in takaful products is still scant. Therefore, to examine this aspect from a broader perspective, this research introduces halal brand

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association as a new variable in assessing the *halalness* and Shariah compliance of takaful products and their influence on customer participation.

Moreover, the development of the Islamic finance industry was moved along with the story of Industry Revolution 4.0. The impact of innovation in information technology could make daily commercial transactions easier. It can also create numerous business models and cater to customers' needs (Tun-Pin et al., 2019). Thus, the emergence of information technology in the financial industry is called financial technology or '*Fintech*.' Financial technology is derived as an innovation in financial services. The innovation in technology for the financial sector enhanced the productivity and efficiency of financial services (Chuang et al., 2016). The history of Malaysia's financial technology can be traced back to 2001. At the time, Malaysian citizens were provided with a national identity card called 'MyKad.' This first innovation of fintech allows Malaysian citizens to use the card as an ATM card, an e-wallet and a transit card all in one (Paul Hype Page & Co, 2019). At the time, Malaysia's fintech industry is one of the most developed in Southeast Asia as it had significant growth.

Moreover, banking is one of the industries most enjoyed financial technology development. The uses of fintech innovations in the banking industry can be noticed by implementing mobile wallets (e-wallets), electronic payment, crowdfunding, and '*insurtech*' (the combination of insurance and technology). There are five main activities of fintech in Malaysia's financial industry. For instance, (1) payments, clearing and settlement; (2) deposits, lending and capital raising; (3) insurance/takaful; (4) investment management; and (5) market support (International Monetary Fund, 2020). A report by BNM has remarked that the transaction value for e-payment

activities continued to record a double-digit growth despite the decline in economic activities due to the pandemic and movement restrictions. The growth record 14 percent to 5.5 billion transactions in 2020 (Bank Negara Malaysia, 2021).

As Malaysia's financial sector landscape changes due to fintech development, the takaful industry should also move along. Therefore, takaful companies should start to adopt fintech in offering their products and services. Takaful companies can adopt fintech in various areas, including digital distribution, claim management, after-sale services, customization and underwriting using algorithms (Bank Negara Malaysia, 2021a). However, as mentioned above, the takaful penetration rate is still far too low compared to conventional insurance. A report by BNM says that almost half of Malaysians do not have protection due to a lack of awareness of the comprehensive range of solutions offered by the industry (Vasu, 2021). According to Fitch, as Vasu (2021) mentioned, takaful operators and providers can reconsider and re-strategize how these products are marketed to appeal to a broader audience seeking protection through an online application.

The growing use of digital applications in the takaful industry can also be a growth catalyst. Tech-enabled virtual or peer-to-peer will allow takaful companies to provide services at a lower cost, flexibility, and be customer-centric. Both commercial and cooperative banks that offer takaful products have implemented technology into their offerings. For instance, Bank Kerjasama Rakyat Malaysia Bhd has initiated to embrace digital and technology development by launching takaful digital online enrolment through QR codes (Vasu, 2021). Innovative technology has been used in many studies to select technology-based products. However, the use of fintech in takaful products is

still untapped for the Malaysian scenario. Therefore, the role of fintech is included in this research to assess the impact of facilitating conditions on customers' intention to participate in family takaful products.

Despite the growing interest in family takaful products, market penetration remains limited, raising concerns about the factors influencing customers' behavioural intentions to participate in these products. Among the myriad factors, institutional trust emerges as a critical yet underexplored moderating variable that could significantly influence customer decisions. Institutional trust refers to the confidence consumers place in the organizations and regulatory frameworks governing financial products, including Islamic finance.

Previous empirical studies have demonstrated the pivotal role of trust in financial decision-making, highlighting that higher levels of trust in financial institutions correlate with increased consumer participation in various financial products (Gefen et al., 2003; McKnight & Chervany, 2001). Specifically, in the context of Islamic finance, institutional trust can mitigate perceived risks associated with the ethical and Shariah compliance aspects of financial products (N. I. Abdullah & Dusuki, 2006). Given the unique nature of family takaful, which relies on mutual cooperation and risk-sharing under Shariah principles, institutional trust can enhance the perceived credibility and reliability of takaful operators.

This moderating effect of institutional trust on the relationships between key determinants such as attitude, subjective norms, perceived behavioral control, halal brand association, and facilitating conditions, and the behavioral intention to

participate in family takaful products, is crucial. By instilling greater confidence in the governance and operational transparency of takaful institutions, trust can amplify positive attitudes and normative pressures, strengthen perceived behavioral control, enhance brand associations, and improve the facilitation of participatory conditions, ultimately leading to higher participation rates (Hussain & Habib, 2020).

Therefore, understanding and leveraging the moderating role of institutional trust is essential for developing strategies to increase customer engagement in family takaful products, thereby addressing the current market penetration gap and fostering a more inclusive Islamic financial ecosystem.

1.2.3 Theoretical Gap

Theoretical gaps align with the previous section as new variables have been introduced in this study. This research included one underpinning theory, which is the Theory of Planned Behaviour (TPB). However, the researcher needs to extend the theory by including three supporting theories to select new variables: the Halal Brand Association (HBA), the Facilitating Condition (FC), and the moderating effect of Institutional Trust in the study. These supporting theories are Brand Association (BA), Unified Theory of Acceptance and Use of Technology (UTAUT) and Initial Trust Formation Model (ITFM).

1.3 Research Questions

The primary goal of this research is to identify and respond to the following questions.:

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i. To what extend attitude influence the intention to participate in family takaful products?

ii. To what extend subjective norm influence the intention to participate in family takaful products?

iii. To what extend perceived behavioural control influence the intention to participate in family takaful products?

iv. To what extend halal brand association influence the intention to participate in family takaful products?

v. To what extend facilitating conditions influence the intention to participate in family takaful products?

vi. To what extend institutional trust moderate the relationship between attitude, subjective norm, perceived behavioural control, halal brand association and facilitating conditions toward the intention to participate in family takaful products?

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1.4 Research Objectives

The main objective of this research is to examine the influencing factors on the intention to participate in family takaful products. The specific objectives of this research are as follows:

i. To examine the influence of attitude toward the intention to participate in family takaful products.

ii. To access the influence of subjective norms toward the intention to participate in family takaful products.

iii. To evaluate the influence of perceived behavioural control toward the intention to participate in family takaful products.

iv. To determine the influence of halal brand association toward the intention to participate in family takaful products.

v. To ascertain the influence of facilitating conditions toward the intention to participate in family takaful products.

vi. To examine the moderating effect of institutional trust on the relationship between attitude, subjective norm, perceived behavioural control, halal brand association, facilitating condition and the intention to participate in family takaful products.

1.5 Significance of Study

For a developing country like Malaysia, a booming market for family takaful is critical. It encourages saving habits and offers protection, which will provide social stability by mitigating the financial encumbrance on individuals in Malaysia. It is believed that the findings of this study will help family takaful operators and policymakers. The family takaful operator must recognize the influential factors toward customers' intention to participate in the products. Family takaful operators and policymakers should also take serious steps to increase public awareness of the importance of subscribing to family takaful products and enact measures that would further enable customers to participate in the products.

Besides, this study will provide new insight into the factors influencing customers' intention to participate in family takaful products. This study also intends to expand the theoretical framework by introducing new variables such as halal brand

association, facilitating conditions and the moderating effect of institutional trust. These new variables will provide a new dimension to explain the customers' behavioural intention to participate in family takaful products in Malaysia by focusing on the criterion of *halalness*, financial technology (fintech) and institutional trust.

1.6 Scope and Limitation of Study

This study focuses on the important underlying factors that influence the intention of academicians at private Islamic Higher Education Institutions (IHEI) in Malaysia to participate in family takaful products (FTP). Generally, Islamic finance and banking comprise several sub-sectors, including the takaful industry. Furthermore, the takaful industry comprises different products, including general and family takaful. Narrowing down the scope of the study, this study focuses on the intention to participate in the family takaful segment.

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1.7 Organization of the Thesis

This thesis consists of five chapters. Chapter 1 provides an overview of the introduction, background of the study, problem statement, research questions, research objectives, the significance of the study, scope and limitation of the study, and the organization of the thesis. The problem statements of this study are discussed in three different gaps: contextual, empirical, and theoretical.

Chapter 2 will present the literature review and discussion on past research in the subject matter of the study. It relates to how the selected variables influence the intention to participate in family takaful products. Furthermore, it provides a comprehensive explanation of the concept of takaful, including the definition, salient

features of Islamic finance and takaful, the differences between takaful and insurance, takaful from the light of *maqasid* al-Shariah, different types of takaful, takaful business models, and the history of the development takaful industry in Malaysia. This chapter also will discuss the leading underpinning theory and supporting theories used in this research.

Chapter 3 will indicate the research methods utilized in this study, including the research framework, the development of hypotheses, research design, questionnaire design, measurement of variables, operational definitions, content and face validity, population and sampling techniques, data collection procedures, pilot study, data preparation, the goodness of measure and data analysis techniques.

Chapter 4 will address the findings and discussion of this study, including the results of data analyses and hypotheses. Chapter 5 will present the conclusion and recommendation of the study, including a summary of the study, a discussion of the findings, the study's contribution, limitations, recommendations for future study and a conclusion.

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CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter addresses the concept of takaful in general and specifically family takaful. Moreover, this section will explain the leading underpinning theory and supporting theories used to describe the behavioural intention to participate in family takaful products. This chapter also discusses the relationship between independent variables such as attitude, subjective norm, perceived behavioural control, halal brand association and facilitating conditions on the intention to participate in family takaful products. This chapter will also elaborate on the effect of institutional trust as a moderator on the study's nexus between endogenous and exogenous variables.

2.2 Concept of Takaful and Family Takaful

This section provides the concept of takaful and, specifically, family takaful. The discussion on the concept is included the definition, salient features of takaful, differences between takaful and insurance, takaful from the light of *maqasid* al-Shariah, types of models and development of the Takaful industry in Malaysia.

2.2.1 Definition of Insurance and Takaful

From the customer's perspective, insurance is a method through which the customer transfers financial risk to a compensated entity in the case of an insured event (Malik & Ullah, 2019). There are different types of insurance to meet the needs of different customers. Examples include life, health, fire, car, and marine insurance. There are always at least two parties to the insurance policy for such risk compensation

arrangements: insurance companies and customers. Coverage begins when the contract between the customer and the insurance company becomes valid. Customers are also commonly referred to as insurance holders or policyholders, and such customers can be identifiable entities such as individuals, businesses, governments or civil society organizations. Takaful originates from the Arabic word *kafalah*, which means guaranteeing each other. Takaful is generally known as Islamic insurance because the system is based on social solidarity, cooperation and mutual indemnification of losses of members. Besides, the takaful system is perceived as cooperative or mutual insurance, where members contribute a certain sum of money to a shared pool. The takaful system is based on the principles of cooperation and responsibility between participants in a group.

The *ta'wun* (cooperation) and *tabarru'* (donation) principles mean the risk is shared collectively by participants in the group with the overall objective of eliminating the element of uncertainty. For example, a group of persons who agree to jointly indemnify the loss or damage inflicted upon any of them from the fund they donate collectively. Thus, Shariah-compliant insurance is based on shared responsibility, cooperation and solidarity and is designed to protect participants against a defined risk. Helping each other in the event of misfortune is highly encouraged in Islamic teaching. In the Qur'an- surah *Al-Ma'idah* verse 2, Allah SWT mentioned that:

وَتَعَاوَنُواْ عَلَى ٱلۡبِرِّ وَٱلتَّقۡوَىٰۖ وَلَا تَعَاوَنُواْ عَلَى ٱلۡإِثۡمِ وَٱلۡعُدۡوَٰنِۚ وَٱتَّقُواْ ٱللَّهَۖ إِنَّ ٱللَّهَ شَدِيدُ ٱلۡعِقَابِ

"Cooperate with one another in goodness and righteousness, and do not cooperate in sin and transgression. And be mindful of Allah. Surely Allah is severe in punishment" (5:2).

2.2.1.1 Concept of Family Takaful Product

Family takaful products, an essential component of Islamic finance, are designed to provide financial protection and savings opportunities for policyholders in compliance with Shariah principles. The concept of family takaful is rooted in the Islamic principle of mutual assistance (*ta'awun*) and shared responsibility (*takaful*), where participants contribute to a collective pool managed by a takaful operator to support members in times of need. This aligns with the ethical and moral framework of Islam, emphasizing solidarity, risk-sharing, and the avoidance of uncertainty (*gharar*) and interest (*riba*), which are prohibited in conventional insurance (Kwon, 2007).

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The scope of family takaful encompasses various life and health-related coverage, offering participants benefits such as life protection, health protection, savings, and investment plans. This type of takaful is specifically designed to cater to the financial needs of individuals and their families, ensuring financial security in events such as death, disability, or critical illness. For instance, a family takaful plan may include benefits like funeral expenses, education funds for children, and financial support for dependents in the absence of the primary breadwinner (International Shariah Research Academy for Islamic Finance, 2012).

The coverage provided by family takaful products is broad, typically including term takaful, whole life takaful, endowment takaful, and medical takaful plans. General

takaful offers protection for a specified period, while whole family takaful provides lifelong coverage. Endowment takaful combines protection and savings, where participants receive a lump sum upon maturity or in the event of death. Medical takaful plans cover healthcare expenses, ensuring that participants can afford medical treatment without financial strain (Malik & Ullah, 2019).

Family takaful differs from general takaful in its focus and scope. While family takaful addresses long-term financial security and personal well-being, general takaful covers non-life risks, such as property, motor, and liability insurance. General takaful products are typically short-term and provide compensation for losses or damages to assets and liabilities arising from unforeseen events like accidents, natural disasters, or theft (Malik & Ullah, 2019).

2.2.2 The Salient Features of Islamic Finance

The main principles of Islamic finance and banking are that the products and services must be free from prohibited elements of *riba*, *gharar* and *maysir*. Literally, *riba* means excess, expansion, increase, addition and growth, which is indicated in the Holy Al-Quran by juxtaposing it against (profit from) sales (Ayub, 2012). Technically, *riba* is defined as an illegal gain derived in any transaction from the quantitative inequality of the counter values (International Shariah Research Academy for Islamic Finance, 2012). *Riba* is not limited to increasing loan transactions because of the postponement of time payment but also any unjustified excess above and beyond the capital, whether in loans or trade activities. The prohibition of *riba* could be understood through the verses of the Quranic, surah *al-Baqarah*, 275;

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ٱلَّذِينَ يَأْكُلُونَ ٱلرِّبَوٰاْ لَا يَقُومُونَ إِلَّا كَمَا يَقُومُ ٱلَّذِى يَتَخَبَّطُهُ ٱلشَّيْطَـٰنُ مِنَ ٱلْمَسِّ ۚ ذَٰلِكَ بِأَنَّهُمْ قَالُوٓاْ إِنَّمَا ٱلْبَيْعُ مِثْلُ ٱلرِّبَوٰاْ ۗ وَأَحَلَّ ٱللَّهُ ٱلْبَيْعَ وَحَرَّمَ ٱلرِّبَوٰاْ ۚ فَمَن جَآءَهُۥ مَوْعِظَةٌ مِّن رَّبِّهِۦ فَٱنتَهَىٰ فَلَهُۥ مَا سَلَفَ وَأَمْرُهُۥٓ إِلَى ٱللَّهِ ۖ وَمَنْ عَادَ فَأُوْلَـٰٓئِكَ أَصْحَـٰبُ ٱلنَّارِ ۖ هُمْ فِيهَا خَـٰلِدُونَ

"Those who consume interest will stand on Judgment Day like those driven to madness by Satan's touch. That is because they say: Trade is no different than interest. But Allah has permitted trading and forbidden interest. Whoever refrains—after having received a warning from their Lord—may keep their previous gains, and their case is left to Allah. As for those who persist, it is they who will be the residents of the Fire. They will be there forever" (2:275).

Several traditions of the Holy Prophet (PBUH) mentioned various aspects of *riba* included the prohibition, the severity of its sin and its forms. For example, as reported in *Sahih Muslim*, *hadith* number 2807, from Jabir (GBPWH):

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عَنْ جَابِرٍ رَضِيَ اللَّهُ عَنْهُ قَالَ: لَعَنَ رَسُولَ اللَّهِ صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ أَكَلَ الرِّبَا وَمُوَكِلَهُ وَكَاتِبَهُ وَشَاهِدَيْهِ وَقَالَ: «هُمْ سَوَاءٌ». رَوَاهُ مُسلم

"The Prophet (PBUH) cursed the receiver and the payer of interest, the one who records it and the witnesses to the transaction and said: They are all alike [in guilt]" (At-Tabrizi, 1985).

The second prohibited element in the Islamic financial system is *gharar*. The word *gharar* implies uncertainty, risk and hazard. Technically, Ibn al-Qayyim described *gharar* as a sale in which the vendor is not in a position to hand over the subject matter to the buyer, whether the subject matter is in existence or not. Imam al-Sarakhsi

defined *gharar* as any bargain in which its result is hidden. One of the contemporary scholars, Sheikh Wahbah al-Zuhaily, described *gharar* in the following term: a contract which contains a risk to any one of the parties which could lead to his loss of properties. Interestingly, there is no verse from al-Quran that mentions the prohibition of *gharar*. However, the Quran verse had indicated the ban of all means of injustice or *zulm* in business activities. Surah *al-Nisa'* verse 29 mentions;

يَـٰٓأَيُّهَا ٱلَّذِينَ ءَامَنُواْ لَا تَأۡكُلُوٓاْ أَمۡوَٰلَكُم بَيۡنَكُم بِٱلۡبَٰطِلِ إِلَّآ أَن تَكُونَ تِجَٰرَةً عَن تَرَاضٖ مِّنكُمۡۚ وَلَا تَقۡتُلُوٓاْ أَنفُسَكُمۡۚ إِنَّ ٱللَّهَ كَانَ بِكُمۡ رَحِيمٗا

"O believers! Do not devour one another's wealth illegally, but rather trade by mutual consent. And do not kill ˹each other or˺ yourself. Surely Allah is ever Merciful to you" (4:29).

The jurists concluded that the unjust mentioned in the above verse had included *gharar* as it results in taking the property of others without a justified basis. In contrast, the Holy Prophet's tradition has mentioned the prohibition of *gharar* by forbidding His companions to deal with *gharar* in trading activities. In addition, our beloved Prophet (PBUH) has prohibited specific trades, including *gharar*, on numerous occasions. The purchase of an unborn animal in the mother's womb, the sale of milk in the udder without measuring, the buying of spoils of war before distribution, the buying of charities before receiving, and the purchase of a diver's catch, for example, are all prohibited by the Prophet (PBUH). Moreover, *gharar* happens in various transactions in which the subject matter, price, or both are unknown in advance. For example, *gharar* in modern finance can be seen in speculative actions on the stock exchange, derivatives instruments, and short-selling contracts. Furthermore, *gharar* may apply to

transactional-based problems such as pricing, delivery, quantity, and quality of assets, all of which may alter the degree or quality of consent between contracting parties (Uddin, 2015).

Last but not least, the prohibition of *maysir*. *Maysir* is any activity involving betting whereby only one party will be the winner, and the rest lost their bet. The prohibition of *maysir* is mentioned in the Quran, surah *al-Ma'idah* verse 90;

يَـٰٓأَيُّهَا ٱلَّذِينَ ءَامَنُوٓاْ إِنَّمَا ٱلْخَمْرُ وَٱلْمَيْسِرُ وَٱلْأَنصَابُ وَٱلْأَزْلَـٰمُ رِجْسٌ مِّنْ عَمَلِ ٱلشَّيْطَـٰنِ فَٱجْتَنِبُوهُ لَعَلَّكُمْ تُفْلِحُونَ. إِنَّمَا يُرِيدُ ٱلشَّيْطَـٰنُ أَن يُوقِعَ بَيْنَكُمُ ٱلْعَدَٰوَةَ وَٱلْبَغْضَآءَ فِى ٱلْخَمْرِ وَٱلْمَيْسِرِ وَيَصُدَّكُمْ عَن ذِكْرِ ٱللَّهِ وَعَنِ ٱلصَّلَوٰةِ ۖ فَهَلْ أَنتُم مُّنتَهُونَ.

"O, believers! Intoxicants, gambling, idols, and drawing lots for decisions[1] are all evil of Satan's handiwork. So shun them so you may be successful. Satan plans to stir up hostility and hatred between you with intoxicants and gambling and prevent you from remembering Allah and praying. Will you not then abstain" (5:90).

2.2.3 The Salient Features of Takaful

As mentioned above, takaful was introduced as one of the risk management tools to substitute conventional insurance. Insurance products can be traced back to three hundred years ago by implementing the risk transfer mechanism. This product also has been offered based on the contract of sale and purchase. As the insurance buyer, an insured transfers his potential risks to another party called the insurer, an insurance company with an exchange of the price – premium (Yusof et al., 2015). Even though the insurance provides an excellent service and is essential as a risk management tool,

many Shariah scholars are agreed that the contractual nature of insurance is not in line with Shariah's parameters. They found that the salient features of the insurance are contravened the Shariah principles by which the presence of interest (*riba*), uncertainty (*gharar*) and gambling (*maysir & qimar*).

Interest (*riba*) is present in conventional insurance in two forms: credit usury (*riba al-nasiah*) and excess usury (*riba al-fadl*). Allah SWT has mentioned the prohibition of *riba al-nasiah* in the Quran through surah *Al-Rum* verse 39 as follows:

وَمَآ ءَاتَيْتُم مِّن رِّبًا لِّيَرْبُوَا۟ فِىٓ أَمْوَٰلِ ٱلنَّاسِ فَلَا يَرْبُوا۟ عِندَ ٱللَّهِ ۖ وَمَآ ءَاتَيْتُم مِّن زَكَوٰةٍ تُرِيدُونَ وَجْهَ ٱللَّهِ فَأُو۟لَٰٓئِكَ هُمُ ٱلْمُضْعِفُونَ

"Whatever loans you give, only seeking interest at the expense of people's wealth will not increase with Allah. But whatever charity you give, only seeking the pleasure of Allah—it is they whose reward will be multiplied" (30:39).

The element of *riba* in insurance can be found in two situations. Firstly, the total amount paid to the insured – by either the claims or maturity of the policy – is more than the total premiums paid throughout the period. Therefore, the inequality between the premiums paid and the compensation paid is surplus *riba* (*riba al-fadl*) (International Shariah Research Academy for Islamic Finance, 2012). In this sense, the exchange of the premiums and claims amount is in the form of currency, which is considered a commodity, and the deal is acceptable if the amounts are equal. However, the insurance contract forces the payment of money now in exchange for money payable in the future if specific events (or risks) occur. Therefore, the inequality of

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premiums paid and the payment of claims triggered the existence of *riba al-fadl* (Nahar, 2015).

Second, there is always a time lag between the insured paying their premium and the insurer receiving their claims. Therefore, credit *riba* (*riba al-nasiah*) can be found due to the deferred payment basis of the insurance product. As the standard practice by the insurance company, the collected premiums will be invested in instruments that bring the largest returns. This investment may or may not be Shariah-compliant as it could be invested in interest-bearing loans provided to banks, leasing companies etc. (Malik & Ullah, 2019). Therefore, the returns gained from this investment are considered *riba*.

The element of uncertainty (*gharar*) also appears in the contract of insurance. It's because insurance products are frequently associated with ambiguous situations. The existence of *gharar* can be found in the contract's subject matter (*mahal al-aqd – ma`qud `alayh*), which is unknown until the covered event occurs. In practice, the amounts paid by both parties are unknown during the contract session. Therefore, neither the insured nor the insurer party knows whether a loss will occur. Even if it does, the questions of when the loss will happen and how much it will cost lead to the element of uncertainty (*gharar*).

In any transaction, *gharar* is objected to because it is claimed to undercut the element of consent required for a legitimate contract. There cannot be mutual consent if one party does not have the right impression of the contract's material components due to a lack of information. It would be unreasonable to expect one party to agree to something whose core features are unknown. In Islam, mutual consent and truthfulness

of the contracting parties are a moral obligation and essential for a legal contract (Abdul Wahab et al., 2007). It proved that the mechanism of conventional insurance was based on the element of uncertainty. Someone will not need to buy insurance if they know their asset and property will not be affected by the loss. Similarly, if an insurance company knows that a certain item of property would be affected by a loss, it will not sell insurance.

The last prohibited element found in conventional insurance is gambling (*maysir*). Allah SWT has made it clear about the prohibition of all kinds of gambling and game of chances through surah *al-Maidah* verse 90:

يَـٰٓأَيُّهَا ٱلَّذِينَ ءَامَنُوٓاْ إِنَّمَا ٱلْخَمْرُ وَٱلْمَيْسِرُ وَٱلْأَنصَابُ وَٱلْأَزْلَـٰمُ رِجْسٌ مِّنْ عَمَلِ ٱلشَّيْطَـٰنِ فَٱجْتَنِبُوهُ لَعَلَّكُمْ تُفْلِحُونَ

"O, believers! Intoxicants, gambling, idols, and drawing lots for decisions are all evil of Satan's handiwork. So shun them so you may be successful."

The word *maysir,* as mentioned in the above Quranic verse, originated from the phrase *yusr,* which means ease. The prohibition of *maysir* stems only from one party profiting from another's misfortune without providing that party with any goods or service in exchange (Malik & Ullah, 2019). The nature of insurance companies is business and profit-oriented. They are making a profit when there are a few claims from the insured. This mechanism can be understood when an insured paid the premiums, but there is no loss occurs. So, the paid premiums will become profits for the insurance company. At the same time, the insured party might gain profit from the claim if a loss occurs; and the insurance company will be lost.

To conclude, the existence of *riba, gharar* and *maysir* in conventional insurance made it *haram* and impermissible for Muslim consumers. Hence, takaful now, become an excellent alternative to insurance products as one of the practical risk management tools. Takaful is different from insurance since the nature of the contract is solely based on donation (*tabbaru'*) and mutual corporation.

2.2.4 Differences between Takaful and Insurance

As has been developed by Islamic scholars, the primary function of the takaful is to mitigate the risk within the Shariah jurisdiction. This section will discuss how takaful is a Shariah-compliant mechanism by explaining the differences between takaful and conventional insurance. The comparison between takaful and conventional insurance can be made in many aspects, such as the underlying contract, risk mitigation technique, the ownership of the pooling funds and the function of Shariah supervision.

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2.2.4.1 Underlying Contract

The first comparison between takaful and conventional insurance can be made regarding the underlying contract. The underlying contract is the fundamental element in Shariah's perspective. Any financial dealing between two or more parties must rely on a specific contract to ensure adherence to the Shariah principles (Bakar, 2009). A valid contract must be free from the prohibited elements in the Shariah parameter, such as the existence of *riba*, *gharar* and *maysir*. For instance, a contract of lending and borrowing for a premium with extra payment in return is equivalent to *riba*. Further, when all elements of the contract, such as the form of contract (*sighah al-`aqd*), subject matter of the contract (*mahal al-`aqd*), and contracting parties (*al-`aqidan*) are found

to be in order, and the conditions of each element have been met, it is considered a valid contract (Ayub, 1951).

A valid contract assigns all of its effects as determined by Shariah. A valid contract can be either *nafiz* (immediately effective) or *mawquf* (later effective) (suspended or tied to any future event). If it is not suspended (*mawquf*), it becomes effective (*nafiz*) upon execution. If it is suspended, it is enforced upon removing the reason for suspension. Certain jurists, especially Hanafis, Malikis, and some Hanbalis, opined that a valid contract's effectiveness could be postponed until a future event occurs. According to Shafi'e and some Hanbalis, a valid contract must take effect immediately after signing it. The elements of a *nafiz* contract are found to be in order, the terms are met, the exterior attributes are lawful, and the deal is not suspended or ratified.

Conventional insurance is essentially based on a sale and purchase agreement (exchange-based contract) that allows a customer to acquire an insurance policy from an insurance company. This insurance policy is exchanged with payment of the premium. The sum assured may be the value of a car, a building or an item of equipment. Therefore, the insurance company imposes an obligation to pay the sum assured or pay a claim to the client. Thus, the exchange of counter values is the payment of premium (regular installments) from the client and the payment of a claim from the insurance company. Even though the insurance is one of the exchange-based contracts, the insurance counter values indicate uncertainty (*gharar*), which contradicts the Shariah principles. The exchange of the subject matter of the contract (compensation of sum assured) is not specific or identified when it will be delivered to the client (Malik & Ullah, 2019).

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However, the underlying contract of insurance differs from Islamic insurance. All operations and activities of takaful policy must be based on a Shariah-recognized contract. These operations and activities are included the participants' payment, investment activities of the collected funds, and the claim payment. Back to the discussion, the underlying takaful contract is *tabbaru'*, which means donation. Several participants construct a common takaful fund and make mutual contributions (*tabarru'*) into it with the purpose of mutual indemnity if certain events occur. Takaful is a Shariah-compliant mechanism in which community members pool their resources to safeguard themselves from potential loss or injury.

Tabarru' is the common term for a one-sided statement of intent, a contract with a specific nature under Islamic law rather than a bilateral arrangement (Bakar, 2009). The aim of this contract is to do a good deed for the recipient without expecting it in return. It had a gratuitous character in its original form. In takaful, a person who participates in the scheme benefits the other participants based on agreed-upon terms and conditions. The contributor is not compensated in any way for their generosity. Even though there is no consideration, this transaction is lawful and enforceable under Islamic law.

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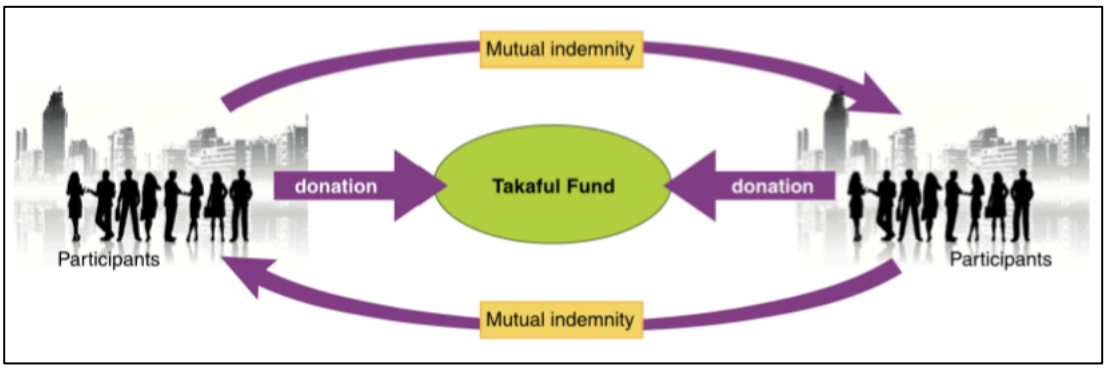

Figure 8 Underlying Contract among Takaful Participants

Source: International Shariah Research Academy for Islamic Finance (2012)

Tabarru' was developed to benefit the recipient alone rather than serve any commercial benefit. The conditions of certainty of the subject and the consideration are useless in this contract because the conduct is based on the donor's benevolence or favour. According to the *tabarru'* concept, participants of the takaful policy can have the peace of mind that they freely gives up their property or right to another person, and the recipient receives it for free. Nonetheless, participants of this policy can get benefits from the funds in terms of claim and surplus sharing. This is due to the fact that the gift or donation contract is not a pure or plain contract in takaful practice. Furthermore, Islamic law regarded this concept as a *"hibah mashrutah bil i'wad"* or a conditional gift for consideration.

According to some *fiqhi* sources, a gift stipulating consideration is permissible under Shariah principles. To put it another way, there is nothing immoral about someone donating something in the expectation of gaining future benefits. The possibility of the participants/donors acquiring a claim payment does not invalidate the initial contributions because the claim may or may not happen. Even after the claim is paid, the money comes from the mixed and indivisible pool of funds.

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2.2.4.2 Risk Mitigation Technique

Another form of comparison between takaful and insurance is the risk mitigation technique. Shariah is a system of rules and regulations based on the verses from the Holy Quran and the words and deeds of the Prophet Muhammad PBUH. Muslims have consistently been encouraged to adopt risk-management techniques in various settings as long as they are Shariah-compliant. Therefore, risk mitigation as a function is acceptable and encouraged by Shariah's judgments. With respect to financial planning, Allah SWT tells the narrative of the Prophet Yousuf (PBUH) verse 55:

قَالَ ٱجۡعَلۡنِي عَلَىٰ خَزَآئِنِ ٱلۡأَرۡضِۖ إِنِّي حَفِيظٌ عَلِيمٞ.

"Appoint me over the storehouses of the land. Indeed, I will be a knowing guardian" (12:55).

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The encouragement to adopt risk management technique also has been pointed out in *hadith* number 2517 of Prophet Muhammad (PBUH):

قَالَ سَمِعْتُ أَنَسَ بْنَ مَالِكٍ، يَقُولُ قَالَ رَجُلٌ يَا رَسُولَ اللَّهِ أَعْقِلُهَا وَأَتَوَكَّلُ أَوْ أُطْلِقُهَا وَأَتَوَكَّلُ قَالَ: اعْقِلْهَا وَتَوَكَّلْ

"O Messenger of Allah! Shall I tie it [the camel] and rely [upon Allah], or leave it loose and rely [upon Allah]? He said: Tie it and rely [upon Allah]" (Abu Isa, 884).

Islam, in its golden time, has underlined risk management approaches. As an analogy, we can trace the case of merchants in trading activities. Merchants used to trade by

travelling in caravans from one location to another. Looting was a concern that traders had to address because caravans were looted regularly. Islam identified this type of risk as *Daman khathar ul Tareeq. Daman* means a guarantee, *khathar* means danger, and *tareeq* means passage or route. Technically, it means to guarantee the threat in the way. Therefore, to mitigate this kind of risk, someone would be an adviser to the merchant by suggesting a particular route that he opined is safe. The individual who gave this suggestion always promised to reimburse the caravan for any looting along the recommended path. However, such a guarantee was always provided free of charge at the time.

Another example is *Daman ul Darak.* The slave trade was once commonplace. Some sellers told the customer that they would repay their money if the slave they bought later became a free man. The risk was transferred to another entity in this case, which is one of the risk-management techniques discussed previously. The last example is *`aqila.* When a murderer was confirmed, Arab tribes practiced a system in which the murderer was required to recompense the victim's family. If the murderer's kin cannot pay, the victim's family will be compensated by the murderer's clan. Before Islam, most of these practices were commonplace. This practice is continued as Prophet Muhammad (PBUH) permitted them. As a result, such risk-management techniques are permissible for Muslims (Malik & Ullah, 2019).

Back to the discussion, although takaful and insurance are risk-mitigation mechanisms, they operate differently. The distinction between insurance and takaful is that insurance is a risk-transfer mechanism, whereas takaful is a risk-sharing mechanism (Malik & Ullah, 2019). Insurance and takaful are both based on the risk

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phenomenon. Even though risk can be interpreted in various ways, this study wants to look at it from the possibility of physical loss linked with property and life. A car accident, a death, a fire, or a mugging are only a few examples of such risks. These risks could lead to a cash outflow, putting a financial strain on exposed individuals.

The risk mitigation technique in insurance is risk transference. When the insurance client uses this technique, the financial repercussions of the loss are transferred to another party, the insurance company, which compensates the customer if the risk happens. A manufacturing company, for example, might insure its facility against fire, earthquake, and flooding. Consequently, the customer of this policy (company) passes the risk of financial loss caused by these disasters to the insurance company. The insurance company is liable for covering the losses if an insured event occurs and damages the factory.

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However, according to Shariah jurisdiction, this policy's mechanism with the exchange of a premium is not allowed. As in *kafalah*, or suretyship, a risk might be transferred from one party to another. However, most Islamic scholars have disapproved of this mechanism if the guaranteed person is required to pay the price, reasoning that the kafalah contract should be gratuitous in nature (Bakar, 2009). While absorbing the risk from the assured person on behalf of the major creditor, the protection provider shall not charge a fee for this service. Many Shariah boards have held this opinion, which is represented in the AAOIFI Shariah Standards.

This mechanism is contradicted to the risk mitigation technique in takaful. Takaful is one of the risk-sharing mechanisms. In takaful, all participants share each other's risks.

Therefore, based on this mechanism, the risk transfer approach is recommended to replace the risk transfer' one as is prohibited in Islam. The pooling of the funds among the participants in takaful policy is allowed in Islamic law as each of participant has agreed to curb a portion of the collective's risk and financial burden according to a predetermined formula. As a result, neither the Shariah texts nor the views of the jurists oppose the idea of risk distribution.

Indeed, through his *Dawawin* institution, Umar al-Khattab, the second Caliph, suggested this concept. He required all the established government agencies to contribute money for the benefit of mutual assistance within the agencies. This technique supports the risk distribution principle and the risk classification principle. Using this technique, the level of risk in each agency is assessed differently. This is particularly useful in modern insurance and takaful products because the premium or contribution must match the risk profile being insured or distributed, as the case may be.

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2.2.4.3 Ownership of the Pooling Fund

The insurance company merely owns the premium funds under conventional insurance, and any premiums put into the insurance add to the company's profitability. Thus, the insurance company simply owns the premium paid by clients. However, the ownership of the takaful pooling fund seems quite complex. As you may have guessed, the takaful fund is separate from the takaful company and its stockholders. In general, takaful participants remained owners of the funds as they made the contributions. Meanwhile, the takaful operator plays a role in managing the fund. In this sense, a takaful operator might act as an agent (*wakeel*), entrepreneur (*mudarib*), or both

according to different types of Shariah contracts. As the main function is to manage the funds, thus, takaful operator does not gain any ownership right on the funds. The takaful operator is only liable to gain some of the money in terms of fees, profit shares, or both from the fund, as the case may be.

In general takaful, the policy considers any premiums or contributions given by participants as donations. Each contribution is an unrestricted gift to a third party who is the beneficiary. In a sense, each member has relinquished personal ownership of their contributions. However, due to the notion of conditional gift explained earlier in this section and the takaful scheme, the participants jointly own the takaful fund and have individual rights to the fund based on the terms and conditions of their takaful policy. To sum up, the participants of the policy do not possess any right to individual ownership over the takaful fund. Instead, they have a right to claim from it in certain circumstances specified in the contribution deed.

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The ownership right over the takaful fund has never been transferred to the takaful operator in either general or family takaful schemes. In conclusion, in the case of a takaful operator's insolvency, the takaful operator's creditors should be assured that the takaful fund's assets are not part of the takaful operator's assets and thus have no right of claim against them. The same principle applies to underwriting surplus: all surpluses (not maintained in reserves for solvency reasons) should be distributed proportionately among all participants. However, the participants may consent to the takaful policy under a different arrangement that requires all participants to award a share of the underwriting excess as a performance fee to the takaful operator. They may also agree to set aside a portion of the underwriting surplus for a reserve or give

the excess to a charitable organization during the takaful scheme's existence or in the event of liquidation.

2.2.4.4 Function of Shariah Supervision

Any takaful agreement must include a Shariah committee or a Shariah advisor. The Shariah committee oversees the company's activities from a Shariah jurisdiction. The requirement to establish a Shariah committee is aligned with the Shariah Governance Framework for Islamic Financial Institutions set out by Bank Negara Malaysia. Principle 1 in the guideline mentioned:

> "It is the duty and responsibility of an IFI to establish a sound and robust Shariah governance framework with emphasis placed on the roles of key functionalities in ensuring effective implementation of the Shariah governance framework" (Bank Negara Malaysia, 2010).

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Also in Principles 2, 2.7 and 2.8 mentioned:

> "An IFI shall set out the accountability and responsibility of every key functionary involved in the implementation of Shariah governance framework."

> "The ShariahCommittee shall be responsible and accountable for all its decisions, views and opinions related to Shariah matters. While the board bears the ultimate responsibility and accountability on the overall governance of the IFI, the board is expected to rely on the Shariah Committee on all Shariah decisions, views and opinions relating to the business of the IFI. As the Shariah

decisions, views and opinions bind the operations of the IFI, the Shariah Committee is expected to rigorously deliberate the issues at hand before arriving at any decisions".

"The Shariah Committee is expected to perform an oversight role on Shariah matters related to the institution's business operations and activities. This shall be achieved through the Shariah review and the Shariah audit functions. Regular Shariah review reports and the Shariah audit observations should enable the Shariah Committee to identify issues that require its attention and, where appropriate, to propose corrective measures" (Bank Negara Malaysia, 2010).

Therefore, it is clear that the takaful company is supervised by a Shariah committee as required by the guidelines above. The supervision of the takaful company is to ensure that the operation and activities of the company adhere to the Shariah principles at all times. This feature contravened the conventional insurance system. There is no such oversight in conventional insurance, which is not governed by laws (Malik & Ullah, 2019).

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2.2.5 Takaful from the Light of *Maqasid* al-Shariah

Islam is fundamentally a way of life for Muslims, addressing every aspect of the individual and society in this world and the next. As a result, Islamic law, also known as Shariah law, governs daily events (Khairi, Samat, et al., 2020). In *maqasid* Shariah, the highest goal of Shariah law is simply explained. *Maqasid* Shariah defines every aspect of a Muslim's individual, societal, national, and global life. The term *maqasid* Shariah translates literally as the objectives of Islamic law. *Maqasid* Shariah

encompasses all humankind's benefits and advantages while also warding off evil and other types of harm from the *ummah* (S. Abdullah, 2012).

Additionally, the purpose of *maqasid* shariah is to discipline and structure daily life following Islamic values and principles as expressed in the Quran and Sunnah (S. Abdullah, 2015). *Maqasid* Shariah is critical to defining the Shariah guidelines for humankind to live under the Islamic way of life. Indeed, *maqasid* Shariah enables a complete understanding of Islam and Allah SWT's rules and regulations. Imam al-Ghazali defines *maqasid* Shariah as:

> "The objective of the sharia is to promote the welfare of human beings, which lies in safeguarding their faith, their life, their intellect, their posterity, and their wealth. Whatever ensures the safeguard of these five fundamentals serves the public interest and is desirable" (Al-Ghazali, 2018).

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On the other hand, Ibn `Ashur defines *maqasid* Shariah in a broader context. He stated:

> "The all-purpose principle (*maqsad ʿam*) of Islamic legislation is to preserve the social order or the community and ensure its healthy progress by promoting the well-being and righteousness of the human being. Wellbeing and virtue of human beings consist of the soundness of their intellects and the righteousness of their deeds, as well as the goodness of the things of the world where they live that are put at their disposal" (Ibn Ashour, 2006).

According to traditional scholars, including al-Shatibi, the general objectives are classified into three subcategories based on the hierarchy of needs or levels of necessity: the essentials or necessities (*daruriyyah*), the needs (*hajiyyah*), and the luxuries (*tahsiniyyah*) (Al-Raysuni, 2005). At the top of the list is the *daruriyyah*, which is defined as the necessities upon which people rely. It must be safeguarded because it is a necessary component of life (Faizal et al., 2013). Imam al-Ghazali lists the essential areas of *daruriyyah,* such as preserving their faith/religion (*din*), life (*nafs*), intellect (*`aql*), posterity/lineage (*nasl*) and wealth (*mal*).

The *hajiyyah* is next in line. For example, the necessity of performing forward contracts (*salam*), leasing contracts (*ijarah*), etc., to meet daily needs. This is the requirement for a comfortable life; without them, the social order will not collapse but will function poorly. Finally, the tahsiniyyah, or the complementing factors, contribute to life's perfection. For example, the *sadaqah* practice results in a more harmonious life and demonstrates the beauty of the Muslim way of life.

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2.2.5.1 Protection of Life

Regarding life protection, it is clear that the concept of takaful, namely joint guarantee and mutual assistance, fits comfortably within the *maqasid* Shariah framework of protecting participants against catastrophes through mutual support and risk-sharing (S. Abdullah, 2012). As a result, takaful may provide valuable assistance to participants recovering from a health problem. Additionally, the illness may result in serious complications such as cancer, kidney failure, or a heart attack. Before the appointed time of death, a Muslim must maintain good physical and mental health.

Therefore, good health is one of the human necessities that must be met under *maqasid* Shariah (Khairi, Samat, et al., 2020). An early diagnosis and treatment of illness is one method of preserving and maintaining good health. Furthermore, takaful enables the treatment of critical diseases where the costs of surgery, hospitalization, medication, post-operative care, dialysis, and chemotherapy can be extremely high. Even if the sick person is not the breadwinner, the family may experience financial losses while caring for the sick, which can be reimbursed by takaful. Thus, takaful can potentially prolong life, improve the quality of life, and ensure the protection of life for participants with health problems.

2.2.5.2 Protection of Property

According to Muslim jurists, wealth is protected through the following mechanisms: ownership protection, acquisition and development protection; protection from damage; circulation protection; and its values (Dusuki & Bouheraoua, 2011). Protecting wealth is critical because men are born with lust and a desire to possess things in the world, including women and children and gold and silver. Human passions and the needed control over them are noted in Holy Quran through surah *Ali `Imran* verse 14 as follows:

زُيِّنَ لِلنَّاسِ حُبُّ ٱلشَّهَوَٰتِ مِنَ ٱلنِّسَآءِ وَٱلْبَنِينَ وَٱلْقَنَـٰطِيرِ ٱلْمُقَنطَرَةِ مِنَ ٱلذَّهَبِ وَٱلْفِضَّةِ وَٱلْخَيْلِ ٱلْمُسَوَّمَةِ وَٱلْأَنْعَـٰمِ وَٱلْحَرْثِ ۗ ذَٰلِكَ مَتَـٰعُ ٱلْحَيَوٰةِ ٱلدُّنْيَا ۖ وَٱللَّهُ عِندَهُۥ حُسْنُ ٱلْمَـَٔابِ.

"Beautified for people is the love of that which they desire - of women and sons, heaped-up sums of gold and silver, fine branded horses, and cattle and tilled land. That is the enjoyment of worldly life, but Allah has with Him the best return [i.e., Paradise]" (3:14).

Assets such as a home and a car are necessary to meet basic human needs at today's standard of living. The indemnity principle in takaful enables losses to be compensated to restore the participant's financial situation to its pre-calamity state. Additionally, due to their high cost, many people obtain financing to purchase a home or automobile. The owner's loss of assets is unfortunate because he requires replacement to continue living his daily life, but the outstanding debt must still be repaid.

Additionally, for some individuals, a loss of assets may imply a loss of income. For instance, commission-based marketers rely on their cars for daily work, which means they cannot engage in income-generating activities. In other words, asset loss equates to losing the ability to earn a living. Additionally, a business may close due to a fire. Thus, the shop owner is entitled to compensation to rebuild the shop, locate a new location for business, and acquire merchandise or inventory for the shop.

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Another possible source of loss is a lawsuit brought against a business for negligence. For instance, a doctor or clinic may be sued for surgical errors that result in the company's loss (which is also an asset). Due to the inability of damaged property or assets to be transferred, inherited, or donated, takaful assists in rebuilding and replacing lost assets or businesses. It is worth noting that property transfer, inheritance, and donation are all components of economic justice (i.e. distributive justice) that an Islamic society should uphold.

2.2.5.3 Protection of Lineage

Apart from that, the fourth of *maqasid* Shariah is to protect human beings and lineage/ancestors (*nasl*). This protection approach can be seen through the takaful product, which is family takaful. This is significant because the family members of the policyholder will benefit from the payment of compensation following the participant's death (S. Abdullah, 2015). Thus, family members will receive some financial assistance based on the terms agreed. Compensation provided by the TO is pivotal in assisting families, particularly those who have lost their primary source of income. Moreover, takaful ensures family continuity during the breadwinner's death or total and permanent disability. Prophet Muhammad (PBUH) mentioned in His *hadith* number 17 about leaving the family in rich conditions rather than poor as follows:

عَنْ سَعْدٍ، قَالَ جَاءَنِي النَّبِيُّ صلى الله عليه وسلم يَعُودُنِي وَأَنَا بِمَكَّةَ قُلْتُ يَا رَسُولَ اللَّهِ أُوصِي بِمَالِي كُلِّهِ قَالَ "لاَ". قُلْتُ فَالشَّطْرَ قَالَ "لاَ". قُلْتُ فَالثُّلُثَ قَالَ "الثُّلُثَ وَالثُّلُثُ كَثِيرٌ إِنَّكَ أَنْ تَدَعَ وَرَثَتَكَ أَغْنِيَاءَ خَيْرٌ مِنْ أَنْ تَدَعَهُمْ عَالَةً يَتَكَفَّفُونَ النَّاسَ يَتَكَفَّفُونَ فِي أَيْدِيهِمْ".

"The Prophet came to visit me when I was in Makkah. I said: 'O Messenger of Allah, shall I bequeath all my money?' He said: 'No.' I said: 'One-half?' He said: 'No.' I said: 'One-third?' He said: '(Bequeath) one-third, and one-third is a lot. If you leave your heirs independent of means, that is better than if you leave them poor and holding out their hands to people'" (An-Nasa'i, 1930).

2.2.5.4 Protection of Religion

Takaful is believed to have a significant correlation with achieving the objectives of Shariah (*maqasid* Shariah). Takaful can preserve *ad-din* because its transaction begins with a donation in the form of *tabarru'* (donation). This is regarded as an individual's sincere contribution to a pool of contributions. *Tabarru'* refers to the nexus between participants and the risk pool (as managed by the takaful operator). All donations collected from participants are not used to transfer risk, as is the case with conventional insurance, but to assist those struck by misfortune, referred to as *`ibadah* (Fisher, 2013).

The essential value that Muslims must defend is their religion. Every Muslim is obligated to protect his religion at all times. Individual protection of religion is achieved by practicing several types of *`ibadah* (Afridi, 2016). These rituals will strengthen a person's *iman*, which will sustain him from committing sins, becoming an apostate, or engaging in behaviours that will annihilate his religion. The Quran, surah *al-`Ankabut* verse 45, for example, states that conducting prayers will save a person from evil:

ٱتْلُ مَآ أُوحِىَ إِلَيْكَ مِنَ ٱلْكِتَـٰبِ وَأَقِمِ ٱلصَّلَوٰةَ ۖ إِنَّ ٱلصَّلَوٰةَ تَنْهَىٰ عَنِ ٱلْفَحْشَآءِ وَٱلْمُنكَرِ ۗ وَلَذِكْرُ ٱللَّهِ أَكْبَرُ ۗ وَٱللَّهُ يَعْلَمُ مَا تَصْنَعُونَ

"Recite what has been revealed to you of the Book and establish prayer. Indeed, genuine prayer should deter one from indecency and wickedness. The remembrance of Allah is an even greater deterrent. And Allah fully knows what you all do" (29:45).

2.2.5.5 Protection of Intellect

The practices and operations of takaful are free of forbidden elements such as interest *(riba)*, gambling *(maysir)*, and uncertainty *(gharar)*. Additionally, income generated through takaful activities free of prohibited elements results in Allah blesses' earnings and gains. Thus, it is believed that participating in takaful promotes peace of mind and heart for both participants and takaful operators, as they are not engaged in impermissible or non-Shariah-compliant activities. Indeed, a Muslim who adheres to actual Islamic teachings while abstaining from prohibited elements and unlawful activities such as conventional insurance will experience a sense of peace in their heart and mind, preserving the human intellect or *al-`aql*.

2.2.6 Types of Takaful

There are two types of takaful businesses: family or life takaful and general takaful. Both of the products will be briefly discussed below.

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2.2.6.1 General Takaful

In most circumstances, a general takaful contract is a short-term Islamic insurance policy in which takaful participants make payments and operators agree to manage risk. The participants' contributions are credited to the general takaful fund, which is subsequently invested and the profits returned to the fund.

In general takaful, the *tabarru'* element is more apparent since all participants usually agree to make a donation to fellow participants. All payments go into a common fund that will be used to pay takaful participants if they lose. Although there are no savings or investing features, the takaful operator will distribute any underwriting surplus

annually to the participants. Thus, general takaful is often short-term yet renewable regularly. In both the retail and corporate divisions, takaful operators often offer various general takaful products. There are two types of general takaful, namely: motor and non-motor. Personal automobiles, motorbikes, and commercial vehicles are all covered under motor takaful. Non-motor takaful covers fire, personal injury, marine, health, and a range of other types of takaful products.

2.2.6.2 Family Takaful

The family takaful is a long-term Islamic insurance plan in which all the participants save for their children's education, retirement, and dependants' compensation in the event of death or incapacity. The time horizon for this kind of takaful is considerable, ranging from 10 to 30 years. In family takaful, the contributions are usually split into the participant's account and the savings account (Bank Negara Malaysia, 2019; International Shariah Research Academy for Islamic Finance, 2012). If the policy participants lose, they will be compensated according to a pre-determined fund. As a result, the concept of *tabarru'* has been incorporated into the contract. The funds collected in both accounts will be invested in Shariah-compliant instruments. The takaful operator may be paid a fee or a percentage of the investment profit, depending on the type of underlying contract.

Family takaful product is normally long-term and roughly similar to conventional life insurance. If a policy participant dies before the maturity term, his family receives the money in the participant's account plus dividends and the participant's special account. If a participant withdraws from the takaful scheme, he will only receive the funds in his account. Saving plans, educational plans, retirement plans, retirement annuities,

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waqf plans, and additional advantages attached to the preliminary plans, such as protection for critical illness, incapacity, accidental death, or waiver contribution, are among the most popular and typical family takaful products available.

2.2.7 Takaful Models

Shariah offers a variety of contracts to meet the needs of contracting parties. Each contract has its own set of characteristics and rules in keeping with its purpose. It is critical to select appropriate contracts to achieve and meet the takaful's goal and the needs of all parties participating in a takaful policy. On the other hand, the contracting parties in the policy cannot simply change each contract's terms without changing the deal's nature.

According to contemporary practice, the contracts that are used are determined by the contracting parties. The participants, for example, utilize a *tabarru'* contract, which is a type of mutual indemnity. As a result, this approach is frequently referred to as a non-profit model. The first takaful operator, created in Sudan in 1979, used this model. A few contracts to pick between the participants and the takaful operator are based on their arrangement and interest. Other than *tabarru'* model, several models have been established that keep the requirements of compensation and profit for takaful operators. These profit-oriented models are based on several Islamic *muamalat* contracts, such as *wakalah*, *mudarabah*, and *waqf* contracts. These Shariah contracts govern the contractual relationship between takaful operators and policy participants.

Additionally, Bank Negara Malaysia has developed a comprehensive guideline on the operational framework to be followed by takaful companies in offering takaful

products. This guideline is named the Takaful Operational Framework (TOF). TOF strives to improve the operational efficiency of the takaful industry and the long-term viability of takaful funds, protecting the interests of takaful participants (Bank Negara Malaysia, 2019). The establishment of the operational framework is the first principle in TOF mentioned:

> "The board has the overall oversight over the effective management of takaful operations that support a licensed takaful operator's business and risk strategies. In fulfilling this role, the board must approve an operational framework governing the management of takaful operations that complies with Shariah and promotes sustainable takaful operations."

> "In relation to the paragraph above, the senior management must ensure that the operational framework is commensurate with the nature and complexity of the takaful business and considers the types of funds being managed and relevant Shariah contracts adopted in managing the takaful business. In this regard, the operational framework must include, at the minimum, policies and procedures on - the application of Shariah contracts."

> "In relation to the paragraph above, the senior management must ensure that the policies consist, at the minimum, the following: (a) provide for the underlying Shariah principle of mutual assistance among takaful participants; (b) clearly set out the contractual relationship between a licensed takaful operator and the pool of takaful participants; and (c) clearly set out the contractual relationship between a licensed takaful operator and individual takaful participants, where relevant."

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Therefore, properly selecting the takaful model will sort out the relationship among participants, participants and takaful companies. The contract underpins takaful operations and requires takaful operators to uphold key commitments to participants, including Shariah principles, fiduciary responsibilities, and compliance with prudential norms. These commitments must be honoured consistently in an increasingly challenging environment marked by disparities in business practices, differing viewpoints on takaful operations, competition, and shifting market and economic situations. To overcome these issues, business operations must be carefully managed to ensure that takaful operators can manage the interests of many stakeholders without sacrificing prudence. Recruiting competent employees and implementing proper processes and controls, including sound governance and monitoring structures, can help discharge fiduciary obligations and responsibilities.

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2.2.7.1 *Wakalah* Model

The first model implemented in the takaful products is the *wakalah* model. *Wakeel* is an Arabic word that implies agent. In Islamic finance, the term *wakalah* refers to "a contract of agency or delegated authority." The *muwakkil* (principal) appoints a *wakeel* (agent) to do certain activities on its behalf. The agent must demonstrate his knowledge, skills, and talents in performing his duties. This agent-principal connection is the foundation of several takaful models (Malik & Ullah, 2019). The essential principle behind a takaful operation is that the takaful operator serves as a *wakeel* for the participants. His job is to supervise the pool's operations over a certain payment. This concept is widely utilized in Gulf countries, where it has been recognized by Shariah scholars (Abdul Wahab et al., 2007).

Under this *wakalah* contract, the participants remain the actual owners of the takaful fund, which is pooled among the participants. The *wakeel* (agent) then manages the fund according to the *mudarabah* and *tabarru'* principles. Before the agent begins managing the fund, he will deduct a predetermined sum for administration and service charges as a *wakalah* fee/operator fee. Meanwhile, the remaining balance will be deducted for claim reserves, technical reserves and retakaful costs. The surplus is known as underwriting excess. The funds will also be used for investments in Shariah-compliant platforms.

The takaful operator, also known as a *wakeel* or agent, is responsible for collecting participants' contributions, depositing contributions in the takaful fund, investing money from the takaful fund, compensating participants from the takaful fund in the event of a covered event, and distributing the surplus among participants who have not made a claim. As previously stated, the takaful operator is paid a *wakalah* fee (a service fee) in exchange for performing these services. The takaful operator will be paid a fixed upfront fee that could be calculated as a percentage of the takaful contributions. These services should be provided by a team of specialists and through a fully licenced and regulated firm.

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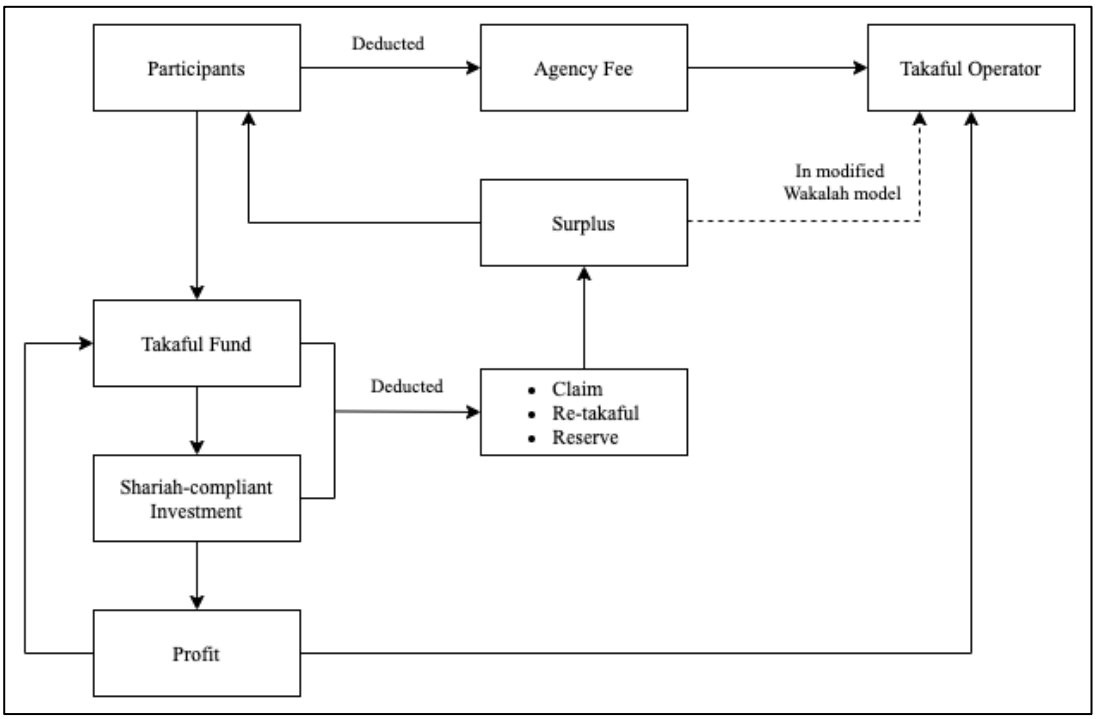

Figure 9 Wakalah Model in General Takaful

Source: International Shariah Research Academy for Islamic Finance (2012)

The above figure illustrates the mechanism of the *wakalah* model in general takaful products. The participants make contribution payments under the takaful plan, which starts the flow of the *wakalah* model in general takaful. The contribution payments are divided into two major categories: agency fees and takaful funds. The divide is made according to the agreed-upon ratio between the takaful operator and the contract parties. Furthermore, the takaful operator will receive the agency fee, comprising the agent's compensation and administrative costs. The collected takaful funds will be utilized to invest in Shariah-compliant platforms. Any profits or income from the investment activities return to the takaful fund. For managing the investment on behalf of the participants, the takaful operator will be entitled to a performance fee (commission). After deducting claims, re-takaful, and reserve, the end-of-year surplus

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will be paid to the participants. Takaful operators will only entitle the surplus funds through the modified *wakalah* model.

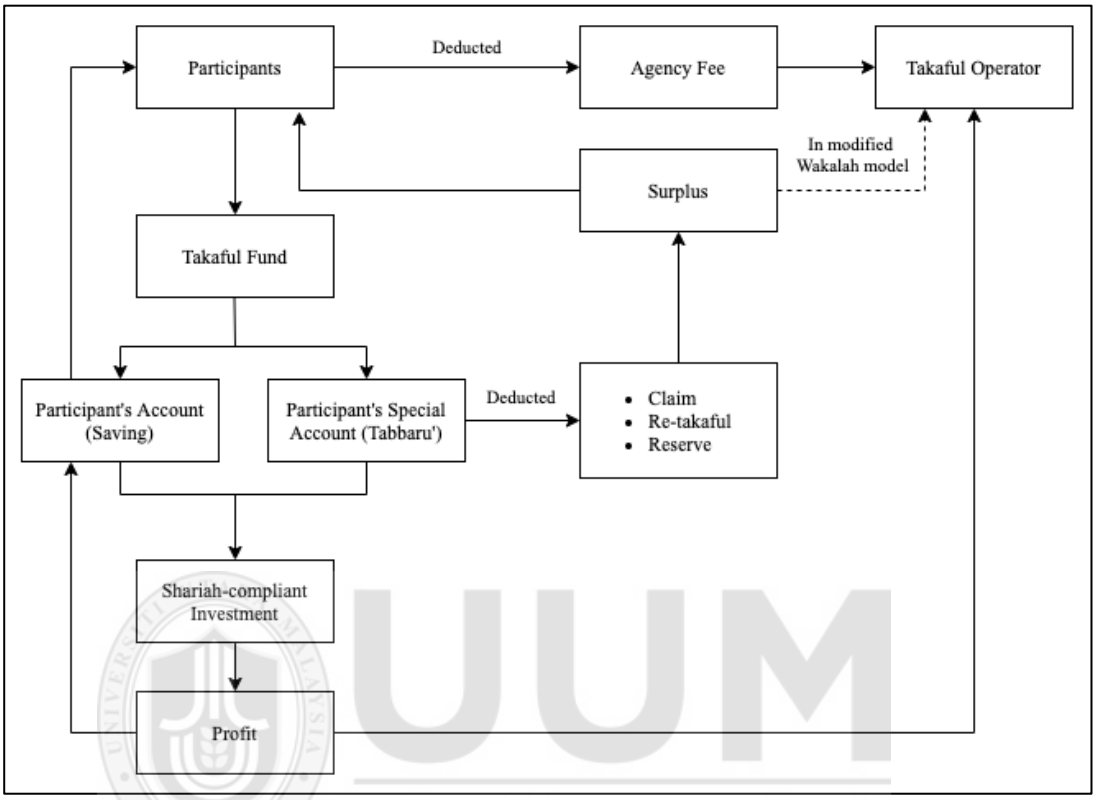

Figure 10 Wakalah Model in Family Takaful

Source: International Shariah Research Academy for Islamic Finance (2012)

2.2.7.2 *Mudarabah* Model

The *Mudarabah* model is the first model applied in Malaysia's takaful industry (Akram Laldin, 2008) and reflects a profit-sharing arrangement based on Islamic law (Alhumoudi, 2012). It is a type of arrangement between two parties. The first party is the participants and, referred to as a capital provider (*sahibul mal*), provides the funds. The second party, the takaful operator, as the fund manager (*mudarib*), provides services and expertise for managing the funds. The takaful operator who works as a fund manager or *al-mudarib* will receive the takaful contributions (premium), known

as *ra'sul mal,* from takaful participants, known as *sahibul mal,* under the *mudharabah* model. Under this *mudarabah* contract, the revenue from utilizing takaful funds will be split between the participants and the takaful operator according to the contract. The profit (surplus) can be split in any ratio between the contracting parties, such as 5:5, 6:4, 7:3, and so on (International Shariah Research Academy for Islamic Finance, 2012). If there is a profit on the investment, the takaful company is entitled to a certain percentage.

This arrangement allows the TO to profit from the investment performance of the participant's account (saving) and the participant's special account (*tabarru'*). Separating contribution funds into two accounts is applied only for family takaful products. Suppose the participant's special account loses money. In that case, takaful operators will give the participant an interest-free loan (*qard al-hassan*) that must be repaid when the participant's special account becomes profitable before any future surplus is distributed. Because their major revenue is earned from a specific ratio of such investment profit, takaful companies must be prudent and active in investing the takaful funds to gain profits. Naturally, Shariah-compliant instruments should be used while investing the takaful funds, as recommended by Bank Negara Malaysia (Htay & Zaharin, 2011). The *mudharabah* model can be cancelled, and after subtracting administrative costs, all cumulative capital plus profit must be repaid to the participants (Abdul Wahab et al., 2007).

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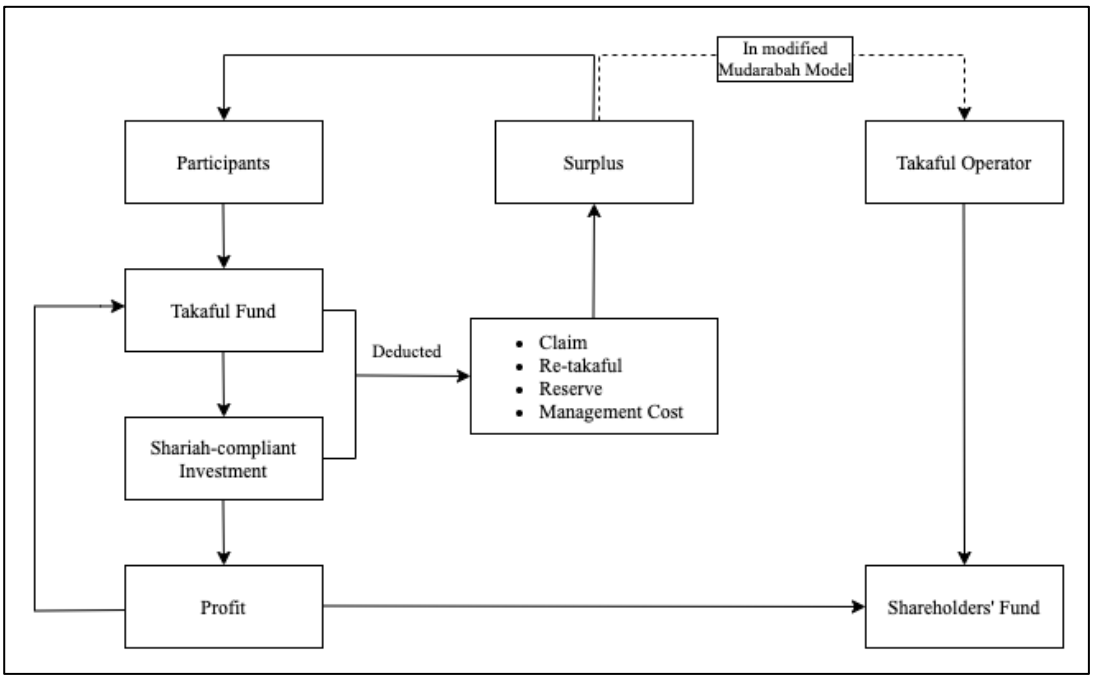

Figure 11 Mudarabah Model in General Takaful

Source: International Shariah Research Academy for Islamic Finance (2012)

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The figure above illustrates the flows of the *mudarabah* model applied in general takaful products. The model's mechanism began with the formation of a takaful fund, which comprises of the payment from the participants. The funds will then be invested in Shariah-compliant securities. If there is a profit, it will be divided among the participants and the takaful operator according to the agreed-upon ratio. The excess (after claims, re-takaful, reserve, and management expenditures) will be given to the participants at the end of the year. The surplus only will be shared with the takaful operator in the modified *mudarabah* model.

Meanwhile, the figure below illustrates the implementation of the *mudarabah* model in family takaful products. Participants pay takaful payments, pooled with other participants' funds to construct the model. The participants' funds are separated into two accounts: a savings account and a special account. According to this model, the

special account, based on the *tabarru'* concept, is considered a risk account. The proportion agreed upon in the contract determines the balances in these two accounts. All collected funds in the savings and special accounts will be utilized from investments in Shariah-compliant assets like Islamic government bonds, Islamic private debt instruments and equities, fixed assets, and fixed deposit accounts.

If the investment makes a profit, it will be distributed among the participants and the takaful operator according to the agreed-upon ratio. Participants will be paid amounts in their accounts upon death, delivery, or the maturity of a takaful scheme. Participants' special accounts will be used to settle disputes, re-takaful, reserve, and manage the account. The surplus will be distributed to the participants after the year. The surplus only will be shared with the takaful operator in the modified *mudarabah* model.

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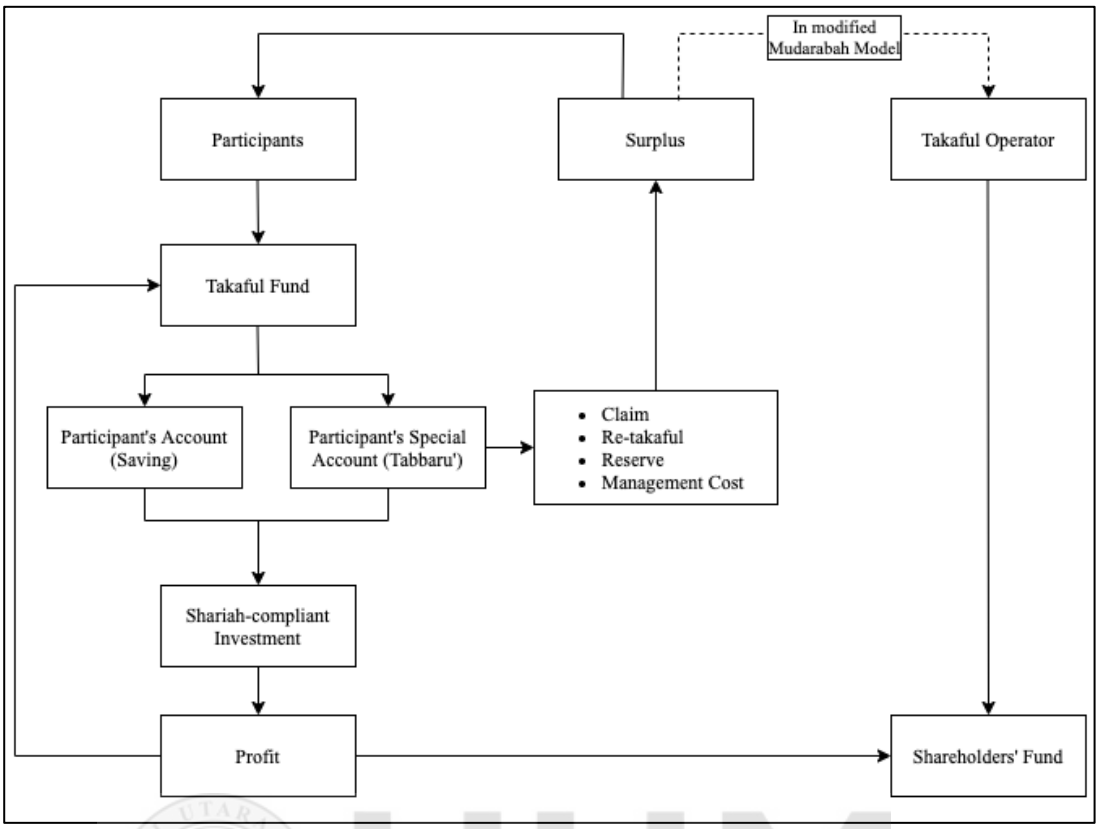

Figure 12 Mudarabah Model in Family Takaful

Source: International Shariah Research Academy for Islamic Finance (2012)

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2.2.7.3 Hybrid of *Wakalah and Mudarabah* Model

A hybrid is a new contract form combining two different contracts. This model contains elements from both the *wakalah* and *mudarabah* models. The *wakalah* principle is employed in underwriting procedures, and the *mudarabah* contract is used in takaful fund investment. As a result, the takaful operator is entitled to an agency fee for administering the fund as a *wakeel* and a profit share for managing the fund's investment as a *mudarib* (International Shariah Research Academy for Islamic Finance, 2012). This *wakalah-mudarabah* hybrid form is typically employed for family Takaful products (Ali, 2016).

The first phase is for participants to pay takaful donations. The contributions are split into two categories: agency fees and takaful funds. The division is based on the agreed-upon ratio between the takaful operator and the contract participants. Furthermore, the takaful operator's fund will get the agency charge of agency commission and administrative costs. The fund will then be invested in Shariah-compliant securities. The profit, if any, will be split between the participants and the takaful operator according to the agreed-upon ratio. After settling the claims, re-takaful, and reserve, the surplus will be allocated to the participants and takaful operator according to the contract's agreed-upon percentage. The figure below summarizes the mechanism of the *wakalah-mudarabah* hybrid model.

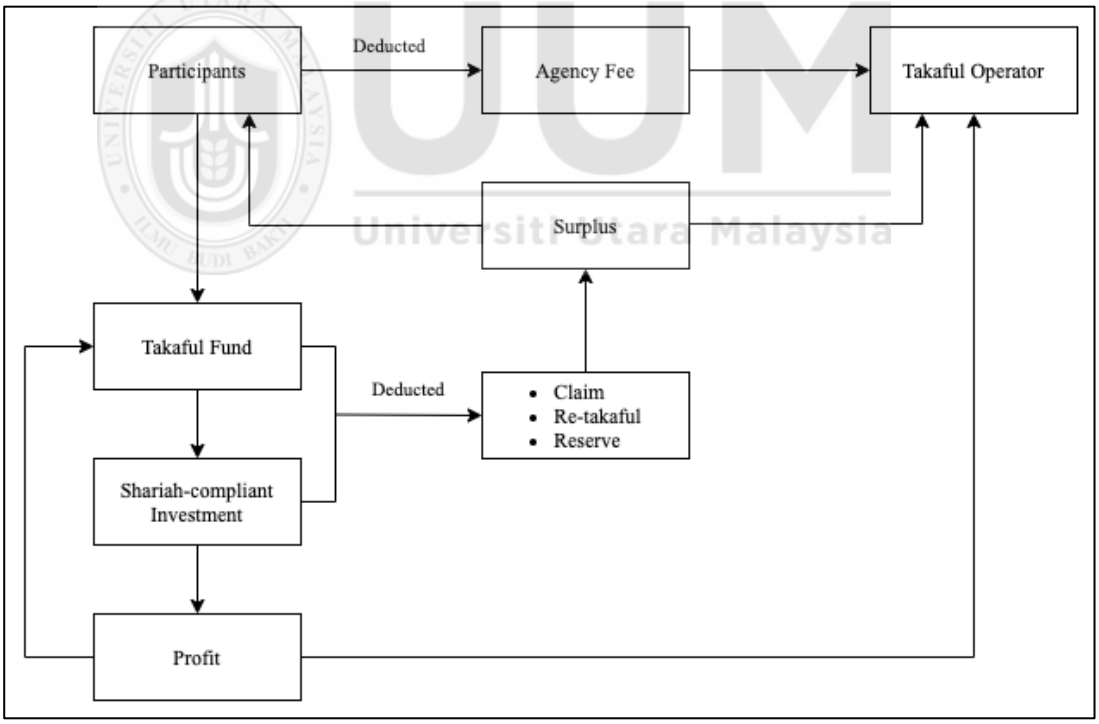

Figure 13 Hybrid of Wakalah and Mudarabah Models

Source: International Shariah Research Academy for Islamic Finance (2012)

2.2.7.4 Hybrid of *Wakalah* and *Waqf* Model

In addition to the previous models, Taqi Usmani, a prominent Shariah scholar from Pakistan, has presented the most recent model, a hybrid of the *wakalah* and *waqf* models. This *waqf* plan aims to allow anyone to save consistently to build up a fund to bequeathed as a donation. In this concept, the stockholders from the takaful operators will make an initial contribution to find a *waqf* fund. Similarly to the previous model, all collected funds must be invested in Shariah-compliant instruments, with the profits going to the participants. The *tabarru'* fund, which comes from the special account of participants, is also put into a *waqf* fund.

As an outcome, donations from shareholders and takaful participants formed the *waqf* fund. The full sum will be invested, with any gains returning to the same fund. Under *waqf* principles, donors (shareholders and participants) would relinquish ownership of their monetary donations to the *waqf* fund. The funds eventually pass to the *waqf* fund, which can only be utilized to benefit all participants.

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As the *waqf* fund's owners, the shareholders of the takaful operator grant authority to the operator to function as the fund's administrator, which includes settling claims from the fund. Moreover, the shareholders of the takaful company also act as investment agents who are responsible for investing in the *waqf* fund. This arrangement is based on *wakalah bil-Istithmar* contract. Therefore, the shareholders of the takaful operator are entitled to a share of the investment earnings as a performance fee. The sources of income for the takaful operator in this model are alike to those in the *wakalah* model, namely the agency fee. This income is entitled to takaful operators due to their services as a *wakeel* in managing the *waqf* fund. Furthermore,

the takaful operator is also privileged on a performance fee for functioning as an investing agent. This is a relatively recent approach that non-profit organizations commonly use.

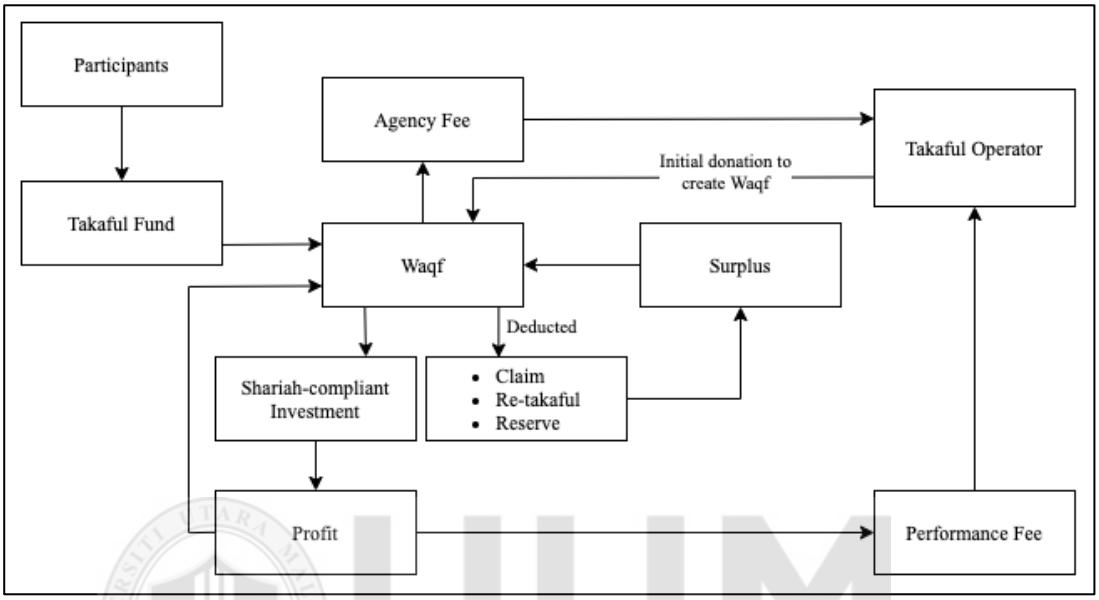

Figure 14 Hybrid of Wakalah and Waqf Models

Source: International Shariah Research Academy for Islamic Finance (2012)

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The figure above depicts the mechanism of the model, in which participants pay takaful payments into a pool of funds. A *waqf* fund is established after acquired the initial contribution from the shareholders of the TO and followed by participants' contributions. The *waqf* fund is then depleted by the agency fee. The charge, which includes the agent's pay and administrative costs, will be paid to the takaful operator. The *waqf* fund will be used to invest in Shariah-compliant assets. Any investment profit will go to the *waqf* fund, with the TO (investment agency) receiving a performance fee depending on the agreed-upon percentage. Amounts accumulated in participants' accounts will be paid to them upon death, delivery, or maturity of a takaful policy. *Waqf* funds will be utilized to pay claims, re-takaful, and reserve funds.

The surplus in the *waqf* fund (after subtracting claims, re-takaful, and reserve) will be returned to the same fund at the end of the year.

2.2.8 Development of Takaful Industry in Malaysia

Due to many prohibitions in Islam about traditional insurance, the demand for Shariah alternatives to insurance stimulated the takaful sector in Malaysia in the early 1980s. Because there are components of uncertainty (*gharar*), interest (*riba*), and gambling (*maysir & qimar*) in traditional insurance granted by Malaysia's National Fatwa Committee, it is unlawful. In 1982, the government formed a task force to investigate the feasibility of establishing a takaful insurance company. The Task Force recommended that the Takaful Act of 1984 be passed, and the first takaful operator be launched in Malaysia.

Malaysia's takaful business has experienced significant expansion and transformation for more than three decades. From a single player with restricted offerings to a multi-player industry. The Malaysian government's backing for publishing the Guidelines for International Takaful Operators (ITO) in late 2006 demonstrates the takaful industry's success (Sharifuddin et al., 2016). There are numerous stages in the development of the takaful industry. This was the birthplace of Takaful Malaysia, which focused on developing fundamental infrastructure for the sector in the early 1980s. Several takaful insurance businesses popped up in Malaysia in the early 1990s, signalling the start of competition and cooperation among other takaful operators. In addition, the Financial Sector Master Plan (FSMP) was first implemented in 2001 in the early 2000s. The FSMP is intended to improve Takaful management capacities and strengthen the regulatory, Shariah, and supervisory framework.

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In Malaysia, there were seven takaful operators in 2006. Maybank purchased MNI Insurance and Takaful Nasional through Mayban Fortis in 2005 and changed their names to Etiqa Insurance and EtiqaTakaful, later in 2007. MaybanTakaful Company then transfers its assets, liabilities, and operations to IttiqaTakaful Company. Bank Negara Malaysia (BNM) has released a revised Policy Document linked to the direct trade route of pure protection products, based on the most recent facts relevant to the development of the takaful business in Malaysia. This revision of the core document highlights two key points: (1) the need for original critical illness prevention and health goods to be available through direct distribution channels, and (2) the insertion of exposure requirements for all products available through direct distribution channels. In addition, Malaysia currently has 11 family takaful companies, four general takaful companies, and three re-takaful companies (refer to Table 1) (Bank Negara Malaysia, 2022a, 2022b).

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Table 1 List of Takaful Operators in Malaysia

No.	Takaful Operator	Type	Ownership
1.	AIA Public Takaful Bhd	Family Takaful	F
2.	AmMetLite Takaful Berhad	Family Takaful	L
3.	Etiqa Family Takaful Berhad	Family Takaful	L
4.	FWD Takaful Berhad	Family Takaful	L
5.	Great Eastern Takaful Berhad	Family Takaful	F
6.	Hong Leong MSIG Takaful Berhad	Family Takaful	L
7.	Prudential BSN Takaful Berhad	Family Takaful	L
8.	Sun Life Malaysia Takaful Berhad	Family Takaful	L
9.	Syarikat Takaful Malaysia Keluarga Berhad	Family Takaful	L
10.	Takaful Ikhlas Family Berhad	Family Takaful	L

11.	Zurich Takaful Malaysia Berhad	Family Takaful	F
12.	Etiqa General Takaful Berhad	General Takaful	L
13.	Syarikat Takaful Malaysia Am Berhad	General Takaful	L
14.	Takaful Ikhlas General Berhad	General Takaful	L
15.	Zurich General Takaful Malaysia Berhad	General Takaful	F
16.	Malaysian Re Retakaful	Retakaful	L
17.	Munich Re Retakaful	Retakaful	F
18.	Swiss Re Retakaful (Swiss Re Asia Pte. Ltd)	Retakaful	F

Source: Bank Negara Malaysia (2022)

2.3 Underpinning Theory

This section discusses the leading underpinning theory used in this study, the Theory of Planned Behaviour (TPB). The theory is used to justify the selected variables in influencing the intention to participate in family takaful products.

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2.3.1 Theory of Planned Behaviour

The Theory of Planned Behaviour (TPB) was introduced by Ajzen (1985) as an extension and improvement version of the Theory of Reasoned Action (TRA), which was introduced by Fishbein and Ajzen (1975). As its name implies, in the Theory of Reasoned Action, based on the assumption that human beings usually behave reasonably, they take account of the information available and consider the implications of their actions implicitly or explicitly. In general, TRA is used to measure human behaviour to do an action. Behaviour is determined by behavioural intention, which can be explained by attitude and subjective norms. The attitude (attitudinal) is referred personal, while the subjective norm refers to social or normative (Vallerand et al., 1992).

The first factor is attitude. Attitude reflects a person's perception of a specific behaviour. The attitude is proposed to be a function of the beliefs about the perceived outcomes of performing the behaviour and their evaluation of the outcomes. The second factor is subjective norms. Subjective norms reflect the person's perception of the importance of a specific referent from an individual or group that thinks he should perform a particular action and the reason to comply with the referent. Ajzen & Fishbein (1980) suggest that these two factors in determining the behaviour intention may vary according to the behaviour, the situation and the individual (Ajzen & Fishbein, 1980).

Behavioural intention is supposed to capture the motivational factors influencing behaviour (Ajzen, 1991). As an analogy, the more the intention to perform a behaviour, the more likely its performance. However, not all intentions are carried out because some are ignored, and some are revised to fit changing circumstances (Ajzen, 1985). Furthermore, according to the TRA, behavioural intention is the immediate antecedent of human behaviour. Figure 15 illustrates the framework for the Theory of Reasoned Action by Fishbein & Ajzen (1975).

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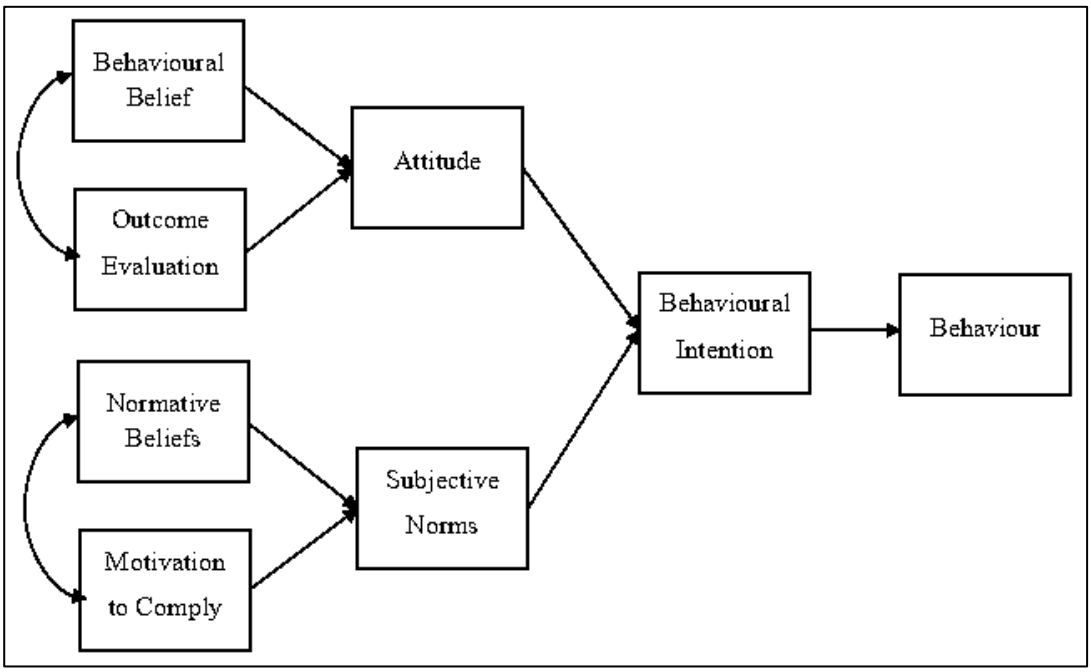

Figure 15 Theory of Reasoned Action

Source: Fishbein & Ajzen (1975)

As mentioned above, Ajzen has introduced the TPB due to the extension of the TRA framework by adding one new factor: control belief or perceived behavioural control. Perceived behavioural control was added into the TPB framework to determine behaviour intention and actual human behaviour. The perceived behavioural control refers to the availability of resources and opportunities of a person, to some extent, dictates the likelihood of behavioural achievement. Furthermore, it reflects a person's perception of the ease or difficulty of performing a particular behaviour (Ajzen, 1991). Many studies have proved that perceived behavioural control significantly influences a person's confidence in accomplishing the behaviour.

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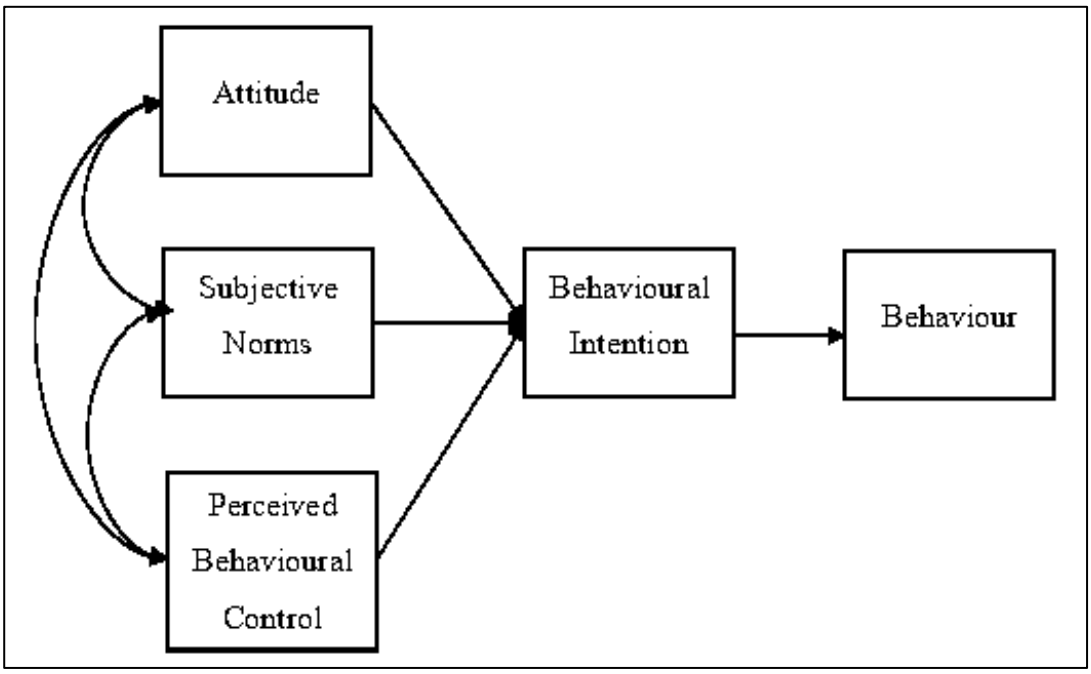

Figure 16 Theory of Planned Behaviour

Source: Ajzen (1985)

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The above figure illustrates that behavioural intentions are influenced by three factors which are attitude (personal attitude toward the behaviour), subjective norms (social pressure) and perceived behavioural control (sense of control). The first factor is attitude. Attitude is defined as an evaluation of a person, either positive or negative, toward a behaviour (Ajzen, 1991). According to Suki (2010), attitude is defined as the degree to which a person has a favourable or unfavourable evaluation or appraisal of the behaviour (Mohd Suki, 2010). In the explanations of human behaviour offered by social phycologists, the concept of attitude was the focus of attention (Ajzen, 2005). Over the years, various attitudes have been evaluated, and as new social problems emerge, additional attitudinal domains are explored. Examples include attitudes toward the church, hospitals and doctors, smoking and drinking, open education, political parties, ethnic groups and nationalities, and various social issues, such as nuclear power, conservation of energy, environmental protection, and the like.

Attitude is a hypothetical construct that must be inferred from measurable responses. These responses must indicate positive or negative evaluations of the object's attitude according to the nature of the construct. Typically, attitude is evaluated through semantic differential scales that tap into affective and cognitive attitudes. For example, pairs of adjectives relevant to the studied behaviour reflect a positive and negative component of an attitude (LaCaille, 2013). If individuals are given different options, they will choose the highest attitude evaluation (Arvola et al., 1999).

The second factor is subjective norms. The subjective norm refers to the perceived social pressure to carry out the behaviour or not do it (Ajzen, 1991). For example, social norms dictate that people's lifestyles and expectations around an individual influence their buying decisions (Rutherford & DeVaney, 2009). Significant others are persons whose preferences about a person's behaviour are vital to him (Conner & Armitage, 1998). Subjective norms reveal people's beliefs about how their reference groups view them if they carry out a particular behaviour (Al-Swidi et al., 2014). In the original Theory of Planned Behaviour, the subjective norm is measured only in terms of the injunctive norm of what others think (Rivis & Sheeran, 2003). Therefore, Ajzen (2002) further suggests that the descriptive norm should be included in measuring the subjective norm by reflecting on what others do (Ajzen, 2002; LaCaille, 2013). The assumption is that individuals are more likely to perform a particular behaviour that is regarded s desirable by significant others.

As mentioned above, the Theory of Planned Behaviour incorporates control belief or perceived behavioural control in the framework. Control is achieved through

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appropriate resources and the potential to perform a particular behaviour (Madden et al., 1992). Human behaviour depends on both motivation factors and the ability to perform that specific act (Aziz et al., 2017a). According to them, when individuals are not equipped with sufficient resources or information to carry out a particular behaviour, their intention to act will be weaker despite having a positive attitude and subjective standards. Therefore, the more people think they have resources and opportunities, the greater their perceived control over behaviour.

To accommodate the nonvolitional elements inherent, at least potentially, in all behaviours, the concept of PBC was introduced into the Theory of Planned Behaviour (Ajzen, 2002). Even when not remarkably realistic, intentions are likely to be affected by perceived behavioural control. A high level of perceived control should reinforce the intention of a person to perform the conduct and increase effort and perseverance. Perceived behavioural control can indirectly influence behaviour in this way by its effect on intention. And if perceived behavioural control is accurate, it provides valuable information about the actual control that an individual can exercise in the situation and can be used as an additional direct behavioural predictor.

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2.4 Supporting Theories

This section discusses three supporting theories used in this study to justify the selected variables impacting the intention of customers to participate in the FTP. These three supporting theories are Brand Association (BA), Unified Theory of Acceptance and Used of Technology (UTAUT) and Initial Trust Formation Model (ITFM).

2.4.1 Brand Association

As mentioned in the previous chapter, the market penetration rate for the takaful industry is still far left behind the conventional insurance industry, which is 20.1 percent and 54 percent, respectively. This massive penetration rate gap indicates a robust inter-industry rivalry between takaful and traditional insurance products. In addition, many previous studies on the selection criteria of customers for takaful products found that the religious element is one of the influential predictors (Aziz et al., 2019; H. A. Hassan & Abbas, 2019; Nurdianawati & Gustina, 2012; Raza, Ahmed, et al., 2019; Shaikh et al., 2019). Therefore, takaful operators need to be competitive in ensuring their continued existence in the takaful industry. Brand equity (brand association) is considered one of the strategies for marketing that the IFIs can utilize to gain the institution's long-term sustainability (Kamarulzaman & Madun, 2013).

Aaker (1992) proposed the definition of brand association as anything liked in memory of a brand (Aaker, 1992). Fayrene & Lee (2011) also defined brand association as the most accepted aspect of brand equity (Fayrene & Lee, 2011). All thoughts, feelings, perceptions, images, experiences, beliefs, and attitudes associated with a brand are included in brand associations (Kotler & Keller, 2012). Brand association is associated with information about the customer's perceptions of the brand, whether positive or negative and is connected to the node of the brain memory (Emari et al., 2012). A brand image is formed by a collection of associations typically organized meaningfully. Thus, brand image can be defined as the brand association or the customer's perception of a specific brand due to its association (Kilei et al., 2016).

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Aaker (1992) suggests five dimensions of how the value of brand equity is created, including brand loyalty, brand awareness, brand quality, brand association and other proprietary brand assets (refer to Figure 17). First of all, brand loyalty is critical when determining a brand's value because it translates into a profit stream. For example, a loyal customer can be expected to generate a predictable revenue and profit stream. Additionally, concentrating on brand loyalty is frequently an effective strategy for managing equity. Customer satisfaction and repeat purchases are frequent indicators of a healthy brand, and programmes designed to increase them will strengthen the brand. Brand loyalty can manifest itself in various ways, from habitual to satisfied buyers, from those who like the brand to genuinely committed ones.

The second dimension in creating value for brand equity is perceived quality. Perceived quality is considered a distinct asset from brand associations for several reasons. First, perceived quality has become a critical business objective for many firms and can serve as the impetus for programmes to enhance brand equity. Second, perceived quality is the most significant factor affecting return on investment. Third, in a study of business managers who were asked to identify their firm's sustainable competitive advantage, perceived quality was rated as the highest-rated asset. Thus, perceived quality is a sufficiently significant and widely accepted strategic factor to warrant inclusion as a distinct dimension. Perceived quality adds value by providing a reason to purchase, differentiating the brand, attracting channel member interest, laying the groundwork for line extensions, and justifying a higher price (Fayrene & Lee, 2011).

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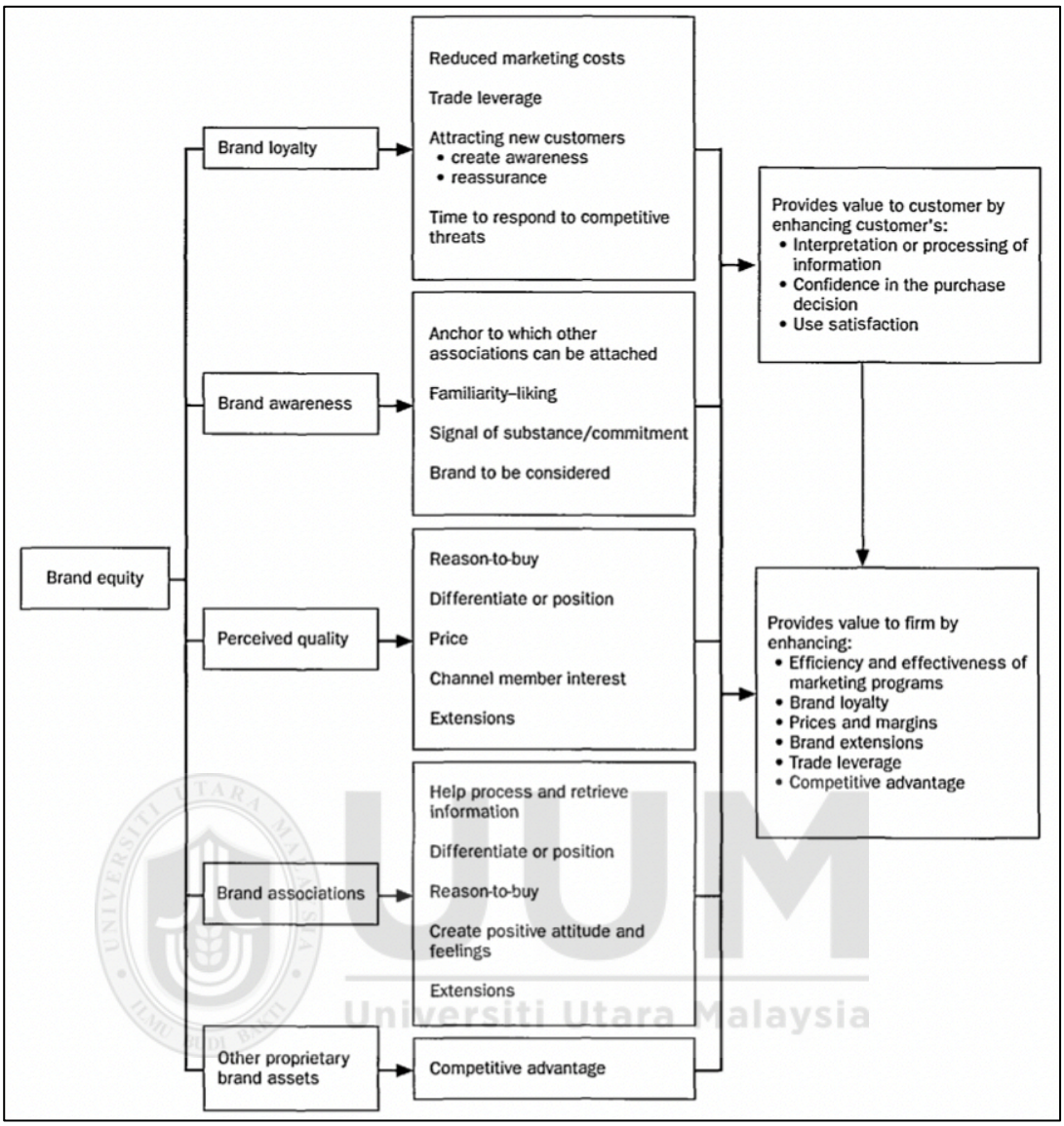

Figure 17 Brand Equity Framework

Source: Aaker (1992)

Third, brand awareness is not elevated to the level of a brand asset. Nonetheless, awareness was the third most frequently mentioned asset in the study. Brand awareness is critical for many businesses, as it is the foundation of successful brands. Even at the recognition level, brand awareness can instill a sense of familiarity in the brand and signal substance and commitment. Keller (2003) defines awareness as the customers' ability to recall and recognize the brand as reflected by their ability to identify the

brand under different conditions and to link the brand name, logo, symbol, and so forth to certain associations in memory (Keller, 2013). Apart from recognition and recall, Aaker (1996) identifies additional higher levels of awareness (Aaker, 1996). He encompasses top-of-mind awareness, brand dominance, brand awareness, brand knowledge, and brand opinion. Brand knowledge is the comprehensive collection of brand associations associated with the brand (Keller, 1993).

The next dimension and perhaps the most widely accepted aspect of brand equity are brand associations or brand image. Keller (1993) identified brand associations as the other informational nodes linked to the brand node in memory and contained the meaning of the brand for consumers (Keller, 1993). Product attributes, customer benefits, uses, users, lifestyles, product classes, competitors, and countries contribute to brand associations. Associations can assist customers in processing or retrieving information, serve as a foundation for differentiation and extension, provide a reason to purchase and elicit positive emotions. Associations are a foundation for purchasing decisions and brand loyalty (Aaker, 1992). Other proprietary brand assets are final dimensions included for completeness and are typically less important.

Furthermore, Chen (2001) classified brand associations into two categories. Firstly, product associations can be functional or non-functional (C.-H. Chen, 2001). Functional characteristics are the tangible characteristics of a product (DeChernatony & McWilliam, 1989; Hankinson & Cowking, 1995; Keller, 1993). When consumers evaluate a brand, they connect its performance and its functional attributes (Fayrene & Lee, 2011; Lassar et al., 1995). If a brand fails to fulfil the functions for which it was created, it will develop a low level of brand equity. The term performance refers

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to a consumer's assessment of a brand's faultless and long-lasting physical operation and flawless physical construction (Lassar et al., 1995). Meanwhile, symbolic attributes for non-functional characteristics are the second category of product association to satisfy consumers' needs for social approval, personal expression, or self-esteem (Aaker, 1992). Consumers associate brands with their social image, trustworthiness, perceived value, differentiation, and origin.

Additionally, the second category of brand association is organizational association. Corporate ability associations are concerned with their expertise in producing and delivering their outputs. Meanwhile, corporate social responsibility associations are concerned with the organization's perceived societal obligations (Mehta et al., 2008). According to Aaker (1996), consumers consider the organization, which includes the people, values, share similar attributes, and when a corporate brand is involved, brand-as-organization can be highly beneficial.

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Corporate Social Responsibility (CSR) must also be mentioned as another concept influencing the development of brands today, mainly corporate brands. CSR is important as the public wants to know what, where, and how much brands contribute to society. Both branding and CSR have become critical to organizations' success. Thus, now they are understood how these strategies can enhance or detract from their value (Blumenthal & Bergstrom, 2003). CSR can be defined ethically or instrumentalistically, primarily engaging the corporate image (McAdam & Leonard, 2003). The figure below represents Chen's (2001) brand association model.

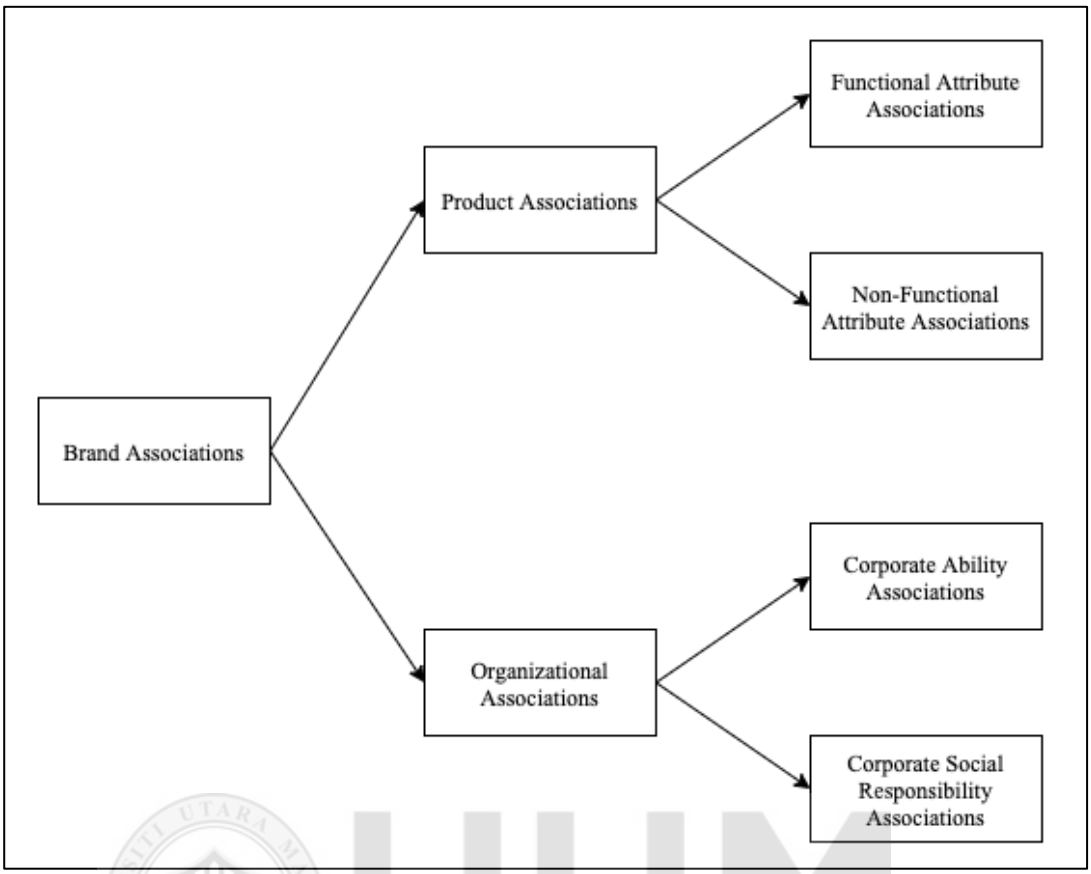

Figure 18 Brand Association Model

Source: Chen (2001)

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2.4.1.1 Islamic Brand

At the time, the concept of the Islamic brand was still in its infancy, as scholars deliberated the Islamic brand since 2007. According to Copinanth (2007), as cited in Alserhan (2010), there does not seem to be an agreed-upon meaning of the term Islamic brand (Alserhan, 2010). Wilson (2011) affirmed this, stating that the definition of the Islam brand remains unresolved. Additionally, Temporal (2011) identified a lack of a precise definition of the brand from an Islamic perspective, as the study of Islamic brands is still in its infancy and lacks literature (Temporal, 2011).

Alserhan (2010) defines the Islamic brand in three distinct ways: by compliance, by origin, and by the consumer (target audience) (Alserhan, 2010). Islamic brands were strictly appealed based on Shariah compliance, mainly concentrated in the food and finance sectors associated with halal compliance. Second, an Islamic brand by origin indicates that the brand was created in Islamic countries. Thirdly, consumers derived their brand from non-Muslim multinational firms (MNFs) headquartered in non-Islamic countries, such as Nestle, L'Oreal, KFC, and McDonald's. These MNFs invested specifically to cultivate large untapped markets in Islamic countries but were also designed for marketing halal products to Muslim consumers.

According to Alserhan (2010), when these three definitions of Islamic brands are combined, four distinct types of Islamic brands are induced, including true Islamic brands, traditional Islamic brands, inbound Islamic brands, and outbound Islamic brands. To begin, true Islamic brands. These brands meet the three criteria for an Islamic brand: halal, manufactured in an Islamic country, and marketed to Muslims. The term "true" does not imply that the other Islamic brand categories are "wrong." For instance, most brands originating in Islamic countries are halal, obviously because they were initially intended for the Muslim consumer. Secondly, traditional Islamic brands. Brands with origins in Islamic countries and a focus on Muslims. As previously stated, these are presumed to be halal. Prior to Islamic markets' globalization, it was assumed that all brands traded there were halal. Thirdly, inbound Islamic brands. Halal brands are marketed to Muslim consumers but manufactured in non-Islamic countries. These brands were mainly Islamized, that is, altered to become halal. Last but not least, there are outbound Islamic brands. Halal brands are made in Islamic countries, although they are not always targeted at Muslims.

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Halal is a unique brand association for Islamic financial institutions that justifies customers choosing an IFI over a conventional counterpart (Maulan et al., 2016). It is a one-of-a-kind factor contributing to a brand's attraction to Muslims and even non-Muslims who are pro-Islam (Wilson & Liu, 2010). Islamic insurance businesses should preserve their societal role in promoting equity and justice and their commercial functions as Shariah-compliant financial entities (Dusuki, 2008). A thorough examination of Islam as a way of life, a system of ideas and practises, and religious and societal imperatives is required for an 'Islamic brand' (Wilson et al., 2013). As a result, Islamic philosophy and concepts must be incorporated into the idea of takaful brand association.

2.4.1.2 Halal Brand Association

Maulan et al. (2016) conceptualised the HBA as one of the new additions to the current body of knowledge about branding. They developed the HBA to highlight the halal, Shariah-compliant, and God-conscious nature of IFI products, including Islamic banking, takaful, and other financial instruments (Maulan et al., 2016). Halal is a phrase used in the Islamic financial environment to refer to a religiously based organization. Halal is an Arabic word that means permissible or legal. It is a distinguishing element that sets Islamic banks apart from conventional banks. It is drawn from divine revelations or Shariah principles that govern a Muslim's business (Quran 2:275; 4:161).

Islamic banking is considered halal, which reflects its permissibility for Muslims to utilize because the bank is free from *riba elements* (Warde, 2010). Moreover, Islamic

banking is not only about *riba*-free transactions as it also includes Islamic religious teachings. This attribute is essential to address deeper ethical and moral issues, enabling the IFIs to contribute significantly to their society (Khan, 2010). Islamic banking should be *riba*-free and significantly contribute to fulfilling the socioeconomic goals for which *riba* prohibition is justified; hence the term halal should be defined liberally (Warde, 2000).

Halal is the brand term for Islamic financial institutions, and it explains why customers choose an IFI over a conventional counterpart (Maulan et al., 2016). It is a unique aspect that contributes to a brand's attractiveness to Muslims and non-Muslims who support Islam (Wilson & Liu, 2010). As Shariah-compliant financial entities, Islamic insurance businesses must uphold their social responsibility to promote justice, fairness, and business functions (Dusuki, 2008). For an Islamic brand, a complete assessment of Islam as a way of life, a system of ideas and practices, and religious and societal imperatives are required (Wilson et al., 2013). As a result, infusing Islamic philosophy and concepts into the concept of takaful brand association is needed.

Maulan et al. (2016) conceptualized the HBA based on three dimensions: Shariah-compliant Association (SCA), God-consciousness Association (GCA), and CSR Association (CSRA). They defined SCA as the consumers' perceptions of an Islamic bank's ability to fulfill Islamic law and operate under Islamic banking and economy principles. The term halal is used in Islamic banking to refer to Shariah-compliant products. Compliance with Shariah is described by Othman and Owen (2001) as a bank's ability to comply with Islamic law and operate within the principles of Islamic banking and economy, and it is considered one of the service quality factors for Islamic

banks. However, because Shariah-compliant banking is a distinguishing feature of Islamic banking (Othman and Owen, 2001), it deserves to be recognized as a distinct component linked with a halal brand. Despite the fact that Islamic banks provide similar services to conventional banks, the framework must be structured around the essential concepts of Islamic law (Dusuki & Abdullah, 2007).

The second dimension of HBA is the God-consciousness Association (GCA). GCA is defined as the consumers' perceptions of the Islamic bank's fulfilment of Islamic ethical principles and virtues. God-consciousness is essential to comprehending Shariah because it entails striving to achieve Shariah's goals in the ways given by Islamic teachings (Dusuki, 2008b). In Arabic, 'God-consciousness' is referred to as *taqwa*, a critical factor in shaping a Muslim's character (Wajdi Dusuki, 2008).

As a result, the image of God-consciousness signifies Islamic identity for Islamic banks. An Islamic banking institution should consider the role and responsibility towards God. Since its foundations are focused on pleasing Allah SWT, Islamic banks have been obligated to behave within the scope of the Islamic doctrine (Dusuki, 2008). Indeed, the clearest example is the Prophet Muhammad (PBUH), whose character and integrity is the manifestation of the Quran (33:21). Thus, Islamic banks must conduct business following the ethical ideals of justice and balance *('adl* and *qist*), trust (*amanah*), and benevolence (*ihsan*) (Beekun & Badawi, 2005). They must embody the Islamic moral principles and virtues of truthfulness, fairness, justice, trustworthiness, integrity, and transparency, which reflect God's consciousness.

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The third dimension of HBA is Corporate Social Responsibility Association (CSRA). CSRA is defined as consumers' expectations of an Islamic bank's moral and religious initiative, based on the belief that an Islamic bank must promote social welfare apart from its profit motive. Caroll (1979) provided a well-known definition of CSR, which included four categories of responsibilities: economic, legal, ethical, and discretionary. As a result, to be socially responsible, a company must be profitable, follow the law, act ethically, and return to society through good work (philanthropy) (Carroll, 2000). Sethi (1975) emphasized that CSR aligns company behaviour with prevalent social norms, attitudes, and expectations.

On the other hand, CSR is a strategic or instrumental endeavour in Islam to improve goodwill and financial performance (Dusuki, 2008). In Islam, CSR is deeply enshrined in the religious link, with Islamic banks responsible for promoting social quality, brotherhood and fair distribution in Muslim countries (Chapra, 1985; Dusuki, 2008). Furthermore, companies as groups take on the functions and obligations of vicegerents (Dusuki, 2008). They must use and manage resources in the ways that Allah SWT has dictated (Dusuki 2008; Beekun and Badawi, 2005). As a result, an IFI must project a CSR image (Osman, 2011). Islamic banks must fulfill social commitments beyond profit maximization as Shariah-based businesses (Asutay, 2007; Dusuki, 2008).

2.4.2 Unified Theory of Acceptance and Use of Technology

UTAUT is a reasonable theory in evaluating the acceptance and use of open data technology. This theory is very suitable for examining the factors that affect the acceptance of Information Technology related to open data by taking into account social factors. Martin (2014) states that technology from an open data point of view

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refers to configurations that have functions such as tangible artifacts, the skills of technologists and users, and the interfaces of artifacts with the wider technical infrastructure (Martin, 2014) as cited in (Zuiderwijk et al., 2015). Acceptance and utilization of open data technologies are also influenced by social variables such as open data users' behaviour and influence from and interaction between open data users. Several papers have emphasized the need to examine social variables in technology adoption research.

For decades, the adoption and use of IT have been essential to Information Systems research and practice (Lancelot Miltgen et al., 2013). The UTAUT is a commonly used framework for measuring IT acceptance and use. Based on a survey of theoretical models and other research about technology acceptance and determinants, Venkatesh et al. (2003) proposed the UTAUT. The UTAUT can be considered a unified approach for researching technology acceptance and use (Venkatesh et al., 2003). It is a well-established framework that's been thoroughly tested in various settings since then (Zuiderwijk et al., 2015). Venkatesh et al. (2003) introduced four essential constructs that have a significant role in UTAUT. These four constructs are; performance expectancy, effort expectancy, social influence and facilitating conditions. Venkatesh et al. (2003) also constructed four moderator roles, including gender, age, voluntariness, and experience.

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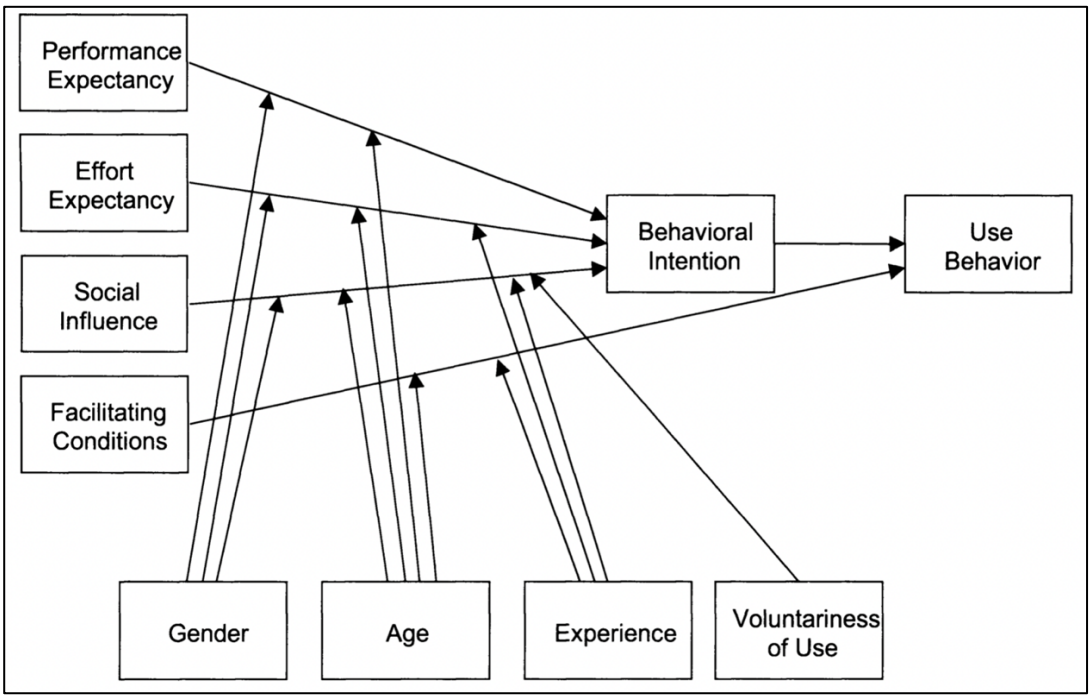

Figure 19 Unified Theory of Acceptance and Use of Technology's Framework

Source: Venkatesh et al. (2003)

The degree to which a person believes that adopting the system would assist him or her in improving job performance is referred to as performance expectancy (PE). Within each model, the PE construct is the most potent predictor of intention, and it remains essential at all levels of analysis. Venkatesh et al. (2003) also highlighted that gender and age have a role in moderating the correlation between PE and intention. The second construct in UTAUT is effort expectancy (EE). The degree of easiness with which a system can be used is EE. Each model's EE construct is only meaningful for the first period. However, after time and with continued use, the EE becomes minimal. According to Venkatesh et al. (2003), effort-oriented constructs should be more prominent in the early stages of new behaviour.

The third of the following UTAUT constructs is social influence (SI). The SI in this context brings the same role as the subjective norm in TRA and TPB. The SI construct

includes the direct or indirect idea that an individual's performance is shaped by how they feel others will perceive them due to their use of technology. Venkatesh et al. (2003) discovered that the SI construct behaves similarly in their empirical research. According to the same research, the SI plays a crucial role only in the early phases of individual encounters with the technology. SI's importance diminishes over time, eventually becoming irrelevant with continued use. The last UTAUT construct is facilitating conditions (FC). The FC plays the same role as other constructs from different theories, such as perceived behavioural control in TPB/DTPB, facilitating conditions in MPCU and compatibility in IDT. The FC is designed to cover components of technology and the organization structure to remove barriers to adoption.

2.4.3 Initial Trust Formation Model

Several trust researchers have claimed that trust builds through time, but their theories create an exciting issue compared to current empirical findings. All these trust researchers indicate that the level of trust begins small and steadily increase by positing that trust builds through time. As a result, several researchers have been shocked by how high their respondents' early levels of trust were, both in the survey and experimental studies. When confronted with a trust problem, economics-based researcher Berg et al. (1995) predicted that individuals would have low to medium trust in one another. Instead, despite having no reason to expect anything in return, their subjects often displayed great trust-passing to a second person, which they were given during the early phase of the study (Berg et al., 1995).

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The parties' first trust will not be founded on any prior experience with or knowledge of the other party. Instead, it will be based on a person's willingness to trust or institutional indicators that allow one person to trust another without firsthand experience. The initial trust formation framework is depicted in Figure 20. The model is only applicable to first-time meetings between persons. As a result, it eliminates experiential processes (such as witnessing trustees' behaviour), but it does incorporate cognitive processes and elements that contribute to early trust.

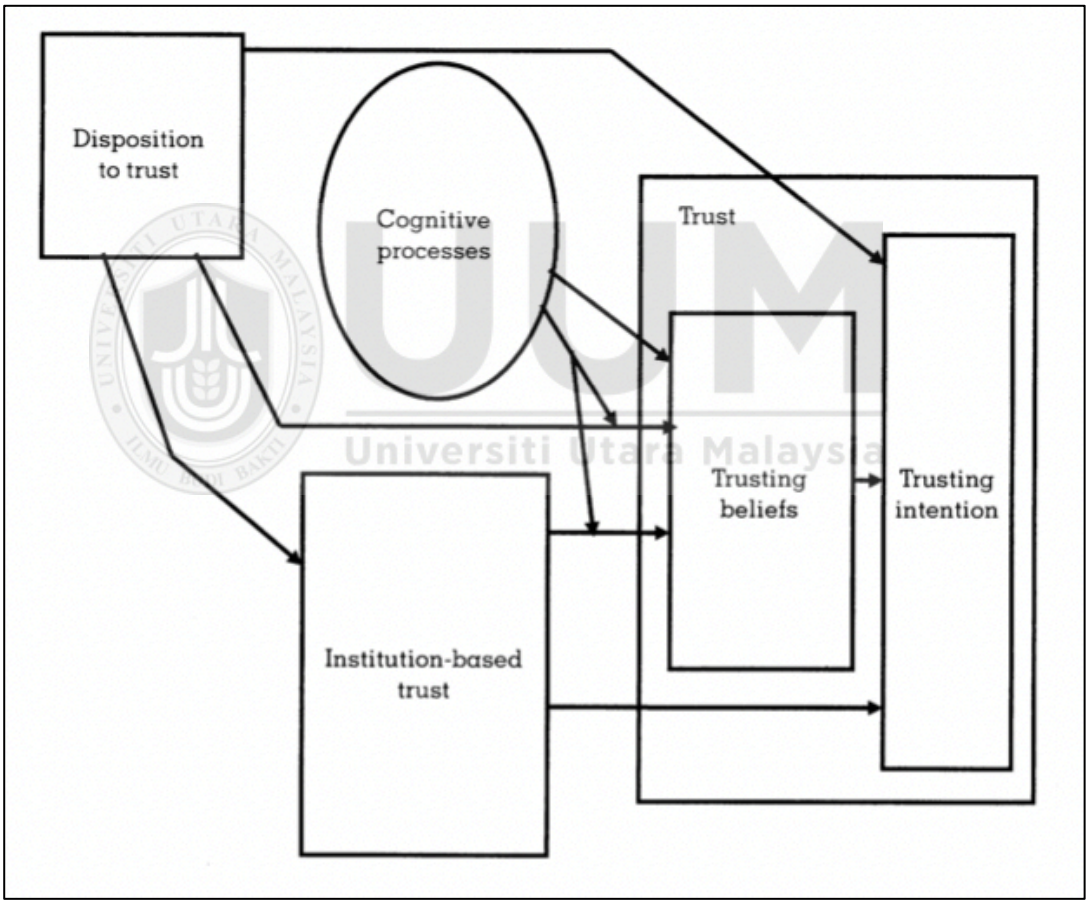

Figure 20 High-level Model of Initial Formation of Trust

Source: McKnight et al. (1998)

McKnight et al. (1998) defined trust as one who believes in and is willing to depend on another party. This high-level trust concept can be broken into two constructs: trust

intention and belief. Trusting intention is explained as one is willing to depend on the other person in a given situation (Currall & Judge, 1995). Meanwhile, trusting beliefs are defined as one believes the other person is benevolent, competent, honest, or predictable in a situation (Mayer et al., 1995). Because the term trust is so ambiguous and vast, it almost defies thorough definition, and it's crucial to distinguish between two components that make up trust. The distinction between trusting beliefs and trusting intention is based on the Fishbein and Ajzen (1975) typology, which divides constructs into four categories: beliefs, attitudes, intentions, and behaviours. Nonetheless, McKnight et al. (1998) excluded attitudes and behaviours so that they could focus on cognitive concerns.

A substantial corpus of knowledge derived from five study streams highlights the formation of the first trust. Three more research streams have been used in addition to knowledge-based and calculative-based trust research: (1) personality-based, (2) institution-based, and (3) cognition-based. According to personality-based trust researchers, trust begins in childhood as a child seeks and receives support from a caring caregiver. As a result of these behaviours, there is a general desire to trust others (Rotter J., 1967). According to institution-based trust scholars, trust reflects as "one's sense of security in a situation because of assurances, safety nets, or other institutions" (Zucker, 1986). According to cognitive-based trust researchers, trust is built on quick cognitive clues or first impressions rather than personal connections (Lewis & Weigert, 1985).

Each of the three research lines can assist describe the paradox of high initial trust levels: personality-based, institution-based, and cognition-based. According to

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personality-based trust theorists, respondents in Kramer's study with a strong tendency to trust would have a high initial trust level. However, because it is doubtful that almost all of Kramer's subjects had high dispositions to trust, this may not explain the overall high degree of trust. The structure of the classroom environment, according to institution-based theorists, encouraged high levels of early trust by allowing users to feel safe in the situation (Lewis & Weigert, 1985). Kramer gave a cognitive explanation for his findings, claiming that the MBAs' high levels of trust were due to their positive attitudes toward their peers. Figure 21 illustrates the complex constructs and processes of the Initial Trust Formation Model.

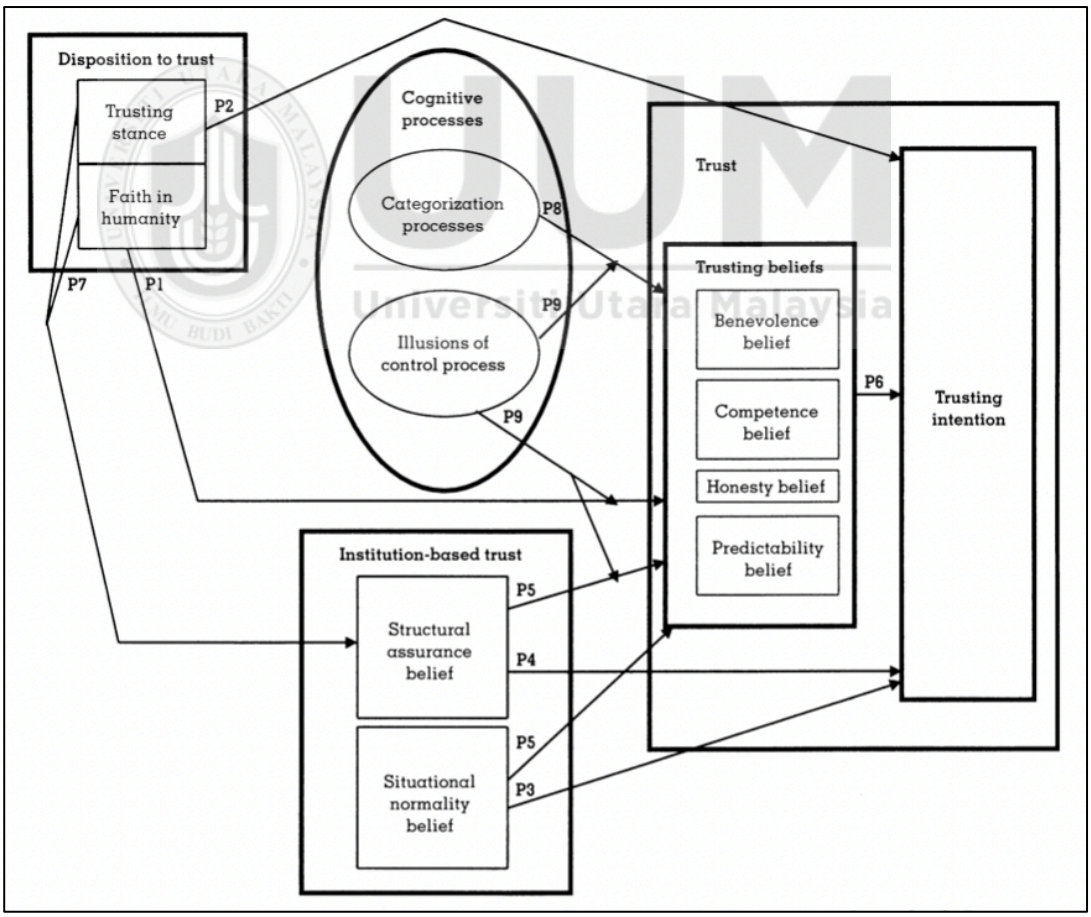

Figure 21 Complex constructs and processes of the Initial Trust Formation Model

Source: McKnight et al. (1998)

As mentioned above, McKnight et al. (1998) conceptualized three types of trust: disposition-based trust (DT), cognitive-based trust (CT), and institutional-based trust (IT). These three types of trust are decomposed into two dimensions: trusting stance and faith in humanity for the DT, categorization processes and illusions of a control process for the CT, and structural assurance belief and situational normality belief for the IT. Faith in humanity is defined as one believes that others are typically well-meaning and reliable (Wrightsman, 1991). Meanwhile, a trusting stance is defined as one believes that, regardless of whether people are reliable or not, one will obtain better interpersonal outcomes by dealing with people as though they are well-meaning and reliable.

Because faith in humanity implies one's belief in the trustworthiness of unspecified individuals, this trait will likely influence one's initial trusting beliefs. This is especially true if an individual cannot depend on other sources of trust (e.g., trusting beliefs or institution-based trust) since the situation, relationships, and other person are unfamiliar. In other words, if additional specific situational information is unavailable, one will rely on one's fundamental beliefs about human nature, as shown in faith in humanity (Wrightsman, 1991). One's trusting attitude influences the willingness to rely on another, regardless of one's views about the other. When a person has a high level of trust, he or she believes that things work out best when they are dependent on others, even if those others are not always trustworthy. As a result, taking a trusting stance does not contribute to beliefs about the other persons; instead, it promotes one's willingness to rely on them.

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Institutional trust implies that one believes the required impersonal structures are in place to allow one to behave in anticipation of a future successful attempt (Zucker, 1986). Because of the strong trust levels established by institutions, trusting intentions may be high at the beginning of a relationship. The literature describes two sorts of institution-based trust: situational normality and structural assurances. Situational normality is defined as the belief that success is likely because the situation is normal. Meanwhile, structural assurance is defined as the belief that success is likely because such contextual conditions as promises, contracts, regulations, and guarantees are in place.

The appearance that things are normal or customary or that everything appears in the correct order gives rise to situational normalcy belief (Lewis & Weigert, 1985). An adequately arranged context that appears likely to promote a successful engagement is what situational normalcy entails. A person entering a bank, for example, expects a friendly yet secure environment conducive to both customer service and fiduciary responsibility. The individual's conviction that the scenario is typical makes them feel at ease, allowing them to create a trusting intention toward the other party quickly. Shapiro (1987) refers the structural assurance as structural safeguards in terms of institutional 'side bets', such as regulations, guarantees, and legal recourse. Situational information is critical since knowledge about the other person is lacking when the connection is established. In the beginning of a relationship, structural assurance believes will be more successful than later on.

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2.5 Dependent Variable

Independent variables affect or may affect dependent variables. For instance, because value A affects value B, value B is dependent on value A, while value A is independent. By employing categorical or continuous scores, numerous measures of the dependent variables can be computed. Each study sought to explain and develop the dependent variables, research questions, test purpose statements, and hypotheses (Creswell, 2012; Saunders et al., 2009; Venkatesh et al., 2003). The dependent variable of this study is the behavioural intentions to participate in the family takaful products (FTP).

2.5.1 Behavioural Intention

Behavioural intention reflects an individual customer's capacity to take action toward a specific objective (Ajzen & Driver, 1991; Conner & Armitage, 1998). The specific objective quantifies how an individual will perform a behaviour in the future, suggest it to others, encourage it, and initiate contact between two parties in a future transaction. An intention of an individual to engage in a particular behaviour is referred to as the behaviour intention (Ajzen, 1991). This study develops a dependent variable: the customers' intention to participate in family takaful products (FTP). The intention is the degree to which a customer intends to carry out a specified behaviour (Venkatesh et al., 2003). Earlier research established that Fishbein and Ajzen derived the intention construct from the Theory of Reasoned Action (1975).

The Theory of Planned Behaviour is an extended version of the Theory of Reasoned Action (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975), necessitated by the original model's inability to account for behaviours over which people have insufficient

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volitional control. As with the original Theory of Reasoned Action, a critical component of the Theory of Planned Behaviour is the individual's intention to engage in a particular behaviour (Ajzen, 1991). The assumption is that intentions capture the motivating factors that influence behaviour. They indicate how far individuals are willing to go and how much effort they intend to exert to perform the behaviour. Generally, the more determined an individual is to engage in a behaviour, the more likely its performance should be.

The intention construct has been introduced into the acceptance, adoption and participation in Islamic finance and banking products in general (Albaity & Rahman, 2019; Butt et al., 2018; Echchabi & Abd. Aziz, 2012; Kaakeh et al., 2019), financial technology (Fintech) products (Ibrahim, 2018; Maduku, 2016; Mohd Suki, 2010; Naeem, 2020; Tan & Teo, 2000; Tarhini et al., 2016; Tun-Pin et al., 2019), Islamic credit card (Amin, 2013; Jamshidi & Hussin, 2015, 2016; Jamshidi & Kazemi, 2019) and products (Akhter & Khan, 2017; Aziz et al., 2017b; Md Husin & Ab Rahman, 2016a; Md Razak et al., 2013; N. Othman et al., 2018; Saidon et al., 2019a; Sherif & Azlina Shaairi, 2013; Syadiyah Abdul Shukor, 2018). These studies demonstrate that behavioural intention predicts behaviour significantly and positively across various settings and fields of academic research. Thus, researchers of Islamic finance and banking products identified the intention construct as significant due to its role in post-adoption and acceptance.

Many previous studies have proved that behavioural intention plays a crucial role in participating in FTPs. The studies focus on the TPB's constructs, including attitude, subjective norms and perceived behavioural control. For instance, Bhatti & Md Husin

(2019) investigated the influence of intention to participate in a family takaful scheme. The data were collected from 175 Muslims in the UAE. The findings were analyzed using SPSS software, and found that the predictors significantly impact the consumers' intention to participate in the FTS (Bhatti & Md Husin, 2019).

Hassan & Abbas (2019) conducted a study to identify the potential factors impacting the investors' intention to adopt takaful products. As many as 345 responses, consisting of 127 takaful customers and 218 non-takaful users, have been analyzed and interpreted with SPSS. The results indicated that all the determinants could influence the intention to adopt takaful products (H. A. Hassan & Abbas, 2019). Md Husin & Ab Rahman (2014) researched the intention of customers to participate in takaful by applying the Theory of Planned Behaviour (TPB). The data were collected from 384 respondents who have yet to participate in takaful products among Muslims in Klang Valley. The finding reveals that behavioural intention is significantly positive in predicting participation in takaful products (Md Husin & Ab Rahman, 2016a).

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2.6 Independent Variables

Independent variables affect dependent variables and can influence the outcome of a study. Other terms that reflect this variable are independent variables, predictors, treatments, antecedent variables, and determinants. All of these names have the same effect (independently). They affect dependent variables (Creswell, 2012; Saunders et al., 2009). The independent variables for this study are adopted from various past literature. These variables are attitude, subjective norms, perceived behavioural control, halal brand association, facilitating conditions and institutional trust.

2.6.1 Attitude

The attitude is explained as an overall evaluation of specific behaviour, either positively or negatively, after one evaluates the perceived consequences of an action (Ajzen & Fishbein, 1977). Another way to define attitude toward a behaviour is the degree to which a person has a favourable or unfavourable opinion about the behaviour in question (Ajzen & Madden, 1986). According to the TPB and its extension, DTPB, the more favourable a person's evaluation of a specific behaviour is, the more probable that person will perform that behaviour (Taylor & Todd, 1995a). Following the preceding, Bagozzi (1992) defines attitude as expressing the degree of favorability/unfavorability felt by the individual toward that act or object (Bagozzi, 1992). This construct indicates a favourable or unfavourable assessment of an individual's behaviour. Therefore, based on the definitions above, this study defines attitude as the degree of favorability or unfavourability evaluated by consumers among academicians in the private IHEI towards the intention to participate in the FTP.

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According to the TPB, if a person has more positive evaluations toward a certain behaviour, he is more likely to intend to engage in that behaviour (Ajzen & Fishbein, 1980). On the other hand, if an individual has an unfavourable view toward a specific behaviour, he is unlikely to intend to engage in that behaviour. Intention to perform a behaviour may happen if the person has a favourable impression of the performance behaviour. In other words, the more favourable an individual's attitude toward a particular behaviour is, the stronger the intention of individuals to adopt that behaviour. Numerous studies have been conducted in various fields to determine the effect of attitude on the intention to perform a particular behaviour.

Some past studies discussed the relationship between attitude construct and behavioural intention from many perspectives. Bhatti & Md Husin (2019) investigated the effect of customer beliefs on the intention to participate in family takaful schemes (FTS) in the UAE. The study result suggested that attitude construct significantly predicted the intention to participate in FTSs. The study also indicates that the attitude construct may aid in creating marketing efforts to convince consumers to choose FTSs over conventional life insurance (Bhatti & Md Husin, 2019). Another study organized by Ab Rahim & Amin (2011) to investigate the determinants of Islamic insurance acceptance showed a similar result as the preceding study. The study illustrates that attitude influences Islamic insurance acceptance (Ab Rahim & Amin, 2011).

Aziz et al. (2019) proposed that attitude is positively associated with purchase intention in their study regarding the factors influencing individuals to purchase family takaful (Aziz et al., 2019). Nevertheless, the study has included the mediating effect of trust and successfully mediated the nexus between attitude and purchase intention. Raza et al. (2019) also found the same finding when investigating the influence of attitude factors in adopting Islamic insurance among 305 respondents in Pakistan (Raza, Ahmed, et al., 2019). Another empirical work by Md Husin & Ab Rahman (2016b) found that individuals' intentions to engage in an FTS were found to be significantly influenced by their attitude (Md Husin & Ab Rahman, 2016b). The study was conducted on 384 Muslim individuals aged between 25 and 54 years old in Klang Valley. The findings revealed that positive family takaful appraisals significantly impacted one's decision to participate in the FTS. However, the study incorporated the attitude construct based on DTPB instead of TPB.

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An interesting study conducted by Aziz et al. (2020) found that the attitude is significant toward the measured variable and significantly mediated the relationship between the SN and the intention to purchase FTS. The study indicates that the impact of attitude on the association between subjective norm and the measured variable is stronger than the direct relationship (Aziz et al., 2020). Nevertheless, the studies above have yet to include the perception of investment and saving features of FTP in shaping the attitude construct. As mentioned in the previous chapter, the FTP enables participants to secure protection against a specific risk and benefit from investment and saving features.

Some previous empirical works have proved that the benefits, such as saving and investment policy of the takaful product, influence the demand for FTP. For instance, Saidon et al. (2019) conducted empirical work to examine the influence of family takaful benefits on the product's demand. According to the research, the demand for FTP is greatly influenced by the benefits and features of the product (Saidon et al., 2019a).

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2.6.2 Subjective Norm

Subjective norms (SN) are the study's second construct. The subjective norm is apparent social pressure to do or not do something (Ajzen, 1991). According to social norms, people's expectations around an individual impact their purchasing decisions (Rutherford & DeVaney, 2009). Significant others are people who have a strong opinion of a person's behaviour (Conner & Armitage, 1998). Subjective norms indicate people's perceptions of how their peer group will see them if they engage in a specific behaviour (Al-Swidi et al., 2014). According to the theory, individuals are

more inclined to engage in a desirable behaviour that is deemed desirable by significant others.

Previous studies have illustrated that subjective norms are a vital predictor of behavioural intention. One of them, Md Husin et al. (2016), examined the roles of subjective norms' construct toward the FTP purchase intention. The study findings have confirmed the association and found a significant relationship between subjective norms and the measured variables. The findings suggest that subjective norm significantly impacts consumer willingness to adopt an FTS. Furthermore, the higher the subjective norm, the more likely a buyer will adopt an FTS. This research gives takaful operators valuable insight into the importance of social pressure while providing family takaful to their customers (Md Husin et al., 2016). Similarly, a study conducted by Khairi et al. (2020) reflects a strong positive relationship between SN and intention. The study also reveals that the SN is crucial in determining whether or not to use the takaful scheme to treat psychological disorders (Khairi, Laili, et al., 2020).

Furthermore, Aziz et al. (2020) conducted a study to investigate the roles of SN in determining the attitudes and intentions to purchase an FTS in Pakistan. The research model has conceptualized media referent and word of mouth in determining the SN's construct. The findings indicated a positive relationship between the SN and the intention to purchase an FTS. The study also shows an interesting finding with a strong influence of the SN on attitude (mediator) compared to the intention (Aziz et al., 2020). Bhatti & Md Husin (2019) investigated the effect of customer beliefs in the context of SN on the intention to participate in family takaful schemes (FTS) in the UAE. The

study has incorporated the normative beliefs as an indirect measure of SN on the intention to participate in the FTS. The study result found that the SN's construct is significantly predicted the intention to participate in the FTSs. The result also shows a more significant contribution of SN as a direct measure on the intention rather than an indirect measure (Bhatti & Md Husin, 2019). Likewise, Hassan & Abbas (2020) was organized a survey to investigate the influencing factors of investors' intention to adopt takaful products among Pakistani individuals. The survey funding revealed that the SN's construct significantly impacts the measured variable (H. A. Hassan & Abbas, 2020).

Nonetheless, a study was carried out by Md Husin & Ab Rahman (2016a) to examine the intention of Muslims in Klang Valley and indicated the different finding results from the preceding study. The study discovered that the SN's construct is not crucial in determining the Muslims' intention to participate in family takaful scheme (Md Husin & Ab Rahman, 2016a). The study shows that this result could be attributable to the respondents' higher awareness about the family takaful scheme being one of the predictors. As a result, only a few other people's opinions are required to decide whether to participate or not. Echchabi & Ayedh (2015) also found a similar finding when investigating the influencing factors of Yemeni customers' intention to adopt takaful products. They discovered that, generally, Yemeni individuals do not consider each other's thoughts before making a purchase decision (Echchabi & Ayedh, 2015).

The previous empirical works have incorporated some of SN's dimensions, including word of mouth (WOM) (Aziz et al., 2020; Md Husin & Ab Rahman, 2016b), media referent (Aziz et al., 2020; Md Husin et al., 2016), family members (Bhatti & Md

Husin, 2019; Khairi, Laili, et al., 2020; Raza, Ahmed, et al., 2019) and friends/officemates (Bhatti & Md Husin, 2019; Khairi, Laili, et al., 2020; Raza, Ahmed, et al., 2019). None of the studies' findings above have discussed takaful agents' role in shaping the subjective norm's construct. Thus, some of the previous empirical works have been conducted and proved that the role of takaful agents is crucial in shaping the SN's construct.

Saidon et al. (2019) conducted an empirical study investigating the significant determinants of family takaful adoption. The study findings indicated that the service quality factor, in this sense, is takaful agents' competence, influencing the FTP demand. They proposed that agents should have at least a basic understanding of takaful and other abilities to increase consumer confidence and, consequently, takaful business growth (Saidon et al., 2019a).

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2.6.3 Perceived Behavioural Control

Perceived behavioural control (PCB) is the third construct. The Theory of Planned Behaviour's framework includes this component. Appropriate resources and the potential to conduct a specific behaviour are used to gain control (Madden et al., 1992). Human behaviour is influenced by motivation and the potential to carry out a given task (Aziz et al., 2017). According to them, even if people have a favourable attitude and subjective criteria, their act purpose will be weaker if they do not have enough resources or information to carry out a specific behaviour. Therefore, the more people think they have resources and opportunities, the greater their perceived control over behaviour.

The idea of the PBC was added to the TPB to accommodate the nonvolitional features inherent, at least potentially, in all behaviours (Ajzen, 2002). PBC is likely to influence intentions, even if they are not feasible. A high amount of perceived control should reaffirm a person's intention to carry out the behaviour and encourage them to put out more effort and tenacity. PBC's effect on intention can indirectly influence behaviour in this way. Furthermore, assume PBC is correct. That instance gives helpful information about an individual's actual control over the circumstance and can be utilized as a secondary direct behavioural predictor. Numerous studies have been conducted in various fields to determine the effect of the PBC on the intention to perform a particular behaviour.

Md Husin & Ab Rahman (2016b) conducted empirical work to predict the intention to participate in an FTS. The findings found a significant correlation between PBC and intention to participate in an FTS. They claimed that people are more willing to participate in a family takaful plan if they believe they can do so (Md Husin & Ab Rahman, 2016b). However, they decomposed the PBC into two constructs, namely self-efficacy and resource facilitating condition, by incorporating DTPB as the study's framework. Raza et al. (2019) also found the same finding when investigating the influence of PBC in adopting Islamic insurance among 305 respondents in Pakistan. The study findings indicated a positive impact of PBC on the intention to adopt Islamic insurance (Raza et al., 2019).

In their study, Md Husin & Ab Rahman (2016a) found a significant nexus between PBC and intention to participate in Islamic insurance. The findings suggested that customers who have a favourable opinion of the ease with which they can engage in a

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family takaful plan are likelier to do so (Md Husin & Ab Rahman, 2016a). In the different contexts of studies, Al-Nahdi et al. (2015) organized a study to examine the influence of the PBC on the intention to purchase real estate in Saudi Arabia. The study findings indicated a positive effect of PBC on the measured variable (Al-Nahdi et al., 2015). Gopi & Ramayah (2007) organized a survey to examine the predicted intention for online trading. The study denotes that the PBC determines the intention to use internet stock trading. They indicate that, based on their previous experiences, investors believe that Internet stock trading is a matter within their control. As a result, the higher the PBC, the more probable internet stock trading will be used (Gopi & Ramayah, 2007).

2.6.4 Halal Brand Association

Maulan et al. (2016) defined Halal Brand Association (HBA) as one of the new contributions to the current body of knowledge about branding. Maulan et al. (2016) define Halal Brand Association (HBA) as the characteristics of a Shariah-compliant brand that consumers associate with the brand of an Islamic bank. They introduced the HBA to emphasize the *halalness*, Shariah-compliant and God-consciousness of IFI's products, such as Islamic banking products, takaful products and other investment instruments (Maulan et al., 2016). Halal is a term used in the Islamic banking atmosphere to refer to an association founded on religious institutions. Halal is an Arabic term that refers to legal or permissible (Baalbaki, 1992). It is a distinctive feature that discriminates Islamic banks' brands from conventional banks. The halal feature is derived from the divine revelations or Shariah principles that govern a Muslim's commercial and consumer activities (Quran 2:275; 4:161).

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Islamic banking is defined very narrowly as halal or permissible for Muslims because it is *riba*-free (Warde, 2000). Moreover, Islamic banking is not only about *riba*-free transactions but also includes Islamic religious teachings. This attribute is essential to address deeper ethical and moral issues, which enables the IFIs to contribute significantly to their society (Khan, 2010). The term halal should be interpreted broadly, as Islamic banking should be *riba*-free and significantly contribute to achieving the socioeconomic goals for which *riba* prohibition is justified (Warde, 2000). In addition to their business functions, Islamic insurance companies must maintain their social role in promoting justice and fairness as Shariah-compliant financial organizations (Dusuki, 2008). As a result, the concept of takaful brand association requires incorporating Islamic philosophy and principles.

However, to the best researcher's knowledge, empirical works on HBA's role in the takaful industry are still scant and untapped. A. Othman and Owen (2001) conducted a study to measure customers' service quality (SQ) in the Kuwait Finance House (KFH) using the CARTER model. The model shared a similar dimension of compliance as the HBA's model. The study's findings indicated that the compliance of KFH toward Islamic law principles is vital to maintaining customers' service quality (A. Othman & Owen, 2001). Another empirical work was conducted by Jan & Shafiq (2021) to investigate customer satisfaction in Malaysian Islamic banks using Islamic Banks' Brand Personality (IBBP). The model has incorporated the dimension of Shariah compliance in the study. The findings revealed that Shariah's compliance is one of the most substantial impacts on customer satisfaction (Jan & Shafiq, 2021). Nonetheless, the preceding studies were organized and focused on service quality instead of the context of behavioural intention.

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2.6.5 Facilitating Conditions

Facilitating conditions (FC) is one of the UTAUT's constructs introduced and developed by Venkatesh et al. (2003). The FC intends to address technology and organizational structure to remove adoption hurdles. Venkatesh et al. (2003) defined the FC as the degree to which an individual believes that an organization and technical infrastructure exists to support the use of the system. Perceived behavioural control (TPB/DTPB), facilitating conditions (MPCU), and compatibility (IDT) are all concepts that are captured by this concept. Venkatesh et al. (2003) also mentioned that the FC is referred to the technical assistance available to the customer when using technology.

As mentioned in the previous chapter, the takaful industry's penetration rate is still far behind conventional insurance. As a result, given the intensified digitalized market, it becomes vital for the takaful industry to keep its competitive edge regarding development and growth with its counterpart. The takaful sector must also adapt to the heightened market's rapid changes in attitude and expectation, as customers increasingly use digital as a medium of communication. In Malaysia, the takaful business has moved steadily by digitalizing financial services, including financial technology, to ensure that it grows in lockstep with conventional growth. Since many takaful companies offer digital platform services and have many subscribers, consumer acceptance of the technology is required, necessitating changing behaviour patterns. To attract the customer to participate in the FTP thru fintech, the customer requires facilitating conditions, including a proper digital platform, adequate product

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information and accessibility to the agent. Customers will be more excited to engage in the FTP if the FC accessible to them is better.

Most of the conducted empirical from the previous works that used the FC's construct is focused on the acceptance/adoption of information technology. For instance, Raza, Shah, et al. (2019) organized a study to examine mobile banking acceptance predictors in Pakistan's Islamic banks. The findings revealed that the FC's construct is positively and significantly associated with behavioural intention to accept the M-banking (Raza, Shah, et al., 2019). Another study was organized by Widuri et al. (2020) to investigate the adoption predictors of mobile payment in Indonesia. The study indicates an influence of the FC on the BI to adopt mobile payment (Widuri et al., 2020). According to the study, people are more likely to utilize simple technology that provides support if required.

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2.7 Moderating Effect of Institutional Trust

Institutional trust implies that an individual chooses to believe the essential impersonal structures are in place to enable them to act in anticipation of future success (Shapiro, 1987). At the start of a relationship, the trust intention may be high due to high levels of institutional trust. The literature discusses two distinct types of institution-based trust: situational normality and structural assurances (McKnight et al., 1998). Situational normalcy is defined as the belief that success is likely due to the normalcy of the situation. Meanwhile, structural assurance is concerned with a sense of security rather than perceived risk due to institutional arrangements such as guarantees, suitable structures, and safety nets in place. On the other hand, Mozumder (2018) defines trust in organizations as the ability of employees to develop trust through their

interpretations of the policies and procedures of the organization, as well as their evaluation of management's fairness, ability, and integrity (Mozumder, 2018). When structures, situations, and roles all contribute to a sense of structural assurance and situational normalcy, it becomes easier for people to trust the organization.

Generally speaking, trust is founded on anticipating predictable and sincere behaviour from others. Such expectations pertain to the social and economic performance of the institutions at the institutional level. Therefore, institutional trust is legally defined as the level of confidence that individuals have in governmental, economic, and judicial entities and how well-regarded these institutions are in the eyes of the general public (Ciziceno & Travaglino, 2019). Because they encourage cooperative behaviour among residents, high levels of institutional trust enable citizens to live in a predictable, stable, and controllable environment while also helping to sustain social cohesion. The extant literature indicates that the trust construct had been examined as a single exogenous variable, moderating effect and mediating role within a number of research studies. Some of the studies conceptualized trust as a single dimension, and the rest as institutional trust.

For instance, M. Hassan et al. (2016) conducted a study investigating the link between workplace spirituality and job satisfaction using 174 university teachers and hypothesizing trust as a mediator. The result indicates that trust significantly mediates the relationship between endogenous and exogenous variables of the study (M. Hassan et al., 2016). Another study was conducted to investigate the mediating effect of trust on the attitude towards online shopping among 378 Morrocans. The same finding as the previous research has recorded that trust significantly mediates the relationships of

the study (Chetioui et al., 2021). This suggests that trust needs to receive more attention for Moroccan online vendors to succeed in the online retail sector.

The rest of the studies have been conducted in many areas of studies, including work performance (Kloutsiniotis & Mihail, 2018), purchase intention (Hong & Cha, 2013; Karunasingha & Abeysekera, 2022; Yudiarti & Puspaningrum, 2018), innovative capability (Kulangara et al., 2016), organizational commitment & behaviour (Chiang & Wang, 2012; Jain et al., 2019; Yuen Onn et al., 2018), customer loyalty & satisfaction (DeWitt et al., 2008; Osman & Sentosa, 2013; Zhu & Chen, 2012), leadership (Jung & Avolio, 2000), education-related studies (Cai & Tang, 2021; Li et al., 2016), turnover intention (Ariyabuddhiphongs & Kahn, 2017) and behavioural studies (Mohd Noor et al., 2016). Most of these studies indicated a significant mediating effect of trust on the measured relationships.

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The institutional trust construct also has been conceptualized as a single variable and mediator in many previous studies (Baek & Jung, 2015; Cardoso et al., 2022; Ciziceno & Travaglino, 2019; Faraone Gratz, 2018; Guh et al., 2013; Kao & Sapp, 2022; Lu & Yi, 2023; Maduku, 2016; Mohy-Ul-Din et al., 2019; Nadirov et al., 2021; Tong et al., 2022). Case in point, Baek & Jung (2015) conducted a study to examine the effect of institutional trust's mediator on organizational commitment among 165 officeholders of the Ministry of Culture and Tourism in the central government of South Korea. The study indicates a significant mediation of institutional trust on organizational commitment. The result also exhibits that the mediation-effects model was much better than the direct-effect model (Baek & Jung, 2015).

Taştan & Davoudi (2015) conducted a study to examine the trust in a leader's moderating effect on the relationship between leader-member exchange and innovative work behaviour among 327 non-supervisory employees in Turkey. These past studies included the role of trust in the context of leadership (Taştan & Davoudi, 2015), colleagues (Ng, 2020), commitment (Y. Chen et al., 2021; Jiang, 2015), high-performance work practices (Kloutsiniotis & Mihail, 2018) and continuance intention (McCole et al., 2019). Nonetheless, to the best researcher's knowledge, the influence of the moderating role of institutional trust in the context of financial services, especially the takaful industry, is still untapped. At the time, few past studies implied that institutional trust as a direct variable significantly impacts financial services (Moin et al., 2015, 2017).

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2.8 Conclusion

Different aspects were explained and outlined in this chapter. Firstly, related ideas were explained in several subsections, emphasizing the leading and supporting theories and the rationale for their selection. TPB, BA, UTAUT, and ITFM have been incorporated as lenses to study the various relationships. Last but not least, the study's findings and associated antecedents were evaluated using existing research.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter will represent eleven sections, including chapter introduction, research framework, hypotheses development, research design, questionnaire design, measurement of variables, operational definitions, content & face validity, population and sampling technique, data preparation, the goodness of measures and data analysis techniques.

3.2 Research Framework

A conceptual study establishes or hypothesizes the logical relationships among numerous factors that have been determined to be significant to the problems (Bougie & Sekaran, 2019). Thus, Bougie and Sekaran (2019) highlighted that a research model is a fundamental infrastructure built by other research structures. Considering the debates raised in the chapter's literature review, the researcher developed a research model to explain the influence of the behavioural intention to participate in the family takaful products (FTP). This research mainly focuses on the customers among the academicians in Malaysia's private Islamic universities by examining their intention to participate in the family takaful products.

The research framework for this research is based on an underpinning theory, namely the Theory of Planned Behaviour (Ajzen, 1985). There are three constructs of this theory, namely: Attitude (ATT), Subjective Norms (SN) and Perceived Behavioural Control (PCB). This study also incorporated three supporting theories, including

Brand Association (BA), Unified Theory of Acceptance and Use of Technology (UTAUT) and Initial Trust Formation Model (ITFM). Each theory consists of one construct: Halal Brand Association (HBA), Facilitating Conditions (FC), and Institutional Trust (IT), respectively. In addition, all variables will be analyzed to examine whether there is a significant relationship between the behavioural intention to participate in the FTP or vice versa. Figure 22 presents the proposed framework for this study.

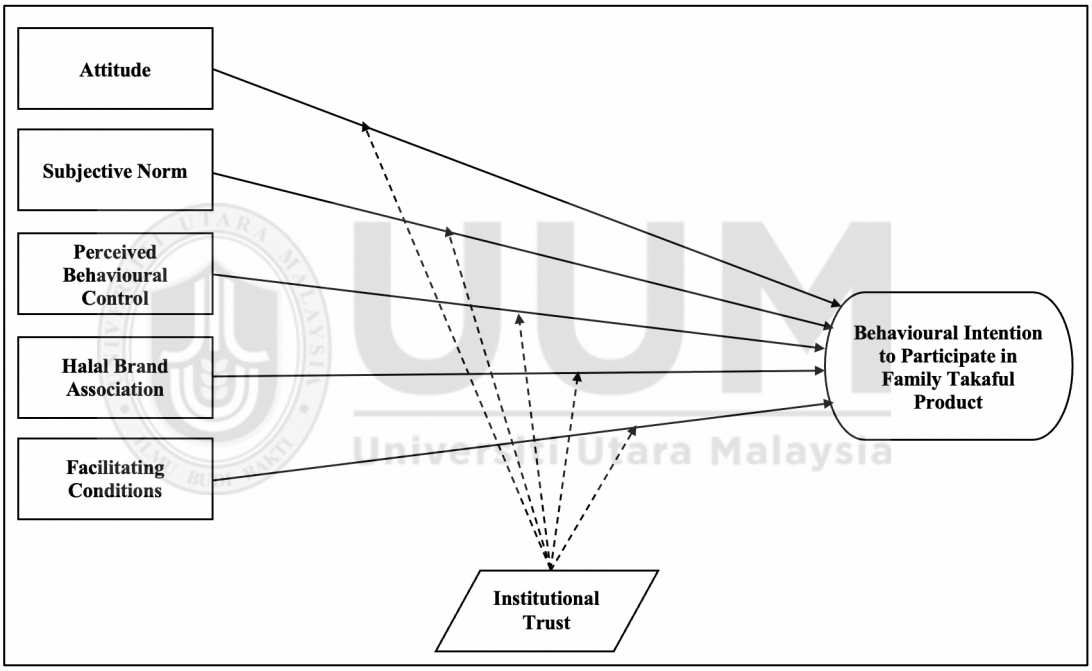

Figure 22 Research Framework

Source: Author's

3.3 Hypotheses Development

The constructed hypotheses of the study are developed on the findings from past studies, which are reviewed in chapter two. Behaviour Intention (BI) controls the real behaviour in the TPB. Meanwhile, Behavioural Intention is measured by three main essential factors, namely: Attitude (ATT), Subjective Norms (SN), and Perceived

Behavioural Control (PCB). Additionally, other factors are included, such as Halal Brand Association (HBA), Facilitating Condition (FC) and Institutional Trust (IT).

There are three sub-sections in this section. The first section concerns hypothesis development for the dependent variable of the behavioural intention to participate in an FTP. The second sub-section indicates the hypotheses development for the relationship between independent variables, including attitude, subjective norms, perceived behavioural control, halal brand association, facilitating conditions and institutional trust on the dependent variable of the behavioural intention to participate in the FTP. Finally, the third sub-section concerns the hypotheses development for institutional trust's moderating effect on the relationship between the independent variables (ATT, SN, PBC, HBA and FC) and the behavioural intention to participate in the FTP. The figure below summarizes the hypotheses mapping between the study's independent, moderating and dependent variables.

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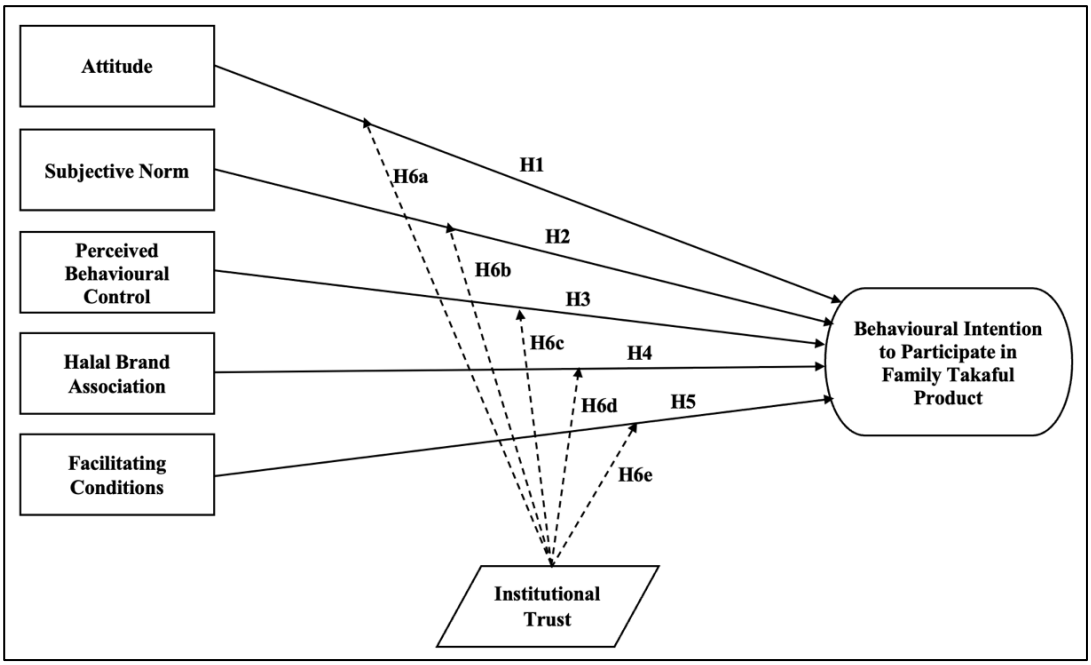

Figure 23 Hypotheses Mapping Framework

Source: Author's

The intention behind the behaviour drives the actual behaviour and is how people respond to any task. Numerous studies in the literature support this view, and several main theories incorporate it as a mediator toward actual behaviour, including the Theory of Reasoned Action (Fishbein & Ajzen, 1975), the Theory of Planned Behaviour (Ajzen, 1991), and Decomposed Theory of Planned Behaviour (Taylor & Todd, 1995). Additionally, Fishbein and Ajzen (1975) stated that intention is a necessary and sufficient root to performing a particular behaviour.

Additionally, when the intention is included in models, such as the TRA and TAM, the predictive power of the model increases. This premise is opposed to when the intention is excluded in other models (Fishbein & Ajzen, 1975). As a result, numerous studies have incorporated the intention in their models and found it to be a significant predictor of behaviour in a variety of studies, such as in Islamic finance and banking products in general (Albaity & Rahman, 2019; Butt et al., 2018; Echchabi & Abd. Aziz, 2012; Kaakeh et al., 2019), financial technology (Fintech) products (Ibrahim, 2018; Maduku, 2016; Mohd Suki, 2010; Naeem, 2020; Tan & Teo, 2000; Tarhini et al., 2016; Tun-Pin et al., 2019), Islamic credit card (Amin, 2013; Jamshidi & Hussin, 2015, 2016; Jamshidi & Kazemi, 2019) and products (Akhter & Khan, 2017; Aziz et al., 2017; Md Husin & Ab Rahman, 2016a; Md Razak et al., 2013; Othman et al., 2018; Saidon et al., 2019; Sherif & Azlina Shaairi, 2013; Syadiyah Abdul Shukor, 2018).

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These studies demonstrate that behavioural intention is a significant and positive determinant of behaviour in various academic contexts and fields. In the current research, the researcher predicts that when customers have a strong intention to participate in family takaful products, these intentions are more likely to elicit positive emotions and promote future participation plans (i.e., do the actual behaviour which is participating in the FTP).

3.3.1 Attitude and Behavioural Intention

As one of the primary antecedent factors of behavioural intention, an attitude refers to a prominent belief that a person holds either as an evaluation or appraisal of a particular behaviour (Ajzen, 1991). In the context of family takaful products, the ability to protect against financial problems, saving and investment plans for the future life in the product make its advantages compared to other general takaful products.

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In light of the above discussion, it is worth noting that once a family takaful contract is authorized, the participant agrees to donate a portion of his contribution that enables him to fulfil his responsibility of mutual assistance and joint guarantee, referred to as *tabarru'*. By incorporating *tabarru'*, both *gharar* and *maysir* are eliminated. Apart from allowing the participants to fulfil their divine obligation of assisting the unfortunate few in need, there is another feature of the contract called *mudarabah*, which entails a profit-sharing arrangement between the participants and the takaful operator for both parties to benefit financially (Abdul Rahman et al., 2008).

This is permitted in Islam. Thus, the takaful contract provides both protection and savings or investment opportunities. If the participant dies before reaching maturity,

the takaful operator will compensate the participant's heirs; however, he will receive the benefits if the participant lives to maturity. In either case, this scheme will fulfil the social obligation of assisting the unfortunate few and preparing for retirement days when one is physically incapable. The contract's dignity cannot be overstated.

Additionally, the relationship between attitude and behaviour intention has been studied in the literature and validated by various theories (e.g., TAM, TRA, TPB, and DTPB). Theoretical (Ajzen, 1991; Fishbein & Ajzen, 1975; Taylor & Todd, 1995) and empirical work (Ab Rahim & Amin, 2011; Aziz et al., 2019, 2020; Bhatti & Md Husin, 2019; Md Husin & Ab Rahman, 2016b, 2016a; Raza, Shah, et al., 2019; Saidon et al., 2019a) support a positive and significant relationship between attitude and behaviour intention. Also, the studies urge that attitude is an essential factor of the behavioural intention. Therefore, this study posits the following hypothesis based on the discussion in the literature review and the preceding paragraphs on the subject:

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***H1*: Attitude has a positive and significant relationship on the behavioural intention to participate in the FTP.**

3.3.2 Subjective Norms and Behavioural Intention

Subjective norm is a critical component of numerous theories and models, including TRA (Ajzen & Fishbein, 1977), TPB (Ajzen, 1985), and DTPB (Taylor & Todd, 1995). The pressure placed on an individual to comply with the expectations of their social circle, especially while participating in behaviour that could result in reward or punishment from referent groups or individuals (Fishbein & Ajzen, 1975). The term

subjective norm refers to how others perceive an individual's views on whether or not he should engage in a particular behaviour (Ajzen, 1991).

Additionally, prior research demonstrates a significant and positive relationship between SN and BI (Aziz et al., 2020; Bhatti & Md Husin, 2019; Echchabi & Ayedh, 2015; H. A. Hassan & Abbas, 2020; Khairi, Laili, et al., 2020; Md Husin & Ab Rahman, 2016b, 2016a; Raza, Shah, et al., 2019; Saidon et al., 2019a). As a result of the discussion in the literature review and the preceding paragraphs, we propose that SN be included in the study's model to examine its relationship to participate in the FTP. As a consequence, this study proposes the following premise:

***H2*: Subjective norm has a positive and significant relationship on the behavioural intention to participate in the FTP.**

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3.3.3 Perceived Behavioural Control and Behavioural Intention

The more pleasant attitude and subjective norm connected with perceived behavioural control, according to Ajzen (1985, 1991), the more likely intention of an individual to do a particular behaviour will be realized (Ajzen, 1991). Various theories and models in the previous studies, such as TPB and DTPB, theoretically supported the latent PBC construct (Ajzen, 1985, 1991; Taylor & Todd, 1995).

According to empirical evidence, some researchers discovered a significant and positive relationship between PBC and BI (Md Husin & Ab Rahman, 2016b, 2016a; Al-Nahdi et al., 2015; Gopi & Ramayah, 2007). As shown in this brief literature review, this latent construct should be included and investigated in the proposed model

when combined with the preceding discussion. As a result, the following hypotheses are proposed:

***H3*: Perceived behavioural control has a positive and significant relationship on the behavioural intention to participate in the FTP.**

3.3.4 Halal Brand Association and Behavioural Intention

Maulan et al. (2016), through their study in the context of Islamic banking, define halal brand association as the characteristics of a Shariah-compliant brand that consumers associate with the brand of an Islamic bank. Halal is a term used in the Islamic banking atmosphere to refer to an association founded on religious institutions. Halal is an Arabic term that refers to what is legal or permissible. It is a distinctive feature that distinguishes Islamic banks' brands from conventional banks. These principles are applied to the takaful industry. The takaful industry must adhere to its operations and activities with Shariah law to reflect its *halalness.* Maulan et al. (2016) also suggested that one of the halal brand association themes is Shariah-compliant Association (SCA). They defined the SCA as the consumers' perceptions of an Islamic bank's ability to fulfil Islamic law and to operate under the principles of Islamic banking and economy (Maulan et al., 2016).

Nevertheless, the selection of halal brand association or SCA in the setting of Islamic banking and takaful industry is still unexploited by any past studies. Most of the past studies adopted the CARTER, developed by (A. Othman & Owen, 2001). A. Othman & Owen (2001) created the CARTER model by adding an element to the SERVQUAL model called compliance to Islamic law. Previous researchers widely apply the

CARTER model to assess service quality in the context of the Islamic banking industry (Fauzi & Suryani, 2019).

Empirical evidence from past studies also indicated a significant and positive relationship between compliance (based on the CARTER model) and service quality (A. Othman & Owen, 2001; Fauzi & Suryani, 2019; Jan & Shafiq, 2021). Therefore, on this basis, the current study predicted that the actual behaviour of the customers influences the satisfaction with the service quality of the IFIs. Consequently, the current study suggested the upcoming premise:

***H4*: Halal brand association has a positive and significant relationship on the behavioural intention to participate in the FTP.**

3.3.5 Facilitating Conditions and Behavioural Intention

Facilitating conditions were determined as an individual's belief in an organizational and technical infrastructure supporting system use (Venkatesh et al., 2003). This definition encompasses three distinct constructs: perceived behavioural control (Theory of Planned Behaviour (TPB)/Decomposed Theory of Planned Behaviour (DTPB) and Theory of Acceptance Model (TAM)), facilitating conditions (Model of PC Utilization), and compatibility (Innovation Diffusion Theory). Each of these constructs is operationalized to encompass aspects of the technological and/or organizational environment aimed at removing barriers to use. Taylor and Todd (1995b) recognized the theoretical overlap by conceptualizing facilitating conditions as a critical component of perceived behavioural control in TPB/DTPB (Taylor & Todd, 1995b).

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Much empirical work from the previous studies found that the facilitating conditions have a significant and positive relationship toward the BI (Raza, Shah, et al., 2019; Widuri et al., 2020). Nonetheless, as mentioned in the preceding chapter, the role of facilitating conditions construct in determining the behavioural intention is still untapped in the family takaful industry. As a result, the current research proposes the following hypothesis::

***H5*: Facilitating conditions have a positive and significant relationship on the behavioural intention to participate in the FTP.**

3.3.6 Moderating Effect of Institutional Trust

Institutional trust implies that an individual chooses to believe the essential impersonal structures are in place to enable them to act in anticipation of future success (Shapiro, 1987). At the start of a relationship, the trusting intention may be high due to high levels of institutional trust. The literature discusses two distinct types of institution-based trust: situational normality and structural assurances. Situational normalcy is defined as the belief that success is likely due to the normalcy of the situation. Meanwhile, structural assurance is concerned with a sense of security rather than perceived risk due to institutional arrangements such as guarantees, suitable structures, and safety nets in place.

On the other hand, Mozumder (2018) defines trust in organizations as the ability of employees to develop trust through their interpretations of the policies and procedures of the organization, as well as their evaluation of management's fairness, ability, and

integrity (Mozumder, 2018). When structures, situations, and roles all contribute to a sense of structural assurance and situational normalcy, it becomes easier for people to trust the organization.

Institutional trust as a moderating effect offers several advantages over a mediating effect, particularly in the context of studying behavioral intention to participate in family takaful products. Moderating variables influence the strength or direction of the relationship between independent and dependent variables, thereby offering nuanced insights into how different levels of institutional trust can affect participants' decisions. For instance, by incorporating institutional trust as a moderator, the current study can explore how varying degrees of trust in takaful operators (institution) impact the relationship between the independent variables (attitude, subjective norms, perceived behavioural control, halal brand association and facilitating conditions) and the intention to participate in family takaful products.

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Several studies highlight the significance of institutional trust in financial decision-making contexts. According to Gefen et al. (2003), trust in institutions can significantly enhance individuals' willingness to engage with financial products, especially those that require long-term commitment and involve considerable perceived risk (Gefen et al., 2003). When institutional trust is considered a moderating variable, it allows the study to capture these dynamic interactions, identifying specific conditions under which trust strengthens or weakens the influence of other predictors on behavioural intention.

Furthermore, institutional trust as a moderator can better reflect the complex nature of consumer behaviour in financial services and products. Trust does not merely act as a bridge transferring the effects of one variable to another (as in mediation) but rather adjusts the existing relationships, providing a richer, more context-sensitive understanding of how trust levels can amplify or mitigate the effects of other variables. For instance, a study by Pavlou & Gefen (2004) demonstrates that trust can moderate the effects of perceived risk on online purchase intentions, suggesting that higher trust levels can diminish the negative impact of perceived risk (Pavlou & Gefen, 2004).

In contrast, using institutional trust as a mediator might oversimplify the relationship by treating trust as a channel through which other variables exert their influence on behavioral intention. This approach could miss critical interactions and fail to account for scenarios where trust influences the degree of impact rather than the mere presence of an effect. By positioning institutional trust as a moderating variable, the current study can more accurately capture its role in shaping consumer behaviour under different conditions, offering more practical insights for takaful operators and policymakers aiming to enhance participation in family takaful products.

Employing institutional trust as a moderating effect provides a more sophisticated analytical framework that captures the variable's ability to alter the strength and direction of relationships between other predictors and behavioural intentions. This approach aligns with findings from past research, such as Gefen et al. (2003) and Pavlou & Gefen (2004), which underscore the dynamic role of trust in financial decision-making processes, ultimately leading to more comprehensive and actionable insights.

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The extant literature indicates that the trust construct had been examined as a moderating and mediating role within a number of research studies. These past studies included the role of trust in the context of leadership (Taştan & Davoudi, 2015), colleagues (Ng, 2020), commitment (Y. Chen et al., 2021; Jiang, 2015), high-performance work practices (Kloutsiniotis & Mihail, 2018) and continuance intention (McCole et al., 2019). At the time, few past studies implied that institutional trust as a direct variable significantly impacts financial services (Moin et al., 2015, 2017). Thus, the current study intended to examine the moderating role of institutional trust based on the preceding hypotheses:

***H6a*: Institutional trust significantly moderates the relationship between attitude (ATT) and behavioural intention (INT) to participate in the FTP.**

***H6b*: Institutional trust significantly moderates the relationship between subjective norms (SN) and behavioural intention (INT) to participate in the FTP.**

***H6c*: Institutional trust significantly moderates the relationship between perceived behavioural control (PBC) and behavioural intention (INT) to participate in the FTP.**

***H6d*: Institutional trust significantly moderates the relationship between halal brand association (HBA) and behavioural intention (INT) to participate in the FTP.**

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***H6e*: Institutional trust significantly moderates the relationship between facilitating condition (FC) and behavioural intention (INT) to participate in the FTP.**

3.4 Research Design

This is a quantitative study based on the collection of primary data. It investigates whether attitude, subjective norms, perceived behavioural control, halal brand association, facilitating conditions, and moderating effects of institutional trust influence customers' intention to participate in family takaful products. Quantitative research is explained as the numerical representation and manipulation of observation to describe and explain the phenomena that those observations reflect (Babbie, 2010). This method converts the data into a numerical format that can be analyzed statistically. The quantitative approach evaluates data in numeric quantification and deals with precise questions of what, where, and why to explain or predict the dependent variable.

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This study uses this approach because it is an excellent way to evaluate the hypothesis under discussion, as other researchers have adopted it. Furthermore, the quantitative method employs bigger sample sizes, emphasizing the numerical aspect of data and standardizing sampling and measures. It verifies the cause or effect in general research techniques to ensure that the data acquired is as objective and generalized as possible (Rubin & Babbie, 2011).

This study also uses a one-time cross-sectional analysis to evaluate all variables by evaluating a phenomenon, taking a cross-section of it one at a time, and carefully

analyzing each cross-section. Because it discovers the existing relationship based on significant value, a cross-sectional study is used (Rubin & Babbie, 2011). The researcher conducts observations simultaneously while measuring as many other variables as feasible in the cross-sectional field (Yegidis et al., 2018). The correlation coefficient describes the relationship between changes in one component and changes in one or more other factors (Isaac & Michael, 1995). The information is gathered and analyzed using a quantitative technique to tackle the research problems, research questions, objectives, and hypotheses. Finding the value of this research is part of a quantitative method (Bougie & Sekaran, 2019).

This study implements the survey approach, which is the most suitable way to determine the intention of academicians in Malaysian private Islamic universities to participate in family takaful products. Because the vast number of people spread efficiently and cheaply, the survey method is the most suitable for this study (W. G. Zikmund, 2008). The academicians in the private IUs' served as the study's unit of analysis.

After tying it to the current framework and hypothesis, the adapted questionnaires from a previous study are produced to present the study. However, the questionnaire format is vital in terms of phrasing questions. Misunderstanding the terms and questions might result in unexpected responses that damage data collection. In light of this, the survey directions should be apparent and straightforward to comprehend for the responders. Furthermore, it is recommended that the questionnaire not take too long and that numerous questions be crammed into a single line, as this would influence the respondents' interpretation and focus on the following questions.

In some instances, the shortened questions are misunderstood by the respondents. Furthermore, it is critical not to spend too much time on the first page of a questionnaire to obtain a profile of responses. It's crucial to answer all relevant questions fast, as they represent all the variables used in the framework and hypothesis. It assists the researcher in reducing errors and question shortening (Rubin & Babbie, 2011).

3.5 Questionnaire Design

The questionnaires are used as an instrument of the study to examine the relationship between independent variables such as attitude, subjective norm, perceived behavioural control, halal brand association, facilitating condition, and moderating effect of institutional trust on customers' intention to participate in family takaful products. The questionnaires used in this study were adopted based on the Theory of Planned Behaviour (TPB), Brand Association (BA), Unified Theory of Acceptance and Use of Technology (UTAUT) and Initial Trust Formation Model (ITFM).

A questionnaire consists of scales or items used to collect data to obtain the research objectives and hypotheses. The questionnaire design is divided into eight sections. First is section A, which consists of 7 demographic profile items such as gender, marital status, age, highest education level, monthly income, year of services and experiences in takaful products. Second, sections B, C, D, E, and F are independent variables, including attitude, subjective norms, perceived behavioural control, halal brand association and facilitating condition, respectively. Each of these variables consists of 8 items. In addition, section G for the moderating effect of institutional trust

consists of 8 items. Last but not least, section H customers' intention to participate in the family takaful product as the dependent variable comprises eight items. The descriptions of the questionnaires are tabulated in the table below.

Table 2 Description of the items in the questionnaire

Part	Factor Measured	Scale	Total Item	No. of Item
Part A	Demographic Profile	Nominal	7	1 to 7
Part B	Attitude		8	8 to 15
Part C	Subjective Norms		8	16 to 23
Part D	Perceived Behavioural Control		8	24 to 31
Part E	Halal Brand Association	Interval	8	32 to 39
Part F	Facilitating Conditions		8	40 to 47
Part G	Institutional Trust		8	48 to 55
Part H	Behavioural Intention to Participate in FTP		8	56 to 63

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3.5.1 Attitude

Eight items are adapted for the first independent variable of Attitude (ATT). The items were adapted from Bhatti & Md Husin (2019), Taylor & Todd (1995) and Shih & Fang (2004) with the instruments' reliability at 0.89, 0.92 and 0.89, respectively.

Table 3 Description of the questionnaires for Attitude

Item Code	Item Description	Sources
ATT1	For me, to participate in family takaful is a good decision.	(Bhatti & Md Husin, 2019; Shih & Fang,
ATT2	For me, family takaful enables me to solve my financial problem.	

ATT3	For me, saving packages in family takaful will be beneficial in the future.	2004; Taylor & Todd, 1995b)
ATT4	I think family takaful is a valuable package.	
ATT5	I think family takaful is a good protection package.	
ATT6	I prefer a family takaful that provides a saving plan.	
ATT7	I prefer a family takaful that provides an investment plan.	
ATT8	I would be happy to protect myself with family takaful.	

3.5.2 Subjective Norm

Eight items are adapted for the second independent variable of Subjective Norms (SN). The items were modified from Md Husin et al. (2016) and Taylor & Todd (1995), with the instruments' reliability at 0.95, respectively.

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Table 4 Description of the Questionnaires for Subjective Norms

Item Code	Item Description	Sources
SN1	My family, who influenced my decision, think that I should participate in a family takaful product.	(Md Husin et al., 2016; Taylor & Todd, 1995b)
SN2	My family members, who are important to me, think that I should participate in a family takaful product.	
SN3	My family, who influenced my behaviour, thinks that I should participate in a family takaful product.	
SN4	My office mates suggest that I should participate in a family takaful product.	

SN5	My best friends think that I should participate in a family takaful product.
SN6	The takaful agent thinks that I should participate in a family takaful product.
SN7	The takaful agent thinks that I should participate in a family takaful product to protect myself and my family from unforeseen risks.
SN8	The takaful agent influenced my decision to participate in a family takaful product.

3.5.3 Perceived Behavioural Control

Eight items are adapted for the third independent variable of Perceived Behavioural Control (PBC). The items were adapted from Bhatti & Md Husin (2019), Compeau & Higgins (2017), Tan & Teo (2000) and Taylor & Todd (1995), with the instruments' reliability at 0.76, 0.95, 0.88 and 0.70, respectively.

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Table 5 Description of the Questionnaires for Perceived Behavioural Control

Item Code	Item Description	Sources
PBC1	It will be easy for me to participate in a family takaful product soon.	(Bhatti & Md Husin, 2019; Compeau & Higgins, 2017; Tan & Teo,
PBC2	I am very confident that I will be able to participate in a family takaful product soon.	
PBC3	I have total control over participating in a family takaful product.	

PBC4	If I wanted to, I could easily participate in any of the family takaful products on my own.	2000; Taylor & Todd, 1995b)
PBC5	I could participate in a family takaful product even if there were no one around to show me how to do it.	
PBC6	I am confident to participate in a family takaful product if only by referring to the takaful's website.	
PBC7	I am confident of participating in a family takaful product even if I have never participated in such a product before.	
PBC8	I am confident of participating in a family takaful product if I have just seen someone participate in it before participating in it myself.	

3.5.4 Halal Brand Association

Eight items are adapted for the fourth independent variable of Halal Brand Association (HBA). The items were altered from Maulan et al. (2016) and Othman & Owen (2001), with the instruments' reliability at 0.88 and 0.70, respectively.

Table 6 Description of the Questionnaires for Halal Brand Association

Item Code	Item Description	Sources
HBA1	Takaful company is operated according to Islamic principles.	(Maulan et al., 2016; A. Othman & Owen, 2001)
HBA2	The operation of a takaful company is not involved in non-halal activities such as interest (*riba*), uncertainty (*gharar*) and gambling (*maysir*).	

HBA3	Investment activity in a takaful company is permissible (*halal*).
HBA4	I believe that by participating in family takaful products, I can donate (*tabbaru'*).
HBA5	I believe by participating in family takaful products, my savings are guaranteed.
HBA6	Takaful company contributes some portions of its profits towards the payment of almsgiving (*zakat*).
HBA7	The takaful company offers Islamic-based products and services.
HBA8	Overall, family takaful products serve as a substitute for conventional insurance, which is not Shariah-compliant.

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3.5.5 Facilitating Condition

Eight items are adapted for the fifth independent variable of Facilitating Condition (FC). The items were adapted from Baptista & Oliveira (2015), Chauhan & Jaiswal (2016), Tan & Teo (2000), Taylor & Todd (1995) and Venkatesh et al. (2012), with the instruments' reliability at 0.71, 0.92, 0.94, 0.78 and 0.75, respectively.

Table 7 Description of the questionnaires for Facilitating Condition

Item Code	Item Description	Sources
FC1	The information regarding family takaful products is available on the website.	(Baptista & Oliveira, 2015;

FC2	I could easily get access to resources needed to participate in a family takaful product from the company's website.	Chauhan & Jaiswal, 2016; Tan & Teo, 2000; Taylor & Todd, 1995b; Venkatesh et al., 2012)
FC3	I could easily participate in a family takaful product through an online platform.	
FC4	Documents to participate in family takaful products are available on the website.	
FC5	Space to ask questions related to family takaful products is available on the web.	
FC6	Family takaful companies provide online applications to facilitate customer affairs.	
FC7	Family takaful companies provide online applications to facilitate loss claims.	
FC8	Family takaful companies provide online applications for easy access to information about panel clinics.	

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3.5.6 Moderating Effect of Institutional Trust

Eight items are adapted for the moderating effect of Institutional Trust (IT). The items were adapted from Ennew et al. (2011) and Moin et al. (2015), with the instruments' reliability at 0.90 and 0.89, respectively.

Table 8 Description of the questionnaires for the Institutional Trust

Item Code	Item Description	Sources
IT1	My confidence and trust in the Takaful companies are very high.	(Ennew et al., 2011; Md Husin

IT2	I believe that family takaful companies act honestly and ethically.	et al., 2016; Moin et al., 2015)
IT3	I am confident that the policies and rules of a family takaful company protect its customers.	
IT4	The family takaful company is very reliable.	
IT5	The family takaful company has a good reputation.	
IT6	I believe that family takaful companies comply with Islamic financial laws.	
IT7	I believe that family takaful companies are going to make sure their agents are trained and professional.	
IT8	I believe that the administrative system of a family takaful company is efficient and effective.	

3.5.7 Behavioural Intention to Participate in Family Takaful Product

Eight items are adapted for the dependent variable of behavioural intention to participate (INT) in Family Takaful Product (FTP). The items were adapted from Madden et al. (1992), Maduku (2016), Md Husin et al. (2016) and Taylor & Todd (1995), with the instruments' reliability at 0.94, 0.94, 0.89 and 0.91, respectively.

Table 9 Description of the questionnaires for Intention to participate in FTP

Item Code	Item Description	Sources
INT1	I plan to participate in a family takaful product in future.	(Madden et al., 1992; Maduku, 2016; Taylor & Todd, 1995b)
INT2	I intend to join a family takaful product if I have the strong financial ability.	

INT3	I plan to protect my family with family takaful products.
INT4	I expect to participate in a family takaful product.
INT5	I want to participate in a family takaful product.
INT6	If given the opportunity, I will participate in a family takaful product in the future.
INT7	I will make some effort to participate in a family takaful product in future.
INT8	I will strongly recommend family takaful product for others to participate in it.

3.6 Measurement Scale

To evaluate the accurateness of all constructs that are supposed to be measured, there are four measurement levels: nominal, ordinal, interval, and ratio (Neuman, 2014; Yegidis et al., 2018). Nonetheless, the most appropriate measurements for this study are nominal, ordinal, and ratio scales (Babbie, 2010). The traits are more logically ranked on an ordinal scale, and the variables of this type include social class, race, and client happiness. In addition, the ordinal scale is also known as the Likert scale (Rubin & Babbie, 2011). The comparisons between the four measurement levels are presented in the table below.

Table 10 Comparison between Four Levels of Measurements

Level	Different Catagories	Ranked	Distance Between Catagories Measured	True Zero
Nominal	Yes	No	No	No
Ordinal	Yes	Yes	No	No
Interval	Yes	Yes	Yes	No

Ratio	Yes	Yes	Yes	Yes

Source: (Neuman, 2014)

All questionnaire items were responded to using likert-type scales, commonly employed in quantitative behaviour research and proved to be very beneficial and acceptable in factor analysis studies (Hinkin, 1998). Each respondent's replies to items on a likert-type scale illustrating a specific concept or variable are totalled. The scale is an interval-type scale, which means that the differences between any two points on the scale are constant.

The likert scale was first designed in theory with a 5-point scale (Likert, 1932). The 5-scale is presented as strongly disagree, disagree, neither agree nor disagree, agree, and strongly agree, respectively. The 7 and 9 point scales also employed in quantitative survey research. According to Sekaran (2003), they used scales of 5, 7, and 9 with a neutral point in the middle results in a well-proportioned rating. Furthermore, according to Lissitz and Green (1975), Cronbach's alpha, which assesses dependability, increases up to a 5-point likert scale but decreases with 7 and 9 point scales (Lissitz & Green, 1975). Furthermore, the authors say that doubling the alternatives in items is not suggested because it does not boost dependability but rather increases the number of items.

However, this study has implemented a 10-point likert scale to measure all variables of the study. These ten-point rating scales are one of survey research's most frequently used measurement tools. They have been effectively used with a variety of constructs, including questions about respondents' satisfaction with political leaders, the economy, and their overall quality of life. Preston and Colman (2000) found that scales

with more response categories, up to about seven, had significantly higher reliability, validity, and discriminating power, although internal consistency did not differ significantly between scales. On the other hand, respondents preferred the ten-point scale the most, closely followed by the seven-point option (Preston & Colman, 2000).

Additionally, studies demonstrate that the validity of six or more response scales, including ten-point scales, is increased (Preston & Colman, 2000). Furthermore, Preston and Colman (2000) state that five-point, seven-point, and ten-point scales are relatively simple to use. Although shorter rating scales are more convenient to use, scales with ten or eleven alternatives were found to express respondents' feelings adequately. They concluded that the most frequently used rating scales are the ten-point, nine-point, and seven-point scales (Preston & Colman, 2000). More precisely, rating scales that are too short and simple cannot reveal much about how a person differentiates among a large set of objects. Therefore, the constructs of the study were assessed using a ten-point Likert scale ranging from 1 = very strongly disagree, 2 = strongly disagree, 3 = disagree, 4 = mostly disagree, 5 = slightly disagree, 6 = slightly agree, 7 = mostly agree, 8 = agree, 9 = strongly agree and 10 = very strongly agree (Taherdoost, 2019).

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3.7 Operational Definitions

Rubin & Babbie (2011) have defined an operational definition as the operations, or indicators, we will use to determine the quantity or attribute we observe about a particular variable. The operational definition indicates the meaning of variables that are used to measure the study's hypothesis. All variables in the study become perceivable or perceived after the operational definition is applied. According to

Cooper & Schindler (2014), an operational definition is a set of criteria utilized for specific measures (Cooper & Schindler, 2014). All terms used in testing must be standardized. Researchers must choose the measurement based on the study's objective to declare the operational definitions. It is vital to treat abstract ideas to better grasp measurement concepts. Furthermore, it is frequently used to define the link between theories and their hypotheses.

A nominal rather than an actual definition is used in an operational definition. The term nominal describes how it is ascribed to a term without interruption or claim. A nominal usually refers to a specific term that must be used and is based on consensus or convention (Babbie, 2010). As a result, the operational definition provides the most clarity on what a concept means in the context of a particular study. Therefore, operational definitions are designated to discover precisely how the concept is measured. Understanding the operational definition will be interesting for the finding, eventually benefiting the study's goal. The operational definition of variables in this study is presented in the table below.

Table 11 Operational Definition of Variables

No.	Variable	Definition
1.	Intention to Participate in FTP	An individual's subjective probability of participating in family takaful products (Ajzen, 1985; Ajzen & Fishbein, 1980).
2.	Attitude	An individual's positive or negative evaluation to participate in family takaful products (Ajzen, 1985).

3.	Subjective Norms	An individual's perception of the social pressures placed on them to participate or not to participate in family takaful products (Ajzen, 1985).
4.	Perceived Behavioural Control	An individual's perception of the ease or difficulty to participate in family takaful products (Ajzen, 1991).
5.	Halal Brand Association	Customer's perception of a takaful company's ability to fulfil, comply and operate under the principles of Shariah law (Maulan et al., 2016; A. Othman & Owen, 2001).
6.	Facilitating Condition	The impact of technology and the company's infrastructure to back the customer's participation in family takaful products (Venkatesh et al., 2003).
7.	Institutional Trust	An individual's belief of structural assurances such as guarantees, contracts, regulations, promises, legal re-course, processes or procedures of a takaful company is in place to protect them (McKnight et al., 1998; McKnight & Chervany, 2001; Moin et al., 2015).

Source: Author's

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3.8 Population and Sampling Technique

3.8.1 Population and Sample Frame

Sekaran (2003) conceptualizes the population as the entire group of people, events, or things of interest that the researcher wishes to investigate (Sekaran, 2003). Another

definition by Creswell (2012) explains a population as a group of individuals with the same characteristics. The sample frame or targeted population in quantitative research is described as a set of persons (or a group of organizations) with some common identifying trait that the researcher may identify and study (Creswell, 2012). According to Sekaran (2003), the sample frame is a listing of all the elements in the population from which the sample is drawn. Bougie & Sekaran (2019) also defined a sampling frame as a (physical) representation of all the elements in the population from which the sample is drawn. The researcher seeks to and should be able to make findings that represent the population of interest by studying the sample.

The study population comprised the academician staff (lecturers) from the Higher Education Institutions (HEI) in Malaysia. To be detailed, the HEIs in Malaysia are categorized into public and private under the supervision of higher education authorities. The HEI in Malaysia can also be categorized into three types: college, college university, and full university (Jabatan Pendidikan Tinggi, 2021). Moreover, the study also categorizes the HEI into Islamic-based HEI and non-Islamic-based HEI.

However, the study's targeted population or sample frame is the lecturers/ academicians from private Islamic universities in Malaysia. To time, as listed by Jabatan Pendidikan Tinggi (JPT), there are nine private Islamic universities in Malaysia (Jabatan Pendidikan Tinggi, 2021). Those private Islamic universities are in the state of Perlis, Kedah, Perak, Selangor, Kuala Lumpur, Pahang and Melaka. However, due to the non-responses, two private Islamic universities were excluded from the list of the study's population and left seven available private Islamic

universities. The list of names of the seven private Islamic universities are presented in Table 12 below.

Table 12 List of the Private Islamic Universities in Malaysia

No.	Private IHEI	Abbv.	State
1.	Universiti Islam Selangor	UIS	Selangor
2.	Albukhary International University	AIU	Kedah
3.	International Centre for Education in Islamic Finance	INCEIF	Kuala Lumpur
4.	Universiti Islam Antarabangsa Sultan Abdul Halim Mu`adzam Shah	UniSHAMS	Kedah
5.	Universiti Sultan Azlan Shah	USAS	Perak
6.	Universiti Islam Pahang Sultan Ahmad Shah	UniPSAS	Pahang
7.	Universiti Melaka	UNIMEL	Melaka

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The term unit of analysis is defined as to what or who should give the data, as well as the aggregate level at which the data should be evaluated (W. Zikmund et al., 2013). As the study is intended to examine the factors that influence the academicians from seven private Islamic universities in Malaysia to participate in family takaful product, the data were collected from each individual. Many past studies have proved that education plays a vital role in influencing customers to participate in family takaful product. Therefore, relying on this basis, the researcher has selected the academicians among the private Islamic universities as the unit of analysis. All the appointed lecturers in any Islamic universities have at least degree level, and it might vary to master's degree level and doctorate level.

Education serves as a critical determinant in shaping individuals' behavioural intentions toward accepting or participating in financial products and services. Numerous studies have underscored the profound impact of education on financial decision-making and behaviour. Higher levels of education are consistently associated with greater financial literacy and understanding. Lusardi & Mitchell (2011) found that individuals with advanced education tend to exhibit higher levels of financial literacy and engage in more financially responsible behaviours, such as saving and investing for the future (Lusardi & Mitchell, 2011). Moreover, education influences individuals' perceptions of financial risk and their ability to manage it effectively. Fernandes et al. (2014) demonstrated that individuals with higher educational attainment are better equipped to understand and assess financial risks, leading to more informed decision-making regarding financial products and services (Fernandes et al., 2014).

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Additionally, education positively correlates with long-term financial planning behaviours, including retirement savings and investment planning. Studies by Lusardi & Mitchell (2007) revealed that individuals with higher educational backgrounds are more likely to engage in proactive financial planning and exhibit greater financial preparedness for retirement. Furthermore, education provides individuals with access to essential information and resources necessary for making informed financial decisions. Robb & Woodyard (2011) highlighted that individuals with higher levels of education are more likely to seek out financial information and utilize financial planning resources, resulting in better financial outcomes and increased participation in financial products and services (Robb & Woodyard, 2011).

Moreover, education influences social networks and peer effects, with individuals with higher education levels being more likely to be influenced by financially sophisticated social networks, as evidenced by studies by Sweeney et al. (2008) and Delavande et al. (2008). In essence, education plays a multifaceted role in shaping individuals' financial behaviours, encompassing financial literacy, risk perception, long-term planning, access to information, and social influence, all of which contribute to more informed and responsible financial decision-making.

Islamic-based working spaces can significantly influence individuals to participate in Islamic financial services and products through various mechanisms. Firstly, these spaces often cultivate an environment that emphasizes Islamic principles and values, fostering a sense of ethical responsibility among employees. This ethical alignment encourages individuals to seek out financial products and services that adhere to Islamic principles, such as avoiding interest-based transactions and promoting social responsibility. Research by Keshk & Kuran (2019) suggests that individuals working in environments that prioritize ethical behaviour are more inclined to participate in financial activities that align with their values.

Secondly, Islamic-based working spaces promote trust and confidence in Islamic financial institutions and products. Employees within these environments are likely to perceive Islamic financial institutions as more trustworthy and reliable, given the shared commitment to Islamic principles. Studies have shown that trust plays a crucial role in individuals' decisions to participate in financial services, with greater trust leading to increased participation (Ahmed et al., 2020).

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Thirdly, Islamic-based working spaces provide employees with exposure to Islamic finance concepts and products, thereby enhancing their awareness and familiarity. Through daily interactions and discussions, employees gain a better understanding of Islamic financial principles, products, and services. This increased awareness makes individuals more comfortable and confident in engaging with Islamic financial products, as evidenced by research highlighting the positive correlation between financial knowledge and participation in Islamic finance (Adeel et al., 2018).

Lastly, the social dynamics within Islamic-based working spaces can influence individuals' financial behaviours. Employees may be influenced by their peers and colleagues who actively participate in Islamic financial services, leading to social normalization and acceptance of Islamic finance practices. Studies have shown that social influence plays a significant role in shaping individuals' financial decisions and behaviours, with individuals more likely to adopt behaviours endorsed by their social network (Siddiqui et al., 2016; Boubakari et al., 2018).

Table 13 Statistic of Malaysian Private Islamic Universities' Population

Private IHEIs	Number of Academician	Percentage from Total Population
UIS	230	27.2
AIU	48	5.7
INCEIF	15	1.8
UniSHAMS	137	16.2
USAS	183	21.5
UniPSAS	97	11.5

UNIMEL	136	16.1
Total	**846**	**100.0**

3.8.2 Sampling Procedures and Sample Size

In conducting research on the behavioural intention to participate in family takaful products, a complex multi-stage probability sampling method was employed to ensure a representative sample and enhance the validity of the findings. This method encompasses three primary stages: Multi-stage Cluster Sampling, Stratified Sampling, and Simple Random Sampling. Initially, the Multi-stage Cluster Sampling technique was applied, which involved three sub-stages. The academicians from Malaysian private Islamic universities were identified as the population of the study.

Nevertheless, it is difficult to conduct the survey on all academicians. Thus, this study proceeds with the first complex multi-stage probability sampling method, the multi-stage cluster sampling. The first sub-stage involved clustering the study population into two groups: academicians from public and private institutions. Academicians from private institutions are chosen. The study proceeds with the second sub-stage, which further clusters the private institution into three types: full university, college university and college. Thus, the full-type university is chosen. Moreover, the study further clustered the population into two: Islamic and non-Islamic universities. The consideration as an Islamic-based university depends on Islamic-based courses that have been offered by the university. At this sub-stage, an Islamic-based university is chosen. Therefore, this first stage of complex multi-stage probability sampling left seven Malaysian private Islamic universities as the study's population.

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Following the clustering phase, the process advanced to the second stage, which utilized proportionate stratified sampling. Stratified sampling is a probability sampling in which the population is stratified or divided into chunks or strata (the single is one stratum) based on specific characteristics. This method was critical for ensuring that the sample accurately reflected the diverse demographic strata within the population. In this study, the researcher follows this strategy where the seven private Islamic universities in Malaysia cluster differing in size and geographical area location. Moreover, the stratified sampling can be proportionate (i.e., the stratum is a percentage of the total population; that is, to take this percentage from the sample size) or disproportionate (i.e., if the researcher finds that the proportion is not suitable to give the correct representation of the sample, he can retain the sample size but uses different proportions than a product of the stratum size over the population) (Sekaran, 2003).

In this study, the seven private Islamic universities have different respondents; that is to say, the population size of each university differs. Some have large numbers of subjects that are aimed to be studied in this research, such as Universiti Islam Selangor (UIS), while others have much fewer respondents, such as the International Centre for Education in Islamic Finance (INCEIF); refer to Table 13 for more details. Creswell (2012) noted that this method is suitable if there is an imbalance in a sample characteristic. Accordingly, the selection of proportionate stratified sampling is the second stage of sampling, after the clustering phase, and is suitable in this study to give an equal probability for each element to have the chance to be selected (Neuman, 2007).

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The final stage involved simple random sampling, where participants were randomly selected from the stratified groups to gather data. This method ensured that every individual within each stratum had an equal chance of being included in the sample, thereby reducing selection bias and enhancing the overall reliability of the study (Singh & Masuku, 2014). Finally, the unit of analysis (element, subject, or respondent) is sampled using simple random probability sampling. Thus, the study aims to use complex multistage cluster sampling and stratified proportionate sampling. Finally, in its last stage of testing respondents (i.e. academicians in seven private Islamic universities), it uses simple random sampling. The figure below summarizes the study's sampling method.

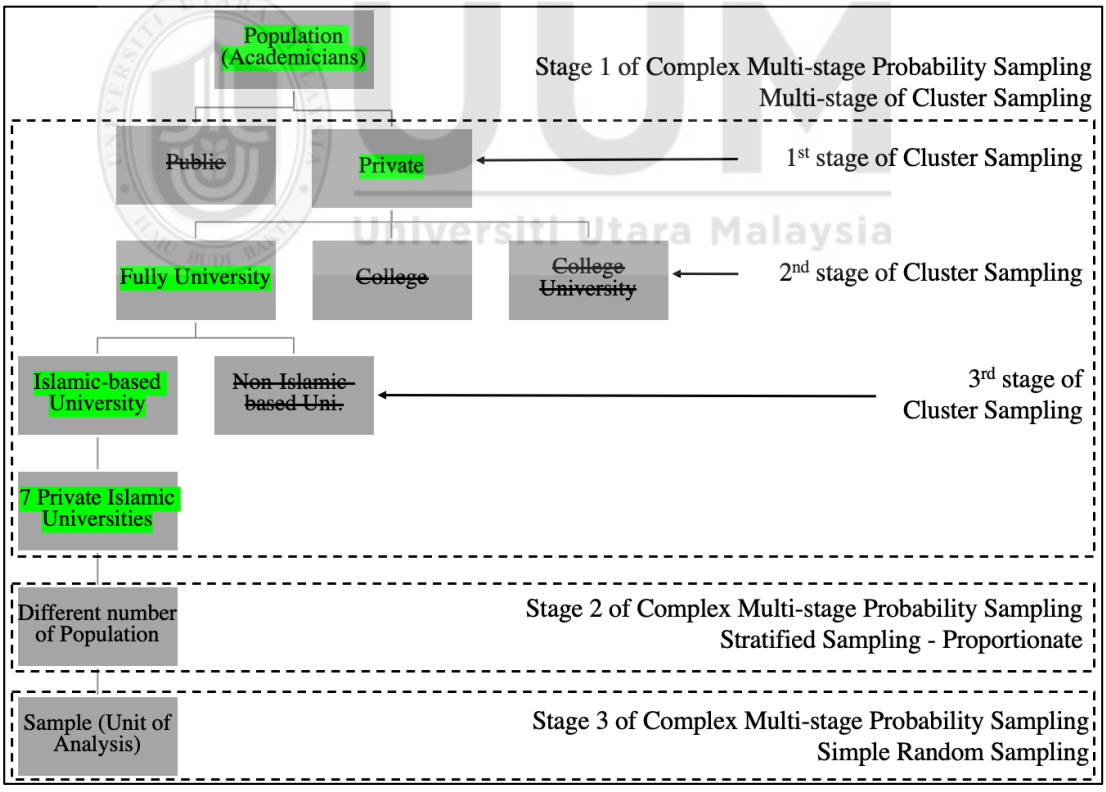

Figure 24 Summary of the Study's Sampling Method

Source: Author's

The study's sample size was calculated after acquiring the total population of academicians from each of the Islamic universities. Krejcie and Morgan (1970) claim that the nexus between sample size and population develops in lockstep until a certain point, after which it satisfies 380 cases and above (Krejcie & Morgan, 1970). As a result, it's worth noting that the sample size grows slower as the population grows, eventually stabilizing at little more than 380 cases. Also, Krejcie and Morgan (1970) cite a formula from the National Education Association's research division in determining sample size. As an outcome, they have constructed a table by referring to the below formula:

$$S = X^2NP(1-P) \div d^2(N-1) + X^2P(1-P) \quad [1]$$

Where;

S = required sample size; X^2 = the table value of chi-square for 1 degree of freedom at the desired confidence level (3.841); N = the population size; P = the population proportion (assumed to be 0.50 since this would provide the maximum sample size); d = the degree of accuracy expressed as a proportion (0.05).

The sum of the population for this study is (N = 846) respondents. Therefore, the number sample size is computed as follow:

$$S = X^2NP(1-P) \div d^2(N-1) + X^2P(1-P) \quad [2]$$

Therefore;

$$S = (3.841)(846)(0.50)(1-0.50) \div (0.05)^2(846-1) + (3.841)(0.50)(1-0.5) \quad [3]$$

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Thus;

$S = 264.40$

The population (N) and sample size (S) are depicted in the following figure. Without referring to the equation, the preceding result can be easily obtained from the table.

N	*S*	*N*	*S*	*N*	*S*
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Figure 25 Population and Sample Size

Source: Krejcie & Morgan (1970)

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Based on the aforementioned justification, the researcher anticipates a sample size of 265 respondents as a minimum for the study. However, the study also considers gathering more replies in order to guarantee that the planned sample size is met, to ensure that the minimum response of the sample is achieved, and to generate solid statistical results better as there will be less sampling error (Creswell, 2012; Sekaran, 2003). The preceding is summarised in Table 14.

Table 14 Statistic of Sample Size for Population of Study

Private IUs	Number of Academician	Percentage from Total Population	Sample Size
UIS	230	27.2	72
AIU	48	5.7	15
INCEIF	15	1.8	5
UniSHAMS	137	16.2	43
USAS	183	21.6	57
UniPSAS	97	11.5	30
UNIMEL	136	16.1	43
Total	**846**	**100.0**	**265**

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3.9 Data Collection Procedures

There are two primary categories of data collection methods: Self-administered questionnaires and Interviewer-administered questionnaires (Saunders et al., 2009). Self-administrated questionnaires can be done via the internet, as well as via postal, delivery, and collection questionnaires. Meanwhile, the second method can be implemented through telephone and face-to-face questionnaires. In principle,

choosing the best approach is difficult because each has its advantages and disadvantages. There are certain aspects to be considered, such as the profile of the respondents, the relevance of targeting specific respondents, their precise responses, sample size, response rate, and, lastly, the types and amount of questions to be gathered.

Interviewer-administered and self-administered surveys, on the other hand, can provide better control and boost data reliability (Saunders et al., 2009). According to Saunders et al. (2009), other factors, such as available resources, time to conduct and collect data, budgetary concerns, support availability, and ease of inputting data gathered, can influence the questionnaire choice.

Regardless of various data collection methods, this research was conducted using the self-administrated electronic questionnaire. As mentioned in the first chapter, this study was performed during the hit of the COVID-19 pandemic. Implementing the Movement Control Order (MCO) by the Government of Malaysia has limited the data collection methods through the face-to-face administrated questionnaire. Therefore, by considering this concern, the self-administrated electronic questionnaire is the best method for the researcher to undertake.

This method invites the respondents via Whatsapp and e-mail platforms to participate in the questionnaire. The invitation using these platforms includes a link to the Google Form, which contains the questionnaires. In essence, the internet has the advantage of saving money, time, and printing materials by providing a quick way to communicate

questions via a link to a Google Form and receiving and following up on responses remotely.

3.10 Content and Pre-Test

The study instrument was put through several tests to ensure that it was acceptable, clear, content-valid, complete, and self-explanatory. The content validity process is the most critical procedure in instrument design. Content validity has been explained as the degree to which an item reflects the content universe of a construct in which this construct will be, among other constructs, in an instrument that will be generalized (Straub & Gefen, 2004).

This process aims to verify the elements that can help product selection based on expert recommendations. The significance of study components is what validity is concerned. Researchers are concerned about whether they measure what they plan to assess when measuring behaviour (Drost, 2011). Drost (2011) also highlights that content validity is used to evaluate the various scales being built and identify any items that are still unclear. As a result, each expert received a copy of each item pool for evaluation and feedback.

Four experts validated the product selection items. The three experts were appointed to check on the content of the items, while the other one was assigned to review the linguistic-related items. These experts were chosen based on their experiences in research-related matters and expertise in supervising Ph.D. students. The two experts were from the Islamic Business School and the School of Business Management of Universiti Utara Malaysia (UUM). The other two experts were from the Institute of

Islamic Banking & Finance of International Islamic University Malaysia (IIUM) and the Language Centre & General Studies of Kolej Universiti Islam Perlis (KUIPs).

Furthermore, the two experts are specialized in Islamic Finance & Banking, one is specialized in Management, and the rest is specialized in the English Language. Due to study ethics, the identities of the experts were kept secret. Their thoughts and suggestions for improving the selected instruments are attached in the appendix. Above all, the experts' recommendations were considered, and new ideas and suggested linguistic-related matters were included. The final version of the questionnaire was presented in one version for the actual field test, namely, soft-copy questionnaires, as a consequence of this series of validity assessments. This version is the final version of the study's instrument. In summary, this procedure is aimed to ensure that a certain reliability level, consistency and relevancy is achieved for each construct. As advised by many scholars, it is appropriate for inclusion in the survey.

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3.11 Goodness of Measures

Researchers are known to adapt or change constructed instruments to match the scope of the research problem while constructing the instruments for a study. Because each research case has a unique context, the instrument's wording may need to be modified or altered. As a result, it is recommended that the researcher undertake measurement goodness on the modified instruments for the appropriateness of validity and reliability (Bougie & Sekaran, 2019).

3.11.1 Instrument Reliability

The instrument of the study is considered reliable if it accurately measures the idea it is testing. It is considered reliable if the instrument able to sustain it consistency over the homogeneity of the items in the measure (Bougie & Sekaran, 2019). Split-Half reliability and Cronbach's alpha correlation coefficient are both used to assess internal consistency. All items that measure the same construct are divided into two groups in Split-Half reliability, and the correlation between the two groups is computed. Cronbach's alpha is the most commonly used reliability statistic for determining internal consistency reliability. It is equal to the average of all the available split-half estimations (Devon et al., 2007).

Cronbach's alpha values, which represent the measuring items' internal consistency reliabilities, were more than 0.8 and regarded good. The value of more that 0.8 indicates that all items in each construct is suitable for field test. It's also been suggested that inter-item correlation should be greater than 0.3 and item-to-total correlation should be greater than 0.5 (Robinson, Shaver & Wrightsman, 1991). According to DeVon et al. (2007) and Bougie & Sekaran (2019), a coefficient value of greater than 0.70 indicates acceptable reliability, greater than 0.80 indicates good reliability, and greater than 0.90 indicates excellent reliability (Bougie & Sekaran, 2019; Devon et al., 2007). Meanwhile, Streiner (2003) suggests a coefficient value greater than 0.60 indicates acceptable internal consistency (Streiner, 2003).

3.11.2 Instrument Validity

Validity is defined as a measure's correctness in judging the notion it represents, and it can be attained by selecting and developing adequate data collection instrumentation

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(Cohen et al., 2007; W. Zikmund et al., 2013). Instrument validity be accomplished by examining the goodness of measures using content and construct validity.

Content validity test ensures the study's instrument includes a sufficient and indicative set of items relating to the idea. This content validity can be accomplished by experts who certify the instrument's content validity (Bougie & Sekaran, 2019). Construct validity, on the other hand, is determined by criterion-related validity, which is a multitrait-multimethod correlation matrix. The criterion-related validity consists of convergent validity coefficients, and discriminant validity coefficients are represented diagonally in the multitrait-multimethod matrix (Schumacker & Lomax, 2016).

The coefficient of convergent validity is the correlation between measurements of the same construct using different methods. The acceptable indicator should be in the value range of 0.85 to 0.95 or higher. The discriminant validity coefficient is the correlation between different construct measures that should be in the range of 0.85 to 0.95 or higher and lower than the convergent validity coefficient or the instrument validity coefficient (Schumacker & Lomax, 2016).

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3.12 Pilot Study

This study has conducted an essential procedure, which is a pilot study. The aim of the pilot study is to obtain input on the reliability, validity, and practicality of the questionnaire. A pilot study was organized to detect omissions, excesses and items not relevant to the scope of the study. A pilot study was also conducted to determine the time required to accomplish the conducted survey and to test the coding system for data analysis (Cohen et al., 2007).

The pilot study was conducted on large and representative respondents, including 105 lecturers from Kolej Universiti Islam Perlis (KUIPs) and Kolej Universiti Islam Antarabangsa Selangor (KUIS). The instrument's reliability, such as the items correlation, inter-items correlation and inter-total correlation, was tested using data from the pilot study (Hair et al., 2007). The table below represents the pilot study result consisting of descriptive analysis, normality analysis and reliability analysis such as Cronbach's alpha coefficient and internal consistency measures.

Table 15 Demographic Profile of Respondents

Items	**Frequency**	**Percent**
Gender		
Male	42	40.0
Female	63	60.0
Marital Status		
Single	21	20.0
Married	84	80.0
Age		
21 – 30 years	17	16.2
31 – 40 years	58	55.2
41 – 50 years	26	24.8
> 50 years	4	3.8
Education Level		
Bachelor's degree	17	16.2
Master's degree	61	58.1

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PhD	27	25.7
Monthly Income		
RM1000 – RM2500	7	6.7
RM2501 – RM4000	46	43.8
RM4001 – RM5500	21	20.0
> RM5501	31	29.5
Year of Services		
Less than five years	59	56.2
6 – 10 years	32	30.5
11 – 15 years	6	5.7
16 – 20 years	3	2.9
> 21 years	5	4.8

Table 14 summarizes the respondents' demographic profile. A total of 105 respondents co-operated in the pilot test by returning the questionnaires. The sample was diverse in several aspects. First of all, approximately 40 percent (42) of the sample was male, and 60 percent (63) were female. More than half of the respondents are married (80 percent), and another 20 percent are single. In terms of age, 16.2 percent of the respondent were between 21 and 30 years old, 55.2 percent were between 31 and 40 years old, 24.8 percent were between 41 and 50 years old, and 3.8 percent were over 50 years old. Furthermore, 16.2 percent of the respondents were bachelor's degree holders, 58.1 percent were master's degree holders, and 25.7 percent were Ph.D. holders.

About their monthly income, 6.7 percent of the respondents are between RM1000 and RM2500, 43.8 percent are between RM2501 and RM4000, 20 percent are between

RM4001 and RM5500, and 29.5 percent are more than RM5501. In terms of the number of services year, more than half of the respondents are working less than five years (56.2 percent), followed by 30.5 percent were between 6 and 10 years, 5.7 percent were between 11 and 15 years, 2.9 percent were between 16 and 20 years, and 4.8 percent were more than 20 years.

Table 16 Normality test for the pilot study

Constructs	Mean	Std. Deviation	Skewness	Std. Error of Skewness	Kurtosis	Std. Error of Kurtosis
ATT	8.3695	1.19736	-0.729	0.236	-0.106	0.467
SN	6.7981	1.91592	-0.748	0.236	0.43	0.467
PBC	7.4057	1.57955	-0.165	0.236	-0.468	0.467
HBA	8.6333	1.38825	-1.227	0.236	1.702	0.467
FC	7.5648	1.78439	-0.661	0.236	0.036	0.467
IT	8.0943	1.5132	-0.968	0.236	0.982	0.467
INT	8.1771	1.9277	-1.171	0.236	1.017	0.467

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Table 15 above illustrates the normality test results for the pilot study. According to Coakes (2005), there are numerous methods for examining data's normality (Coakes, 2005). The researcher likes to employ the skewness and kurtosis values throughout this research. Pallant (2007) stated that the skewness value indicates the distribution's symmetry. On the other hand, kurtosis also provides information about the distribution's peak (Pallant, 2007). According to Pallant (2007), skewness and kurtosis are considered normal if less than +3.0.

Chua (2020) also suggests that for data to be considered normally distributed, the skewness and kurtosis values should be between -1.96 and +1.96 (Chua, 2020). The

skewness and kurtosis values for all variables used in this study are shown in Table 15. These variables are attitude, subjective norm, perceived behavioural control, halal brand association, facilitating condition, institutional trust, and behavioural intention. All variables indicate that the skewness and kurtosis values are lied between (-0.165 and -1.227) and (-0.468 and 1.702), respectively. Thus, it can be concluded that the data were normally distributed as the values are in the suggested range.

Table 17 Reliability test for the pilot study

Constructs	Items	Cronbach's Alpha	Reliability	Inter-item Correlation	Item-total Correlation
INT	8	0.981	Excellent	0.719-0.936	0.714-0.967
ATT	8	0.898	Good	0.443-0.825	0.590-0.830
SN	8	0.891	Good	0.256-0.785	0.560-0.757
PBC	8	0.866	Good	0.238-0.863	0.532-0.723
HBA	8	0.943	Excellent	0.557-0.820	0.644-0.922
FC	8	0.948	Excellent	0.541-0.909	0.770-0.849
IT	8	0.969	Excellent	0.673-0.918	0.791-0.929

Internal consistency and item reliability were assessed via Cronbach's alpha values. Items in each construct with values larger than 0.80 can be utilized to collect data in field tests. Furthermore, according to Robinson et al. (1991), the acceptable value for inter-item correlation and inter-total correlation should exceed 0.30 and 0.50, respectively (Robinson et al., 1991). According to another citation, the suggested average inter-item correlation is between 0.15 and 0.50. This rather broad range is suggested because the optimal value will inevitably vary according to the target construct's generality versus specificity. If one is evaluating a broad higher-order construct such as extraversion, a mean correlation of 0.15-0.20 is probably desirable. However, a much higher mean intercorrelation (perhaps in the 0.40-0.50 range) is

required for a valid measure of a narrower construct, such as talkativeness. All items met the correlation value requirement based on the result presented above.

Table 18 Kaiser-Mayor-Olkin (KMO) & Bartlett Test for Pilot Study

Constructs	KMO Value	Sampling Adequacy (KMO >0.60)	Bartlett Test (Sig. Value)	Factor Analysis Suitability (p-value <0.05)
ATT	0.865	Acceptable	0.000	Acceptable
SN	0.788	Acceptable	0.000	Acceptable
PBC	0.809	Acceptable	0.000	Acceptable
HBA	0.935	Acceptable	0.000	Acceptable
FC	0.877	Acceptable	0.000	Acceptable
IT	0.900	Acceptable	0.000	Acceptable
INT	0.903	Acceptable	0.000	Acceptable

Referring to Table 18 above, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy for all variables was acceptable, exceeding the value of 0.6 (Mohd Rafi, 2011). The exceeding value of 0.60 indicates that the sample was adequate. Furthermore, the results revealed that Bartlett's Test of Sphericity was significant (P>0.05), reflecting that the data was proper for factor analysis. The values for communality (factor loading), which estimated its variation between the variables, are shown in more detail in Table 19 below. Moreover, Hair et al. (2010) proposed that inter-variables will share much in common if the communality value (factor loading) is greater than 0.5. In contrast, a lower communality value (factor loading) indicates that the variable should be eliminated. In addition, Awang (2015) suggests that the accepted value for factor loading is 0.6 (Awang, 2015). The analysis result for all indicators for all constructs indicates a factor loading value of more than 0.6, which means all indicators are accepted without the need to remove them.

Table 19 Communality (Factor loading) values

Constructs & Indicators	Factor Loadings (>0.50)						
	INT	**ATT**	**SN**	**PBC**	**HBA**	**FC**	**IT**
Item 1	0.900	0.798	0.825	0.837	0.836	0.796	0.823
Item 2	0.909	0.642	0.856	0.851	0.910	0.790	0.873
Item 3	0.955	0.801	0.841	0.611	0.832	0.787	0.913
Item 4	0.939	0.662	0.828	0.638	0.859	0.809	0.915
Item 5	0.958	0.855	0.845	0.763	0.711	0.833	0.893
Item 6	0.953	0.787	0.917	0.838	0.701	0.824	0.880
Item 7	0.931	0.783	0.914	0.818	0.908	0.761	0.846
Item 8	0.764	0.847	0.776	0.692	0.675	0.793	0.812

Extraction Method: Principal Component Analysis

3.13 Data Analysis Techniques for Field Test

The acquired data must be verified and evaluated to prove the theoretical framework and hypotheses. The data will be analyzed using the Statistical Package for Social Sciences (SPSS) version 26 and the Statistical Package for Social Sciences for Analysis of Moment Structures (SPSS AMOS) version 25 due to the software's flexibility. The collected data will go through a preliminary step of data preparation, including checking missing data, outliers detection and normality test, before going further analysis.

3.13.1 Data Preparation

Before coding the data, the researcher reviewed the questionnaire for errors and omissions, then modified or reconstructed the data. When dealing with blank responses (omissions), the researcher will examine the respondent's response patterns to deduce logical solutions (Bougie & Sekaran, 2019).

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Data coding is defined as a process of providing a numerical score or symbol to each question or item in a questionnaire, including missing or non-response data, which is commonly coded with a numeric value of 9 or 99 (Bougie & Sekaran, 2019; W. Zikmund et al., 2013). All variables were listed on a coding sheet, and each response was given a code. This study assigned a code to all variables, including Intention (INT), Attitude (ATT), Subjective Norm (SN), Perceived Behavioural Control (PBC), Halal Brand Association (HBA), Facilitating Condition (FC) and Institutional Trust (IT).

3.13.1.1 Missing Data

The issue of missing data must be tackled since it can lower the sample size usable for analysis and result in a major bias in statistical analysis (Byrne, 2010; Hair et al., 2007). The missing data was identified by computing the proportion of variables with missing data for each case and the number of cases with missing data for each variable as the missing data can not be ignored. The missing data can be ignored if the calculation value is less than 10 percent for an individual case and should be corrected if the calculation value of missing data is 20 to 30 percent. Meanwhile, the missing data should be eliminated when the calculation value of variables with 50 percent or more (Hair et al., 2007).

3.13.1.2 Outliers Detection

Outliers are cases in which the results diverge markedly from the overall data. They happen as a result of mistakes made during observation, data entry, instrumentation, or self-report data gathering (Byrne, 2010; Schumacker & Lomax, 2016). Outliers

should be addressed, removed and accommodated as they can change the values of mean, standard deviation, and correlation. These correctional steps can be done by using the robust statistics method. Additionally, the outliers also can be addressed by acquiring additional data. Using the univariate detection approach, the researcher could locate the outliers by transforming the data values to standardized scores and testing for values over 2.5 on each variable. It is removed if the outlier is deemed abnormal and not indicative of the population (Hair et al., 2007). According to Byrne (2010), the researcher identified multivariate outliers by computing the squared Mahalanobis distance (D^2), which had a distinct D^2 value compared to all other D^2 values.

3.13.1.3 Normality Test

The data for this study should meet the normalcy criteria based on the form of the data distribution and the sampling size. Kurtosis (distribution height) and skewness (distribution skewness) are used to define the shape of a distribution (balance of the distribution). There would be no zeros in a normal distribution. (Hair et al., 2010). The normality criterion, such as skewness and kurtosis, required a value of less than 3.0 and 10.0, respectively, to imply the normalcy of the data (Kline, 2011), allowing parametric statistical analysis to be used (Awang, 2015). A sample size of fewer than 50 samples can alter the data's normality, in addition to examining the shape of the distribution. As a result, this research focuses on collecting data from over 200 cases to mitigate the negative impacts of non-normality (Hair et al., 2010).

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3.13.2 Descriptive Analysis

Descriptive statistics has been utilized to summarize the sample's characteristics and data distribution throughout respondents' demographic profiles (W. Zikmund et al., 2013). Frequencies, central tendency measures, and central dispersion measures are among the descriptive statistics. The number of times particular observations occur is visually represented in table format. The table will indicate the demographic data in the form of frequency and percentage. For nominal and interval data, central tendency measurement includes the computation of mean, median, and mode values. Meanwhile, the dispersion measurement comprises the computation of range, variance, and standard deviation values (Bougie & Sekaran, 2019; W. Zikmund et al., 2013).

3.13.3 Structural Equation Modeling

The primary goal of this research was to examine the relationship between constructs of the study. Furthermore, the study also aims to examine the influential factors on the intention of academicians at private Islamic universities in Malaysia to participate in family takaful products. This study uses Structural Equation Modeling (SEM) as it combines two multivariate methods, which are Confirmatory Factor Analysis (CFA) and Multiple Regression Analysis (MRA) (Hair et al., 2007). For a variety of reasons, SEM has become popular in research. SEM, for instance, allows for the statistical assessment of complicated processes and advanced ideas using many constructs (exogenous and endogenous) (Schumacker & Lomax, 2016). Second, unlike Ordinary Least Square (OLS) regression, SEM evaluates individual constructs, mediating and moderating effects, and the overall model's fitness (Awang, 2015). Finally, by considering and regulating correlated measurement errors among response items in

confirmatory factor analysis, the SEM technique increases the validity and reliability of observed variables (Awang, 2015; Schumacker & Lomax, 2016).

As suggested, the SEM can only be utilized if the study model is based on good theoretical groundwork (Hair et al., 2007). This study used TPB (Ajzen, 1991), which was modified from the Theory of Reasoned Action (TRA) (Ajzen & Fishbein, 1977). The researcher identified and specified variables and relationships between variables to investigate the influential factors on academicians at private Islamic universities' intention to participate in the FTP. SEM analysis utilizes latent/construct variables (variables that are not directly observable) and observed/indicator variables (directly observable variables) (Schumacker & Lomax, 2010).

Additionally, the analysis of SEM applies two distinct models: measurement models and structural models. The measurement model develops latent variables and establishes relationships between observed and unobserved variables. For instance, the attitude variable in this study has eight questionnaire items. Meanwhile, the structural model establishes relationships between unobserved variables and demonstrates the hypothesized relationships between the measurement models used in the study (e.g., the attitude variable and the intention to participate in the family takaful product) (Awang, 2015; Byrne, 2010).

In SEM, external variables influence changes in the exogenous variable's values (Byrne, 2010). It is visually represented by the absence of any paths leading into it from other constructs (Hair et al., 2007). On the other hand, the endogenous construct (dependent variable) is influenced directly or indirectly by the exogenous construct

(independent variable) (Byrne, 2010). It is illustrated by a path from the exogenous construct (Hair et al., 2010). Following that, path diagrams are created to represent a collection of nexuses involving both exogenous and endogenous constructs (Hair et al., 2007). SEM method requires a particular computer software such as Analysis of Moment Structures (AMOS) to analyze the path diagram. AMOS is a powerful SEM tool because it visualizes the model graphically and specifies, estimates, and evaluates statistical relationships between each construct's measuring items and between constructs (Awang, 2015).

This study employed a covariance-based SEM analysis. In the context of researching behavioural intention to participate in family takaful products, employing a covariance-based Structural Equation Modeling (SEM) approach using SPSS AMOS offers several advantages over variance-based SEM. Covariance-based SEM, often referred to as CB-SEM, is particularly beneficial for confirmatory research where the primary aim is to test hypotheses and validate theoretical models. One of the key strengths of CB-SEM lies in its ability to assess the overall model fit, which allows researchers to determine how well the proposed model represents the observed data. This feature is critical in behavioural intention studies as it ensures that the relationships between latent constructs (such as attitude, subjective norms, perceived behavioural control, halal brand association, facilitating conditions and intention to participate) are accurately captured and validated against empirical data (Hair et al., 2010).

CB-SEM is also advantageous due to its robustness in handling complex models with multiple relationships and constructs. This method provides comprehensive

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diagnostics, including goodness-of-fit indices such as the Chi-square, Comparative Fit Index (CFI), and Root Mean Square Error of Approximation (RMSEA). These indices offer a detailed understanding of model adequacy, which is essential for refining theoretical models in the study of family takaful products (Kline, 2015). Additionally, CB-SEM in AMOS allows for the specification and testing of measurement models and structural models simultaneously, facilitating a more thorough validation process of both the constructs and the hypothesized relationships between them.

Moreover, CB-SEM handles measurement error more effectively than variance-based approaches. By explicitly modeling measurement error, CB-SEM provides more accurate estimates of the relationships between latent variables. This capability is crucial in behavioural research where constructs are often measured using multiple indicators, and accurate measurement is paramount to obtaining valid results (Byrne, 2010). In contrast, variance-based SEM, such as Partial Least Squares (PLS-SEM), is more exploratory and does not provide the same level of diagnostic information for overall model fit, making it less suitable for confirmatory research where theory testing is the primary objective.

Furthermore, CB-SEM is particularly useful when dealing with normally distributed data and large sample sizes, as it provides more precise parameter estimates under these conditions. This precision is beneficial for research on family takaful participation, where understanding the nuanced influences of various factors on behavioural intention is critical for developing effective marketing and policy strategies (Schumacker & Lomax, 2010).

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CB-SEM using SPSS AMOS is superior to variance-based SEM for confirmatory research in behavioural intention studies due to its comprehensive model fit assessment, robustness in handling complex models, effective management of measurement error, and precision in parameter estimation. These advantages ensure a more rigorous and reliable analysis of the factors influencing the intention to participate in family takaful products.

The study used a two-step SEM data analysis approach with the SPSS Amos version 26, a structural equation modelling software, to validate the proposed research framework. The first step required the researcher to assess the measurement model's fit and construct validity. Meanwhile, the second step is to assess the proposed structural model. These two steps satisfied Hair et al. (2007)'s recommendation of a six-stage overall process for SEM. The following stages are included: (1) defining individual constructs; (2) developing and specifying the measurement model; (3) designing a study to generate empirical data; (4) assessing the measurement model's validity; (5) specifying the structural model; and (6) assessing the structural model's validity.

The above-mentioned stages of 1 – 4 are called the Confirmatory Factor Analysis (CFA). CFA is the first step of analysis that should be conducted to determine the model's constructs. Furthermore, the CFA also is conducted to evaluate the measurement model's validity. Meanwhile, the next stages, 5 and 6, are required to test, modify, and present the structural model of the study. On top of that, these two stages are needed to examine the influential factors on academicians' intentions to participate in the family takaful products at private Islamic universities.

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3.13.3.1 Assessing Measurement Model

The AMOS measurement model is used to indicate the nexus between dependent and independent variables. Measurement models and associated measurement errors (error associated with the measured variable) are depicted in path diagrams (Byrne, 2010). The researcher employed CFA procedures to test the measurement model's validity by estimating correlational associations (represented by a two-headed curved arrow) for each variable (e.g. ATT) as well as all exogenous/independent variables at the same time (e.g. between ATT and SN) (Awang, 2015). Nevertheless, if the model is empirically or conceptually founded, CFA can be conducted. CFA is deemed appropriate for this study because the researcher is familiar with the theory that underpins the proposition of a nexus among the constructed variables (Byrne, 2010).

The researcher evaluated the unidimensionality of the measurement model, validity, and reliability by conducting the CFA. An item's factor loading must be 0.6 or greater to be considered unidimensionality. The measurement model's validity is comprised of three indicators. Firstly, convergent validity is assessed when the Average Variance Extracted (AVE) value is greater than or equal to 0.5. Secondly, discriminant validity is achieved when the variance-extracted values for two factors are greater than the square of the correlation between the two factors. Finally, construct validity is proven when the standardized factor loading is at least 0.6 and pre-testing is performed (Awang, 2015; Hair et al., 2010). Meanwhile, internal reliability assessment encompasses Cronbach's alpha value of 0.70 or greater, a composite reliability value of 0.6 or greater and an AVE's value of 0.5 or greater (Awang, 2015). The indicators for validating the measurement model using CFA are presented below.

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Table 20 CFA Measurement Model Validating Indicators

Assessments	Method	Indicator
Unidimensionality	Factor loading	> 0.6
Validity	Convergent validity	> 0.5
	Construct validity	> 0.5
	Discriminant validity	Variance-extracted values for two factors are greater than the square of the correlation between the two factors
Reliability	Internal reliability (Cronbach's Alpha)	> 0.70
	*Composite reliability	> 0.60
	*Average Variance Extracted	> 0.50
*Composite Reliability (CR) is calculated as follow:		$CR = \frac{(\sum \mathrm{K})^2}{[(\sum \mathrm{K})^2 + (\Sigma 1 - \mathrm{K}^2)]}$
*Average Variance Extracted is calculated as follow:		$AVE = (\sum \mathrm{K}^2/n)$

Sources: Awang (2015); Hair et al. (2010)

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3.13.3.2 Evaluating Model's Goodness of Fit

Several Fitness Indexes in SEM indicate how well the model fits the data. However, researchers cannot agree on which fitness indices to use. Hair et al. (2010) propose to include at least one GoF index from each model fit category. There are three types of model fit: Absolute Fit, Incremental Fit, and Parsimonious Fit. The index to report on from each category is determined by the literature to which it is referred. The table illustrated below contains information about the model fit category, name of the index and its level of acceptance.

Table 21 Evaluating the Fitness of a Measurement and Structural Model

Name of Category	Name of Index	Level of Acceptance

Absolute Fit	Chi-square (χ^2)	p > 0.05
	Goodness-of-fit index	GFI > 0.90
	Root mean square error of approximation	RMSEA < 0.08
Incremental Fit	Comparative fit index	CFI > 0.90
	Normed fit index	NFI > 0.90
	Tucker-Lewis index	TLI > 0.90
Parsimonious Fit	Chi square/df	Chisq/df < 5.0

Sources: (Awang, 2015)

Hair et al. (2010) proposed to include the Chi-square (χ^2) value and degrees of freedom to gain the model fit. Furthermore, they also recommended to report an incremental fit index, whether the CFI or TLI value. Finaly, they also suggested to include an absolute fit index which is the RMSEA value. Additionally, Awang (2015) suggested to include the RMSEA, GFI, CFI, and Chisq/df index measures, as they are frequently cited in the literature (Awang, 2015). Therefore, this study were reported the GFI and the RMSEA value for absolute fit index, the NFI and the CFI for incremental fit index, and the Chi square/df value for parsimony fit index as to prove study's model fit.

3.13.3.3 Assessing Structural Model

The next step in data analysis is to validate the structural model by converting the measurement model to the structural model. This step also includes the identification procedure of exogenous (independent) and endogenous (dependent) constructs. Independent constructs used in this study include ATT, SN, PBC, HBA, FC and IT, while dependent constructs used in this study include behavioural intention to participate in the FTP. The researcher used single-headed arrow to illustrate the study's structural model in order to indicate the relation between variables of the study. The illustrated single-headed arrow also is used to represent the hypothesized causal

relationships. Nonetheless, the structural model assessment can be carried out after validating the measurement model and achieving an acceptable model fit by using the CFA (Hair et al., 2010).

After presenting the structural model in a path diagram, it can be predicted and evaluated by checking its GoF measures using the Chi-square (χ^2) value and at least one of absolute and incremental fit index. Additionally, the CFA and structural model fits should be compared to ensure that the structural model fits the data. The structural model should have a higher χ^2 value than the overall CFA because it must account for all nexus between constructs (Hair et al., 2010). Throughout this research, the researcher wanted to look at the causal link between independent and dependent factors. The determinants that impact academicians at private IHEIs' intention to engage in the FTP were determined as a result of this assessment and its modification processes.

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3.13.3.4 Examing the Moderating Effect of Institutional Trust

The final procedure in data analysis is determining the moderating effects on the relationship between two variables (exogenous and endogenous) (Hair et al., 2010). The relationship path between the independent variables (ATT, SN, PBC, HBA, and FC) and the dependent variable of behavioural intention to participate in FTP is depicted in the figure below, with institutional trust serving as a moderator.

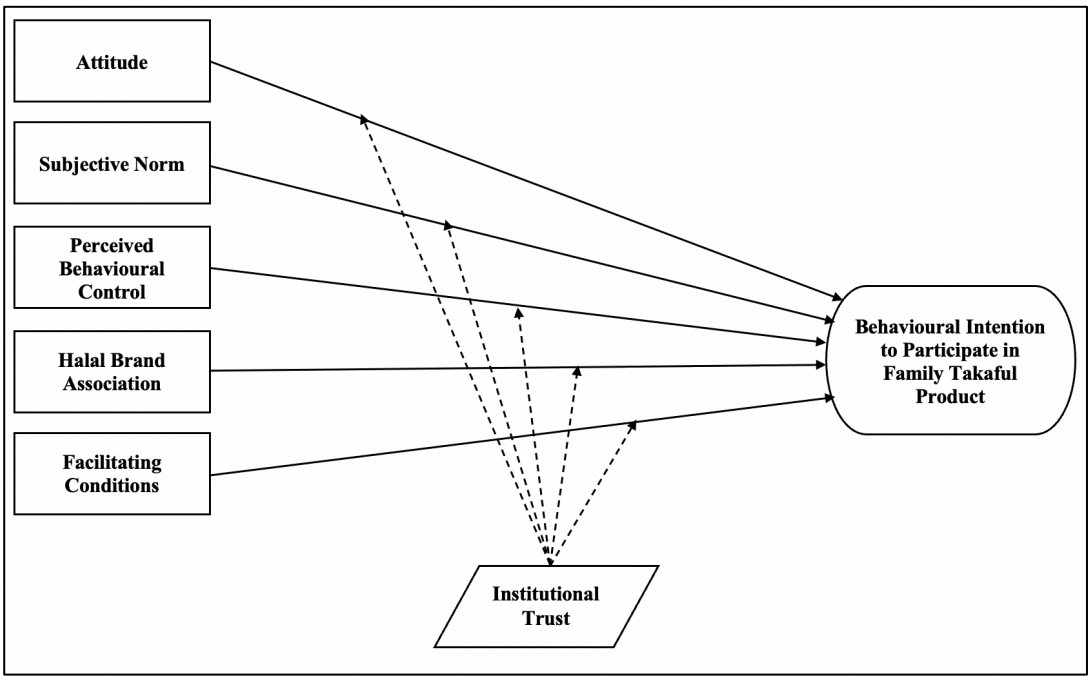

Figure 26 Moderating Effect of Institutional Trust

Source: Author's

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Analyzing the moderating effects in a model with latent constructs is time-consuming. The conventional modelling procedure involving interaction terms with latent constructs is unsuitable because it would result in model convergence issues and distortion of standard errors. Finally, this results in a model misfit, and the procedure terminates. Alternatively, the Multi-Group CFA has been proposed to determine the moderator variable's effect in the model. The researcher needs to specify the path of interest and the moderator variable. With parameter = 1, this particular path is constrained, and the model is referred to as the constrained model. Two models will be estimated independently by the procedure. The first is a constrained model, and the second is an unconstrained model.

Both models were tested to determine their indices of model fit by using CFI and RMSEA values. The chi-square difference ($\Delta\chi^2$) between the unconstrained and

constrained models is computed to estimate whether the moderator variable significantly affects the relationship between the constructs. The existence of moderating effect between models can be proved when there is a statistically significant difference. This indicator also indicates that the model fits significantly better when creating a separate path. On the other hand, there is no moderating effect exists if the models are not statistically significantly different. To put it another way, to support the hypothesis of a moderator, the researcher must check out the path estimates of the two models' significant differences (Hair et al., 2010).

3.14 Conclusion

This study aimed to determine the factors influencing the academicians in Malaysian private Islamic universities to participate in the FTP. The study's findings will benefit takaful industry players (company and agent) to develop effective strategies for offering and marketing products. A questionnaire based on the theory of planned behaviour literature was distributed to randomly selected academicians at private Islamic universities in Malaysia. The AMOS procedure used statistical analysis to examine the proposed hypotheses in this study and accomplish the research objectives.

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CHAPTER FOUR

FINDING AND DISCUSSION

4.1 Introduction

This chapter shows the data analysis and findings of the study, which consists of three major components. Firstly, the preliminary results describe outliers, descriptive, common method bias, Kaiser-Meyer-Olkin (KMO) & Bartlett Test and correlation analysis.

Later, the measurement model assessment is conducted, which will be presented in the second component of this chapter. This assessment procedure comprises Confirmatory Factor Analysis (CFA), data normality test, reliability test, validity test, and model fit assessment. All CFA procedures are examined using Analysis of Moment Structures (AMOS) software version 24.

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The last component of this chapter presents the structural model assessment procedures, which include the hypotheses and moderating effect analyses.

4.1 Preliminary Analysis

The data-gathering process was conducted after conducting the field test to evaluate construct reliability and confirm content validity. 272 questionnaires with responses were collected through the data collection. These response rates are equivalent to 93 percent of 292 distributed questionnaires.

Following the completion of the questionnaire collection, the indicated data coding for each item (e.g., ATT1, ATT2) was used to enter the data into the SPSS software version 26. Before further investigation, missing data and input errors were conducted. For inclusion in the research analysis, each respondent had to complete more than 75 percent of the questionnaire (Sekaran & Bougie, 2013). As a result, all 272 responses completed all of the questionnaires. Thus, all 272 responses are included for the further analysis.

4.1.1 Outliers Analysis

An analysis of outliers was conducted to find cases with scores significantly different from all other data sets (Byrne, 2010). Boxplot analysis was carried out using SPSS version 26, and specific extreme points were discovered for some variables. Further examination of the extreme points for each variable showed that these observations were still valid and were not the result of incorrect responses from the respondents. Additionally, Gaskin (2016) said that respondents who react to questions using an acute scale of 1 or 10 would not indicate outlier behaviour; hence, outliers do not emerge for questionnaires that use Likert-scale items. Therefore, it was deemed that there were no extreme outliers in the dataset and that all items should be kept for future investigations (refer to the Appendix – Outlier results).

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4.1.2 Descriptive Analysis

The respondents must respond to several questions in Section A of the questionnaire regarding their demographic background, including their gender, marital status, age, education level, monthly income, year of employment with the institution, name of the institution, and experiences with takaful products.

Table 22 summarizes the respondents' demographic profiles. 272 respondents cooperated in the field test by returning the questionnaires. The sample was diverse in several aspects. First of all, approximately 40 percent (107) of the sample was male, and 60 percent (165) were female. More than half of the respondents are married, 225 (82.7 percent), and another 17.3 percent (47) are single. In terms of age, 15.8 percent (43) of the respondents were between 21 and 30 years old, 44.9 percent (122) were between 31 and 40 years old, 27.9 percent (76) were between 41 and 50 years old, and 11.4 percent (31) were over 50 years old.

Table 22 Demographic Profile of the Respondents

Demographic Item	**Frequency**	**(%)**
Gender		
Male	107	39.3
Female	165	60.7
Marital Status		
Single	47	17.3
Married	225	82.7
Age		
21 – 30 years	43	15.8
31 – 40 years	122	44.9
41 – 50 years	76	27.9
> 50 years	31	11.4
Highest Education Level		
Bachelor's degree	33	12.1

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Master's degree	153	56.3
PhD	86	31.6
Monthly Income		
RM2501 – RM4000	97	35.7
RM4001 – RM5500	60	22.1
> RM5501	115	42.3
Year of Services		
Less than five years	112	41.2
6 – 10 years	59	21.7
11 – 15 years	51	18.8
16 – 20 years	19	7.0
> 21 years	31	11.4
Name of Institution		
UIS	77	28.3
AIU	11	4.0
INCEIF	6	2.2
UniSHAMS	47	17.3
USAS	59	21.7
UniPSAS	31	11.4
UNIMEL	41	15.1

Source: Author's

Furthermore, in terms of education level, 12.1 percent (33) of the respondents were bachelor's degree holders, 56.3 percent (153) were master's degree holders, and the rest of 31.6 percent (86) were Ph.D. holders. Regarding their monthly income, 35.7 percent (97) are between RM2501 and RM4000, 22.1 percent (60) are between

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RM4001 and RM5500, and 42.3 percent (115) are more than RM5501. In terms of the number of years of service, almost half of the respondents, 41.2 percent (112) are working less than five years, followed by 21.7 percent (59) between 6 and 10 years, 18.8 percent (51) between 11 and 15 years, 7 percent (19) were between 16 and 20 years, and 11.4 percent (31) were more than 20 years.

The next of respondents' demographic profiles is the name of the institution. The analysis indicates 28.3 percent (77) of respondents were from UIS, 4 percent (11) from AIU, 2.2 percent (6) from INCEIF, 17.3 percent (47) from UniSHAMS, 21.7 percent (59) from USAS, 11.4 percent (31) from UniPSAS and 15.1 percent (41) from UNIMEL.

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4.1.3 Common Method Bias

The data for this study is collected from the academicians at Malaysia's private Islamic universities by utilizing a series of questionnaires and a self-reporting process simultaneously. The problem of Common Method Variance, which refers to the investigation of systematic measurement error that could produce biases in the estimates of the relationship between constructs, may arise because the respondent providing the measures for both exogenous and endogenous variables is essentially the same person (Podsakoff et al., 2003).

The Harman single-factor test, which employs an exploratory approach to factor analysis by loading all variables into a single factor and analyzing its unrotated factor solution, is one method for determining the common method bias (Podsakoff et al., 2003). Suppose the value of the common latent component surpasses more than 50

percent of the variance; common method bias is deemed to be present (Eichhorn, 2014). The Harman single-factor test was then used in this investigation, and the total variance retrieved when all the items were restricted to one factor was 46.053 percent, which was lower than the recommended value of 50 percent. As a result, the threats of common method bias were absent from the collected data. The table below illustrates the total variance extracted for common method bias analysis.

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Table 23 Results for Harman Single-Factor of Common Method Bias

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**
1	25.79	46.053	46.053	25.79	46.053	46.053
2	3.901	6.966	53.019			
3	3.63	6.481	59.501			
4	2.695	4.812	64.313			
5	2.169	3.874	68.186			
6	1.753	3.13	71.317			
7	1.557	2.781	74.098			
8	1.343	2.399	76.497			
9	1.171	2.091	78.588			
10	1.076	1.921	80.509			
11	0.895	1.598	82.107			
12	0.82	1.464	83.572			
13	0.601	1.073	84.644			
14	0.551	0.984	85.629			
15	0.496	0.885	86.514			
16	0.473	0.845	87.359			
17	0.446	0.797	88.156			
18	0.434	0.776	88.931			
19	0.371	0.663	89.595			
20	0.357	0.637	90.232			
21	0.341	0.61	90.842			

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22	0.326	0.583	91.424
23	0.321	0.572	91.997
24	0.303	0.54	92.537
25	0.275	0.49	93.027
26	0.263	0.469	93.496
27	0.249	0.444	93.941
28	0.228	0.407	94.348
29	0.225	0.402	94.749
30	0.217	0.388	95.137
31	0.196	0.35	95.487
32	0.183	0.328	95.814
33	0.175	0.313	96.127
34	0.17	0.304	96.43
35	0.158	0.283	96.713
36	0.149	0.266	96.98
37	0.143	0.255	97.234
38	0.131	0.234	97.469
39	0.121	0.216	97.685
40	0.12	0.214	97.899
41	0.116	0.206	98.105
42	0.11	0.197	98.302
43	0.104	0.186	98.488
44	0.097	0.172	98.66
45	0.09	0.161	98.821
46	0.08	0.143	98.964

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47	0.079	0.141	99.105
48	0.075	0.134	99.239
49	0.071	0.127	99.366
50	0.064	0.114	99.48
51	0.06	0.107	99.587
52	0.056	0.099	99.686
53	0.051	0.09	99.776
54	0.048	0.085	99.862
55	0.043	0.077	99.939
56	0.034	0.061	100

Extraction Method: Principal Component Analysis.

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4.1.4 Kaiser-Meyer-Olkin & Bartlett Test

The seven factors included in the study's framework were five independent variables (ATT, SN, PBC, HBA, FC), one dependent variable (INT), and one mediator variable (IT). The Theory of Planned Behavior (TPB), extensively utilized and validated to analyze consumer intention to participate in the FTP, was used to develop the exogenous and endogenous variables. However, new items based on literature were created for the mediator variable of IT. To explain the pattern of relationships within a collection of observable variables, factor analysis was performed using SPSS version 26 (Mohd Rafi, 2011).

Table 24 Test of sampling adequacy

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.945
Bartlett's Test of Sphericity	Approx. Chi-Square	18,067.937
	df	1540
	Sig.	0.000

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Table 25 Communalities (Factor Analysis)

Constructs & Indicators	**Factor Loadings (>0.50)**						
	INT	**ATT**	**SN**	**PBC**	**HBA**	**FC**	**IT**
Item 1	0.815	0.698	0.891	0.838	0.814	0.767	0.764
Item 2	0.846	0.628	0.863	0.749	0.849	0.846	0.846
Item 3	0.893	0.740	0.898	0.682	0.838	0.853	0.868
Item 4	0.909	0.697	0.856	0.649	0.829	0.862	0.847
Item 5	0.891	0.823	0.884	0.807	0.693	0.795	0.835
Item 6	0.926	0.719	0.908	0.847	0.690	0.816	0.788
Item 7	0.911	0.639	0.884	0.789	0.880	0.757	0.773
Item 8	0.760	0.774	0.771	0.637	0.823	0.812	0.821

Extraction Method: Principal Component Analysis

As shown in Table 24, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy had a value of 0.945, higher than the suggested value of 0.6. (Mohd Rafi, 2011). This result shows that the study complied with an adequate sample size requirement. The Bartlett's Test of Sphericity result was also significant ($p<0.05$), indicating that the data were appropriate for factor analysis. Additional analysis in Table 25 revealed values for commonalities that reflected an estimate of the variation among the components' variables (Hair et al., 2010). When the commonality value is greater than 0.6, the variable has much in common with the other variables considered as a whole.

Meanwhile, the variable should be eliminated when the communality value is smaller. Referring to the above table, no items record a communality value smaller than 0.60. If the KMO value is above 0.6 and the significance level for Bartlett's test is below 0.05, it indicates a significant correlation in the data. Nevertheless, Hair et al. (2010) suggested that Confirmatory Factor Analysis (CFA) is still needed to confirm the acceptance or rejection of the items.

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4.2.3 Correlation Analysis

A measurement of the linear correlation between two variables that are measured using the same interval or ratio scale is called Pearson's correlation. A value between positive 1 and negative 1 represents this relationship, where 1 is a total positive correlation, 0 is no correlation, and negative 1 is a total negative correlation. According to Sekaran (2013), correlation coefficients less than 0.3 can signify a tiny or weak relationship, while those larger than 0.3 but less than 0.5 indicate a moderate or medium correlation, and those greater than 0.5 signify a large and robust relationship. The table below represents the findings of Pearson's correlation analysis.

Table 26 Results for Correlation Analysis

Construct	ATT	SN	PBC	HBA	FC	IT	INT
ATT	1	.456**	.523**	.646**	.422**	.623**	.635**
SN	.456**	1	.443**	.366**	.420**	.430**	.446**
PBC	.523**	.443**	1	.611**	.566**	.610**	.598**
HBA	.646**	.366**	.611**	1	.567**	.751**	.576**
FC	.422**	.420**	.566**	.567**	1	.645**	.444**
IT	.623**	.430**	.610**	.751**	.645**	1	.619**
INT	.635**	.446**	.598**	.576**	.444**	.619**	1

***. Correlation is significant at the 0.01 level (2-tailed).*

The table above illustrates the results of correlation analysis between the independent variables of attitude, subjective norms, perceived behavioural control, halal brand association and facilitating conditions and the dependent variable, namely behavioural intention to participate in the FTP. The results indicated that all independent variables positively correlate with the behavioural intention to participate in the FTP. The positive correlation suggests that as one variable increases, so will the other variable. An opposite relationship between the variables is indicated by a negative correlation, which means that when one variable decreases, the other increases. Attitude has recorded the highest correlation value at 0.635, followed by institutional trust (0.619), perceived behavioural control (0.598), halal brand association (0.576) and subjective norms (0.446) and facilitating conditions (0.444).

Table 27 Summary of Relationship between Variables

Construct	INT	Relationship
Attitude (ATT)	.635**	High
Subejctive Norms (SN)	.446**	Moderate

Perceived Behavioural Control (PBC)	.598**	Moderate
Halal Brand Association (HBA)	.576**	Moderate
Facilitating Conditions (FC)	.444**	Moderate
Institutional Trust (IT)	.619**	High

The above table illustrates the summary of the relationship between the independent variables on the dependent variable. The findings betray a moderate correlation between subjective norms, perceived behavioural control, halal brand association and facilitating conditions on the intention. Meanwhile, two independent variables, attitude and institutional trust, indicated a high correlation toward the dependent variable.

4.3 Measurement Model Assessment

The next part of the thesis presents the measurement model assessment, which includes the Confirmatory Factor Analysis (CFA), normality, reliability, validity and model fit using Analysis of Moment Structures (AMOS) software version 24.

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4.3.1 Confirmatory Factor Analysis

Seven variables or constructs were included in this study's research framework. The exogenous factors in the framework are ATT, SN, PBC, HBA, and FC. The moderating variable is IT, and the endogenous variable is INT. Additionally, a brand-new Institutional Trust (IT) variable was created to serve as the study's moderator variable. Confirmatory factor analysis (CFA), as recommended by Hair et al. (2010), is carried out to demonstrate how measured variables combine to represent constructs and to evaluate the model's goodness of fit (GOF), normality, reliability, and validity.

These measurements need to be conducted before further evaluation of the hypothesized relationships can be carried out. After that, CFA is carried out in two stages: (1) each construct is specified into a congeneric measurement model to evaluate its unidimensionality, which includes the statistical significance of parameter estimates and overall fit (Hair et al., 2010); (2) all constructs of the research framework are evaluated in a complete measurement model to determine its model fit (Byrne, 2010). A properly limited model should satisfy construct validity criteria because a congeneric measurement model hypothesizes no covariance within the construct error variance (Hair et al., 2010). The list of items for each construct is shown in the previous chapter, and the CFA findings for the particular variables are shown in the next section.

4.3.1.1 Intention to Participate in Family Takaful Product

Eight items are adapted for the dependent variable of intention to participate in Family Takaful Product (FTP). The items were adapted from Madden et al. (1992), Maduku (2016), Md Husin et al. (2016) and Taylor & Todd (1995). As presented in Table 28 and Figure 26, all the standardized factor loadings were higher than the recommended value of 0.60, and the standardized parameter estimates were all significant ($p<0.05$).

Table 28 Congeneric Measures of Intention

Items			Estimate	S.E.	C.R.	P	Estimates
INT1	<---	INT	1.000				0.870
INT2	<---	INT	1.041	0.048	21.625	***	0.896
INT3	<---	INT	1.055	0.045	23.533	***	0.930
INT4	<---	INT	1.088	0.044	24.501	***	0.945
INT5	<---	INT	1.089	0.045	24.084	***	0.939
INT6	<---	INT	1.148	0.045	25.346	***	0.958
INT7	<---	INT	1.133	0.046	24.770	***	0.949

INT8	<---	INT	0.939	0.053	17.805	***	0.812

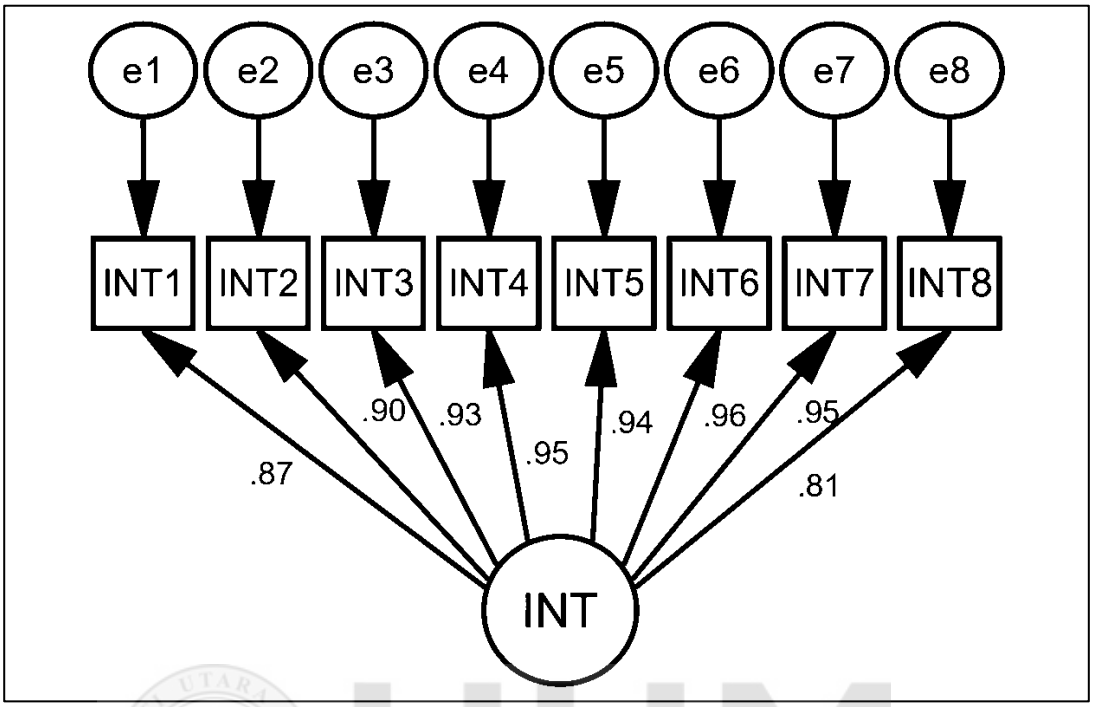

Figure 27 Congeneric Measures of Intention

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4.3.1.2 Attitude

Eight items are adapted for the first Attitude (ATT) independent variable. The items were adapted from Bhatti & Md Husin (2019), Taylor & Todd (1995) and Shih & Fang (2004). As presented in Table 29 and Figure 27, all the standardized factor loadings were higher than the recommended value of 0.60, and the standardized parameter estimates were all significant ($p<0.05$). Only an item (ATT7) has a factor loading lower than 0.60, recorded at 0.589. With the aid of further CFA analysis utilizing the full measurement model, the choice of whether to maintain or reject this item with low standardized factor loadings can be made.

Table 29 Congeneric Measures of Attitude

Items	Estimate	S.E.	C.R.	P	Estimates

ATT1	<---	ATT	1.000				0.797
ATT2	<---	ATT	1.035	0.086	11.978	***	0.676
ATT3	<---	ATT	1.012	0.065	15.576	***	0.828
ATT4	<---	ATT	1.065	0.073	14.497	***	0.785
ATT5	<---	ATT	1.156	0.064	17.961	***	0.916
ATT6	<---	ATT	0.826	0.077	10.685	***	0.615
ATT7	<---	ATT	0.914	0.090	10.170	***	*0.589*
ATT8	<---	ATT	1.092	0.064	17.104	***	0.885

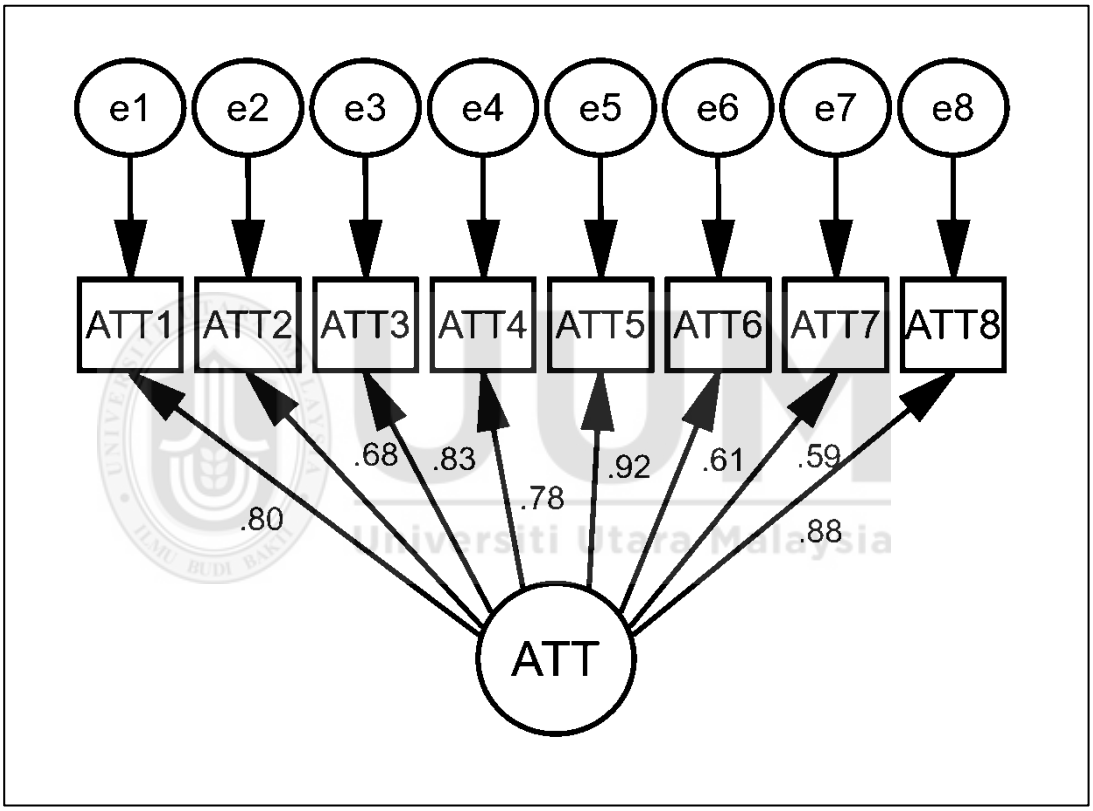

Figure 28 Congeneric Measures of Attitude

4.3.1.3 Subjective Norms

Eight items are adapted for the second independent variable of Subjective Norms (SN). The items were adapted from Md Husin et al. (2016) and Taylor & Todd (1995). As presented in Table 30 and Figure 28, five of the standardized factor loadings were lower than the recommended value of 0.60 (SN4 = 0.534, SN5 = 0.547, SN6 = 0.552,

SN7 = 0.547, SN8 = 0.476) even though the items show significant standardized parameter estimates ($p<0.05$). The decision to keep or discard these items with low standardized factor loadings was made with the help of additional CFA analysis utilizing the full measurement model.

Table 30 Congeneric measures of subjective norm

	Items		Estimate	S.E.	C.R.	P	Estimates
SN1	<---	SN	1.000				0.880
SN2	<---	SN	0.840	0.045	18.487	***	0.840
SN3	<---	SN	1.008	0.045	22.284	***	0.930
SN4	<---	SN	0.533	0.056	9.475	***	*0.534*
SN5	<---	SN	0.546	0.056	9.766	***	*0.547*
SN6	<---	SN	0.524	0.053	9.858	***	*0.552*
SN7	<---	SN	0.490	0.050	9.748	***	*0.547*
SN8	<---	SN	0.457	0.056	8.235	***	*0.476*

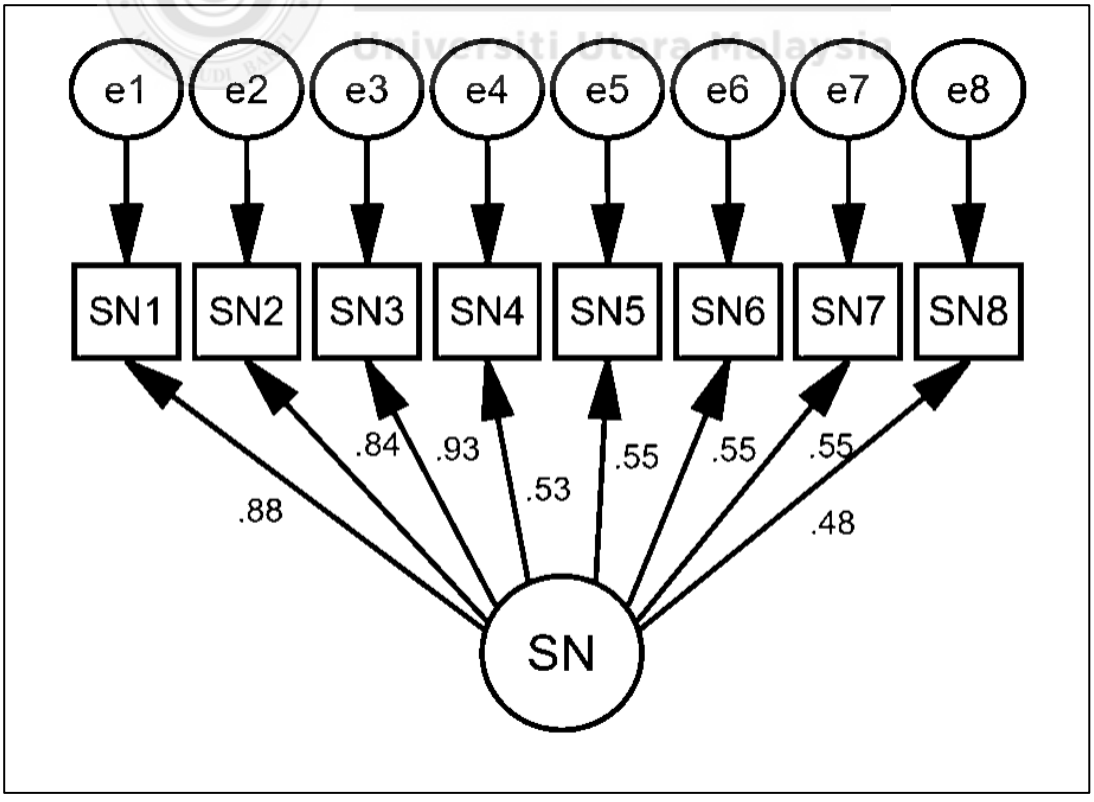

Figure 29 Congeneric Measures of Subjective Norm

4.3.1.4 Perceived Behavioural Control

Eight items are adapted for the third independent variable of Perceived Behavioural Control (PBC). The items were adapted from Bhatti & Md Husin (2019), Compeau & Higgins (2017), Tan & Teo (2000) and Taylor & Todd (1995). Based on Table 31 and Figure 29, all the standardized factor loadings were higher than the recommended value of 0.60, and the standardized parameter estimates were all significant ($p<0.05$).

Table 31 Congeneric Measures of Perceived Behavioural Control

Items			Estimate	S.E.	C.R.	P	Estimates
PBC1	<---	PBC	1.000				0.806
PBC2	<---	PBC	1.005	0.070	14.323	***	0.791
PBC3	<---	PBC	0.904	0.069	13.110	***	0.738
PBC4	<---	PBC	0.802	0.063	12.799	***	0.724
PBC5	<---	PBC	1.092	0.082	13.346	***	0.749
PBC6	<---	PBC	0.895	0.087	10.241	***	0.603
PBC7	<---	PBC	1.070	0.079	13.483	***	0.755
PBC8	<---	PBC	0.822	0.072	11.487	***	0.664

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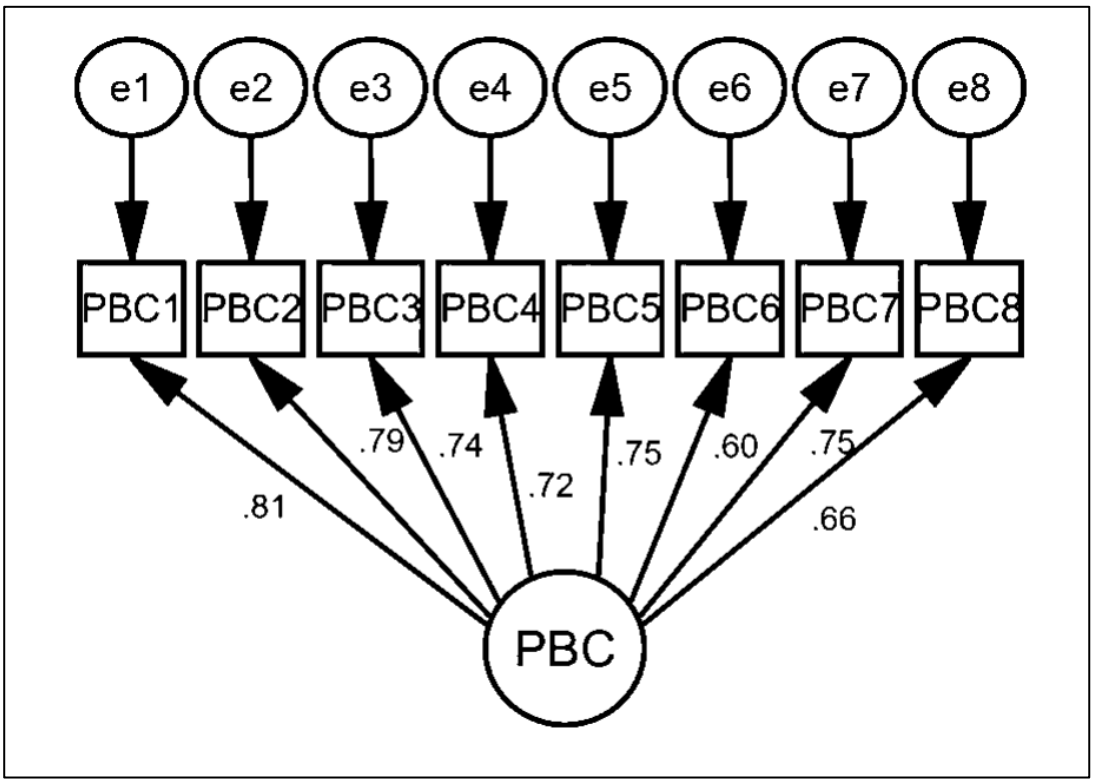

Figure 30 Congeneric Measures of Perceived Behavioural Control

4.3.1.5 Halal Brand Association

Eight items are adapted for the fourth independent variable of the Halal Brand Association (HBA). The items were adapted from Maulan et al. (2016) and Othman & Owen (2001). As presented in Table 32 and Figure 30, all the standardized factor loadings were higher than the recommended value of 0.60, and the standardized parameter estimates were all significant ($p<0.05$).

Table 32 Congeneric measures of halal brand association

Items			Estimate	S.E.	C.R.	P	Estimates
HBA1	<---	HBA	1.000				0.874
HBA2	<---	HBA	1.058	0.048	22.027	***	0.905
HBA3	<---	HBA	1.028	0.048	21.391	***	0.893
HBA4	<---	HBA	1.044	0.050	20.962	***	0.885
HBA5	<---	HBA	0.898	0.063	14.226	***	0.712

HBA6	<---	HBA	0.997	0.064	15.679	***	0.757
HBA7	<---	HBA	1.003	0.044	22.973	***	0.921
HBA8	<---	HBA	0.944	0.045	20.927	***	0.884

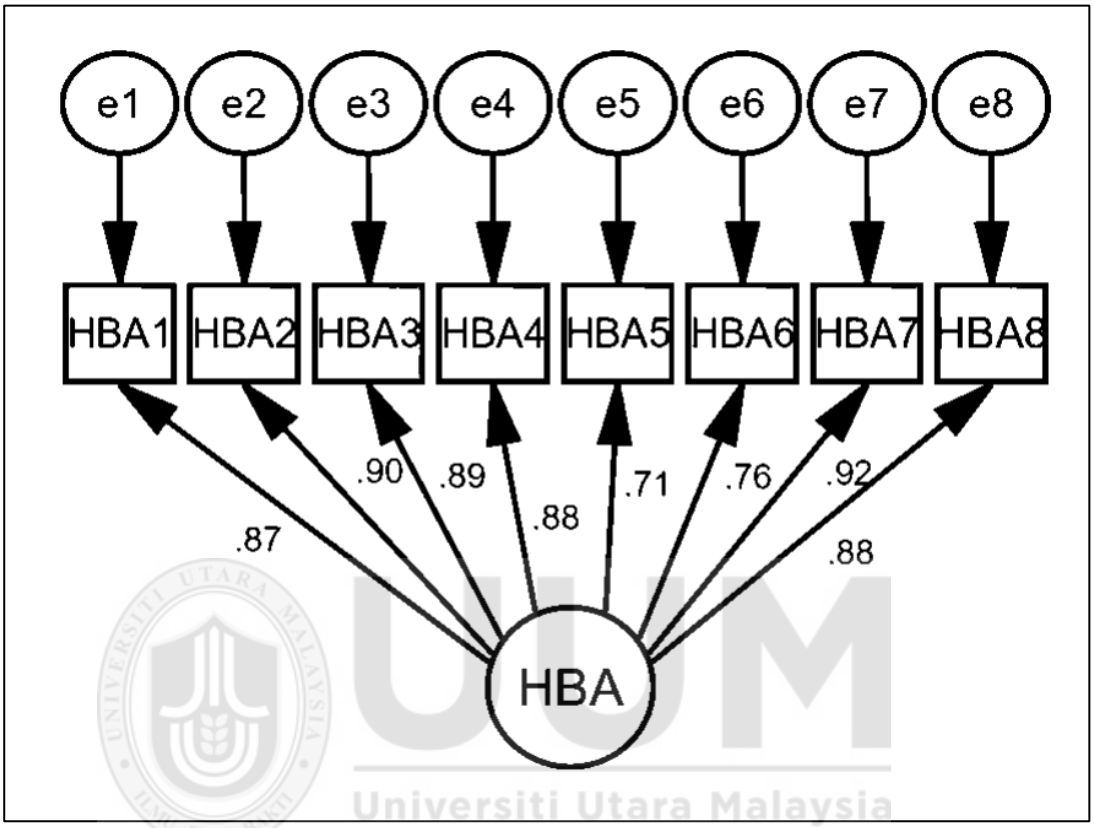

Figure 31 Congeneric Measures of Halal Brand Association

4.3.1.6 Facilitating Condition

Eight items are adapted for the fifth independent variable of Facilitating Condition (FC). The items were adapted from Baptista & Oliveira (2015), Chauhan & Jaiswal (2016), Tan & Teo (2000), Taylor & Todd (1995) and Venkatesh et al. (2012). As presented in Table 33 and Figure 31, all the standardized factor loadings were higher than the recommended value of 0.60, and the standardized parameter estimates were all significant ($p<0.05$).

Table 33 Congeneric measures of facilitating conditions

Items			Estimate	S.E.	C.R.	P	Estimates
FC1	<---	FC	1.000				0.829
FC2	<---	FC	1.202	0.061	19.794	***	0.910
FC3	<---	FC	1.209	0.060	20.287	***	0.922
FC4	<---	FC	1.208	0.059	20.531	***	0.928
FC5	<---	FC	1.119	0.062	18.011	***	0.862
FC6	<---	FC	1.125	0.061	18.518	***	0.876
FC7	<---	FC	1.083	0.068	15.968	***	0.799
FC8	<---	FC	1.142	0.063	18.116	***	0.865

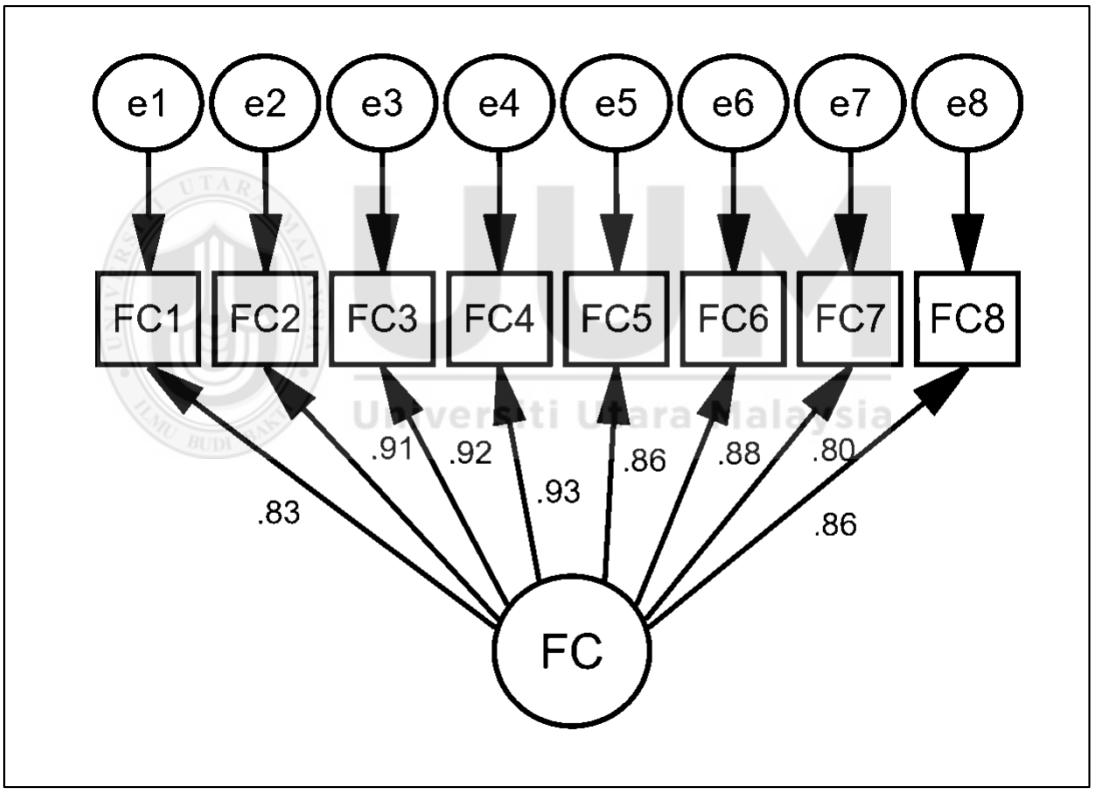

Figure 32 Congeneric Measures of Facilitating Conditions

4.3.1.7 Institutional Trust

Eight items are adapted for the moderating effect of Institutional Trust (IT). The items were adapted from Ennew et al. (2011) and Moin et al. (2015). As presented in Table 34 and Figure 32, all the standardized factor loadings were higher than the

recommended value of 0.60, and the standardized parameter estimates were all significant ($p<0.05$).

Table 34 Congeneric Measures of institutional trust

Items			Estimate	S.E.	C.R.	P	Estimates
IT1	<---	IT	1.000				0.853
IT2	<---	IT	1.088	0.056	19.475	***	0.872
IT3	<---	IT	1.074	0.052	20.492	***	0.896
IT4	<---	IT	1.104	0.049	22.597	***	0.939
IT5	<---	IT	1.142	0.052	22.014	***	0.927
IT6	<---	IT	1.080	0.055	19.731	***	0.878
IT7	<---	IT	1.028	0.058	17.778	***	0.830
IT8	<---	IT	1.020	0.057	18.015	***	0.836

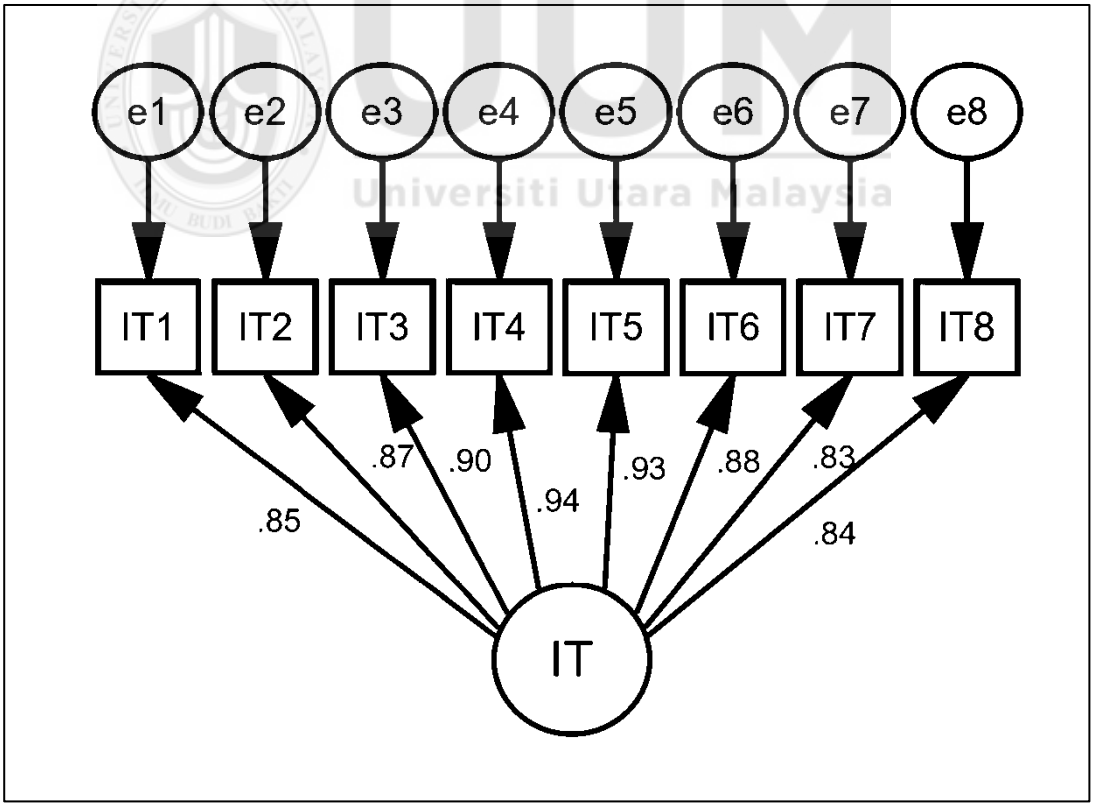

Figure 33 Congeneric Measures of Institutional Trust

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4.3.1.8 Pooled Measurement Model

After completing the congeneric measurements for all the constructs, a full measurement model CFA that included all the constructs mentioned in the research framework was conducted. To examine how effectively measured variables represent a minimal number of constructs, the estimates for the constructs are correlated using two-headed arrows (Hair et al., 2010). The CFA was conducted using a pooled measurement model to evaluate the normality, reliability, validity, and overall model fit.

The first pooled measurement model consists of a dependent variable (INT), five independent variables (ATT, SN, PBC, HBA, FC) and a moderating variable (IT), 56 observed variables and 63 unobserved variables with all of the associated items. The standardized factor loading estimates for each of the constructs are shown in Table 35. Factor loadings for an established indicator should be at least 0.60 to confirm that the indicators are substantially related to the associated constructs, as Awang (2015) recommended. The CFA results showed that, except for items ATT7 (0.589), SN4 (0.544), SN5 (0.562), SN6 (0.571), SN7 (0.567), SN8 (0.495) and PBC6 (0.594), all standardized factor loadings were above 0.60. The items with lower factor loading are suggested that these items would make suitable candidates for model item deletion. The same table also indicates that the fitness indexes (GFI = 0.637 and CFI = 0.807) have not achieved their accepted value of >0.90.

Table 35 The standardized factor loading of the pooled measurement model

Constructs & Indicators	Standardized Factor Loadings (>0.60)					
	INT	**ATT**	**SN**	**PBC**	**HBA**	**FC**
Item 1	0.872	0.798	0.870	0.803	0.878	0.834

Item 2	0.895	0.676	0.844	0.796	0.903	0.911
Item 3	0.931	0.827	0.917	0.747	0.890	0.924
Item 4	0.946	0.788	*0.544*	0.733	0.884	0.927
Item 5	0.938	0.915	*0.562*	0.734	0.720	0.860
Item 6	0.956	0.611	*0.571*	*0.594*	0.759	0.875
Item 7	0.948	*0.589*	*0.567*	0.755	0.920	0.796
Item 8	0.816	0.885	*0.495*	0.665	0.883	0.864
RMSEA	0.098					
GFI	*0.637*					
CFI	*0.807*					
Chisq/df	3.623					

As Awang (2015) suggested, items with lower factor loading values must be deleted from the model to achieve fitness indexes. Therefore, to cater to the unachieved fitness index, the CFA approach was used to conduct additional analysis after the seven items with factor loadings of less than 0.60 were removed (ATT7, SN4, SN6, SN5, SN7, SN8 & PBC6). The item deletion is done one by one at a time with the lowest factor loading value. The step will be repeated until the model achieves its model fit. Table 36 and Figure 34 below illustrate the result of CFA after the seven items and the one sequential items (ATT6) with lower factor loading have been deleted.

Table 36 The standardized factor loading with the deleted items

Constructs & Indicators	**Standardized Factor Loadings (>0.60)**					
	INT	**ATT**	**SN**	**PBC**	**HBA**	**FC**
Item 1	0.872	0.795	0.910	0.846	0.878	0.834
Item 2	0.895	0.685	0.851	0.836	0.902	0.911
Item 3	0.931	0.820	0.935	0.758	0.891	0.924
Item 4	0.946	0.790	*Deleted*	0.734	0.884	0.927
Item 5	0.938	0.923	*Deleted*	0.682	0.719	0.860
Item 6	0.956	*Deleted*	*Deleted*	*Deleted*	0.758	0.875

Item 7	0.948	*Deleted*	*Deleted*	0.707	0.921	0.796
Item 8	0.816	0.883	*Deleted*	0.637	0.883	0.864
RMSEA	0.082					
GFI	*0.728*					
CFI	*0.893*					
Chisq/df	2.826					

Table 36 above shows that the measurement model still cannot achieve its fitness index (GFI = 0.672 and CFI = 0.870) even though the items with lower factor loading values were deleted. However, the values for GFI and CFI were increased from the first results of the pooled measurement model. Thus, checking the Modification Index (MI) is needed to be conducted to examine the issue of redundant items. As Awang (2015) suggested, the issue can be found by checking the MI value of more than 15. The MI is illustrated in a redundant pair of items in the model. As suggested, an item from the pair with the lowest factor loading is preferred to be deleted from the model (Awang, 2015). Some pairs of items were found with high MI values (>15). This procedure deleted six items (PBC2, INT3, HBA5, HBA1, FC1 & FC7), leaving the model with 35 observed and 40 unobserved variables. Table 37 and Figure 35 illustrate the second modification of the measurement model.

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Table 37 The standardized factor loading after modification indices checking

Constructs & Indicators	**Standardized Factor Loadings (>0.60)**					
	INT	**ATT**	**SN**	**PBC**	**HBA**	**FC**
Item 1	0.873	0.796	0.909	0.775	*Deleted*	*Deleted*
Item 2	0.890	0.685	0.851	*Deleted*	0.896	0.911
Item 3	*Deleted*	0.819	0.936	0.801	0.902	0.928
Item 4	0.935	0.790	*Deleted*	0.758	0.892	0.926
Item 5	0.942	0.924	*Deleted*	*Deleted*	*Deleted*	0.858
Item 6	0.962	*Deleted*	*Deleted*	*Deleted*	*Deleted*	0.872

Item 7	0.952	*Deleted*	*Deleted*	0.678	0.908	*Deleted*
Item 8	0.819	0.883	*Deleted*	*Deleted*	*Deleted*	0.861
RMSEA	0.069					
GFI	0.802					
CFI	0.932					
Chisq/df	2.301					

Referring to the above table, it can be noted that only one of the indices (CFI) has achieved its fitness which is higher than the suggested value of 0.90 and recorded at 0.932. However, only one of the indexes (GFI = 0.802) has not surpassed its fitness of the recommended value of >0.9, as suggested by Awang (2015). Nevertheless, a previous study by Baumgartner & Homburg (1996) has proved and supported the cut-off of the GFI value at >0.80. Awang (2015) also suggests that the accepted level of factor loading, the degree of fitness indices, and the technique for modifying the measurement model vary in the literature. Thus, taking the cut-off value of >0.80, this study proceeds to the following analysis procedure as the GFI index has surpassed the suggested value of 0.802.

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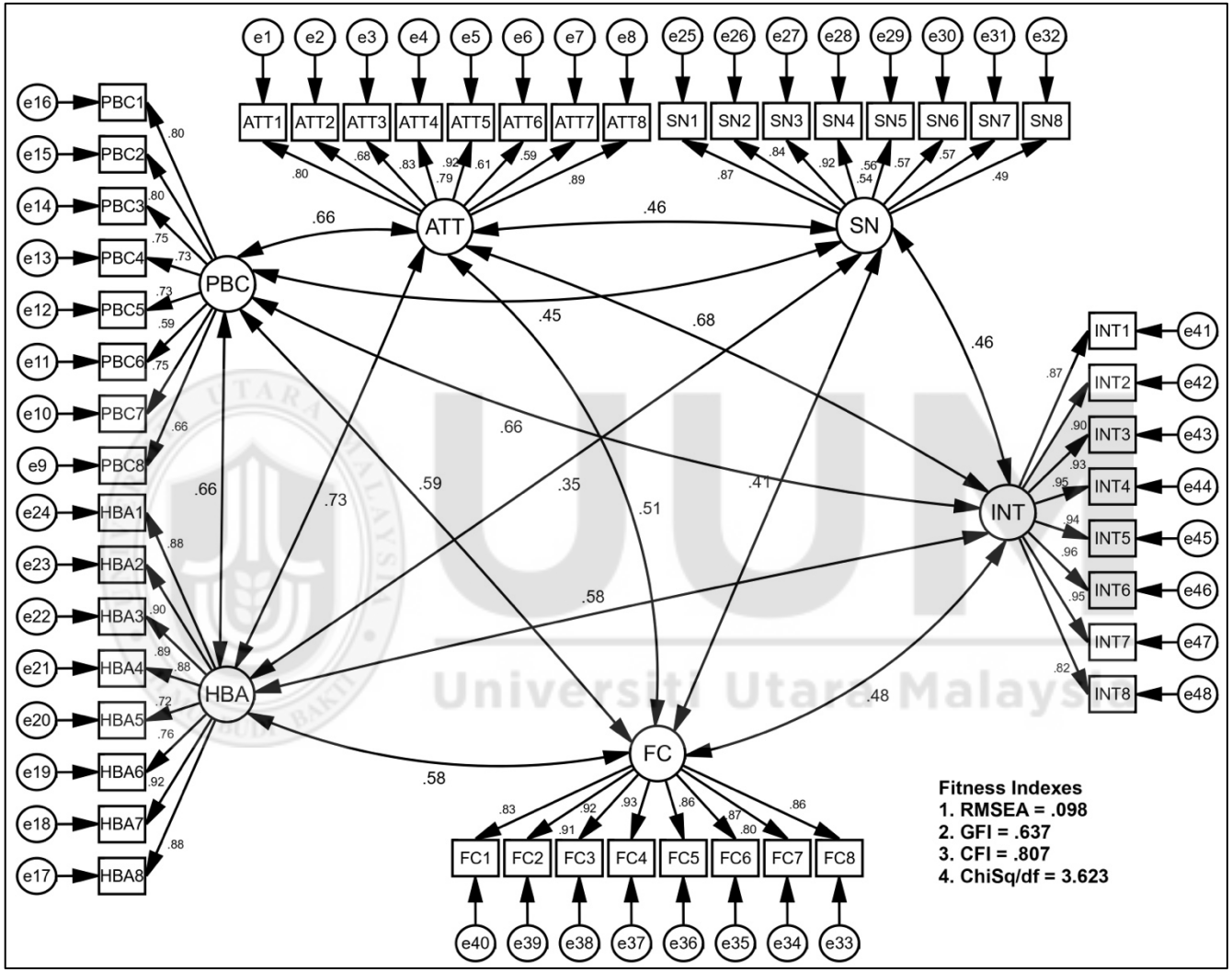

Figure 34 Pooled measurement model before modification

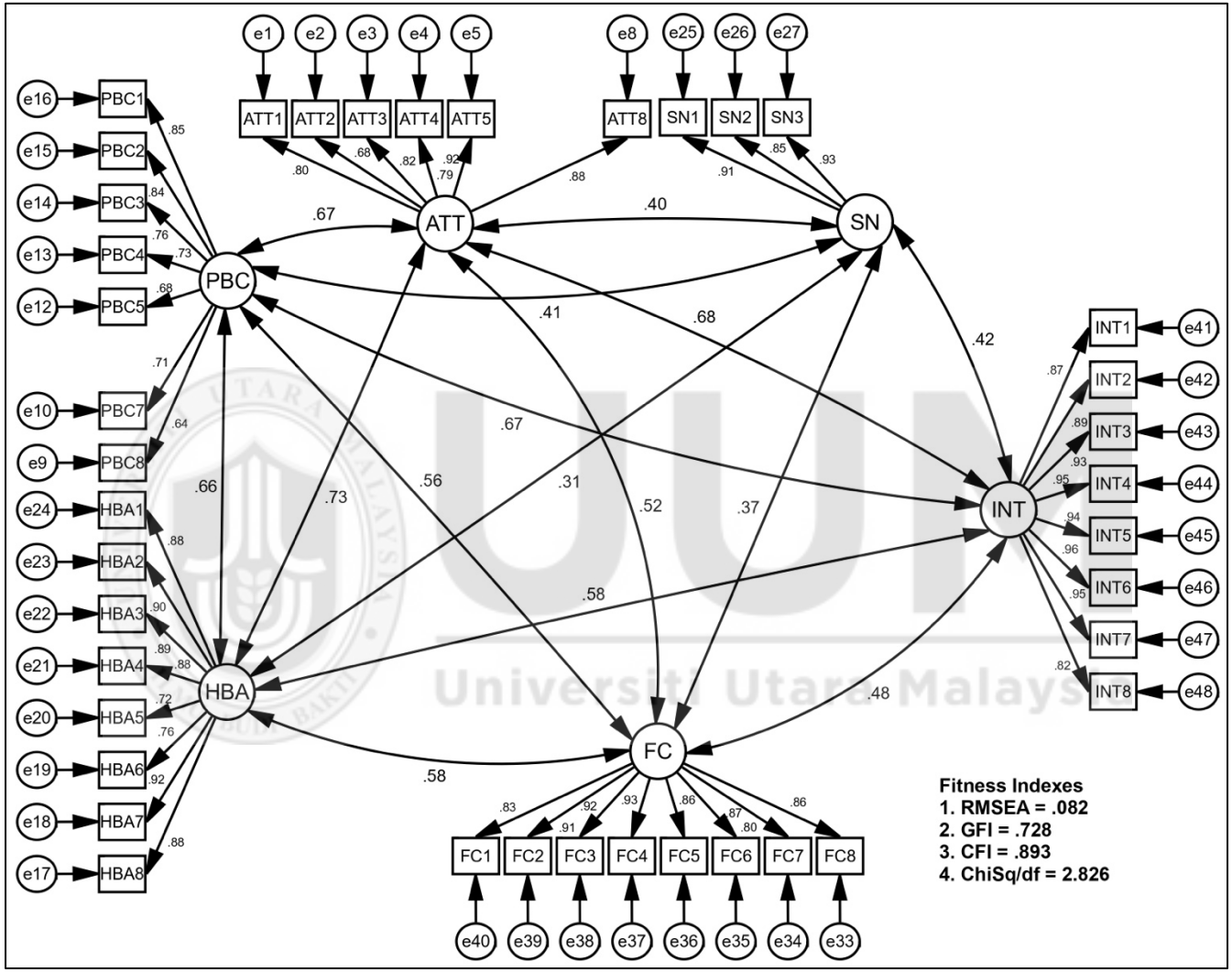

Figure 35 Pooled measurement model after first modification (deletion of lower factor loading)

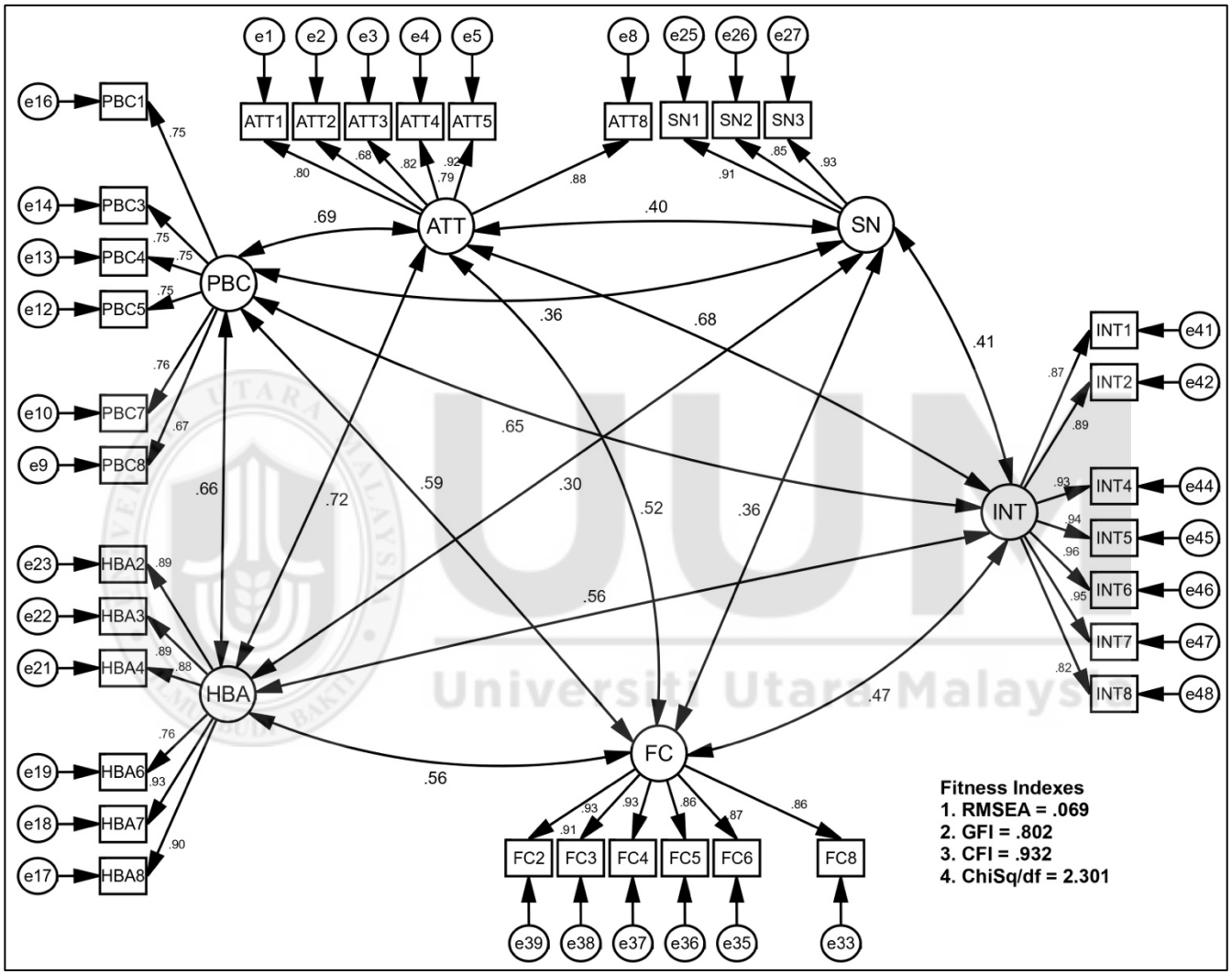

Figure 36 Pooled measurement model after second modification (deletion of redundant items based on MI)

4.3.2 Model Fit

Several Fitness Indexes are used in SEM to measure how well the model fits the available data. However, academics have no consensus regarding the best fitness indices to employ. Holmes-Smith (2006) and Hair et al. (1995, 2010) both advise using at least one fitness index from each category of model fit. There are three model fit categories, including absolute fit, incremental fit, and parsimonious fit.

As suggested by Awang (2015), this study incorporates two fitness indexes from the absolute fit category, which are the Goodness-of-Fit Index (GFI) and Root Mean Square Error of Approximation (RMSEA) with acceptance level for GFI is >0.90 and RMSEA <0.08, respectively. Awang (2015) also suggests that the accepted level of factor loading, the degree of fitness indices, and the technique for modifying the measurement model vary in the literature. Thus, as suggested by Baumgartner & Homburg (1996), this study adopted the cut-off value for GFI at >0.80 (Baumgartner & Homburg, 1996). As for the incremental fit, this study adopts one fitness index: Comparative Fit Index (CFI) and the accepted level at >0.90. Finally, this study incorporates Chisq/df fitness index at an accepted level <5.0 for parsimonious fit. Table 38 below summarizes the chosen fitness indices for each category.

Table 38 The summarizes of the fitness indices for each category

Name of category	Name of index	Level of acceptance	Sources
Absolute fit	RMSEA	RMSEA <0.08	Awang (2015)
	GFI	GFI >0.80	Baumgartner & Homburg (1996)
Incremental fit	CFI	CFI >0.90	Awang (2015)
Parsimonious fit	Chisq/df	Chi-square/df <5.0	Awang (2015)

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Table 39 below illustrates the fitness indices for each category of the study. Considering the suggested value for each fitness index by Awang (2015) and Baumgartner & Homburg (1996), this study achieved and surpassed its acceptance level. As illustrated in the table below, RMSEA was recorded at 0.069, GFI at 0.802, CFI at 0.932 and Chi-square/df at 2.301. These fitness indices suggested that the model fitted the data very well.

Table 39 The results of the fitness indices for each category

Name of category	Name of index	Level of acceptance	Value	Status
Absolute fit	RMSEA	RMSEA <0.08	0.069	Fitted
	GFI	GFI >0.80	0.802	Fitted
Incremental fit	CFI	CFI >0.90	0.932	Fitted
Parsimonious fit	Chisq/df	Chi-square/df <5.0	2.301	Fitted

4.3.3 Univariate and Multivariate Normality

Before building the structural model, the researcher must examine the normalcy test for the available data after reaching the fitness indices. The observed data must be normally distributed to use SEM analysis, which necessitates performing tests for both univariate and multivariate normality. To achieve multivariate normality, each variable must be normal in a univariate sense and all of its combinations (Hair et al., 2010). By evaluating the two metrics, skewness and kurtosis, the obtained data is thought to satisfy univariate normality. Kline (2011) states that the skewness and kurtosis indices should not exceed 3 and 10, respectively. As for the multivariate normality, it requires Mardia's coefficient to be less than p(p+2), where *p* is the number of observed variables (Raykov & Marcoulides, 2008).

Thus, as presented in Table 40, it can be noted that the study's univariate normality for skewness and kurtosis fell within the suggested range for all variables (ATT, SN, PBC, HBA, FC and INT). The calculation for p(p+2) is equal to 35(35+2) = 1,295. Therefore, it's suggested that Mardia's coefficient of multivariate normality lies down on the accepted value at 545.293, which is less than 1,295. Table 40 summarizes for univariate and multivariate normality tests of the model.

Table 40 The results of univariate and multivariate normality test

Variable	min	max	skew	c.r.	kurtosis	c.r.
ATT1	5	10	-0.872	-5.872	-0.119	-0.401
ATT2	4	10	-0.546	-3.677	-0.651	-2.192
ATT3	5	10	-0.515	-3.47	-0.529	-1.78
ATT4	4	10	-0.457	-3.077	-0.645	-2.172
ATT5	5	10	-0.684	-4.604	-0.192	-0.646
ATT8	5	10	-0.91	-6.126	0.067	0.227
FC2	2	10	-0.528	-3.553	-0.373	-1.256
FC3	3	10	-0.428	-2.883	-0.675	-2.271
FC4	3	10	-0.36	-2.422	-0.766	-2.579
FC5	2	10	-0.409	-2.752	-0.454	-1.527
FC6	2	10	-0.478	-3.219	-0.538	-1.813
FC8	3	10	-0.284	-1.914	-1.04	-3.501
HBA2	5	10	-1.021	-6.875	-0.034	-0.114
HBA3	5	10	-0.993	-6.684	-0.116	-0.389
HBA4	5	10	-1.076	-7.243	0.114	0.383
HBA6	3	10	-0.732	-4.927	-0.502	-1.69
HBA7	5	10	-1.004	-6.761	0.097	0.327
HBA8	5	10	-1.133	-7.626	0.342	1.152
INT1	3	10	-0.626	-4.214	-0.252	-0.85
INT2	3	10	-0.851	-5.732	0.194	0.654
INT4	3	10	-0.8	-5.388	0.08	0.27
INT5	4	10	-0.704	-4.743	-0.312	-1.049
INT6	3	10	-0.9	-6.057	0.301	1.012

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INT7	3	10	-0.711	-4.787	-0.247	-0.832
INT8	3	10	-0.697	-4.69	-0.357	-1.203
PBC1	2	10	-0.466	-3.135	-0.518	-1.745
PBC3	2	10	-0.619	-4.164	-0.31	-1.043
PBC4	3	10	-0.671	-4.516	-0.11	-0.372
PBC5	1	10	-0.416	-2.802	-0.603	-2.031
PBC7	1	10	-0.568	-3.826	-0.43	-1.448
PBC8	2	10	-0.452	-3.043	-0.439	-1.477
SN1	1	10	-0.443	-2.985	-0.712	-2.396
SN2	1	10	-0.63	-4.24	-0.28	-0.944
SN3	1	10	-0.519	-3.496	-0.465	-1.564
Multivariate (Mardia's coefficient)					**545.293**	**90.882**

4.3.3 Reliability

Construct reliability is the measure of reliability and internal consistency of the measured variables representing a latent construct (Hair et al., 2010). This construct's reliability must be established before assessing construct validity. Construct reliability can be evaluated through three requirements: Cronbach's alpha coefficient for internal reliability, Average Variance Extracted (AVE) and Composite Reliability (CR).

Hair et al. (2010) recommended that the construct reliability assessment requires Cronbach's alpha value to be higher than 0.70 (Hair et al. 2010). At the same time, Awang (2015) urged the accepted value for AVE and CR at >0.50 and >0.60, respectively (Awang, 2015). As presented in Table 41, Cronbach's alpha values for all variables (ATT, SN, PBC, HBA, FC and INT) constructs were above 0.70, fulfilling the construct reliability requirement.

Table 41 Results for construct reliability of the study

Construct	Item	Factor Loading	Cronbach's Alpha	CR	AVE
Behavioural Intention	INT1	0.873	0.971	0.972	0.831
	INT2	0.890			
	INT4	*Deleted*			
	INT5	0.935			
	INT6	0.942			
	INT7	0.962			
	INT8	0.952			
Attitude	ATT1	0.796	0.920	0.924	0.672
	ATT2	0.685			
	ATT3	0.819			
	ATT4	0.790			
	ATT5	0.924			
	ATT6	*Deleted*			
	ATT7	*Deleted*			
	ATT8	0.883			
Subjective Norm	SN1	0.909	0.925	0.927	0.809
	SN2	0.851			
	SN3	0.936			
	SN4	*Deleted*			
	SN5	*Deleted*			
	SN6	*Deleted*			
	SN7	*Deleted*			
	SN8	*Deleted*			
Perceived Behavioural Control	PBC1	0.775	0.849	0.840	0.569
	PBC2	*Deleted*			
	PBC3	0.801			
	PBC4	0.758			
	PBC5	*Deleted*			
	PBC6	*Deleted*			
	PBC7	0.678			
	PBC8	*Deleted*			
	HBA1	*Deleted*	0.948	0.944	0.809

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Halal Association	Brand	HBA2	0.896			
		HBA3	0.902			
		HBA4	0.892			
		HBA5	*Deleted*			
		HBA6	*Deleted*			
		HBA7	0.908			
		HBA8	*Deleted*			
Facilitating Conditions		FC1	*Deleted*	0.959	0.959	0.798
		FC2	0.911			
		FC3	0.928			
		FC4	0.926			
		FC5	0.858			
		FC6	0.872			
		FC7	*Deleted*			
		FC8	0.861			

4.3.4 Validity

Construct validity analysis for the suggested measuring model is also part of the CFA study. Construct validity, as defined by Hair et al. (2010), is the degree to which a set of measured items accurately reflects the theoretical latent construct that those items are intended to measure. Thus, this study has conducted convergent and discriminant validity to evaluate the construct validity.

4.3.4.1 Convergent Validity

According to Hair et al. (2010), convergent validity refers to how much the components or indicators of a given construct converge or share a significant amount of variation. As stated, factor loadings, average variance extracted (AVE) and composite reliability (CR) are used to gauge convergent validity. High factor loadings indicate high convergent validity (standardized loading estimates of 0.5 and higher).

In contrast, an AVE value of 0.5 and above is required to satisfy the convergent validity (Hair et al., 2010).

Additionally, as the composite reliability value (higher than 0.60) generates a more accurate reliability estimate than Cronbach's alpha value, it is also used to evaluate convergent validity (Geldhof & Preacher, 2014). Table 18 shows that all factor loadings (0.678 – 0.962) met the condition of having a value greater than 0.6. Moreover, the AVE values (0.569 – 0.831) also surpassed the suggested range, which must be greater than 0.5. Lastly, all scores for composite reliability (0.840 – 0.972) were more significant than the value of 0.6. As a result, the observed data met the condition for convergent validity. Table 42 below summarizes the findings for convergent validity.

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Table 42 Results for Convergent Validity

Construct	CR	AVE
Behavioural Intention	0.972	0.831
Attitude	0.924	0.672
Subjective Norm	0.927	0.809
Perceived Behavioural Control	0.84	0.569
Halal Brand Association	0.944	0.809
Facilitating Conditions	0.959	0.798

4.3.4.2 Discriminant Validity

In addition to convergent validity, discriminant validity should be evaluated because it determines how different a construct is from other constructs (Hair et al., 2010). By comparing the AVE values for any two constructs with the square root of the correlation estimate between the two constructs, discriminant validity was examined.

The discriminant validity was attained when the variance-extracted estimates exceeded the squared correlation estimate (Hair et al., 2010).

Additionally, when the square root of AVE was more significant than the inter-construct correlation values, discriminant validity was satisfied (Zainudin, 2012). In Table 43 below, the square root of the AVE values was higher than the values in its row and column (e.g., square root of AVE for INT = 0.831 = 0.912, which was higher than the other correlation values of 0.677, 0.415, 0.677, 0.561, 0.475), indicating the model attained good discriminant validity.

Table 43 Result for discriminant validity

Construct	AVE	INT	ATT	SN	PBC	HBA	FC
INT	**0.831**	**.912***					
ATT	**0.672**	0.677	**.820***				
SN	**0.809**	0.415	0.397	**.899***			
PBC	**0.569**	0.654	0.687	0.358	**.754***		
HBA	**0.809**	0.561	0.716	0.298	0.665	**.899***	
FC	**0.798**	0.475	0.518	0.364	0.587	0.563	**.893***

***Square root of Average Variance Extracted (AVE)*

The CFA for the measurement model was carried out to satisfy the conditions of unidimensionality, normality, reliability, validity, and overall model fit. The item-deletion procedure (lowest factor loading and highest modification index) produced uniformity, with all items' factor loading levels exceeding 0.60. Inspection of the skewness, kurtosis, and Mardia's coefficient values helped to ensure the data's normality. When Cronbach's alpha values were greater than 0.70 and AVE values were greater than 0.50, internal and construct reliabilities were considered to be met for reliability assessments.

Convergent validity (AVE values > 0.50), construct validity (factor loading > 0.60), and discriminant validity (variance-extracted values > square root of the AVE) were all evaluated as part of the validity process. Additionally, as shown in Tables 39, the measurement model's Goodness-of-Fit (GOF) indices demonstrated that the model fit criteria were satisfied. The investigation moves on to the structural model assessment stage of SEM analysis because the results for CFA qualified the measurement properties.

4.4 Assessing Structural Measurement Model

The structural model assessment covers the investigation of the causal structure based on the connections between the variables in the research framework. After the measurement model was verified, the study assessed the structural path model's fit by utilizing the measurement model's structure and the correlated error terms. Therefore, by evaluating the structural model, it can achieve the stipulated objectives of research as follows:

RO1 **To examine the influence of attitude toward the intention to participate in family takaful products.**

RO2 **To access the influence of subjective norms toward the intention to participate in family takaful products.**

RO3 **To evaluate the influence of perceived behavioural control toward the intention to participate in family takaful products.**

RO4 **To determine the influence of halal brand association toward the intention to participate in family takaful products.**

RO5 **To ascertain the influence of facilitating conditions toward the intention to participate in family takaful products.**

This study stipulated five research hypotheses from the above research objectives, which will be tested in the full structural model. The stipulated hypotheses are as follows:

***H1*: Attitude has a positive and significant relationship with the behavioural intention to participate in the FTP.**

***H2*: Subjective norm has a positive and significant relationship with the behavioural intention to participate in the FTP.**

***H3*: Perceived behavioural control has a positive and significant relationship with the behavioural intention to participate in the FTP.**

***H4*: The halal brand association has a positive and significant relationship with the behavioural intention to participate in the FTP.**

***H5*: Facilitating condition has a positive and significant relationship with the behavioural intention to participate in the FTP.**

The structural model included six unobserved factors (ATT, SN, PBC, HBA, FC and INT), corresponding indicators or items, and connected error terms, as shown in Figure 36.

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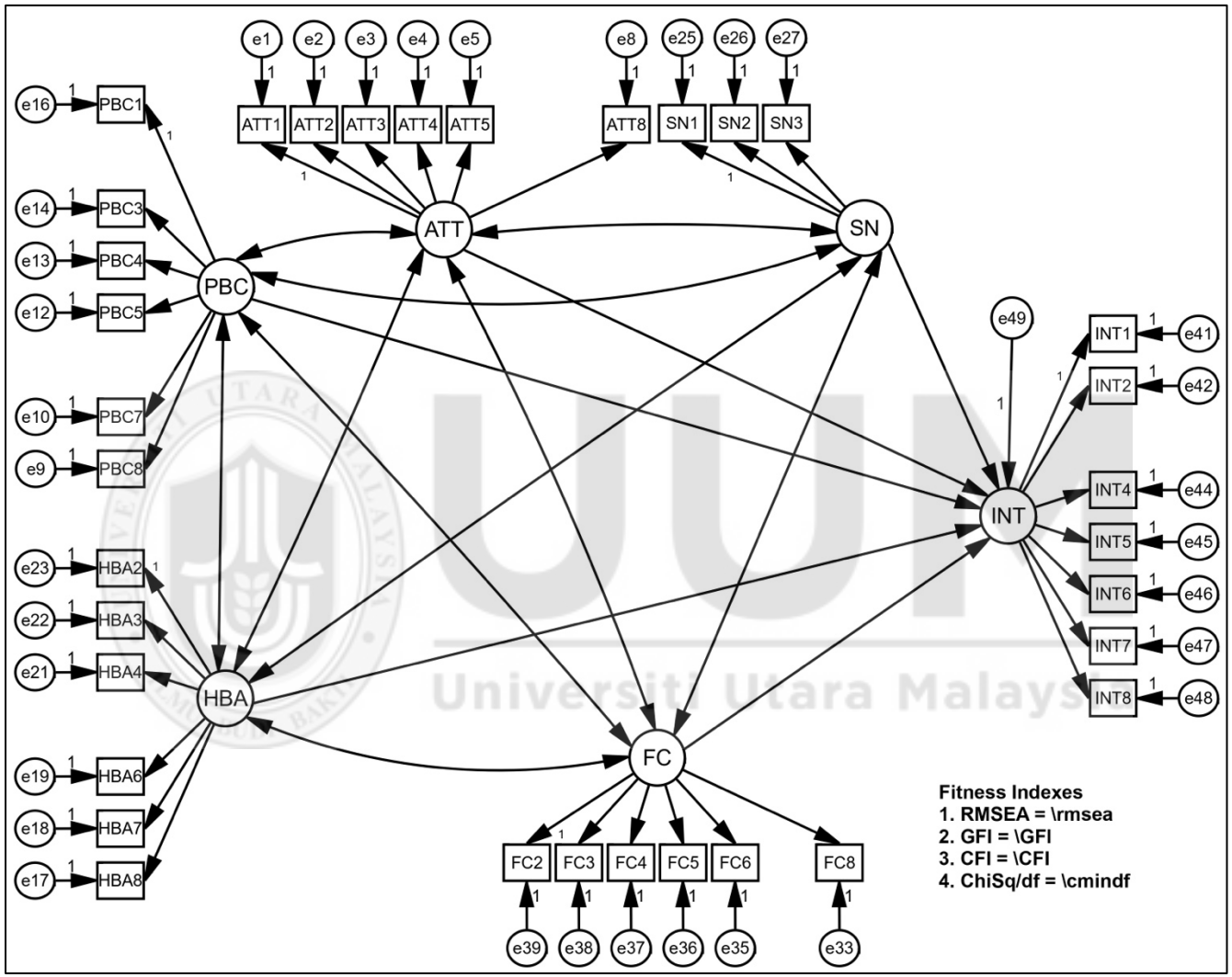

Figure 37 Structural Model for hypotheses testing

The initial section of the structural model looked at five (5) postulated relationships, as shown in Table 44. According to the critical ratio (CR) values, where 1.96 implies a 0.05 significant threshold (Hair et al., 2010), the findings showed that three (3) hypotheses—H1, H2 and H3—were supported, whereas two (2)—H4 and H5—were not.

Table 44 Result for full Structural Modelling (hypotheses testing)

Hypotheses	Path			Estimate	S.E.	C.R.	P	Support?
H1	INT	<---	ATT	0.473	0.101	4.672	***	Yes
H2	INT	<---	SN	0.081	0.031	2.656	0.008	Yes
H3	INT	<---	PBC	0.307	0.078	3.922	***	Yes
H4	INT	<---	HBA	0.032	0.078	0.404	0.686	No
H5	INT	<---	FC	0.029	0.051	0.574	0.566	No

****p<0.05 level (two-tailed)*

Additionally, the value of squared multiple correlations (R^2) for the endogenous variable INT was used to evaluate the model's predictive ability. Referring to the study's findings, the squared multiple correlations revealed an R^2 value of 0.544. As a result, the model was able to account for 54.4 percent of the variability in the endogenous variable INT.

4.4.1 Hypothesis H1: Attitude and Behavioural Intention

The study's first hypothesis was postulated to test the influence of attitude on the customer's intention to participate in the FPT. The postulated hypothesis is as follows:

H1: Attitude has a positive and significant relationship with the behavioural intention to participate in the FTP.

Based on the result, it can be noted that the postulated hypothesis for H1 was significant. The result indicates a strong relationship between attitude and behavioural intention with a C.R. value of 4.672 and a *p*-value of 0.001. The finding implies that the customers with favourable views/perceptions (positive evaluation) towards the family takaful product influence their intention to participate in it. The favourable view in this sense might include the ability of the FTP to solve the financial problem, be beneficial for the future, a good protection package, a saving plan, an investment plan, etc.

4.4.2 Hypothesis H2: Subjective Norms and Behavioural Control

The study's second hypothesis has stipulated a relationship between subjective norms and the behavioural intention of customers to participate in the FPT. The stipulated hypothesis is as follows:

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H2: Subjective norm has a positive and significant relationship with the behavioural intention to participate in the FTP.

The result in Table 44 shows a strong and influential relationship between subjective norms and behavioural intention, which means that subjective norms successfully influence the customers' intention to participate in the FTP. The result illustrates a C.R. value of 2.656 and a *p*-value of 0.008. The finding indicates that significant others such as family members, office mates and takaful agents influence their beliefs that FTP is beneficial.

4.4.3 Hypothesis H3: Perceived Behavioural Control and Behavioural Intention

The third hypothesis of the study has imposed a relationship between perceived behavioural control and the behavioural intention of customers to participate in the FPT. The imposed hypothesis is as follows:

H3: Perceived behavioural control has a positive and significant relationship with the behavioural intention to participate in the FTP.

As indicated in Table 44, there is a significant and strong relationship between perceived behavioural control in influencing the behavioural intention of customers to participate in the FTP. The result imposes a C.R. value of 3.922 and a *p*-value of 0.001. The finding indicates that the appropriate resources, knowledge and ability to conduct have influenced the customers' intention to participate in the FTP.

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4.4.4 Hypothesis H4: Halal Brand Association and Behavioural Intention

The fourth hypothesis of the study was postulated to test the influence of halal brand association on the customer's intention to participate in the FPT. The postulated hypothesis is as follows:

H4: The halal brand association has a positive and significant relationship with the behavioural intention to participate in the FTP.

Quoting the result in Table 44, there is no relationship influence of halal brand association on the behavioural intention of customers to participate in the FTP. The result shows a C.R. value of 0.404 and a *p*-value of 0.686. The finding reflects that the

customers are not associated with the characteristics of Shariah-compliant brands in the FTP, which means to say that the brand of the family takaful product was unable to reflect its equity value as a Shariah-based product among the consumers.

4.4.5 Hypothesis H5: Facilitating Conditions and Behavioural Intention

The fifth hypothesis of the study has imposed a relationship between facilitating conditions and the behavioural intention of customers to participate in the FPT. The imposed hypothesis is as follows:

H5: Facilitating condition has a positive and significant relationship with the behavioural intention to participate in the FTP.

From the finding illustrated in Table 44, facilitating conditions also have presented an insignificant influence on the behavioural intention of customers to participate in the FTP. As it imposes, C.R. and *p*-values were recorded at 0.574 and 0.566, respectively. This insignificant finding imposed that the technology used by the takaful operators did not influence the customers' intention to participate in the FTP. In other words, it can be translated that the takaful operators have not yet fully utilized the technology in delivering their products and services. The figure below illustrates the findings of the full model assessment of the study for the relationship of independent on dependent variables.

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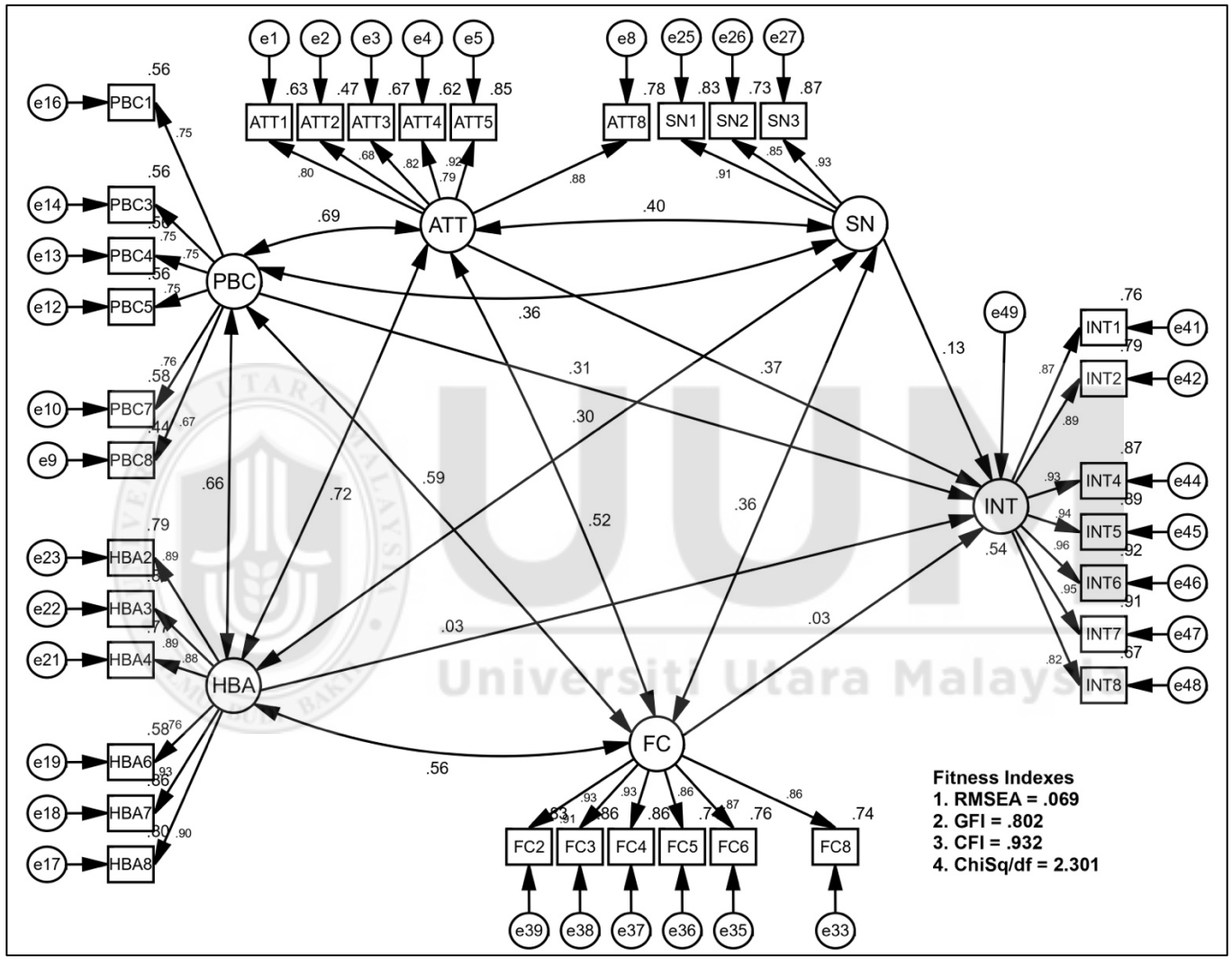

Figure 38 Results for the Structural Measurement Model

4.5 Moderating Effect Analysis

The final phase of the analysis is to examine the last research objective as follows:

RO6 **To examine the moderating effect of institutional trust on the relationship between attitude, subjective norm, perceived behavioural control, halal brand association, facilitating condition and the intention to participate in family takaful products.**

The study hypothesizes five relationships for the moderating effect of institutional trust toward endogenous and exogenous variables. The postulated hypotheses are as following premises:

H6a Institutional trust is significantly moderates the relationship between attitude (ATT) and behavioural intention (INT) to participate in the FTP.

H6b Institutional trust is significantly moderates the relationship between subjective norms (SN) and behavioural intention (INT) to participate in the FTP.

H6c Institutional trust is significantly moderates the relationship between perceived behavioural control (PBC) and behavioural intention (INT) to participate in the FTP.

H6d Institutional trust is significantly moderates the relationship between halal brand association (HBA) and behavioural intention (INT) to participate in the FTP.

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H6e Institutional trust is significantly moderates the relationship between facilitating condition (FC) and behavioural intention (INT) to participate in the FTP.

The examination of moderators was carried out by Multiple Group Analysis (MGA) using AMOS version 24.0. Each moderator group is estimated as part of the MGA using constrained and unconstrained models. The study has to ensure a significant causal relationship between the exogenous and the endogenous variables before analyzing the moderation effect (Zainudin, 2012). To find a substantial moderating effect on the relationship between the variables, the study observed the chi-square difference ($\Delta\chi^2$) between the two groups (Hair et al., 2010). The moderator significantly moderates the chosen relationship if the chi-square difference ($\Delta\chi^2$) between the two groups exceeds the threshold value of 3.84 ($p = 0.05$) with 1 degree of freedom.

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As previous literature and theoretical framework recommended, this study conceptualizes institutional trust as a moderator variable in interacting with the relationship between endogenous and exogenous variables. A ten-Likert scale for eight (8) institutional trust variable measurement items has been categorized into two groups based on the average value. 1 to 5 and 6 to 10 were classified as low and high trust, respectively.

4.5.1 Hypothesis *H6a*: Moderating's Effect of Institutional Trust on Attitude & Behavioural Intention to Participate in the FTP

The first moderating effect is involved institutional trust (IT) in the relationship of attitude (ATT) towards the behavioural intention (INT) of customers to participate in the FTP. The postulated hypothesis is written as follows:

H6a Institutional trust is significantly moderates the relationship between attitude (ATT) and behavioural intention (INT) to participate in the FTP.

Table 45 below illustrates the analysis results for moderating's effect of institutional trust on the relationship between attitude (ATT) and behavioural intention (INT) for two groups of High IT and Low IT, respectively. Quoting the result for the group of High IT, the result indicates a significant moderation effect since the difference value of Chi-Square ($\Delta\chi^2$) between the constrained and unconstrained model is 20.934, more than the suggested value at 3.84. The same result goes for the group with Low IT. The moderation effect is significant as the $\Delta\chi^2$ between the models was recorded at 7.062, higher than 3.84. Thus, the result suggests that the level of institutional trust moderates the causal effect of ATT on INT.

Table 45 Result for Moderating's Effect of IT on ATT and INT

Group	Indices	Unconstrained Model	Constrained Model	Difference	Result on Moderation
High IT	χ^2	980.152	1,001.086	20.934	Significant
	df	512	513	1	
Low IT	χ^2	1060.944	1068.006	7.062	Significant
	df	512	513	1	

The results above summarize that the level (high and low) of institutional trust significantly moderates the relationship between attitude and intention to participate in the FTP. However, the study might be interested in identifying the most pronounced group between high and low institutional trust in the relationship between ATT and INT. Therefore, the study compares the standardized beta estimate and the significance of the unconstrained model separately for the high and low groups of IT. The same procedure also informs the types of moderation, either full or partial, through significance level checking. Table 46 below illustrates the comparison analysis of the said procedure.

Table 46 Comparison of Standardized Beta Estimates and their Significance Level

Group	Path			Standardized Beta Estimate	p-Value	Result
High IT	INT	<---	ATT	0.115	0.233	Insignificant
Low IT	INT	<---	ATT	0.567	0.001	Significant

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The results of the comparison above indicate that the standardized beta estimate for the low IT group is higher (0.567) than the high IT group (0.115). Thus, we can conclude that the effect of attitude on intention is more pronounced in the group of low IT compared to the high IT group. Moreover, the result shows a significant value for the low IT group (0.001) but not the high IT group (0.233). Therefore, it can say that the type of moderation that occurs in the relationship between ATT and INT is full moderation.

4.5.2 Hypothesis *H6b*: Moderating's Effect of Institutional Trust on Subjective Norms & Behavioural Intention to Participate in the FTP

The second hypothesis of the moderating effect involved the institutional trust (IT) for two groups of High IT and Low IT on the relationship between subjective norms (SN) and behavioural intention (INT). The postulated hypothesis for this interaction is written as follows:

H6b Institutional trust is significantly moderates the relationship between subjective norms (SN) and behavioural intention (INT) to participate in the FTP.

Table 47 below imposes the analysis results for moderating's effect of institutional trust on the relationship between subjective norm (SN) and behavioural intention (INT) for two groups of High IT and Low IT, respectively. Quoting the result for the group of High IT, the result indicates a significant moderation effect since the difference value of Chi-Square ($\Delta\chi^2$) between the constrained and unconstrained model is 186.238, more than the suggested value at 3.84. The same result goes for the group with Low IT. The moderation effect is significant as the $\Delta\chi^2$ between the models was recorded at 79.144, higher than 3.84. Thus, the result suggests that the level of institutional trust moderates the causal effect of SN on INT.

Table 47 Result for Moderating's Effect of IT on SN and INT

Group	Indices	Unconstrained Model	Constrained Model	Difference	Result on Moderation
High IT	χ^2	980.152	1166.390	186.238	Significant
	df	512	513	1	
Low IT	χ^2	1060.944	1140.088	79.144	Significant

df	512	513	1

The findings show that the relationship between subjective norm and intention to engage in the FTP is considerably moderated by the amount (high and low) of institutional trust. However, the most notable category between high and low institutional trust in the relationship between SN and INT may be relevant to the study. For the high and low groups of IT, the study will examine the standardized beta estimate and the significance of the unconstrained model individually. Through significance-level testing, the same technique will also reveal the sorts of moderation, whether full or partial. The comparison analysis of the process mentioned above is illustrated in Table 48 below.

Table 48 Comparison of Standardized Beta Estimates and their Significance Level

Group	Path			Standardized Beta Estimate	p-Value	Result
High IT	INT	<---	SN	0.186	0.010	Significant
Low IT	INT	<---	SN	0.090	0.275	Insignificant

The comparison's results show that the high IT group's standardized beta estimate is greater (0.186) than the low IT group's (0.090). We can therefore conclude that the group with high IT has a more significant attitude on intention effect than the group with low IT. Additionally, the outcome displays a significant value (0.010) for the high IT group but not for the low IT group (0.275). As a result, it is possible to conclude that full moderation affects the interaction between SN and INT.

4.5.3 Hypothesis *H6c*: Moderating's Effect of Institutional Trust on Perceived Behavioural Control & Behavioural Intention to Participate in the FTP

The next moderation effect of institutional trust (IT) on the relationship of perceived behavioural control (PBC) towards the behavioural intention (INT) of customers to participate in the FTP. The hypothesis of moderation effect on this relationship is written as follows:

H6c Institutional trust is significantly moderates the relationship between perceived behavioural control (PBC) and behavioural intention (INT) to participate in the FTP.

Table 49 below presents the analysis results for moderating's effect of institutional trust on the relationship between perceived behavioural control (PBC) and behavioural intention (INT) for two groups of High IT and Low IT, respectively. Quoting the result for the group of High IT, the result indicates a significant moderation effect since the difference value of Chi-Square ($\Delta\chi^2$) between the constrained and unconstrained model is 22.977, more than the suggested value at 3.84. The same result goes for the group with Low IT. The moderation effect is significant as the $\Delta\chi^2$ between the models was recorded at 16.145, higher than 3.84. Thus, the result suggests that the level of institutional trust moderates the causal effect of PBC on INT.

Table 49 Result for Moderating's Effect of IT on PBC and INT

Group	Indices	Unconstrained Model	Constrained Model	Difference	Result on Moderation
High IT	χ^2	980.152	1003.129	22.977	Significant
	df	512	513	1	
Low IT	χ^2	1060.944	1077.089	16.145	Significant

df	512	513	1

The results above summarize that the level (high and low) of institutional trust significantly moderates the relationship between perceived behavioural control and intention to participate in the FTP. However, the study might be interested in identifying the most pronounced group between high and low institutional trust in the relationship between PBC and INT. Therefore, the study compares the standardized beta estimate and the significance of the unconstrained model separately for the high and low groups of IT. The same procedure will also inform the types of moderation, either full or partial, through significance level checking. Table 50 below illustrates the comparison analysis of the said procedure.

Table 50 Comparison of Standardized Beta Estimates and their Significance Level

Group	Path			Standardized Beta Estimate	p-Value	Result
High IT	INT	<---	PBC	0.417	0.001	Significant
Low IT	INT	<---	PBC	0.222	0.067	Insignificant

The results of the comparison above indicate that the standardized beta estimate for the high IT group is higher (0.417) than the low IT group (0.222). Thus, we can conclude that the effect of perceived behavioural control on intention is more pronounced in the group of high IT compared to the low IT group. Moreover, the result shows a significant value for the high IT group (0.001) but not the low IT group (0.067). Therefore, the type of moderation that occurs in the relationship between PBC and INT is complete moderation.

The analysis on the moderation effect of institutional trust towards halal brand association (HBA) and facilitating conditions (FC) was not conducted as the direct effect was insignificant.

4.6 Hypotheses Results

Ten (10) hypothesized relationships were examined in the study's investigation of its five primary hypotheses. Table 51 summarizes the results for the ten postulated hypotheses of the study. It indicates that out of the ten proposed hypotheses, six hypotheses were found to be supported (H1, H2, H3, H6a, H6b and H6c), two hypotheses were found not supported (H4 and H5), and the rest of two hypotheses cannot be examined (H6d and H6e).

Table 51 Summary of the Hypotheses Testing

H	Hypothesis Statement	Result
H1	Attitude has a positive and significant relationship with the behavioural intention to participate in the FTP.	**Supported**
H2	Subjective norm has a positive and significant relationship with the behavioural intention to participate in the FTP.	**Supported**
H3	Perceived behavioural control has a positive and significant relationship with the behavioural intention to participate in the FTP.	**Supported**

H4	The halal brand association has a positive and significant relationship with the behavioural intention to participate in the FTP.	**Not Supported**
H5	Facilitating condition has a positive and significant relationship with the behavioural intention to participate in the FTP.	**Not Supported**
H6a	Institutional trust is significantly moderates the relationship between attitude (ATT) and behavioural intention (INT) to participate in the FTP.	**Supported (Full Moderation) Low IT**
H6b	Institutional trust is significantly moderates the relationship between subjective norms (SN) and behavioural intention (INT) to participate in the FTP.	**Supported (Full Moderation) High IT**
H6c	Institutional trust is significantly moderates the relationship between perceived behavioural control (PBC) and behavioural intention (INT) to participate in the FTP.	**Supported (Full Moderation) High IT**
H6d	Institutional trust is significantly moderates the relationship between halal brand association (HBA) and behavioural intention (INT) to participate in the FTP.	**It cannot be Examined**
H6e	Institutional trust is significantly moderates the relationship between facilitating condition (FC) and behavioural intention (INT) to participate in the FTP.	**It cannot be Examined**

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4.7 Conclusion

In summary, the chapter explained the findings involving 272 respondents of the academicians in the PIHEIs. These findings include the preliminary analysis (descriptive analysis, outliers, common method bias, Kaiser-Meyer-Olkin (KMO) & Bartlett tests and correlation analysis), the measurement model assessment (Confirmatory Factor Analysis, normality, reliability, validity and model fit) and the structural model assessment (hypothesis analysis and moderation effects).

The analysis uses Statistical Package for Social Science (SPSS) version 26 and Analysis of Moment Structures (AMOS) software version 24. Five main hypotheses that described a total of ten relationships of the research framework were examined in this study. The results found that out of ten relationships, six were supported, two were not supported, and two could not be examined. The next chapter presents the discussions based on the results of the analysis, its implications, limitations and recommendations for future research.

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CHAPTER FIVE

CONCLUSION AND RECOMMENDATION

5.1 Introduction

The study's findings are discussed in the thesis' final chapter, which offers potential explanations and justifications for the identified significant and insignificant relationships. These justifications are based on the research framework's recommendations and previous theories and studies. In particular, the debates are presented by achieving the research's objectives. The findings' theoretical and practical ramifications are also discussed, along with the study's shortcomings and suggested areas for additional research.

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5.2 Discussion of Findings

The study's findings will be discussed based on the study's research objectives. The study has constructed six main research objectives as the main guideline. The first five research objectives examine the influence of attitude, subjective norms, perceived behavioural control, halal brand association and facilitating conditions toward the intention to participate in family takaful products. All exogenous variables have been postulated in a single hypothesis: H1, H2, H3, H4 and H5.

The last research objective, 6, examines the moderating effect of institutional trust on the relationship between attitude, subjective norm, perceived behavioural control, halal brand association, facilitating condition and the intention to participate in family takaful products. This research objective also postulated a single hypothesis: H6a, H6b, H6c, H6d and H6e. The discussions are as follows:

5.2.1 Discussions on Research Objective 1

The first hypothesis (H1) posits that attitude has a direct positive and significant effect on the behavioural intention of the customers to participate in the family takaful product. The empirical finding of this study revealed and supported the stipulated H1. As conceptualized in this study, attitude is an individual's positive or negative evaluation toward participation in family takaful products.

The study's findings revealed that the relationship between attitude (ATT) and intention (INT) is significant (p<0.05), with a large effect of ATT on INT at a C.R. value of 4.672. This result implies that attitude strongly influences the customers' intention to participate in family takaful products. According to Ajzen (1991), a person's attitude towards a particular behaviour is formed based on their evaluation, judgment, or appraisal. This attitude motivates one to carry out that behaviour driven by the belief. This motivation or intention eventually leads to a specific behaviour, in this case, such as participating in family takaful products. Relying on Ajzen (1991) and the study's findings, a positive evaluation of customers on the benefits and advantages of family takaful products influences them to participate in the product.

Focusing on the specific measurement items of attitude, ATT5 and ATT8 recorded the highest C.R. value at 18.197 and 17.056, respectively. This value elucidates that the customers positively evaluate the family takaful product as a good protection package for future unfortunate events. Moreover, the item ATT8 supports that the customers are happy to protect themself with a family takaful product. The rest of the items also support the gap in the preceding chapter that family takaful products provided

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beneficial saving and investment plans for the future. Therefore, this finding justifies and supports the role of the attitude construct in predicting the behavioural intention to participate in family takaful products.

This positive and significant finding is aligned with the previous empirical works, where attitude significantly influences behavioural intention (Ab Rahim & Amin, 2011; Aziz et al., 2019, 2020; Bhatti & Md Husin, 2019; Md Husin & Ab Rahman, 2016b, 2016a; Raza, Shah, et al., 2019; Saidon et al., 2019). Thus, the finding also confirmed that the underlying theory of TPB has successfully worked for the relationship between attitude and behavioural intention.

5.2.2 Discussion on Research Objective 2

The second hypothesis (H2) postulates that subjective norm has a direct positive and significant effect on the behavioural intention of the customers to participate in the family takaful product. Quoting from the findings in the preceding chapter, the postulation of H2, therefore, is supported. This study has deliberated subjective norms as an individual's perception of the social pressures placed on them to participate or not to participate in family takaful products. In other words, the perception of the surrounding people will influence an individual to participate in the family takaful products.

The study's findings revealed that subjective norm significantly influences the intention of customers to participate in family takaful products. The significant value, *p*, was recorded at 0.008 and a C.R. value at 2.656. Nonetheless, this value is slightly lower than the previous construct and implies a lower effect of the subjective norm on

the customers' intention to participate in family takaful products. According to Ajzen (1991), others' opinions matter to an individual and thus will influence them to engage in a particular behaviour. Hence, a positive and supportive perception from society toward family takaful products will influence the individual's intention to participate in the products.

Addressing the specific measurement items of subjective norm, SN3 and SN2 recorded the highest C.R. values at 23.900 and 20.160, respectively. The SN3 supports that the family members who influenced their behaviour think they should participate in a family takaful product. Meanwhile, the SN2 justifies that the family members, who are important to them, believe they should participate in a family takaful product. Therefore, the social pressures from the family members who are important to an individual eventually will influence them to participate in family takaful products. This statement elucidates the role of the social norm of an individual in influencing them to engage in a particular behaviour.

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Furthermore, this study's findings reflect similar results from the previous works, where the subjective norm is an influential factor in predicting behavioural intention (Aziz et al., 2020; Bhatti & Md Husin, 2019; Echchabi & Ayedh, 2015; H. A. Hassan & Abbas, 2020; Khairi, Laili, et al., 2020; Md Husin & Ab Rahman, 2016b, 2016a; Raza, Shah, et al., 2019; Saidon et al., 2019). Similar to the previous construct, the subjective norm is deemed to confirm the underlying theory of the study, which is TPB.

5.2.3 Discussion on Research Objective 3

The third hypothesis (H3) asserted a positive and significant relationship between perceived behavioural control and the behavioural intention of customers to participate in family takaful products. Referring to the study's findings in the previous chapter, the asserted H3 is significant and, thus, supported. This study has postulated the perceived behavioural control as an individual's perception of the ease or difficulty of participating in family takaful products. Customers' ease in participating in family takaful products will more likely influence them to do so. Scilicet, the customers' difficulty participating in the products ultimately will snap their intention to engage in that particular behaviour.

Recalling the study's findings in the previous chapter, perceived behavioural control significantly influences customers' intention to participate in family takaful products. The significant p-value is recorded at <0.05, with a large effect of C.R. value of 3.922. This figure implies a strong influence of perceived behavioural control on the behavioural intention to participate in family takaful products. The significant influence of perceived behavioural control on behavioural intention suggests that an individual with appropriate resources and the potential to conduct a specific behaviour will be more likely to perform it. Videlicetly, the fewer resources and opportunities an individual owns, the smaller their perceived control over a particular behaviour.

Emphasizing the specific measurement items of perceived behavioural control, PBC7 illustrates the higher C.R. value at 12.464. This highest item indicates that despite never participating in family takaful products, the customers are confident they will participate. Nonetheless, item PBC8 reveals the lowest C.R. value at 10.782, which

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means that the confidence to participate in the family takaful products after seeing someone participate is less impacted than the previous item. What's left from the items successfully shaped the perceived behavioural control's construct in influencing behavioural intention. Thus, the easiness, ability, resources and control over participating in the family takaful products are explained by this construct.

On top of the preceding discussion, many past empirical works share similar significant findings of the relationship between perceived behavioural control and behavioural intention (Md Husin & Ab Rahman, 2016b, 2016a; Al-Nahdi et al., 2015; Gopi & Ramayah, 2007). These significant results affirmed the underlying theory of the TPB.

5.2.4 Discussion on Research Objective 4

The following hypothesis, H4, spelled out a positive and significant influence of halal brand association on the customer's intention to participate in family takaful products. This study defines halal brand association as the customer's perception of a takaful company's ability to fulfil, comply and operate under the principles of Shariah law. Nevertheless, recapping the study's findings in the previous chapter, the postulated H4 is not gaining support empirically in the current study.

To be more detailed, the findings on the relationship between the halal brand association and customers' behavioural intention is not significant at a p-value of 0.686 and exhibit an inconsiderable influence of halal brand association on the behavioural intention at a C.R. value of 0.404. The C.R. value failed to surpass the cut-off at 1.96 to be significant at <0.05. While the result may go against hypothesis H4, these

findings provide a deeper understanding of the nature of customers in the context of a family takaful product, adding value to this exploratory research.

That is, the family takaful products offered by Malaysian takaful operators failed to portray the ability of the operators to fulfil, comply and operate under the principles of Shariah law. Moreover, this significant result also implies the inability of the customers to associate their minds with the halalness of the products. The brand equity of family takaful products as *halal* and Shariah-compliant products cannot influence the customers to participate in the product.

Referring to the specific measurement items of the construct, despite having a substantial C.R. value, the items still failed to shape the construct in predicting the behavioural intention. This statement implies that the customers do not focus much on the product's nature, such as compliance with Shariah law and a *halal* product. This result also may be justified by the significant impact of attitude, subjective norm and perceived behavioural control, as mentioned in the previous discussion. The customers' decision to participate in family takaful products is influenced by the positive evaluation of an individual toward the participation in the product, positive social pressure and the ability to engage.

Nevertheless, as mentioned in the literature review, the empirical works on the influence of halal brand association in the takaful industry context still need to be explored. The only available empirical works, such as A. Othman & Owen (2001) and Jan & Shafiq (2021) using the CARTER and IBBP model, contradicted the study's

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findings. The results are also unable to confirm the predictability of the extension model of TPB.

5.2.5 Discussion on Research Objective 5

The last study's hypothesis, H5, speculated a positive and significant influence of facilitating conditions on the customers' intention to participate in family takaful products. Relied on Venkatesh et al. (2003), this study conceptualizes facilitating conditions as the impact of technology and the company's infrastructure to back the customer's participation in family takaful products. The study's findings unveiled that the relationship between these two variables, H5, is not empirically supported.

Quoting from the preceding chapter, the findings ascertained that facilitating conditions insignificantly influence the customers' intention to participate in family takaful products with a p-value and C.R. of 0.566 and 0.574, respectively. Similar to the previous findings on the halal brand association, the C.R. value of 0.574 has not reached the minimum value of 1.96 to be significant at <0.05. This insignificant result discloses a fresh insight into estimating the customers' behaviour toward participating in family takaful products, thus adding new evidence to the body knowledge.

That is to say, the operators need to provide an impact through the utilization of technology in their takaful products and services. The development of the Industry Revolution (I.R. 4.0) and the uses of technology in the financial industry have conceptualized financial technology, well known as "fintech," which should be fully adopted by the takaful operators in their operation. Implementing technology in the takaful industry, known as *takatech*, should be beneficial in influencing the customers

to participate in the products. As a result, using the *takatech* in the products will offer ease to the customers. Moreover, this insignificant result suggests that the operators' infrastructure in engaging with the customers' needs is not fully employed. Additionally, a lack of available resources (information) on the products cannot influence the customers.

Nevertheless, the findings contravened past empirical works, where the facilitating conditions could predict behavioural intention (Raza et al., 2019 & Widuri et al., 2020). This study incorporates an extension of TPB by conceptualizing the facilitating conditions as a new construct in predicting the customers' intention to participate in family takaful products. Thus, the results revealed that facilitating conditions could not explain the model's predictivity.

5.2.6 Discussion on Research Objective 6

The last research objective is to examine the moderating effect of institutional trust on the relationship between attitude, subjective norm, perceived behavioural control, halal brand association, facilitating condition and the intention to participate in family takaful products. This research objective also postulated a single hypothesis: H6a, H6b, H6c, H6d and H6e. The results revealed that institutional trust significantly moderates three relationships between attitude (H6a), subjective norms (H6b) and perceived behavioural control (H6c) towards the intention to participate in family takaful products. The other two hypotheses (halal brand association [H6d] and facilitating condition [H6e]) cannot be examined as the direct effect on the relationships needed to be more significant. Relying on McKnight et al. (1998), McKnight & Chervany (2001) and Moin et al. (2015), this study defined institutional

trust as an individual's belief of structural assurances such as guarantees, contracts, regulations, promises, legal re-course, processes or procedures of a takaful company is in place to protect them.

5.2.6.1 Moderating Effect of Institutional Trust on the Relationship between Attitude and Behavioural Intention

The first hypothesis for moderator, H6a, postulated that institutional trust significantly moderates the relationship between attitude and behavioural intention to participate in family takaful products. The current study provides empirical evidence that supports hypothesis H6a. The findings implied that institutional trust significantly moderates the relationship between attitude and behavioural intention to participate in family takaful products.

Interestingly, the multi-group analysis's results show that the low group of institutional trust has a higher standardized beta estimate of 0.567 and a significant value of 0.001. These findings suggest that a low level of institutional trust exerts a greater moderating effect on the relationship between attitude and behavioural intention to participate in family takaful products than the high group. This finding implies that the nexus between attitude and behavioural intention is more substantial when the level of institutional trust is lower than it is higher.

To better understand this moderating effect, positive evaluation of an individual toward participation in family takaful products has a more vital influence when a low institutional trust interacts with the decision to participate in the family takaful products. The significance of low institutional trust, rather than its high level, can be

justified by the fact that attitude itself can influence the customers to participate in the products, as the direct effect is significant. The confidence and trust of customers toward the structure's assurances, such as guarantees, contracts, regulations, promises, legal re-course, processes or procedures of the takaful operator in protecting them, will boost the positive attitude and behavioural intention. Furthermore, the beliefs and perceptions of customers on the reputation, compliance, and conduct ethics of operators helped to increase customers' positive evaluation (attitude) toward participating in the products.

5.2.6.2 Moderating Effect of Institutional Trust on the Relationship between Subjective Norms and Behavioural Intention

The second moderating effect's hypothesis, H6b, postulated that institutional trust significantly moderates the relationship between subjective norms and behavioural intention to participate in family takaful products. The current study offered a shred of empirical evidence to support this hypothesis. As expected, institutional trust significantly moderates the relationship between subjective norms and the customers' intention to participate in family takaful products.

It is important to note that the analysis results indicate that the group with high institutional trust has a significant value of 0.010 and a higher standardized beta estimate of 0.186. This suggests that a high level of institutional trust has a more substantial impact on moderating the relationship between subjective norms and the intention to participate in family takaful products than the low group. In other words, the connection between subjective norms and behavioural intention is stronger when institutional trust is higher rather than lower.

Worthing to note concerning this finding is that the social pressures placed on an individual's decision become more meaningful when a high level of institutional trust influences them to participate in family takaful products. Moreover, unsurprisingly, the high group has a more moderation effect as individuals put more institutional trust in the takaful operators rather than the low group. The subjective norms of an individual are more effective when the beliefs and confidence toward the structure's assurances, such as guarantees, contracts, regulations, promises, legal re-course, processes or procedures of the takaful operator in protecting them are high.

5.2.6.3 Moderating Effect of Institutional Trust on the Relationship between Perceived Behavioural Control and Behavioural Intention

The third hypothesis for the moderating effect, H6c, involved the relationship between institutional trust in perceived behavioural control and behavioural intention to participate in family takaful products. The study postulates that institutional trust significantly moderates the relationship between perceived behavioural control and behavioural intention. Not surprisingly, the study's findings supported the H6c, where institutional trust substantially moderates the relationship between the endogenous and exogenous variables.

Quoting from the results, the MGA pronounced that the high institutional trust moderates with a strong effect of a standardized beta estimate of 0.417 and a significant value of 0.001. Rather charmingly, the result of the standardized beta estimate for this nexus shows the highest impact than the nexus of attitude and subjective norms. This indicates that greater trust in institutions has a more decisive

influence on moderating the link between perceived behavioural control and the desire to engage in family takaful products. Essentially, the relationship between perceived behavioural control and behavioural intention is more robust when institutional trust is high rather than low.

Perceived behavioural control was an individual's perception of the ease or difficulty of participating in family takaful products. At the same time, institutional trust is an individual's belief that structural assurances of a takaful operator are in place to protect them. Connecting these two premises, individuals with ease of perception in engaging in family takaful products will be more influenced by firm beliefs and confidence in the operator's structural assurances in protecting them. These findings suggested that, even though a customer has the ability and control to participate in the product, they will be encouraged by high institutional trust.

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5.2.6.4 Moderating Effect of Institutional Trust on Halal Brand Association and Facilitating Conditions

The subsequent two hypotheses, H6d and H6e, are concerned with the moderating effect of institutional trust on the relationship between halal brand association, facilitating conditions and behavioural intention to participate in family takaful products. H6d postulates a significant moderation of institutional trust in the relationship between the halal brand association and behavioural intention. At the same time, H6e said there is a considerable moderation of institutional trust in the relationship between facilitating conditions and behavioural intention.

However, the moderation effect analysis cannot be conducted due to the insignificant direct effect of these two hypotheses. According to Awang (2015), the impact of an independent variable on its dependent variable must be both present and significant. Therefore, when a moderator is introduced into the model, the causal effects may alter due to the interaction between the independent and newly introduced moderator variables.

5.3 Implications of Study

This study presents two categories of implications: theoretical and practical. The following sections will delve into the details of each importance.

5.3.1 Theoretical Implications

Researchers have commonly used the Theory of Planned Behaviour (TPB), a robust model with slight modifications, to examine takaful products' acceptance and behavioural intentions. In this study, TPB (developed by Ajzen in 1985) was integrated to explore the factors that influence the participation intentions of academicians in private Islamic universities towards family takaful products. The analysis of the primary constructs, including attitude, subjective norms, perceived behavioural control, and behavioural intention, provided evidence that supported previous TPB studies and their appropriateness to measure participation intentions in family takaful products. Therefore, the current research affirmed the utilized theory, TPB, along with its predictivity variables, such as attitude, subjective norms and perceived behavioural control on the behavioural intention. This affirmation of the theory is aligned with the previous works of literature (Ab Rahim & Amin, 2011; Al-Nahdi et al., 2015; Aziz et al., 2019, 2020; Bhatti & Md Husin, 2019; Echchabi & Ayedh, 2015; H. A. Hassan &

Abbas, 2019; Khairi, Laili, et al., 2020; Md Husin et al., 2016; Md Husin & Ab Rahman, 2016b, 2016a; Raza, Ahmed, et al., 2019; Saidon et al., 2019b).

The current study also incorporated another three theories as supporting theories for newly introduced variables. The three theories are Brand Association (BA), Unified Theory of Acceptance and Use of Technology (UTAUT) and Initial Trust Formation Model (ITFM) to support the newly introduced variables: halal brand association, facilitating conditions and moderating effect of institutional trust, respectively. Unfavourably, the two variables from BA and UTAUT theories implied insignificant results. Thus, the extension of the two theories into TPB has yet to gain any support. This unfortunate outcome is justified, as discussed in the preceding paragraphs, where customers are much influenced by the predictors of TPB such as attitude, subjective norms and perceived behavioural control. As to say that the positive evaluation of the participation in the products, including good protection, saving and investment plans, overshadowed the perception of the product's brand equity, such as the *halalness* and Shariah compliance products.

Furthermore, this study employed the Initial Trust Formation Model to conceptualize the moderating effect of institutional trust in the relationship between endogenous and exogenous variables. Many previous literature works have yet to pay attention to the role of institutional trust as a moderator. Most of them incorporated trust as general as a direct predictor of the relationship of endogenous variables. While the conceptualization of institutional trust in financial services still needs to be clarified. Only one study is found to incorporate institutional trust but as a direct predictor, to the best researcher's knowledge. Using the academicians in IHEI, this study may be

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the first to extend the moderating role of institutional trust in financial services, specifically in the family takaful industry.

As explained in the previous chapter, institutional trust significantly moderates the relationship between TPB's predictors, attitude, subjective norms and perceived behavioural control on the behavioural intention to participate in family takaful products. Therefore, the role of institutional trust as moderator successfully affirmed the extension model of ITFM on TPB.

5.3.2 Practical Implications

This section will provide a few suggestions in terms of practical implications based on the current study's findings, as discussed in the previous chapter.

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5.3.2.1 Increase Awareness of Islamic Brand Equity of Family Takaful Products among Customers

As mentioned in the previous chapter, the insignificant halal brand association in predicting the customers' intention to participate in family takaful products justified that the customers do not associate the Shariah-compliant and *halalness elements* in the products. Halal brand association's construct should be significant in predicting the customers' intention to participate in the products, as awareness and perception are the initial predictors for a particular behaviour. As to say even though that attitude, subjective norms and perceived behavioural control indicate significant influence, it is preceded by the initial and essential knowledge about the products.

Thus, the customers' awareness and perception of the Islamic/Shariah brand equity of takaful products is still low or lacking. It reveals that the customers do not acquire essential knowledge on how the products comply with Shariah principles and laws, which justifies them as Shariah-compliant products. The customers are aware of the features of the products only, including the benefits of the products, policy coverage, compensation policy, savings and investment benefits. Therefore, takaful operators should play a vital role in increasing the awareness among the customers of the products' Islamic/Shariah brand equity. Thus, customers can distinguish between Islamic and conventional products.

To increase customers' awareness and understanding of the Islamic brand equity of family takaful products, a comprehensive approach is necessary. This approach should include education, marketing, and community engagement. Firstly, takaful operators should prioritize educational initiatives, such as seminars, webinars, or workshops, that focus on the core principles of takaful. These sessions should emphasize the ethical and Shariah-compliant nature of takaful, highlighting how family takaful aligns with Islamic values, such as risk-sharing and mutual cooperation.

Secondly, marketing strategies should be tailored to highlight the ethical and social dimensions of takaful. Effective marketing campaigns should showcase how these products provide financial protection while adhering to Islamic principles. The content should be designed to resonate with customers seeking ethical financial solutions, utilizing both visual and textual elements.

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Furthermore, community engagement is essential. Takaful operators can participate in community events, sponsor educational initiatives, or support charitable activities, thus demonstrating their commitment to social responsibility and ethical finance. Engaging with local communities helps build a positive reputation and fosters word-of-mouth marketing. Lastly, feedback mechanisms should be in place to listen to customer concerns and suggestions. This feedback can inform product improvements and marketing strategies, ensuring they align more effectively with customers' expectations of Islamic brand equity.

In summary, increasing awareness of the Islamic brand equity of family takaful products necessitates a combination of education, tailored marketing, community engagement, and active involvement of religious leaders. By highlighting the ethical and Shariah-compliant nature of these products and connecting with potential customers on a personal and community level, takaful operators can raise awareness and attract customers seeking financial solutions that align with their values.

5.3.2.2 Strengthen Agents' Knowledge and Expertise on the Products' Brand Equity

The current study proved and offered evidence of the significant influence of subjective norms' construct in predicting the customers' intention to participate in family takaful products. As the roles of the takaful agent's dimension have been conceptualized in the study to shape the subjective norms, the role of takaful agents is vital to be highlighted in influencing the customers. These findings indicate that the

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takaful agents have successfully influenced the subjective norms of the customers to participate in the products.

Takaful agents are crucial in delivering essential product information to raise awareness and build a positive customer attitude. Nevertheless, the agents failed to emphasize the brand equity of the products as Shariah-compliant products. The agents must focus on various aspects of the products, including the product's brand equity, and not only concentrate on the features of the products. Thus, takaful operators need to strengthen agents' knowledge and expertise in various dimensions of the products through a comprehensive workshop/seminar.

To effectively promote a takaful product to potential customers, it is essential to ensure that agents are knowledgeable about the product's brand equity. This can be achieved by establishing comprehensive training programs that cover not only the technical aspects of the product but also its unique selling points and the values it upholds in line with Islamic principles. Agents should be well-versed in the product's features, benefits, and how it aligns with customers' financial and ethical needs. Regular workshops and seminars can allow agents to deepen their understanding of the product and its brand equity. Inviting guest speakers, industry experts, and scholars to share insights on the takaful product's compliance with Shariah principles and its broader societal impact can further enhance agents' expertise. These events can also serve as forums for agents to engage in meaningful discussions and question-and-answer sessions.

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In order to ensure success, ongoing support and communication are crucial. Agents should have access to a dedicated support team or resource center to provide clarification on any queries they may have and offer guidance on effectively addressing customers' concerns. By implementing continuous feedback loops, areas where agents might need further training or information can be identified and addressed in a timely manner.

Additionally, incentives and recognition programs can motivate agents to become experts in promoting the takaful product's brand equity. By offering rewards for meeting knowledge and sales targets, agents are encouraged to invest in their education and continuously improve their expertise. A comprehensive approach that includes comprehensive training, ongoing support, and incentives will empower agents to become knowledgeable ambassadors for the takaful product, ultimately strengthening its brand equity and driving its success in the market.

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5.3.2.3 Fully Utilization of Fintech/Takatech in Offering Products and Services

Quoting from the previous chapter, the current study imposed an insignificant result for facilitating conditions in predicting the customers' intention to participate in the products. This unfortunate finding suggests that the operators have not fully utilized the fintech in their operations. Furthermore, the result also indicates a need for more information and resources about the products on their platform (brochure, website, etc.). The current study also denotes that the available online platform (website/mobile application) for obtaining the quotation of the products is not user-friendly. The customers hardly get the quotation from the technology-based platform and must rely on the agents.

Moreover, the available product information could have emphasized the Shariah brand equity. This issue justifies halal brand association's insignificant influence on the customers' intention to participate in the products. Thus, operators must fully utilize the fintech/takatech in delivering their products and services to the customers. Providing a user-friendly technology-based platform and comprehensive information from all dimensions can help to influence the customers' participation in the products.

The integration of technology can serve as a catalyst for takaful operators to revolutionize the way they offer their products and services while staying true to Islamic principles. By leveraging digital platforms and mobile apps, customers can easily access their policies, file claims, and make payments, thereby enhancing convenience. It also enables operators to accurately assess risks by utilizing artificial intelligence and data analytics, while chatbots and virtual assistants offer 24/7 customer support. Additionally, blockchain technology can promote transparency in takaful contracts, and machine learning can assist in detecting fraudulent activity. To stay innovative, takaful operators must prioritize cybersecurity measures, utilize CRM systems for personalized interactions, and collaborate with insurtech firms. These advancements will enable them to maintain their commitment to Islamic values, exceed customer expectations, and thrive in a competitive insurance industry.

5.3.2.4 Initiative from Takaful Operators to Increase Awareness of Products' Features & Brand Equity

Takaful operators must actively take the initiative to increase the awareness of the product's features and brand equity among the customers. This initiative is crucial to

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ensure that the customers have an inclusive knowledge of the products. Among the initiative that the operators can take is a knowledge transfer program. This program will help to cope with the mentioned issues and be considered a CSR program for society. This outreach can also be extended by including the importance of personal financial planning to society as early as childhood in secondary school. This effort can be done by linking the ministry (Ministry of Education) to revise the high school syllabus, including personal financial planning.

5.3.3 Methodological Implications

The methodological approach of using a one-time cross-sectional survey with a set of questionnaires and analyzing the data with SPSS and SPSS AMOS offers several important implications for research on behavioural intention to participate in family takaful products. Firstly, employing a covariance-based Structural Equation Modeling (SEM) technique instead of a variance-based approach provides significant advantages in terms of the robustness and accuracy of the model estimation. Covariance-based SEM, as implemented in AMOS, allows for the testing of complex relationships among latent constructs while considering measurement errors, leading to more reliable and valid conclusions about the underlying theoretical model (Kline, 2015). This is particularly beneficial in behavioural intention studies where constructs such as subjective norms, perceived behavioral control, and intention need precise measurement and clear structural relationships.

Furthermore, the use of multiple group analysis in SPSS AMOS to assess moderating effects adds depth to the methodological rigor of the study. This technique enables the examination of whether the structural relationships differ across various groups (e.g.,

demographic segments, levels of trust in institutions), thus providing insights into the heterogeneity of the sample. By identifying differential effects, the study can offer tailored recommendations for enhancing family takaful participation across different segments of the population. This methodological choice underscores the study's commitment to uncovering nuanced understanding rather than relying on broad, generalized conclusions. However, incorporating additional software such as Mplus or LISREL could further enhance the analysis, as these tools offer advanced features for handling missing data, complex survey designs, and non-normal data distributions, which are common in behavioral research.

For the analysis technique, while multiple group analysis in AMOS effectively assesses moderating effects, future studies could also explore multi-level modeling (MLM) or hierarchical linear modeling (HLM) to account for nested data structures, such as individuals within different regions or organizations. These advanced techniques can provide more precise estimates of moderating effects and offer insights into how contextual factors influence behavioural intentions at different levels.

The cross-sectional nature of the survey, while limiting the ability to infer causality, allows for a snapshot view of the current state of behavioural intentions and associated factors at a particular point in time. This is useful for identifying prevailing attitudes and perceptions, which can inform immediate strategic interventions by takaful operators. However, researchers should consider longitudinal follow-up studies to track changes over time and establish causal relationships more definitively (Hair et al., 2014).

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The methodological decisions in this study—particularly the use of covariance-based SEM and multiple group analysis—enhance the robustness and applicability of the findings. These choices enable a comprehensive examination of the factors influencing behavioural intention to participate in family takaful products and allow for detailed subgroup analyses, which can lead to more targeted and effective strategies for market penetration and growth in the takaful industry.

5.4 Limitations & Recommendations

The findings from this study offer evidence to support the proposed model. However, like any empirical research, some limitations require further investigation across a broader range of customers, including those in the private companies sector, to ensure the model's applicability can be appropriately generalized. This significant limitation of the study is its potential lack of generalizability. The sample used in the research may not be representative of the entire Malaysian population. If the study primarily focuses on a specific geographic region or demographic group, the findings may not accurately reflect the diverse intentions of people from various backgrounds and locations across Malaysia. This can limit the applicability of the study's results to the broader population. The current study also suggests further research on academicians in public higher education institutions to examine their intention to participate in the products as they have comprehensive medical benefits and pension schemes.

One limitation of the study is that it is a cross-sectional quantitative study, meaning that data is only collected once. The study may be constrained by its time frame. The intentions of individuals to participate in family takaful products can fluctuate over time due to changes in personal circumstances, economic conditions, or market

dynamics. This research may not account for such temporal variations, potentially making the findings less relevant for understanding how intentions might evolve in the future. To address this limitation, conducting a longitudinal study in the future with various customers' demographic profiles may help accommodate changes in individual behaviour when participating in family Takaful products.

Moreover, other factors were not included in the current study to leave space for future study and not to have a complex model beyond the thesis volume. Hence, future studies could include other factors such as self-efficacy, word of mouth, perceived risk, product knowledge and awareness, relative advantage, compatibility of the products and media influence, and marketing & advertising. Moreover, understanding the intention to participate in takaful products in Malaysia should take into account cultural and religious factors. The study may not delve deeply enough into these aspects, potentially overlooking the importance of Islamic ethics and cultural values in shaping people's decisions regarding takaful. Furthermore, the study might not adequately consider the impact of cultural diversity within Malaysia and its potential influence on takaful participation.

Further, the study might not thoroughly investigate the economic and financial literacy levels of the participants. To make informed decisions about participating in financial products like takaful, individuals need a certain level of financial knowledge. If the study does not consider this aspect, it may not fully explain the variations in intention among participants with different financial literacy levels or economic backgrounds, limiting its comprehensiveness.

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In conclusion, while the study on the intention to participate in family takaful products in Malaysia contributes valuable insights, it is crucial to recognize these limitations to ensure a balanced interpretation of the findings and their applicability to real-world scenarios and policymaking. Addressing these limitations in future research can lead to a more comprehensive understanding of the factors influencing participation in family takaful products in Malaysia.

5.5 Conclusion

This study explored the crucial factors influencing customers' intention to participate in family takaful products. The study also investigated brand equity, technology use, and institutional trust as essential elements that affect participation in these products. The results were analyzed and interpreted, revealing significant factors influencing the study's outcome. Additionally, the study also considered the moderating factors.

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This study has successfully addressed the questions and objectives presented in Chapter 1. The model used has been empirically proven to provide a solution to the problem. The theoretical and practical contributions have been clearly expressed, and the limitations and future directions have been thoroughly explained. Overall, the proposed model has demonstrated its relevance in behavioural intention. The discussion has linked the obtained results with the hypotheses and the prior literature from previous chapters.

This chapter thoroughly discussed the theoretical and practical implications in line with our study's objectives. We also highlighted the limitations and suggested future

directions for additional research in family takaful adoption to ensure the results can be generalized.

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REFERENCES

Aaker, D. A. (1992). The Value of Brand Equity. *Journal of Business Strategy*, *13*(4), 27–32. https://doi.org/10.1108/eb039503

Aaker, D. A. (1996). Measuring Brand Equity Across Products and Markets. *California Management Review*, *38*(3).

Ab Rahim, F., & Amin, H. (2011). Determinants of Islamic Insurance Acceptance: An Empirical Analysis. *International Journal of Business and Society*, *12*(2), 37–54.

Abdul Rahman, Z., Mohd.Yusof, R., & Abu Bakar, F. (2008). Family takaful: Its role in social economic development and as a savings and investment instrument in Malaysia - An extension. *Jurnal Syariah*, *16*(1), 89–105.

Abdul Wahab, A. R., Lewis, M. K., & Hassan, M. K. (2007). Islamic Takaful: Business Models, Shariah Concerns, and Proposed Solutions. *Thunderbird International Business Review*, *49*(3), 371–396. https://doi.org/10.1002/tie

Abdullah, N. I., & Dusuki, A. W. (2006). Customers' Perceptions Of Islamic Hire-Purchase Facility In Malaysia: An Empirical Analysis. *IIUM Journal of Economics and Management*, *14*(2), 177–204. https://www.researchgate.net/publication/46533776

Abdullah, S. (2012). Risk Management via Takaful from a Perspective of Maqasid of Shariah. *Procedia - Social and Behavioral Sciences*, *65*(ICIBSoS), 535–541. https://doi.org/10.1016/j.sbspro.2012.11.161

Abdullah, S. (2015). The Objectives of Takaful and Shariah: Towards the Achievement of Maqasid Shariah. *Journal of Human Capital Development (JHCD)*, *8*(1), 93–104.

Universiti Utara Malaysia

Abu Bakar, N., & Rosbi, S. (2020). Effect of Coronavirus disease (COVID-19) to tourism industry. *International Journal of Advanced Engineering Research and Science*, *7*(4), 189–193. https://doi.org/10.22161/ijaers.74.23

Abu Isa, M. at-T. (884). Hadith 2517. In *Jāmi' at-Tirmidhī*. https://sunnah.com/urn/727020

Afridi, M. A. K. (2016). Maqasid Al-Shari'ah and Preservation of Basic Rights. *Journal of Education and Social Sciences*, *4*(Issue 1), 274–285. http://irep.iium.edu.my/54405/

Ajzen, I. (1985). From Intentions to Actions: A Theory of Planned Behavior. In *Action Control* (pp. 11–39). Springer-Verlag Berlin Heidelberg. https://doi.org/10.1007/978-3-642-69746-3_2

Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, *50*(2), 179–211.

Ajzen, I. (2002). Perceived Behavioral Control, Self-Efficacy, Locus of Control, and the Theory of Planned Behavior. *Journal of Applied Social Psychology*, *32*(4), 665–683. https://doi.org/10.1111/j.1559-1816.2002.tb00236.x

Ajzen, I. (2005). Attitudes, Personality and Behavior. In *Open University Press*.

Ajzen, I., & Driver, B. L. (1991). Prediction of Leisure Participation from Behavioral, Normative, and Control Beliefs: An Application of the Theory of Planned Behavior. *Leisure Sciences*, *13*, 185–204.

Ajzen, I., & Fishbein, M. (1977). Attitude-Behavior Relations: A Theoretical Analysis and Review of Empirical Research. *Psychological Bulletin*, *84*(5), 888–918. https://doi.org/10.1037/0033-2909.84.5.888

Ajzen, I., & Fishbein, M. (1980). *Understanding Attitudes and Predicting Social Behavior*. Englewood Cliffs, N.J. : Prentice-Hall.

Universiti Utara Malaysia

Ajzen, I., & Madden, T. J. (1986). Prediction of Goal-Directed Behavior: Attitudes, Intentions, and Perceived Behavioral Control. *Journal of Experimental Social Psychology*, *22*, 453–474. https://doi.org/10.1016/0022-1031(86)90045-4

Akhter, W., & Khan, S. U. (2017). Determinants of Takāful and conventional insurance demand: A regional analysis. *Cogent Economics and Finance*, *5*(1), 1–18. https://doi.org/10.1080/23322039.2017.1291150

Akram Laldin, M. (2008). Islamic financial system: The Malaysian experience and the way forward. *Humanomics*, *24*(3), 217–238. https://doi.org/10.1108/08288660810899377

Albaity, M., & Rahman, M. (2019). The intention to use Islamic banking: an exploratory study to measure Islamic financial literacy. *International Journal of Emerging Markets*, *14*(5), 988–1012. https://doi.org/10.1108/IJOEM-05-2018-0218

Al-Ghazali, I. M. (2018). *Al Mustasfa min ilm Al Usul: On Legal theory of Muslim Jurisprudence* (A. Z. M. Hammad, Ed.). Dar Ul Thaqafah. https://www.amazon.com/Mustasfa-min-ilm-Usul-Jurispudence/dp/1984129899

Alhumoudi, Y. A. (2012). *Islamic Insurance Takaful and Its Application in Saudi Arabia* (Issue October). http://bura.brunel.ac.uk/bitstream/2438/7449/1/FulltextThesis.pdf

Ali, M. M. (2016). Takaful Models : Their Evolution and Future Direction. *Islam and Civilisational Renewal*, *7*(4), 457–473. https://doi.org/10.12816/0035216

Al-Nahdi, T. S., A. Habib, S., Abu Bakar, A. H., Bahklah, M. S., Ghazzawi, O. H., & Al-Attas, H. A. (2015). The Effect of Attitude, Dimensions of Subjective Norm, and Perceived Behavior Control, on the Intention to Purchase Real Estate in Saudi

Universiti Utara Malaysia

Arabia. *International Journal of Marketing Studies*, *7*(5), 120–131. https://doi.org/10.5539/ijms.v7n5p120

Al-Raysuni, A. (2005). Imam Al Shatibi's Theory of the Higher Objectives and Intents of Islamic Law. In *International Institute of Islamic Thought*. International Institute of Islamic Thought. https://doi.org/10.2307/j.ctvkjb1w9

Alserhan, B. A. (2010). On Islamic branding: Brands as good deeds. *Journal of Islamic Marketing*, *1*(2), 101–106. https://doi.org/10.1108/17590831011055842

Al-Swidi, A., Huque, S. M. R., Hafeez, M. H., & Mohd Shariff, M. N. (2014). The role of subjective norms in theory of planned behavior in the context of organic food consumption. *British Food Journal*, *116*(10), 1561–1580.

Amin, H. (2013). Factors influencing Malaysian bank customers to choose Islamic credit cards: Empirical evidence from the TRA model. *Journal of Islamic Marketing*, *4*(3), 245–263. https://doi.org/10.1108/JIMA-02-2012-0013

Amin, H., Amin, H., Rahim, A., Rahman, A., & Abdul Razak, D. (2014). Consumer acceptance of Islamic home financing. *International Journal of Housing Markets and Analysis*, *7*(3), 307–332. https://doi.org/10.1108/IJHMA-12-2012-0063

An-Nasa'i, I. A. (1930). Hadith 17. In *Sunan an-Nasa'i*.

Ariyabuddhiphongs, V., & Kahn, S. I. (2017). Transformational leadership and turnover intention: The mediating effects of trust and job performance on café employees in Thailand. *Journal of Human Resources in Hospitality and Tourism*, *16*(2), 215–233. https://doi.org/10.1080/15332845.2016.1202730

Arvola, A., Lähteenmäki, L., & Tuorila, H. (1999). Predicting the intent to purchase unfamiliar and familiar cheeses: The effects of attitudes, expected liking and food neophobia. *Appetite*, *32*(1), 113–126. https://doi.org/10.1006/appe.1998.0181

Universiti Utara Malaysia

Asutay, M. (2007). Conceptualisation on the Second Best Solution in Overcoming the Social Failure of Islamic Banking and Finance. *IIUM Journal of Economics and Management*, *15*(2), 167–195.

At-Tabrizi, I. K. (1985). Hadith 2807. In *Mishkat al-Masabih*. Dar al-Salam. https://sunnah.com/mishkat:2807

Awang, Z. (2015). SEM Made Simple: A Gentle to Learning Structural Equation Modelling. In *International Encyclopedia of the Social & Behavioral Sciences: Second Edition* (Second). MPWS Rich Publication Sdn. Bhd.

Ayub, M. (1951). *Understanding Islamic Finance*. John Wiley & Sons Ltd.

Ayub, M. (2012). Understanding Islamic Finance. In *Understanding Islamic Finance*. John Wiley & Sons Ltd. https://doi.org/10.1002/9781119209096

Aziz, S., Afaq, Z., Muhammad, L., & Khan, B. (2020). The Role of Media, Word of Mouth, and Subjective Norms in determining Attitude and Intentions to Purchase Family Takaful Schemes. *Journal of Islamic Business and Management (JIBM)*, *10*(01), 110–130. https://doi.org/10.26501/jibm/2020.1001-008

Aziz, S., Md Husin, M., & Hussin, N. (2017a). Conceptual framework of factors determining intentions towards the adoption of family takaful: An extension of decomposed theory of planned behaviour. *International Journal of Organizational Leadership*, *6*(3), 385–399. https://doi.org/10.33844/ijol.2017.60430

Aziz, S., Md Husin, M., & Hussin, N. (2017b). Intention to family Takaful adoption: A review theory and empirical work. *International Journal of Organizational Leadership*, *6*(3), 373–384. https://doi.org/10.33844/ijol.2017.60310

Aziz, S., Md Husin, M., Hussin, N., & Afaq, Z. (2019). Factors that influence individuals' intentions to purchase family takaful mediating role of perceived

trust. *Asia Pacific Journal of Marketing and Logistics*, *31*(1), 81–104. https://doi.org/10.1108/APJML-12-2017-0311

Babbie, E. R. (2010). *The practice of social research*. Belmont, CA.

Baek, Y. M., & Jung, C. S. (2015). Focusing the mediating role of institutional trust: How does interpersonal trust promote organizational commitment? *Social Science Journal*, *52*(4), 481–489. https://doi.org/10.1016/j.soscij.2014.10.005

Bagozzi, R. P. (1992). The Self-Regulation of Attitudes, Intentions, and Behavior. *Social Psychology Quarterly*, *55*(2), 178–204.

Bakar, Dr. M. D. (2009). Shari'ah Principles Governing Takaful Models. In *Takaful Islamic Insurance: Concepts and Regulatory Issues* (pp. 31–45). John Wiley & Sons (Asia) Pte. Ltd.

Bank Negara Malaysia. (2005). *The Malaysian Takaful Industry - 20 years experience*.

Bank Negara Malaysia. (2010). *Shariah Governance Framework for Islamic Financial Institutions*. https://doi.org/https://www.bnm.gov.my/-/newly-updated-guidelines-on-shariah-governance-framework-for-islamic-financial-institutions

Bank Negara Malaysia. (2019). Takaful Operational Framework. In *Policy Document* (Issue June). https://www.bnm.gov.my/index.php?ch=57&pg=140&ac=807&bb=file

Bank Negara Malaysia. (2021). *Bank Negara Malaysia Annual Report 2020*.

Bank Negara Malaysia. (2022a). *Insurance Companies & Takaful Operators* (Issue 1). https://www.bnm.gov.my/web/guest/takaful-operators

Bank Negara Malaysia. (2022b). *Retakaful Operators*. https://www.bnm.gov.my/web/guest/retakaful-operators

Bank Negara Malaysia. (2023). *Financial Stability Review Second Half 2022*.

Universiti Utara Malaysia

Baptista, G., & Oliveira, T. (2015). Understanding mobile banking: The unified theory of acceptance and use of technology combined with cultural moderators. *Computers in Human Behavior*, *50*, 418–430. https://doi.org/10.1016/j.chb.2015.04.024

Baumgartner, H., & Homburg, C. (1996). Applications of structural equation modeling in marketing and consumer research: A review. In *International Journal of Research in Marketing ELSEVIER Intern. J. of Research in Marketing* (Vol. 13).

Beekun, R. I., & Badawi, J. A. (2005). Balancing Ethical Responsibility among Multiple Organizational Stakeholders: The Islamic Perspective. *Journal of Business Ethics*, *60*(2), 131–145. https://doi.org/10.1007/s10551-004-8204-5

Berg, J., Dickhaut, J., & McCabe, K. (1995). Trust, reciprocity, and social history. In *Games and Economic Behavior* (Vol. 10, Issue 1, pp. 122–142). https://doi.org/10.1006/game.1995.1027

Bhatti, T., & Md Husin, M. (2019). An investigation of the effect of customer beliefs on the intention to participate in family Takaful schemes. *Journal of Islamic Marketing*, *11*(3), 709–727. https://doi.org/10.1108/JIMA-04-2018-0066

Blumenthal, D., & Bergstrom, A. (2003). Brand councils that care: Towards the convergence of branding and corporate social responsibility. *Journal of Brand Management*, *10*(4), 327–341. https://doi.org/10.1057/palgrave.bm.2540128

Bougie, R., & Sekaran, U. (2019). *Research Method for Business: A Skill Building Approach* (Eighth). John Wiley & Sons, Inc.

Butt, I., Ahmad, N., Naveed, A., & Ahmed, Z. (2018). Determinants of low adoption of Islamic banking in Pakistan. *Journal of Islamic Marketing*, *9*(3), 655–672. https://doi.org/10.1108/JIMA-01-2017-0002

Universiti Utara Malaysia

Byrne, B. M. (2010). Structural Equation Modeling with AMOS: Basic Concepts, Applications, and Programming. In *Routledge/Taylor & Francis Group* (Second). https://doi.org/10.4324/9780203726532

Cai, Y., & Tang, R. (2021). School support for teacher innovation: Mediating effects of teacher self-efficacy and moderating effects of trust. *Thinking Skills and Creativity*, *41*. https://doi.org/10.1016/j.tsc.2021.100854

Cardoso, A., Paulauskaitė, A., Hachki, H., Figueiredo, J., Oliveira, I., Rêgo, R., Silva, R., & Meirinhos, G. (2022). Analysis of the Impact of Airbnb Brand Personality on Consumer Involvement and Institutional Trust. *Journal of Open Innovation: Technology, Market, and Complexity*, *8*(3). https://doi.org/10.3390/joitmc8030104

Carroll, A. B. (2000). Ethical Challenges for Business in the New Millennium: Corporate Social Responsibility and Models of Management Morality. *Business Ethics Quaterly*, *10*(1), 33–42.

Chapra, M. U. (1985). Towards a Just Monetary System. *JKAU: Islamic Econ*, *2*(1), 109–115. http://ierc.sbu.ac.ir/

Chauhan, S., & Jaiswal, M. (2016). Determinants of acceptance of ERP software training in business schools: Empirical investigation using UTAUT model. *International Journal of Management Education*, *14*(3), 248–262. https://doi.org/10.1016/j.ijme.2016.05.005

Chen, C.-H. (2001). Using free association to examine the relationship between the characteristics of brand associations and brand equity. *Journal of Product & Brand Management*, *10*(7), 439–451. https://doi.org/10.1108/10610420110410559

Universiti Utara Malaysia

Chen, Y., Tingchi Liu, M., Liu, Y., Chang, A. W. yu, & Yen, J. (2021). The influence of trust and relationship commitment to vloggers on viewers' purchase intention. *Asia Pacific Journal of Marketing and Logistics*. https://doi.org/10.1108/APJML-08-2020-0626

Chetioui, Y., Lebdaoui, H., & Chetioui, H. (2021). Factors influencing consumer attitudes toward online shopping: the mediating effect of trust. *EuroMed Journal of Business*, *16*(4), 544–563. https://doi.org/10.1108/EMJB-05-2020-0046

Chiang, C.-F., & Wang, Y.-Y. (2012). The Effects of Transactional and Transformational Leadership on Organizational Commitment in Hotels: The Mediating Effect of Trust. *Journal of Hotel & Business Management*, *01*(01). https://doi.org/10.4172/2169-0286.1000103

Ching, O. T. (2019). Takaful companies forecast 16% penetration rate this year. *New Straits Times*, *December*, 2019–2020.

Chua, Y. P. (2020). *Mastering Research Statistics* (Second Edi, Issue May). McGraw-Hill (Education) Malaysia.

Chuang, L.-M., Liu, C.-C., & Kao, H.-K. (2016). The Adoption of Fintech Service: TAM perspective. *International Journal of Management and Administrative Sciences (IJMAS*, *3*(07), 1–15. www.ijmas.orgwww.ijmas.org

Ciziceno, M., & Travaglino, G. A. (2019). Perceived Corruption and Individuals' Life Satisfaction: The Mediating Role of Institutional Trust. *Social Indicators Research*, *141*(2), 685–701. https://doi.org/10.1007/s11205-018-1850-2

Coakes, S. J. (2005). *SPSS: Analysis Without Anguish* (12.0). John Wiley & Sons Australia, Ltd.

Cohen, L., Manion, L., & Morrison, K. (2007). *Research Methods in Education* (Sixth, Ed.; London). Routledge.

Universiti Utara Malaysia

Compeau, D. R., & Higgins, C. A. (2017). Computer Self-Efficacy: Measure And Initial Development Of A Test. *MIS Quarterly*, *19*(2), 189–211. https://www.astm.org/Standards/E2368.htm

Conner, M., & Armitage, C. J. (1998). Extending the Theory of Planned Behavior : A Review and Avenues for Further Research. *Journal of Applied Social Psychology*, *28*(15), 1429–1464.

Conroy, S. J., & Emerson, T. L. N. (2004). Business Ethics and Religion: Religiosity as a Predictor of Ethical Awareness among Students. *Journal of Business Ethics*, *50*(4), 383–396.

Cooper, D. R., & Schindler, P. S. (2014). *Business research methods* (Twelfth ed). McGraw-Hill.

Creswell, J. W. (2012). *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research* (Fourth Edi). Pearson.

Currall, S. C., & Judge, T. A. (1995). Measuring Trust between Organizational Boundary Role Persons. In *Organizational Behavior and Human Decision Processes* (Vol. 64, Issue 2, pp. 151–170). https://doi.org/10.1006/obhd.1995.1097

DeChernatony, L., & McWilliam, G. (1989). The Varying Nature of Brands as Assets. *International Journal of Advertising*, *8*(4), 339–349. https://doi.org/10.1080/02650487.1989.11107118

Delavande, A., Rohwedder, S., & Willis, R. (2008). Preparation for Retirement, Financial Literacy and Cognitive Resources. In *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.1337655

Department of Statistics Malaysia. (2022). *Launching of Report on the Key Findings Population and Housing Census of Malaysia 2020* (Issue February).

Universiti Utara Malaysia

Devon, H. A., Block, M. E., Moyle-wright, P., Ernst, D. M., Hayden, S. J., Lazzara, D. J., Savoy, S. M., & Kostas-polston, E. (2007). A Psychometric Toolbox for Testing Validity and Reliability. *Journal of Nursing Scholarship*, *39*(2), 155–164.

DeWitt, T., Nguyen, D. T., & Marshall, R. (2008). Exploring customer loyalty following service recovery: The mediating effects of trust and emotions. *Journal of Service Research*, *10*(3), 269–281. https://doi.org/10.1177/1094670507310767

Drost, E. A. (2011). Validity and Reliability in Social Science Research. *Education Research and Perspectives*, *38*(1), 105–125.

Dusuki, A. W. (2008). What Does Islam Say About Corporate Social Responsibility (CSR)? *Review of Islamic Economics*, *12*(1), 1–28.

Dusuki, A. W., & Abdullah, N. I. (2007). Why do Malaysian customers patronise Islamic banks? *International Journal of Bank Marketing*, *25*(3), 142–160. https://doi.org/10.1108/02652320710739850

Dusuki, A. W., & Bouheraoua, S. (2011). The Framework of Maqasid Al-Shariah (the Objectives of the Shariah) and Its Implications for Islamic Finance. *Islam and Civilisation Renewal*, *2*, 316–336.

Echchabi, A., & Abd. Aziz, H. (2012). The Relationship between Religiosity and Customers' Adoption of Islamic Banking Services in Morocco. *Oman Chapter of Arabian Journal of Business and Management Review*, *1*(10), 89–94. https://doi.org/10.12816/0002190

Echchabi, A., & Ayedh, A. M. (2015). Factors influencing the Yemeni customers' intention to adopt takaful products. *Gadjah Mada International Journal of Business*, *17*(1), 25–45. https://doi.org/10.22146/gamaijb.6148

Eichhorn, B. R. (2014). *Common Method Variance Techniques*.

Universiti Utara Malaysia

Emari, H., Jafari, A., & Mogaddam, M. (2012). The mediatory impact of brand loyalty and brand image on brand equity. *African Journal of Business Management*, *6*(17), 5692–5701. https://doi.org/10.5897/ajbm11.788

Ennew, C., Kharouf, H., & Sekhon, H. (2011). Trust in UK financial services: A longitudinal analysis. *Journal of Financial Services Marketing*, *16*(1), 65–75. https://doi.org/10.1057/fsm.2011.8

Faizal, A., Aziz, A., & Mohamad, S. (2013). Fulfillment of Maqasid al-Shariah via Takaful. *Munich Personal RePEc Archive*. http://mpra.ub.uni-muenchen.de/47776/

Faraone Gratz, E. (2018). *An Examination of the Mediating Effect of Institutional Trust on Interpersonal Trust and Readiness for Change in University Faculty*.

Fauzi, A. A., & Suryani, T. (2019). Measuring the effects of service quality by using CARTER model towards customer satisfaction, trust and loyalty in Indonesian Islamic banking. *Journal of Islamic Marketing*, *10*(1), 269–289. https://doi.org/10.1108/JIMA-04-2017-0048

Fayrene, C. Y. L., & Lee, G. C. (2011). Customer-based brand equity: a literature review. *Journal of Arts Science & Commerce*, *II*(January 2011), 33–42.

Fernandes, D., Lynch, J., & Netemeyer, R. (2014). Financial Literacy, Financial Education, and Downstream Financial Behaviors. *Management Science*. https://doi.org/10.1287/mnsc.2013.1849

Fishbein, M., & Ajzen, I. (1975). Belief, Attitude, Intention and Behavior: An introduction to theory and research. In *Addison-Wesley*. https://doi.org/10.2307/2065853

Fisher, Dr. O. C. (2013). *A Takaful Primer Basics of Islamic Insurance* (Issue April).

Universiti Utara Malaysia

Gefen, D., Karahanna, E., & Straub, D. W. (2003). Trust and TAM in Online Shopping: An Integrated Model. *MIS Quarterly*, *27*(1).

Geldhof, G. J., & Preacher, K. J. (2014). Supplemental Material for Reliability Estimation in a Multilevel Confirmatory Factor Analysis Framework. *Psychological Methods*, *19*(1), 72–91. https://doi.org/10.1037/a0032138.supp

Gopi, M., & Ramayah, T. (2007). Applicability of theory of planned behavior in predicting intention to trade online: Some evidence from a developing country. *International Journal of Emerging Markets*, *2*(4), 348–360. https://doi.org/10.1108/17468800710824509

Guh, W. Y., Lin, S. P., Fan, C. J., & Yang, C. F. (2013). Effects of organizational justice on organizational citizenship behaviors: Mediating effects of institutional trust and affective commitment. *Psychological Reports*, *112*(3), 818–834. https://doi.org/10.2466/01.21.PR0.112.3.818-834

Hair, J. F., Anderson, R. E., Babin, B. J., & Black, W. C. (2010). *Multivariate Data Analysis.pdf* (7th ed.). Pearson Prentice Hall.

Hair, J. F., Money, G. A., Samouel, P., & Page, M. (2007). *Research Methods For Business*. John Wiley & Sons Ltd.

Hankinson, G., & Cowking, P. (1995). What do you really mean by a brand? *Journal of Brand Management*, *3*(1), 43–50. https://doi.org/10.1057/bm.1995.29

Hassan, H. A., & Abbas, S. K. (2019). Factors influencing the investors' intention to adopt Takaful (Islamic insurance) products: A survey of Pakistan. *Journal of Islamic Marketing*, *11*(1), 1–13. https://doi.org/10.1108/JIMA-03-2018-0064

Hassan, H. A., & Abbas, S. K. (2020). Factors influencing the investors' intention to adopt Takaful (Islamic insurance) products: A survey of Pakistan. *Journal of Islamic Marketing*, *11*(1), 1–13. https://doi.org/10.1108/JIMA-03-2018-0064

Universiti Utara Malaysia

Hassan, M., Bin Nadeem, A., & Akhter, A. (2016). Impact of workplace spirituality on job satisfaction: Mediating effect of trust. *Cogent Business and Management*, *3*(1). https://doi.org/10.1080/23311975.2016.1189808

Hinkin, T. R. (1998). A Brief Tutorial on the Development of Measures for Use in Survey Questionnaires. *Organizational Research Methods*, *1*(1), 104–121. https://doi.org/10.1177/109442819800100106

Hong, I. B., & Cha, H. S. (2013). The mediating role of consumer trust in an online merchant in predicting purchase intention. *International Journal of Information Management*, *33*(6), 927–939. https://doi.org/10.1016/j.ijinfomgt.2013.08.007

Htay, S. N. N., & Zaharin, H. R. (2011). Critical analysis on the choice of Takaful (Islamic insurance) operating models in Malaysia. *Global Economics, Finance and Management Conference*, *2*(2), (1--17). http://irep.iium.edu.my/2280/

Hui Lin, C. (2018). Expanding Insurance Segment for the Underserved and Takaful Solutions. In *Bank Negara Malaysia* (Issue March). https://doi.org/10.1142/9789814663267_0004

Hussain, M. Z., & Habib, K. (2020). The determinant of behavioral factors which influence on credit card usages. *The Journal of Educational Paradigms*, *02*(02), 143–145. https://doi.org/10.47609/0202052020

Ibn Ashour, M. A.-T. (2006). *Ibn Ashur: Treatise on Maqasid Al-Shariah*. International Institute of Islamic Thought (IIIT). https://www.amazon.com/Ibn-Ashur-Treatise-Maqasid-Al-Shariah/dp/1565644220

Ibrahim, N. A. K. (2018). *Factors Influencing the Customer to Adopt E-Banking: A Study of Full-Fledged Islamic Bank in Nothern Region of Malaysia*.

Universiti Utara Malaysia

IMARC Group. (2020). *Takaful Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2020-2025*. IMARC Group. https://www.imarcgroup.com/prefeasibility-report-shrimp-processing-plant

International Monetary Fund. (2020). Malaysia: Selected Issues. In *IMF Staff Country Reports: Vol. 20/58*. https://doi.org/10.5089/9781484345092.002

International Shariah Research Academy for Islamic Finance. (2012). *Islamic Financial System: Principles & Operations* (1st Edition). International Shari'ah Research Academy for Islamic Finance.

Isaac, S., & Michael, W. B. (1995). *Handbook in research and evaluation: A collection of principles, methods, and strategies useful in the planning, design, and evaluation of studies in education and the behavioral sciences*. EdITS Publishers.

Islamic Financial Services Board. (2020). *Compendium of Financial-Sector Regulatory Responses To Covid-19*.

Jabatan Pendidikan Tinggi. (2021). *Senarai Daftar & Statistik IPT Swasta*. https://jpt.mohe.gov.my/portal/index.php/ms/ipt/ipt-swasta/25-senarai-daftar-dan-statistik-ipt-swasta

Jain, P., Duggal, T., & Ansari, A. H. (2019). Examining the mediating effect of trust and psychological well-being on transformational leadership and organizational commitment. *Benchmarking*, *26*(5), 1517–1532. https://doi.org/10.1108/BIJ-07-2018-0191

Jamshidi, D., & Hussin, N. (2015). An integrated adoption model for Islamic credit card: PLS-SEM based approach. *Journal of Islamic Accounting and Business Research*.

Universiti Utara Malaysia

Jamshidi, D., & Hussin, N. (2016). Forecasting patronage factors of Islamic credit card as a new e-commerce banking service. *Journal of Islamic Marketing*, *7*(4), 378–404. https://doi.org/10.1108/jima-07-2014-0050

Jamshidi, D., & Kazemi, F. (2019). Innovation diffusion theory and customers' behavioral intention for Islamic credit card: Implications for awareness and satisfaction. *Journal of Islamic Marketing*, *2013*. https://doi.org/10.1108/JIMA-02-2018-0039

Jan, M. T., & Shafiq, A. (2021). Islamic banks' brand personality and customer satisfaction: an empirical investigation through SEM. *Journal of Islamic Accounting and Business Research*, *12*(4), 488–508. https://doi.org/10.1108/JIABR-05-2020-0149

Jiang, Z. (2015). The relationship between justice and commitment: The moderation of trust. *Asia-Pacific Journal of Business Administration*, *7*(1), 73–88. https://doi.org/10.1108/APJBA-02-2014-0022

Jung, D. I., & Avolio, B. J. (2000). Opening the black box: an experimental investigation of the mediating e€ects of trust and value congruence on transformational and transactional leadership. *Journal of Organizational Behaviour*, *21*, 949–964.

Kaakeh, A., Hassan, M. K., & Van Hemmen Almazor, S. F. (2019). Factors affecting customers' attitude towards Islamic banking in UAE. *International Journal of Emerging Markets*, *14*(4), 668–688. https://doi.org/10.1108/IJOEM-11-2017-0502

Kamarulzaman, Y., & Madun, A. (2013). Marketing Islamic banking products: Malaysian perspective. *Business Strategy Series*, *14*(2–3), 60–66. https://doi.org/10.1108/17515631311325114

Universiti Utara Malaysia

Kang, S. L. (2021). Insurers see rising demand for travel insurance as more countries make it mandatory. *The Edge Malaysia*.

Kao, Y. H., & Sapp, S. G. (2022). The effect of cultural values and institutional trust on public perceptions of government use of network surveillance. *Technology in Society*, *70*. https://doi.org/10.1016/j.techsoc.2022.102047

Karim, J. A., Rahman, S. A., & Ariffin, Z. Z. (2011). Do Muslims Purchase Muslim Products? Muslim Centric Ness: An Exploratory Study. *2011 International Conference on E-Business, Management and Economics*, *25*, 60–65.

Karunasingha, A., & Abeysekera, N. (2022). The mediating effect of trust on consumer behavior in social media marketing environments. *South Asian Journal of Marketing*, *3*(2), 135–149. https://doi.org/10.1108/sajm-10-2021-0126

Keller, K. L. (1993). Conceptualizing, Measuring and Managing Customer-Based Brand Equity. *Journal of Marketing*, *57*, 1–22.

Keller, K. L. (2013). *Strategic Brand Management: Building, Measuring and Managing Brand Equity* (4th ed.). Pearson.

Khairi, K. F., Laili, N. H., & Kamarubahrin, A. F. (2020). Malaysian Consumer Intention toward Takaful Scheme for Mental Health Disorders: A Preliminary Findings using Multiple Regression Analysis. *Journal of Islamic Finance*, *9*(1), 035–045.

Khairi, K. F., Samat, M. S. A., Laili, N. H., Sabri, H., Basah, M. Y. A., Haris, A., & Mirza, A. A. I. (2020). Takaful protection for mental health illness from the perspective of Maqasid Shariah. *International Journal of Financial Research*, *11*(3), 168–175. https://doi.org/10.5430/ijfr.v11n3p168

Khan, F. (2010). How "Islamic" is Islamic Banking? *Journal of Economic Behavior and Organization*, *76*(3), 805–820. https://doi.org/10.1016/j.jebo.2010.09.015

Universiti Utara Malaysia

Kilei, P., Omwenga, J., & Iravo, M. (2016). Role of Brand Associations on Market Brand Performance of Service Brands: Evidential View of Kenya's Banking Industry Peary. *Journal of Marketing and Consumer Research*, *24*, 86–96.

Kloutsiniotis, P. V., & Mihail, D. M. (2018). The link between perceived high-performance work practices, employee attitudes and service quality: The mediating and moderating role of trust. *Employee Relations*, *40*(5), 801–821. https://doi.org/10.1108/ER-08-2017-0201

Kotler, P., & Keller, K. L. (2012). *Marketing Management*. Prentice-Hall.

Krejcie, R. V., & Morgan, D. W. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement*, *38*, 607–610. https://doi.org/10.1891/9780826138446.0006

Kulangara, N. P., Jackson, S. A., & Prater, E. (2016). Examining the impact of socialization and information sharing and the mediating effect of trust on innovation capability. *International Journal of Operations and Production Management*, *36*(11), 1601–1624. https://doi.org/10.1108/IJOPM-09-2015-0558

Kwon, W. J. (2007). Islamic Principle and Takaful Insurance: Re-evaluation. *Journal of Insurance Regulation*, *26*(1).

LaCaille, L. (2013). *Theory of Reasoned Action BT - Encyclopedia of Behavioral Medicine* (M. D. Gellman & J. R. Turner, Eds.; pp. 1964–1967). Springer New York. https://doi.org/10.1007/978-1-4419-1005-9_1619

Lancelot Miltgen, C., 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*(1), 103–114. https://doi.org/10.1016/j.dss.2013.05.010

Universiti Utara Malaysia

Lassar, W., Mittal, B., & Sharma, A. (1995). Measuring customer-based brand equity. *Journal of Consumer Marketing*, *Measuring*(1995).

Lewis, J. D., & Weigert, A. (1985). Trust as a Social Reality. *Social Forces*, *63*(4), 967–985. https://doi.org/10.1093/sf/63.4.967

Li, L., Hallinger, P., & Walker, A. (2016). Exploring the mediating effects of trust on principal leadership and teacher professional learning in Hong Kong primary schools. *Educational Management Administration and Leadership*, *44*(1), 20–42. https://doi.org/10.1177/1741143214558577

Likert, R. (1932). *A Technique for the Measurement of Attitudes*. Woodworth.

Lissitz, R. W., & Green, S. B. (1975). Effect of the number of scale points on reliability: A Monte Carlo approach. *Journal of Applied Psychology*, *60*(1), 10–13. https://doi.org/10.1037/h0076268

Lu, B., & Yi, X. (2023). Institutional trust and repurchase intention in the sharing economy: The moderating roles of information privacy concerns and security concerns. *Journal of Retailing and Consumer Services*, *73*. https://doi.org/10.1016/j.jretconser.2023.103327

Lusardi, A., & Mitchell, O. S. (2011). *Financial Literacy around the World: An Overview* (17107; NBER Working Paper Series).

Madden, T. J., Ellen, S. P., & Ajzen, I. (1992). A Comparison of the Theory of Planned Behavior and the Theory of Reasoned Action. *Personality and Social Psychology Bulletin*, *18*(1), 3–9.

Maduku, D. K. (2016). The effect of institutional trust on internet banking acceptance: Perspectives of South African banking retail customers. *South African Journal of Economic and Management Sciences*, *19*(4), 533–548. https://doi.org/10.17159/2222-3436/2016/v19n4a5

Universiti Utara Malaysia

Maiyaki, A. A., & Ayuba, H. (2015). Consumers' Attitude toward Islamic Insurance Services (Takaful) Patronage in Kano Metropolis, Nigeria. *International Journal of Marketing Studies*, *7*(2), 27–34. https://doi.org/10.5539/ijms.v7n2p27

Malaysian Takaful Association. (2023). *Malaysian Takaful Association Annual Report 2022*.

Malik, A., & Ullah, K. (2019). *Introduction to Takaful*. Palgrave Pivot. https://doi.org/https://doi.org/10.1007/978-981-32-9016-7

Martin, C. (2014). Barriers to the Open Government Data Agenda: Taking a Multi-Level Perspective. *Policy and Internet*, *6*(3), 217–240. https://doi.org/10.1002/1944-2866.POI367

Maulan, S., Omar, N. A., & Ahmad, M. (2016). Measuring halal brand association (HalBA) for Islamic banks. *Journal of Islamic Marketing*, *7*(3).

Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An Integrative Model of Organizational Trust. *The Academy of Management Review*, *20*(3), 709–734.

McAdam, R., & Leonard, D. (2003). Corporate social responsibility in a Total Quality Management Context: Opportunities for sustainable growth. *Corporate Governance International Journal of Business in Society*, *3*(4), 36–45. https://doi.org/10.1108/14720700310497104

McCole, P., Ramsey, E., Kincaid, A., Fang, Y., & LI, H. (2019). The role of structural assurance on previous satisfaction, trust and continuance intention: The case of online betting. *Information Technology and People*, *32*(4), 781–801. https://doi.org/10.1108/ITP-08-2017-0274

McKnight, D. H., & Chervany, N. L. (2001). What Trust Means in E-Commerce Customer Relationships: An Interdisciplinary Conceptual Typology.

Universiti Utara Malaysia

International Journal of Electronic Commerce, *6*(2), 35–59. https://doi.org/10.1080/10864415.2001.11044235

McKnight, D. H., Cummings, L. L., & Chervany, N. L. (1998). Initial Trust Formation in New Organizational Relationships. *Academy of Management Review*, *23*(3), 473–490. https://doi.org/10.5465/AMR.1998.926622

Md Husin, M., & Ab Rahman, A. (2013). The role of brand in the Malaysian takaful industry. *Jurnal Teknologi (Sciences and Engineering)*, *63*(1), 1–6. https://doi.org/10.11113/jt.v63.1358

Md Husin, M., & Ab Rahman, A. (2016a). Do Muslims intend to participate in Islamic insurance? Analysis from theory of planned behaviour. *Journal of Islamic Accounting and Business Research*, *7*(1), 42–58.

Md Husin, M., & Ab Rahman, A. (2016b). Predicting intention to participate in family takaful scheme using Decomposed Theory of Planned Behaviour. *International Journal of Social Economics*, *43*(12), 42–58. http://dx.doi.org/10.1108/03068299110143436%5Cnhttp://%5Cnhttp://dx.doi.org/10.1108/10748121211272452

Md Husin, M., Ismail, N., & Ab Rahman, A. (2016). The roles of mass media, word of mouth and subjective norm in family takaful purchase intention. *Journal of Islamic Marketing*, *7*(1), 59–73.

Md Razak, M., Idris, R., Md Yusof, M., & Jaapar, W. E. (2013). Acceptance Determinants towards Takaful Products in Malaysia. *International Journal of Humanities and Social Science*, *3*(17), 243–252.

Mehta, N., Chen, X. J., & Narasimhan, O. (2008). Informing, Transforming, and Persuading: Disentangling the Multiple Effects of Advertising on Brand Choice

Universiti Utara Malaysia

Decisions. *Marketing Science*, *27*(3), 334–355. https://doi.org/10.1287/mksc.1070.0310

Mohd Noor, A., Al, R., & Saad, J. (2016). International Journal of Economics and Financial Issues The Mediating Effect of Trust on the Relationship between Attitude and Perceived Service Quality towards Compliance Behavior of Zakah. *International Journal of Economics and Financial Issues* |, *6*(S7), 27–31. http:www.econjournals.com

Mohd Suki, N. (2010). An Empirical Study of Factors Affecting the Internet Banking Adoption among Malaysian Consumer's. *Journal of Internet Banking and Commerce*, *15*(2), 1–11.

Mohy-Ul-Din, S., Samad, S., Rehman, M. A., Ali, M. Z., & Ahmad, U. (2019). The mediating effect of service provider expertise on the relationship between institutional trust, dispositional trust and trust in takaful services: An empirical investigation from Pakistan. *International Journal of Islamic and Middle Eastern Finance and Management*, *12*(4), 509–522. https://doi.org/10.1108/IMEFM-02-2018-0072

Moin, S. M. A., Devlin, J. F., & McKechnie, S. (2017). Trust in financial services: The influence of demographics and dispositional characteristics. *Journal of Financial Services Marketing*, *22*(2), 64–76. https://doi.org/10.1057/s41264-017-0023-8

Moin, S. M. A., Devlin, J., & McKechnie, S. (2015). Trust in financial services: Impact of institutional trust and dispositional trust on trusting belief. *Journal of Financial Services Marketing*, *20*(2), 91–106. https://doi.org/10.1057/fsm.2015.6

Mozumder, N. A. (2018). A Multilevel Trust-based Model of Ethical Public Leadership. *Journal of Business Ethics*, *153*(1), 167–184. https://doi.org/10.1007/s10551-016-3341-1

Universiti Utara Malaysia

Nadirov, O., Aliyev, K., Dehning, B., Sharifzada, I., & Aliyeva, R. (2021). Life satisfaction and tax morale in azerbaijan: Mediating role of institutional trust and financial satisfaction. *Sustainability*, *13*(21). https://doi.org/10.3390/su132112228

Naeem, M. (2020). Developing the antecedents of social influence for Internet banking adoption through social networking platforms: evidence from conventional and Islamic banks. *Asia Pacific Journal of Marketing and Logistics*. https://doi.org/10.1108/APJML-07-2019-0467

Nahar, H. S. (2015). Insurance vs Takaful: identical sides of a coin? *Journal of Financial Reporting and Accounting*, *13*(2), 247–266.

National Institutes of Health. (2019). *National Health and Morbidity Survey 2019*. https://doi.org/10.18356/be4d1601-en

Neuman, W. L. (2014). *Social Work Research Methods: Qualitative and Quantitative Approaches* (Seventh Ed). Pearson.

Ng, K. Y. N. (2020). The moderating role of trust and the theory of reasoned action. *Journal of Knowledge Management*, *24*(6), 1221–1240. https://doi.org/10.1108/JKM-01-2020-0071

Nurdianawati, I. A., & Gustina. (2012). Analysis of Demand for Family Takaful and Life Insurance: A Comparative Study in Malaysia. *Journal of Islamic Economics, Banking and Finance*, *8*(4), 67–86.

Olano, G. (2019). Malaysia likely to miss goal of 75% insurance penetration by 2020. *Insurance Business Asia*, 1–4.

Omar, O. E., & Owusu-Frimpong, N. (2007). Life insurance in Nigeria: An application of the theory of reasoned action to consumers' attitudes and purchase intention.

Universiti Utara Malaysia

Service Industries Journal, *27*(7), 963–976. https://doi.org/10.1080/02642060701570891

Osman, Z., & Sentosa, I. (2013). A study of mediating effect of trust on customer satisfaction and customer loyalty relationship in Malaysian rural tourism. *European Journal of Tourism Research*, *6*(2), 192–206.

Othman, A., & Owen, L. (2001). Adopting and Measuring Customer Service Quality (SQ) in Islamic Banks: A Case Study in Kuwait Finance House. *International Journal of Islamic Financial Services*, *3*(1), 69–83. https://doi.org/10.3366/edinburgh/9780748621002.003.0005

Othman, N., Meqdad, A., Ahmed, A., & Shami, A. (2018). Predicting Factors Affecting Muslims' Family Takaful Participation: Theory of Planned Behaviour. *Global Business and Management Research: An International Journal*, *10*(3), 1054–1063.

Pallant, J. (2007). *SPSS Survival Manual: A Step by Step Guide to Data Analysis using SPSS for Windows* (Third Edit). McGraw-Hill.

Parveen, T., Razali, S. S., & Che Mohd Salleh, M. (2019a). Investment-Linked Takaful Plan Patronage: Evidence from Malaysia. *Global Review of Islamic Economics and Business*, *7*(1), 41–48.

Parveen, T., Razali, S. S., & Che Mohd Salleh, M. (2019b). Preference toward Investment-Linked Takaful Plan: Mediating Role of Attitude. *International Tourrism and Hospitality Journal*, *2*(2), 1–6.

Paul Hype Page & Co. (2019). *The Fintech Industry of Malaysia*. Paul Hype Page & Co.

Universiti Utara Malaysia

Pavlou, P. A., & Gefen, D. (2004). Building effective online marketplaces with institution-based trust. *Information Systems Research*, *15*(1). https://doi.org/10.1287/isre.1040.0015

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. In *Journal of Applied Psychology* (Vol. 88, Issue 5, pp. 879–903). https://doi.org/10.1037/0021-9010.88.5.879

Preston, C. C., & Colman, A. M. (2000). Optimal number of response categories in rating scales: Reliability, validity, discriminating power, and respondent preferences. *Acta Psychologica*, *104*(1), 1–15. https://doi.org/10.1016/S0001-6918(99)00050-5

PwC. (2023). *Revolutionising financial inclusion through Digital Insurance and Takaful - Promoting inclusive insurance in Malaysia*.

Rao, M. (2019). Buying life insurance is a sound investment. *The Malaysian Reserve*.

Raykov, T., & Marcoulides, G. A. (2008). *An Introduction to Applied Multivariate Analysis* (1st Edition). Routledge. https://doi.org/10.4324/9780203809532

Raza, S. A., Ahmed, R., Ali, M., & Qureshi, M. A. (2019). Influential factors of Islamic insurance adoption: an extension of theory of planned behavior. *Journal of Islamic Marketing*. https://doi.org/10.1108/JIMA-03-2019-0047

Raza, S. A., Shah, N., & Ali, M. (2019). Acceptance of mobile banking in Islamic banks: evidence from modified UTAUT model. *Journal of Islamic Marketing*, *10*(1), 357–376. https://doi.org/10.1108/JIMA-04-2017-0038

Refinitiv. (2019). *Islamic Finance Development Report 2019 - Shifting Dynamics*.

Refinitiv. (2020). Islamic Finance Development Report 2020: Progressing Through Development. In *Refinitiv*.

Universiti Utara Malaysia

Refinitiv. (2021). Islamic Finance Development Report 2021: Advancing Economies. In *Refinitiv: An LSEG Business*. https://www.refinitiv.com/content/dam/marketing/en_us/documents/gated/reports/report-2021-all-color2.pdf

Rivis, A., & Sheeran, P. (2003). Descriptive norms as an additional predictor in the theory of planned behaviour: A meta-analysis. *Current Psychology*, *22*(3), 218–233. https://doi.org/10.1007/s12144-003-1018-2

Robb, C. A., & Woodyard, A. (2011). Financial Knowledge and Best Practice Behavior. *Journal of Financial Counseling and Planning*, *22*(1).

Robinson, J. P., Shaver, P. R., & Wrightsman, L. S. (1991). Criteria for Scale Selection and Evaluation. *Measures of Personality and Social Psychological Attitudes*, 1–16. https://doi.org/10.1016/b978-0-12-590241-0.50005-8

Rotter J. (1967). A new scale for the measurement of interpersonal trust. *Journal of Personality*, *35*(4), 651–665.

Rubin, A., & Babbie, E. R. (2011). *Research Methods for Social Work*. Brooks/Cole.

Rutherford, L. G., & DeVaney, S. A. (2009). Utilizing the theory of planned behavior to understand convenience use of credit cards. *Journal of Financial Counseling and Planning*, *20*(2), 48–63.

Saidon, R., Ramly, A., Ishak, A. H., & Razaly, M. Z. (2019a). Significant Factors Influencing the Choice of Family Takaful. *International Journal of Civil Engineering and Technology*, *10*(02), 820–825.

Saidon, R., Ramly, A., Ishak, A. H., & Razaly, M. Z. (2019b). Significant Factors Influencing the Choice of Family Takaful. *International Journal of Civil Engineering and Technology*, *10*(02), 820–825.

Universiti Utara Malaysia

Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research Methods for Business Students* (Fifth Edit). Pearson Education Limited.

Schumacker, R., & Lomax, R. (2016). A Beginner's Guide To Structural Equation Modeling. In *Routledge/Taylor & Francis Group* (Vol. 288). https://doi.org/10.4324/9781410610904

Sekaran, U. (2003). *Research Methods for Business: A Skill-Building Approach* (4th Editio). John Wiley & Sons.

Shaikh, I. M., Bin Noordin, K., Arijo, S., Shaikh, F., & Alsharief, A. (2019). Predicting customers' adoption towards family takaful scheme in Pakistan using diffusion theory of innovation. *Journal of Islamic Marketing*. https://doi.org/10.1108/JIMA-02-2018-0037

Shao, C. Y., Baker, J. A., & Wagner, J. A. (2004). The effects of appropriateness of service contact personnel dress on customer expectations of service quality and purchase intention: The moderating influences of involvement and gender. *Journal of Business Research*, *57*(10), 1164–1176. https://doi.org/10.1016/S0148-2963(02)00326-0

Shapiro, S. P. (1987). The Social Control of Impersonal Trust. *American Journal of Sociology*, *93*(3), 623–658. https://doi.org/10.1086/228791

Sharifuddin, S. S., Kasmoen, N. A., Mat Taha, N. H., Mir Ahmad Talaat, N. S., & Mir Ahmad Taalat, A. Z. (2016). The Concept of Takaful (Islamic Insurance) and Its Functions in the Establishment of Syarikat Takaful Malaysia; the First Takaful Operator in Malaysia. *International Journal of Humanities and Social Science Invention*, *5*(12), 43–48. www.ijhssi.org

Universiti Utara Malaysia

Sherif, M., & Azlina Shaairi, N. (2013). Determinants of demand on family Takaful in Malaysia. *Journal of Islamic Accounting and Business Research*, *4*(1), 26–50. https://doi.org/10.1108/17590811311314276

Shih, Y. Y., & Fang, K. (2004). The use of a decomposed theory of planned behavior to study Internet banking in Taiwan. *Internet Research*, *14*(3), 213–223. https://doi.org/10.1108/10662240410542643

Straub, D., & Gefen, D. (2004). Validation Guidelines for IS Positivist Research. *Communications of the Association for Information Systems*, *13*(March). https://doi.org/10.17705/1cais.01324

Streiner, D. L. (2003). Starting at the beginning: An Introduction to Coefficient Alpha and Internal Consistency. *Journal of Personality Assessment*, *80*(1), 99–103.

Subramaniam, P., & Vanessa, G. (2019). Cover Story: Tackling challenges head- on. *The Edge Malaysia*.

Sweeney, J. C., Soutar, G. N., & Mazzarol, T. (2008). Factors influencing word of mouth effectiveness: Receiver perspectives. *European Journal of Marketing*, *42*(3–4), 344–364. https://doi.org/10.1108/03090560810852977

Syadiyah Abdul Shukor. (2018). Exploring Motives of Malaysian Muslims for Participating in Family Takaful. *Journal of Wealth Management & Financial Planning*, *5*(June), 37–46.

Taherdoost, H. (2019). What Is the Best Response Scale for Survey and Questionnaire Design; Review of Different Lengths of Rating Scale / Attitude Scale / Likert Scale. *International Journal of Academic Research in Management (IJARM)*, *8*(1), 1–10.

Tan, M., & Teo, T. S. H. (2000). Factors Influencing the Adoption of Internet Banking. *Journal of the Association for Information Systems*, *1*(5).

Universiti Utara Malaysia

Tarhini, A., El-Masri, M., Ali, M., & Serrano, A. (2016). Extending the UTAUT model to understand the customers' acceptance and use of internet banking in Lebanon: A structural equation modeling approach. *Information Technology and People*, *29*(4), 830–849. https://doi.org/10.1108/ITP-02-2014-0034

Taştan, S. B., & Davoudi, S. M. M. (2015). An Examination of the Relationship between Leader-member Exchange and Innovative Work Behavior with the Moderating Role of Trust in Leader: A Study in the Turkish Context. *Procedia - Social and Behavioral Sciences*, *181*, 23–32. https://doi.org/10.1016/j.sbspro.2015.04.862

Taylor, S., & Todd, P. (1995a). 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. https://doi.org/10.1016/0167-8116(94)00019-K

Taylor, S., & Todd, P. A. (1995b). Understanding information technology usage: A test of competing models. *Information Systems Research*, *6*(2), 144–176. https://doi.org/10.1287/isre.6.2.144

Temporal, P. (2011). *Islamic Branding and Marketing: Creating a Global Islamic Business*. John Wiley and Sons.

The Edge Malaysia. (2023, April). *Malaysian takaful industry grows 18.3% in 2022 on higher demand for Islamic finance — MTA*.

The Star. (2020). Takaful industry outlook remains positive despite Covid-19. *The Star Digital*. https://www.thestar.com.my/business/business-news/2020/10/28/takaful-industry-outlook-remains-positive-despite-covid-19

Tong, J., Zhang, X., Zhu, X., & Dang, J. (2022). How and when institutional trust helps deal with group crisis like COVID-19 pandemic for Chinese employees? A

social perspective of motivation. *Current Psychology*. https://doi.org/10.1007/s12144-022-04149-w

Tun-Pin, C., Keng-Soon, W. C., Yen-San, Y., Pui-Yee, C., Hong-Leong, J. T., & Shwu-Shing, N. (2019). An Adoption of Fintech Service in Malaysia. *South East Asia Journal of Contemporary Business, Economics and Law*, *18*(5), 73–92.

Uddin, M. A. (2015). Principles of Islamic Finance: Prohibition of Riba, Gharar and Maysir. *Munich Personal RePEc Archive*, *67711*, 1–8. https://mpra.ub.uni-muenchen.de/67711/1/MPRA_paper_67711.pdf

Vallerand, R. J., Deshaies, P., Cuerrier, J. P., Pelletier, L. G., & Mongeau, C. (1992). Ajzen and Fishbein's Theory of Reasoned Action as Applied to Moral Behavior: A Confirmatory Analysis. *Journal of Personality and Social Psychology*, *62*(1), 98–109. https://doi.org/10.1037/0022-3514.62.1.98

Vasu, P. (2021). Digital platform to drive takaful demand. *The Malaysia Reserve*. https://themalaysianreserve.com/2020/02/24/digital-platform-to-drive-takaful-demand/

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User Acceptance of Information Technology: Toward a Unified View. *MIS Quarterly*, *27*(3), 425–478. https://doi.org/10.1016/j.inoche.2016.03.015

Venkatesh, V., Thong, J. Y. L., & Xu, X. (2012). Consumer Acceptance and Use of Information Technology: Extending the Unified Theory of Acceptance and Use of Technology. *MIS Quarterly*, *36*(1), 157–178.

Wajdi Dusuki, A. (2008). Understanding the objectives of Islamic banking: a survey of stakeholders' perspectives. *International Journal of Islamic and Middle Eastern Finance and Management*, *1*(2), 132–148. https://doi.org/10.1108/17538390810880982

Universiti Utara Malaysia

Wan Ahmad, W. M., Ab Rahman, A., Ali, N. A., & Che Seman, A. (2008). Religiousity and Banking Selection among Malays in Lembah Klang. *Shariah Journal*, *16*(2), 279–304.

Warde, I. (2010). *Islamic finance in the global economy*. Edinburgh University Press.

Widuri, R., Kholil, M., Nurbani, R. G. K., & Hendri, Z. Z. Z. (2020). The use of unified theory of acceptance and use of technology in the adoption of M-payment. *Proceedings of the International Conference on Industrial Engineering and Operations Management*, *0*(March), 943–951.

Wilson, J. A. J., Belk, R. W., Bamossy, G. J., Sandikci, Ö., Kartajaya, H., Sobh, R., Liu, J., & Scott, L. (2013). Crescent marketing, Muslim geographies and brand Islam: Reflections from the JIMA Senior Advisory Board. In *Journal of Islamic Marketing* (Vol. 4, Issue 1). https://doi.org/10.1108/17590831311306336

Wilson, J. A. J., & Liu, J. (2010). Shaping the Halal into a brand? *Journal of Islamic Marketing*, *1*(2), 107–123. https://doi.org/10.1108/17590831011055851

Wrightsman, L. S. (1991). Interpersonal Trust and Attitudes toward Human Nature. In *Measures of Personality and Social Psychological Attitudes* (Third Revi, pp. 373–412). Academic Press, Inc. https://doi.org/10.1016/b978-0-12-590241-0.50012-5

Yegidis, B. L., Weinbach, R. W., & Myers, L. L. (2018). *Research methods for social workers*. Pearson.

Yudiarti, E. F., & Puspaningrum, A. (2018). The Role of Trust as a Mediation Between the Effect of Perceived Usefulness and Perceived Ease of Use to Interest to Buy E-Book. *Journal of Applied Management (JAM)*, *16*. https://doi.org/10.21776/ub.jam.2018

Universiti Utara Malaysia

Yuen Onn, C., Nordin bin Yunus, J., Yusof, H. binti, Moorthy, K., & Ai Na, S. (2018). The mediating effect of trust on the dimensionality of organisational justice and organisational citizenship behaviour amongst teachers in Malaysia. *Educational Psychology*, *38*(8), 1010–1031. https://doi.org/10.1080/01443410.2018.1426836

Yusof, M. F., Wan Ismail, W. Z., & Mohd Naaim, A. K. (2015). *Takaful: Operations and Business Competence* (1st ed.). IBFIM.

Zhu, Y. Q., & Chen, H. G. (2012). Service fairness and customer satisfaction in internet banking: Exploring the mediating effects of trust and customer value. *Internet Research*, *22*(4), 482–498. https://doi.org/10.1108/10662241211251006

Zikmund, W., Carr, B., Griffin, Mitch., Babin, Barry., & Carr, Jon. (2013). *Business Research Method*.

Zikmund, W. G. (2008). *Business research methods* (Ohio, Sout). Mason.

Zucker, L. G. (1986). Production of trust: Institutional sources of economic structure, 1840-1920. In *Research in Organizational Behavior* (Vol. 8).

Zuiderwijk, A., Janssen, M., & Dwivedi, Y. K. (2015). Acceptance and use predictors of open data technologies: Drawing upon the unified theory of acceptance and use of technology. *Government Information Quarterly*. https://doi.org/10.1016/j.giq.2015.09.005

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APPENDICES

Appendix A – Questionnaire Survey

Pusat Pengajian Perniagaan Islam
ISLAMIC BUSINESS SCHOOL
كلية إدارة الأعمال الإسلامية
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THE NEXUS BETWEEN HALAL BRAND ASSOCIATION, FACILITATING CONDITIONS AND INSTITUTIONAL TRUST TOWARD THE PARTICIPATION IN THE FAMILY TAKAFUL PRODUCTS

السلام عليكم ورحمة الله وبركاته

To: Whom it may concern,

Re: Academic Research

This questionnaire intends to measure the factors influencing the consumers' participation in family takaful products among the academicians in private Islamic Universities in Malaysia. The information collected through this questionnaire is crucial for the researcher to achieve the research objectives and goals to meet the study requirement for a Doctor of Philosophy in Islamic Finance & Banking from Universiti Utara Malaysia (UUM).

All information that you provide will be kept **CONFIDENTIAL** and only for **ACADEMIC RESEARCH PURPOSES**. Thank you for your cooperation and support towards this study.

If you need further clarification, I would be pleased to assist you by contacting me through my phone and email, as shown below.

Thank you.

Best regards,

MOHD FAIZUDDIN BIN MUHAMMAD ZUKI
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Mobile: 6011 3722 7990

SECTION A: DEMOGRAPHIC PROFILE

Bahagian A: Profil Demografi

Please tick (√) in the appropriate box.

Sila tanda (√) di kotak yang bersesuaian.

1.	Gender *Jantina*	☐ Male *Lelaki*	☐ Female *Perempuan*
2.	Marital status *Status perkahwinan*	☐ Married *Berkahwin*	☐ Single *Bujang*
3.	Age *Umur*	☐ 21 – 30 years *21 – 30 tahun*	☐ 31 – 40 years *31 – 40 tahun*
		☐ 41 – 50 years *41 – 50 tahun*	☐ > 50 years *> 50 tahun*
4.	Highest education level *Tahap pendidikan tertinggi*	☐ SPM/STPM *SPM/STPM*	☐ Diploma *Diploma*
		☐ Bachelor's degree *Sarjana Muda*	☐ Master's degree *Sarjana*
		☐ PhD *PhD*	
5.	Monthly income *Pendapatan bulanan*	☐ RM1000 – RM2500	☐ RM2501 – RM4000
		☐ RM4001 – RM5500	☐ > RM5501
6.	Year of services *Tahun perkhidmatan*	☐ Less than 5 years *Kurang 5 tahun*	☐ 6 – 10 years *6 – 10 tahun*
		☐ 11 – 15 years *11 – 15 tahun*	☐ 16 – 20 years *16 – 20 tahun*
		☐ > 21 years *> 21 tahun*	

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SECTION B: THE INFLUENCE OF ATTITUDE
Bahagian B: Pengaruh Sikap

Please indicate how strongly you agree or disagree with the following statements. There are no right and wrong answers to the questions.

Strongly disagree	1	2	3	4	5	6	7	8	9	10	Strongly agree

1	For me, to participate in family takaful product is a good decision. *Bagi saya, penyertaan didalam produk takaful keluarga adalah keputusan yang baik.*	1	2	3	4	5	6	7	8	9	10
2	For me, family takaful product enables me to solve my financial problem. *Bagi saya, produk takaful keluarga membolehkan saya menyelesaikan masalah beban kewangan.*	1	2	3	4	5	6	7	8	9	10
3	For me, saving packages in family takaful product will be beneficial in the future. *Bagi saya, pakej simpanan dalam produk takaful keluarga bermanfaat pada masa hadapan.*	1	2	3	4	5	6	7	8	9	10
4	I think family takaful product is a valuable package. *Saya berpendapat, pakej produk takaful keluarga sangat berpatutan.*	1	2	3	4	5	6	7	8	9	10
5	I think family takaful product is a good protection package. *Saya rasa produk takaful keluarga adalah pakej perlindungan yang baik.*	1	2	3	4	5	6	7	8	9	10
6	I prefer a family takaful product that provides a saving plan. *Saya lebih suka produk takaful keluarga yang menyediakan pelan simpanan.*	1	2	3	4	5	6	7	8	9	10
7	I prefer a family takaful product that provides an investment plan. *Saya lebih suka produk takaful keluarga yang menyediakan pelan pelaburan.*	1	2	3	4	5	6	7	8	9	10

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8	I would be happy to protect myself with family takaful product. *Saya berasa gembira melindungi diri dan keluarga saya dengan produk takaful keluarga.*	1	2	3	4	5	6	7	8	9	10

SECTION C: THE INFLUENCE OF SUBJECTIVE NORM
Bahagian C: Pengaruh Norma Subjektif

Strongly disagree	1	2	3	4	5	6	7	8	9	10	Strongly agree

9	My family members, who influenced my decision, think that I should participate in a family takaful product. *Ahli keluarga saya, yang mempengaruhi keputusan saya, berpendapat bahawa saya harus menyertai produk takaful keluarga.*	1	2	3	4	5	6	7	8	9	10
10	My family members, who are important to me, think that I should participate in a family takaful product. *Ahli keluarga yang penting bagi saya, berpendapat bahawa saya harus menyertai produk takaful keluarga.*	1	2	3	4	5	6	7	8	9	10
11	My family, who influenced my behaviour thinks that I should participate in a family takaful product. *Keluarga saya yang mempengaruhi tingkah laku saya berpendapat bahawa saya harus menyertai produk takaful keluarga.*	1	2	3	4	5	6	7	8	9	10
12	My office mates suggest that I should participate in a family takaful product. *Rakan pejabat saya berpendapat bahawa saya harus menyertai produk takaful keluarga.*	1	2	3	4	5	6	7	8	9	10
13	My best friends think that I should participate in a family takaful product. *Kawan-kawan baik saya berpendapat bahawa saya harus menyertai produk takaful keluarga.*	1	2	3	4	5	6	7	8	9	10

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14	The takaful agent thinks that I should participate in a family takaful product. *Ejen produk takaful berpendapat bahawa saya harus menyertai produk takaful keluarga.*	1	2	3	4	5	6	7	8	9	10
15	The takaful agent thinks that I should participate in a family takaful product to protect myself and my family from unforeseen risks. *Ejen takaful berpendapat bahawa saya harus menyertai produk takaful keluarga untuk melindungi diri dan keluarga saya daripada risiko yang tidak dijangka.*	1	2	3	4	5	6	7	8	9	10
16	The takaful agent influenced my decision to participate in a family takaful product. *Agen takaful mempengaruhi keputusan saya untuk menyertai produk takaful keluarga.*	1	2	3	4	5	6	7	8	9	10

SECTION D: THE INFLUENCE OF PERCEIVED BEHAVIOURAL CONTROL
Bahagian D: Pengaruh persepsi kawalan gelagat

Strongly disagree	1	2	3	4	5	6	7	8	9	10	Strongly agree

17	It will be easy for me to participate in a family takaful product soon. *Mudah bagi saya untuk menyertai produk takaful keluarga dalam masa terdekat.*	1	2	3	4	5	6	7	8	9	10
18	I am very confident that I will be able to participate in a family takaful product soon. *Saya sangat yakin bahawa saya dapat menyertai produk takaful keluarga dalam masa terdekat.*	1	2	3	4	5	6	7	8	9	10
19	I have total control over participating in a family takaful product. *Saya mempunyai kawalan sepenuhnya untuk menyertai produk takaful keluarga.*	1	2	3	4	5	6	7	8	9	10

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20	If I wanted to, I could easily participate in any of the family takaful products on my own. *Sekiranya saya mahu, saya boleh menyertai produk takaful keluarga dengan mudah.*	1	2	3	4	5	6	7	8	9	10
21	I could participate in a family takaful product even if there were no one around to show me how to do it. *Saya mampu menyertai produk takaful keluarga walaupun tidak ada orang yang menunjukkan cara melakukannya.*	1	2	3	4	5	6	7	8	9	10
22	I am confident to participate in a family takaful product if only by referring to the takaful's website. *Saya yakin dapat menyertai produk takaful keluarga jika hanya merujuk kepada laman web takaful.*	1	2	3	4	5	6	7	8	9	10
23	I am confident of participating in a family takaful product even if I have never participated in such a product before. *Saya merasa yakin dapat menyertai produk takaful keluarga walaupun sebelum ini saya tidak pernah mengambil bahagian dalam produk tersebut.*	1	2	3	4	5	6	7	8	9	10
24	I am confident of participating in a family takaful product if I have just seen someone participate in it before participating in it myself. *Saya merasa yakin dapat menyertai produk takaful keluarga sekiranya saya pernah melihat seseorang menyertai produk tersebut.*	1	2	3	4	5	6	7	8	9	10

SECTION E: THE INFLUENCE OF HALAL BRAND ASSOCIATION
Bahagian E: Pengaruh Jenama Halal

Strongly disagree	1	2	3	4	5	6	7	8	9	10	Strongly agree

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25	Takaful company is operated according to Islamic principles. *Syarikat takaful dikendalikan mengikut prinsip-prinsip Islam.*	1	2	3	4	5	6	7	8	9	10
26	The operation of a takaful company is not involved in non-halal activities such as interest (*riba*), uncertainty (*gharar*) and gambling (*maysir*). *Operasi syarikat takaful tidak terlibat dalam aktiviti tidak halal seperti faedah (riba), ketidakpastian (gharar) dan perjudian (maysir).*	1	2	3	4	5	6	7	8	9	10
27	Investment activity in a takaful company is permissible (*halal*). *Aktiviti pelaburan di syarikat takaful dibenarkan (halal).*	1	2	3	4	5	6	7	8	9	10
28	I believe that by participating in family takaful products, I can donate (*tabbaru'*) to other participants. *Saya percaya dengan meyertai produk takaful keluarga, saya dapat menderma (tabbaru') kepada ahli lain.*	1	2	3	4	5	6	7	8	9	10
29	I believe by participating in family takaful products, my savings are guaranteed. *Saya percaya dengan menyertai produk takaful keluarga, simpanan saya adalah terjamin.*	1	2	3	4	5	6	7	8	9	10
30	Takaful company contributes some portions of its profits towards the payment of almsgiving (*zakat*). *Syarikat takaful menyumbang sebahagian daripada keuntungannya untuk pembayaran sedekah (zakat).*	1	2	3	4	5	6	7	8	9	10
31	The takaful company offers Islamic-based products and services. *Syarikat takaful menawarkan produk dan perkhidmatan berasaskan Islam.*	1	2	3	4	5	6	7	8	9	10
32	Overall, family takaful products serve as a substitute for conventional insurance, which is not Shariah-compliant.	1	2	3	4	5	6	7	8	9	10

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	Secara keseluruhan, produk takaful keluarga berfungsi sebagai pengganti insurans konvensional yang tidak mematuhi Shariah.										

SECTION F: THE INFLUENCE OF FACILITATING CONDITIONS
Bahagian F: Pengaruh Fasiliti

Strongly disagree	1	2	3	4	5	6	7	8	9	10	Strongly agree

33	The information regarding family takaful products is available on the website. *Maklumat mengenai produk takaful keluarga tersedia di laman web.*	1	2	3	4	5	6	7	8	9	10
34	I could easily get access to resources needed to participate in a family takaful product from the company's website. *Saya dapat mengakses sumber yang diperlukan untuk menyertai produk takaful keluarga dari laman web syarikat dengan mudah.*	1	2	3	4	5	6	7	8	9	10
35	I could easily participate in a family takaful product through an online platform. *Saya dapat menyertai produk takaful keluarga dengan mudah melalui aplikasi atas talian.*	1	2	3	4	5	6	7	8	9	10
36	Documents to participate in family takaful product are available on the website. *Dokumen-dokumen untuk menyertai produk takaful keluarga tersedia di laman web.*	1	2	3	4	5	6	7	8	9	10
37	Space to ask questions related to family takaful product is available on the web. *Ruang untuk bertanya soalan berkaitan produk takaful keluarga tersedia di lawan web.*	1	2	3	4	5	6	7	8	9	10
38	Family takaful companies provide online applications to facilitate customer affairs.	1	2	3	4	5	6	7	8	9	10

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	Syarikat takaful keluarga menyediakan aplikasi atas talian bagi memudahkan urusan pelanggan.										
39	Family takaful companies provide online applications to facilitate loss claims. *Syarikat takaful keluarga menyediakan aplikasi atas talian bagi memudahkan urusan tuntutan kerugian.*	1	2	3	4	5	6	7	8	9	10
40	Family takaful companies provide online applications for easy access to information about panel clinics. *Syarikat takaful keluarga menyediakan aplikasi atas talian bagi mudah untuk mendapatkan maklumat tentang klinik panel.*	1	2	3	4	5	6	7	8	9	10

SECTION G: THE INFLUENCE OF INSTITUTIONAL TRUST
Bahagian G: Pengaruh kepercayaan terhadap syarikat takaful

Strongly disagree	1	2	3	4	5	6	7	8	9	10	Strongly agree

41	My confidence and trust in the Takaful companies are very high. *Keyakinan dan kepercayaan saya terhadap syarikat Takaful sangat tinggi.*	1	2	3	4	5	6	7	8	9	10
42	I believe that family takaful companies act honestly and ethically. *Saya mempercayai bahawa syarikat takaful keluarga bertindak dengan jujur dan beretika.*	1	2	3	4	5	6	7	8	9	10
43	I am confident that the policies and rules of a family takaful company protect its customers. *Saya yakin bahawa polisi dan peraturan syarikat takaful keluarga melindungi pelanggannya.*	1	2	3	4	5	6	7	8	9	10
44	Takaful companies that offer family takaful products are very reliable. *Syarikat takaful yang menawarkan produk takaful keluarga sangat dipercayai.*	1	2	3	4	5	6	7	8	9	10
45	The family takaful company has a good reputation.	1	2	3	4	5	6	7	8	9	10

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	Syarikat takaful keluarga mempunyai reputasi yang baik.										
46	I believe that family takaful companies comply with Islamic financial laws. *Saya mempercayai bahawa syarikat takaful keluarga mematuhi undang-undang kewangan Islam.*	1	2	3	4	5	6	7	8	9	10
47	I believe that family takaful companies are going to make sure their agents are trained and professional. *Saya percaya bahawa syarikat takaful keluarga akan memastikan ejen mereka terlatih dan profesional.*	1	2	3	4	5	6	7	8	9	10
48	I believe that the administrative system of a family takaful company is efficient and effective. *Saya percaya bahawa sistem pentadbiran syarikat takaful keluarga adalah cekap dan efisien.*	1	2	3	4	5	6	7	8	9	10

SECTION H: INTENTION TO PARTICIPATE IN FAMILY TAKAFUL PRODUCT
Bahagian H: Niat untuk menyertai produk takaful keluarga

Strongly disagree	1	2	3	4	5	6	7	8	9	10	Strongly agree

49	I plan to participate in a family takaful product in future. *Saya merancang untuk menyertai produk takaful keluarga pada masa akan datang.*	1	2	3	4	5	6	7	8	9	10
50	I intend to join a family takaful product if I have strong financial ability. *Saya berhasrat untuk menyertai produk takaful keluarga sekiranya saya mempunyai kemampuan kewangan yang kukuh.*	1	2	3	4	5	6	7	8	9	10
51	I plan to protect my family with a family takaful product. *Saya bercadang untuk melindungi keluarga saya dengan produk takaful keluarga.*	1	2	3	4	5	6	7	8	9	10
52	I expect to participate in a family takaful product. *Saya berharap dapat menyertai produk takaful keluarga.*	1	2	3	4	5	6	7	8	9	10

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53	I want to participate in a family takaful product. *Saya mahu menyertai produk takaful keluarga.*	1	2	3	4	5	6	7	8	9	10
54	If given the opportunity, I will participate a family takaful product in the future. *Jika diberi peluang, saya akan menyertai produk takaful keluarga pada masa akan datang.*	1	2	3	4	5	6	7	8	9	10
55	I will make some effort to participate in a family takaful product in future. *Saya akan berusaha untuk menyertai produk takaful keluarga pada masa akan datang.*	1	2	3	4	5	6	7	8	9	10
56	I will strongly recommend a family takaful product for others to participate in it. *Saya sangat mengesyorkan orang lain untuk turut serta dalam produk takaful keluarga.*	1	2	3	4	5	6	7	8	9	10

THANK YOU FOR YOUR CORPORATION
TERIMA KASIH ATAS KERJASAMA ANDA

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Appendix B – Content Validity Reports

QUESTIONNAIRES EVALUATION FORM

STUDENT NAME : **MOHD FAIZUDDIN BIN MUHAMMAD ZUKI**
MATRIX NO : **904 815**
PROGRAM OF STUDY : **PhD IN ISLAMIC FINANCE & BANKING**
RESEARCH TITLE : **THE DETERMINANT FACTORS OF CUSTOMERS PARTICIPATION IN FAMILY TAKAFUL PRODUCT AMONG STAFFS OF RELIGIOUS DEPARTMENTS IN MALAYSIA**

DESCRIPTION	EVALUATION		
	SUITABLE	NOT SUITABLE	(PLEASE STATE ANY COMMENTS OR SUGGESTIONS)
Section A: Demographic Profile			MARITAL STATUS, EDUCATION AND AGE .. PLEASE CHECK THE SUITABLE RANGE. i.e. Some respondents may have PHD level, marital status – perhaps other thn single or married
Question 1			
Question 2			
Question 3			
Question 4			
Question 5			
Question 6			
Question 7			Is this a filter Question? If the respondent answer YES, do you still count as your respondent? Because your study is to examine the intention of purchasing behaviour.
Section B: The Influence of Attitude			
Section C: The Influence of Subjective Norms			
Section D: The Influence of Perceived Behavioural Control			
Section E: The Influence of Halal Brand Association			
Section F: The Influence of Facilitating Conditions			
Section G: The Moderating Effect of Institutional Trust			
Section H: Customers Participation in Family Takaful Products			

Other comments: Please check the grammatical errors that I highlighted in red ink. No need to state

I am suggest/ *Saya mencadangkan agar* for other comments – just make it blank.

I, with this, acknowledge that I have reviewed and approved this questionnaire. The researcher can distribute this questionnaire to the respondent after correcting it.

Signature :*Darwina*
Name :AP DR DARWINA BT AHMAD ARSHAD
Designation :
Date :19 May 2021

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QUESTIONNAIRES EVALUATION FORM

STUDENT NAME	:	**MOHD FAIZUDDIN BIN MUHAMMAD ZUKI**
MATRIX NO	:	**904 815**
PROGRAM OF STUDY	:	**PhD IN ISLAMIC FINANCE & BANKING**
RESEARCH TITLE	:	**THE DETERMINANT FACTORS OF CUSTOMERS PARTICIPATION IN FAMILY TAKAFUL PRODUCT AMONG STAFFS OF RELIGIOUS DEPARTMENTS IN MALAYSIA**

DESCRIPTION	EVALUATION		
	SUITABLE	NOT SUITABLE	(PLEASE STATE ANY COMMENTS OR SUGGESTIONS)
Section A: Demographic Profile	✓		
Question 1	✓		
Question 2	✓		
Question 3	✓		
Question 4	✓		
Question 5	✓		
Question 6	✓		
Question 7			No. question 7.
Section B: The Influence of Attitude	✓		Suitable after correction.
Section C: The Influence of Subjective Norms	✓		Suitable after Correction.
Section D: The Influence of Perceived Behavioural Control	✓		Suitable after Correction.
Section E: The Influence of Halal Brand Association	✓		Suitable after Correction.
Section F: The Influence of Facilitating Conditions	✓		Suitable after Correction.
Section G: The Moderating Effect of Institutional Trust	✓		Suitable
Section H: Customers Participation in Family Takaful Products	✓		Suitable

I, with this, acknowledge that I have reviewed and approved this questionnaire. The researcher can distribute this questionnaire to the respondent after correcting it.

Signature :
Name : ALIA FARHANA ANUAR
Designation : ENGLISH LECTURER, PUSAT BAHASA & PENGAJIAN UMUM, KUIPS.
Date : 16/7/2021.

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QUESTIONNAIRES EVALUATION FORM

STUDENT NAME : **MOHD FAIZUDDIN BIN MUHAMMAD ZUKI**
MATRIX NO : **904 815**
PROGRAM OF STUDY : **PhD IN ISLAMIC FINANCE & BANKING**
RESEARCH TITLE : **THE DETERMINANT FACTORS OF CUSTOMERS PARTICIPATION IN FAMILY TAKAFUL PRODUCT AMONG STAFFS OF RELIGIOUS DEPARTMENTS IN MALAYSIA**

DESCRIPTION	EVALUATION		
	SUITABLE	NOT SUITABLE	(PLEASE STATE ANY COMMENTS OR SUGGESTIONS)
Section A: Demographic Profile			Q4 – to add option for Phd level
Question 1			
Question 2			
Question 3			
Question 4			
Question 5			
Question 6			
Question 7			
Section B: The Influence of Attitude			
Section C: The Influence of Subjective Norms			Q10 – Malay translation does not consistent.
Section D: The Influence of Perceived Behavioural Control			
Section E: The Influence of Halal Brand Association			
Section F: The Influence of Facilitating Conditions			
Section G: The Moderating Effect of Institutional Trust			Q47 – Need a space between English and Malay translation.
Section H: Customers Participation in Family Takaful Products			Q50 – Suggest to change 'strong finances' to 'strong financial ability'

I, with this, acknowledge that I have reviewed and approved this questionnaire. The researcher can distribute this questionnaire to the respondent after correcting it.

Signature :
Name : Dr. Nur Harena Redzuan
Designation : Assistant Professor
Date : 18 May 2021

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Appendix C – Descriptive Analysis of Respondents

Statistics

		CGender	MaritalStatus	AgeGroup	Education	Income	Services	Institutions
N	Valid	272	272	272	272	272	272	272
	Missing	0	0	0	0	0	0	0

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	107	39.3	39.3	39.3
	Female	165	60.7	60.7	100.0
	Total	272	100.0	100.0	

MaritalStatus

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	47	17.3	17.3	17.3
	Married	225	82.7	82.7	100.0
	Total	272	100.0	100.0	

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AgeGroup

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	21 – 30 years	43	15.8	15.8	15.8
	31 – 40 years	122	44.9	44.9	60.7
	41 – 50 years	76	27.9	27.9	88.6
	> 50 years	31	11.4	11.4	100.0
	Total	272	100.0	100.0	

Education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Bachelor's degree	33	12.1	12.1	12.1
	Master's degree	153	56.3	56.3	68.4

	PhD	86	31.6	31.6	100.0
	Total	272	100.0	100.0	

Income

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	RM2501 – RM4000	97	35.7	35.7	35.7
	RM4001 – RM5500	60	22.1	22.1	57.7
	> RM5501	115	42.3	42.3	100.0
	Total	272	100.0	100.0	

Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 5 years	112	41.2	41.2	41.2
	6 – 10 years	59	21.7	21.7	62.9
	11 – 15 years	51	18.8	18.8	81.6
	16 – 20 years	19	7.0	7.0	88.6
	> 21 years	31	11.4	11.4	100.0
	Total	272	100.0	100.0	

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Institutions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	UIS	77	28.3	28.3	28.3
	AIU	11	4.0	4.0	32.4
	INCEIF	6	2.2	2.2	34.6
	UniSHAMS	47	17.3	17.3	51.8
	USAS	59	21.7	21.7	73.5
	UniPSAS	31	11.4	11.4	84.9
	UNIMEL	41	15.1	15.1	100.0
	Total	272	100.0	100.0	

Appendix D – Common Method Bias & Exploratory Factor Analysis

Communalities

	Initial	Extraction
ATT1	1.000	.455
ATT2	1.000	.319
ATT3	1.000	.502
ATT4	1.000	.487
ATT5	1.000	.602
ATT6	1.000	.251
ATT7	1.000	.254
ATT8	1.000	.553
SN1	1.000	.199
SN2	1.000	.271
SN3	1.000	.234
SN4	1.000	.104
SN5	1.000	.155
SN6	1.000	.240
SN7	1.000	.227
SN8	1.000	.165
PBC1	1.000	.413
PBC2	1.000	.457
PBC3	1.000	.432
PBC4	1.000	.420
PBC5	1.000	.309
PBC6	1.000	.232
PBC7	1.000	.423
PBC8	1.000	.322
HBA1	1.000	.613
HBA2	1.000	.564
HBA3	1.000	.552
HBA4	1.000	.560
HBA5	1.000	.537
HBA6	1.000	.482
HBA7	1.000	.610
HBA8	1.000	.559
FC1	1.000	.527
FC2	1.000	.488
FC3	1.000	.521
FC4	1.000	.460
FC5	1.000	.413
FC6	1.000	.446
FC7	1.000	.335
FC8	1.000	.431
IT1	1.000	.658
IT2	1.000	.582
IT3	1.000	.640
IT4	1.000	.682
IT5	1.000	.722
IT6	1.000	.685
IT7	1.000	.572
IT8	1.000	.540
INT1	1.000	.572
INT2	1.000	.499
INT3	1.000	.609
INT4	1.000	.593
INT5	1.000	.557
INT6	1.000	.541
INT7	1.000	.567
INT8	1.000	.643

Extraction Method: Principal Component Analysis.

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Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	25.790	46.053	46.053	25.790	46.053	46.053
2	3.901	6.966	53.019			
3	3.630	6.481	59.501			
4	2.695	4.812	64.313			
5	2.169	3.874	68.186			
6	1.753	3.130	71.317			
7	1.557	2.781	74.098			
8	1.343	2.399	76.497			
9	1.171	2.091	78.588			
10	1.076	1.921	80.509			
11	.895	1.598	82.107			
12	.820	1.464	83.572			
13	.601	1.073	84.644			
14	.551	.984	85.629			
15	.496	.885	86.514			
16	.473	.845	87.359			
17	.446	.797	88.156			
18	.434	.776	88.931			
19	.371	.663	89.595			
20	.357	.637	90.232			
21	.341	.610	90.842			
22	.326	.583	91.424			

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23	.321	.572	91.997			
24	.303	.540	92.537			
25	.275	.490	93.027			
26	.263	.469	93.496			
27	.249	.444	93.941			
28	.228	.407	94.348			
29	.225	.402	94.749			
30	.217	.388	95.137			
31	.196	.350	95.487			
32	.183	.328	95.814			
33	.175	.313	96.127			
34	.170	.304	96.430			
35	.158	.283	96.713			
36	.149	.266	96.980			
37	.143	.255	97.234			
38	.131	.234	97.469			
39	.121	.216	97.685			
40	.120	.214	97.899			
41	.116	.206	98.105			
42	.110	.197	98.302			
43	.104	.186	98.488			
44	.097	.172	98.660			
45	.090	.161	98.821			
46	.080	.143	98.964			

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47	.079	.141	99.105			
48	.075	.134	99.239			
49	.071	.127	99.366			
50	.064	.114	99.480			
51	.060	.107	99.587			
52	.056	.099	99.686			
53	.051	.090	99.776			
54	.048	.085	99.862			
55	.043	.077	99.939			
56	.034	.061	100.000			

Extraction Method: Principal Component Analysis.

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Component Matrix[a]

	Component 1
ATT1	.675
ATT2	.565
ATT3	.709
ATT4	.698
ATT5	.776
ATT6	.501
ATT7	.504
ATT8	.744
SN1	.446
SN2	.521
SN3	.483
SN4	.322
SN5	.394
SN6	.490
SN7	.476
SN8	.407
PBC1	.642
PBC2	.676
PBC3	.658
PBC4	.648
PBC5	.555
PBC6	.482
PBC7	.651
PBC8	.567
HBA1	.783
HBA2	.751
HBA3	.743
HBA4	.748
HBA5	.733
HBA6	.694
HBA7	.781
HBA8	.748
FC1	.726
FC2	.699
FC3	.722
FC4	.678
FC5	.643
FC6	.668
FC7	.579
FC8	.656
IT1	.811
IT2	.763
IT3	.800
IT4	.826
IT5	.850
IT6	.828
IT7	.756
IT8	.735
INT1	.757
INT2	.706
INT3	.781
INT4	.770
INT5	.746
INT6	.736
INT7	.753
INT8	.802

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

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Appendix E – Correlation

Correlations

		A_ATT	A_SN	A_PBC	A_HBA	A_FC	A_IT	A_INT
A_ATT	Pearson Correlation	1	.456**	.523**	.646**	.422**	.623**	.635**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000
	N	272	272	272	272	272	272	272
A_SN	Pearson Correlation	.456**	1	.443**	.366**	.420**	.430**	.446**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000
	N	272	272	272	272	272	272	272
A_PBC	Pearson Correlation	.523**	.443**	1	.611**	.566**	.610**	.598**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000
	N	272	272	272	272	272	272	272
A_HBA	Pearson Correlation	.646**	.366**	.611**	1	.567**	.751**	.576**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000
	N	272	272	272	272	272	272	272
A_FC	Pearson Correlation	.422**	.420**	.566**	.567**	1	.645**	.444**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000
	N	272	272	272	272	272	272	272
A_IT	Pearson Correlation	.623**	.430**	.610**	.751**	.645**	1	.619**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000
	N	272	272	272	272	272	272	272
A_INT	Pearson Correlation	.635**	.446**	.598**	.576**	.444**	.619**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	
	N	272	272	272	272	272	272	272

**. Correlation is significant at the 0.01 level (2-tailed).

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Appendix F – Confirmatory Factor Analysis

Congeneric Measurement Model

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
ATT1	<---	ATT	1.000				
ATT2	<---	ATT	1.035	.086	11.978	***	par_1
ATT3	<---	ATT	1.012	.065	15.576	***	par_2
ATT4	<---	ATT	1.065	.073	14.497	***	par_3
ATT5	<---	ATT	1.156	.064	17.961	***	par_4
ATT6	<---	ATT	.826	.077	10.685	***	par_5
ATT7	<---	ATT	.914	.090	10.170	***	par_6
ATT8	<---	ATT	1.092	.064	17.104	***	par_7

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
ATT1	<---	ATT	.797
ATT2	<---	ATT	.676
ATT3	<---	ATT	.828
ATT4	<---	ATT	.785
ATT5	<---	ATT	.916
ATT6	<---	ATT	.615
ATT7	<---	ATT	.589
ATT8	<---	ATT	.885

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
ATT	1.233	.158	7.789	***	par_8

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e1	.708	.068	10.376	***	par_9
e2	1.569	.142	11.036	***	par_10
e3	.580	.058	10.055	***	par_11
e4	.872	.083	10.478	***	par_12
e5	.316	.040	7.810	***	par_13
e6	1.385	.124	11.205	***	par_14
e7	1.933	.172	11.259	***	par_15
e8	.408	.045	8.978	***	par_16

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
SN1	<---	SN	1.000				
SN2	<---	SN	.840	.045	18.487	***	par_1
SN3	<---	SN	1.008	.045	22.284	***	par_2
SN4	<---	SN	.533	.056	9.475	***	par_3
SN5	<---	SN	.546	.056	9.766	***	par_4
SN6	<---	SN	.524	.053	9.858	***	par_5
SN7	<---	SN	.490	.050	9.748	***	par_6
SN8	<---	SN	.457	.056	8.235	***	par_7

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
SN1	<---	SN	.880
SN2	<---	SN	.840
SN3	<---	SN	.930
SN4	<---	SN	.534
SN5	<---	SN	.547

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SN6	<---	SN	.552
SN7	<---	SN	.547
SN8	<---	SN	.476

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
SN	5.175	.572	9.045	***	par_8
e1	1.509	.177	8.529	***	par_9
e2	1.526	.160	9.548	***	par_10
e3	.816	.134	6.073	***	par_11
e4	3.684	.326	11.311	***	par_12
e5	3.604	.319	11.287	***	par_13
e6	3.256	.289	11.279	***	par_14
e7	2.910	.258	11.289	***	par_15
e8	3.693	.324	11.400	***	par_16

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Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
PBC1	<---	PBC	1.000				
PBC2	<---	PBC	1.005	.070	14.323	***	par_1
PBC3	<---	PBC	.904	.069	13.110	***	par_2
PBC4	<---	PBC	.802	.063	12.799	***	par_3
PBC5	<---	PBC	1.092	.082	13.346	***	par_4
PBC6	<---	PBC	.895	.087	10.241	***	par_5
PBC7	<---	PBC	1.070	.079	13.483	***	par_6
PBC8	<---	PBC	.822	.072	11.487	***	par_7

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
PBC1	<---	PBC	.806
PBC2	<---	PBC	.791
PBC3	<---	PBC	.738
PBC4	<---	PBC	.724
PBC5	<---	PBC	.749
PBC6	<---	PBC	.603
PBC7	<---	PBC	.755
PBC8	<---	PBC	.664

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
PBC	2.395	.308	7.784	***	par_8
e1	1.295	.138	9.407	***	par_9
e2	1.447	.150	9.625	***	par_10
e3	1.634	.160	10.199	***	par_11
e4	1.395	.135	10.313	***	par_12
e5	2.238	.221	10.105	***	par_13
e6	3.363	.307	10.958	***	par_14
e7	2.070	.206	10.047	***	par_15
e8	2.056	.192	10.697	***	par_16

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
HBA1	<---	HBA	1.000				
HBA2	<---	HBA	1.058	.048	22.027	***	par_1

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HBA3	<---	HBA	1.028	.048	21.391	***	par_2
HBA4	<---	HBA	1.044	.050	20.962	***	par_3
HBA5	<---	HBA	.898	.063	14.226	***	par_4
HBA6	<---	HBA	.997	.064	15.679	***	par_5
HBA7	<---	HBA	1.003	.044	22.973	***	par_6
HBA8	<---	HBA	.944	.045	20.927	***	par_7

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
HBA1	<---	HBA	.874
HBA2	<---	HBA	.905
HBA3	<---	HBA	.893
HBA4	<---	HBA	.885
HBA5	<---	HBA	.712
HBA6	<---	HBA	.757
HBA7	<---	HBA	.921
HBA8	<---	HBA	.884

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Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
HBA	1.626	.179	9.070	***	par_8
e1	.503	.049	10.222	***	par_9
e2	.403	.042	9.653	***	par_10
e3	.437	.044	9.911	***	par_11
e4	.493	.049	10.061	***	par_12
e5	1.279	.114	11.194	***	par_13
e6	1.209	.109	11.057	***	par_14

e7	.291	.032	9.158	***	par_15
e8	.406	.040	10.072	***	par_16

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
FC1	<---	FC	1.000				
FC2	<---	FC	1.202	.061	19.794	***	par_1
FC3	<---	FC	1.209	.060	20.287	***	par_2
FC4	<---	FC	1.208	.059	20.531	***	par_3
FC5	<---	FC	1.119	.062	18.011	***	par_4
FC6	<---	FC	1.125	.061	18.518	***	par_5
FC7	<---	FC	1.083	.068	15.968	***	par_6
FC8	<---	FC	1.142	.063	18.116	***	par_7

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
FC1	<---	FC	.829
FC2	<---	FC	.910
FC3	<---	FC	.922
FC4	<---	FC	.928
FC5	<---	FC	.862
FC6	<---	FC	.876
FC7	<---	FC	.799
FC8	<---	FC	.865

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label

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FC	1.884	.226	8.344	***	par_8
e1	.858	.080	10.778	***	par_9
e2	.565	.058	9.735	***	par_10
e3	.483	.052	9.380	***	par_11
e4	.440	.048	9.164	***	par_12
e5	.819	.078	10.507	***	par_13
e6	.724	.070	10.342	***	par_14
e7	1.253	.114	10.949	***	par_15
e8	.830	.079	10.475	***	par_16

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
IT1	<---	IT	1.000				
IT2	<---	IT	1.088	.056	19.475	***	par_1
IT3	<---	IT	1.074	.052	20.492	***	par_2
IT4	<---	IT	1.104	.049	22.597	***	par_3
IT5	<---	IT	1.142	.052	22.014	***	par_4
IT6	<---	IT	1.080	.055	19.731	***	par_5
IT7	<---	IT	1.028	.058	17.778	***	par_6
IT8	<---	IT	1.020	.057	18.015	***	par_7

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
IT1	<---	IT	.853
IT2	<---	IT	.872
IT3	<---	IT	.896
IT4	<---	IT	.939

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IT5	<---	IT	.927
IT6	<---	IT	.878
IT7	<---	IT	.830
IT8	<---	IT	.836

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
IT	1.637	.187	8.737	***	par_8
e1	.612	.057	10.640	***	par_9
e2	.608	.058	10.447	***	par_10
e3	.465	.046	10.118	***	par_11
e4	.269	.030	8.837	***	par_12
e5	.347	.037	9.319	***	par_13
e6	.565	.054	10.374	***	par_14
e7	.784	.072	10.815	***	par_15
e8	.734	.068	10.773	***	par_16

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Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
INT1	<---	INT	1.000				
INT2	<---	INT	1.041	.048	21.625	***	par_1
INT3	<---	INT	1.055	.045	23.533	***	par_2
INT4	<---	INT	1.088	.044	24.501	***	par_3
INT5	<---	INT	1.089	.045	24.084	***	par_4
INT6	<---	INT	1.148	.045	25.346	***	par_5
INT7	<---	INT	1.133	.046	24.770	***	par_6
INT8	<---	INT	.939	.053	17.805	***	par_7

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
INT1	<---	INT	.870
INT2	<---	INT	.896
INT3	<---	INT	.930
INT4	<---	INT	.945
INT5	<---	INT	.939
INT6	<---	INT	.958
INT7	<---	INT	.949
INT8	<---	INT	.812

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
INT	1.994	.220	9.044	***	par_8
e1	.641	.059	10.932	***	par_9
e2	.530	.049	10.711	***	par_10
e3	.348	.034	10.180	***	par_11
e4	.282	.029	9.718	***	par_12
e5	.319	.032	9.941	***	par_13
e6	.237	.026	9.090	***	par_14
e7	.281	.029	9.547	***	par_15
e8	.905	.081	11.200	***	par_16

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Full Measurement Model

Before Modification

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
ATT1	<---	ATT	1.000				
ATT2	<---	ATT	1.034	.086	12.022	***	par_1
ATT3	<---	ATT	1.011	.065	15.657	***	par_2
ATT4	<---	ATT	1.069	.073	14.639	***	par_3
ATT5	<---	ATT	1.154	.064	18.082	***	par_4
ATT6	<---	ATT	.821	.077	10.654	***	par_5
ATT7	<---	ATT	.912	.089	10.191	***	par_6
ATT8	<---	ATT	1.093	.063	17.238	***	par_7
PBC8	<---	PBC	.827	.071	11.586	***	par_8
PBC7	<---	PBC	1.074	.079	13.588	***	par_9
PBC6	<---	PBC	.885	.087	10.127	***	par_10
PBC5	<---	PBC	1.075	.082	13.111	***	par_11
PBC4	<---	PBC	.815	.062	13.084	***	par_12
PBC3	<---	PBC	.918	.069	13.405	***	par_13
PBC2	<---	PBC	1.015	.070	14.559	***	par_14
PBC1	<---	PBC	1.000				
HBA8	<---	HBA	.938	.044	21.142	***	par_15
HBA7	<---	HBA	.997	.043	23.244	***	par_16
HBA6	<---	HBA	.995	.063	15.867	***	par_17
HBA5	<---	HBA	.904	.062	14.576	***	par_18
HBA4	<---	HBA	1.038	.049	21.171	***	par_19
HBA3	<---	HBA	1.020	.047	21.540	***	par_20
HBA2	<---	HBA	1.050	.047	22.204	***	par_21

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HBA1	<---	HBA	1.000				
SN1	<---	SN	1.000				
SN2	<---	SN	.854	.047	18.227	***	par_22
SN3	<---	SN	1.005	.048	21.100	***	par_23
SN4	<---	SN	.550	.057	9.620	***	par_24
SN5	<---	SN	.567	.057	10.020	***	par_25
SN6	<---	SN	.550	.054	10.221	***	par_26
SN7	<---	SN	.513	.051	10.118	***	par_27
SN8	<---	SN	.481	.056	8.571	***	par_28
FC8	<---	FC	1.134	.062	18.296	***	par_29
FC7	<---	FC	1.072	.067	16.026	***	par_30
FC6	<---	FC	1.117	.060	18.701	***	par_31
FC5	<---	FC	1.110	.061	18.161	***	par_32
FC4	<---	FC	1.199	.058	20.763	***	par_33
FC3	<---	FC	1.204	.058	20.639	***	par_34
FC2	<---	FC	1.196	.059	20.132	***	par_35
FC1	<---	FC	1.000				
INT1	<---	INT	1.000				
INT2	<---	INT	1.037	.048	21.695	***	par_36
INT3	<---	INT	1.055	.044	23.785	***	par_37
INT4	<---	INT	1.086	.044	24.737	***	par_38
INT5	<---	INT	1.086	.045	24.220	***	par_39
INT6	<---	INT	1.143	.045	25.404	***	par_40
INT7	<---	INT	1.130	.045	24.907	***	par_41
INT8	<---	INT	.941	.052	18.036	***	par_42

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
ATT1	<---	ATT	.798
ATT2	<---	ATT	.676
ATT3	<---	ATT	.827
ATT4	<---	ATT	.788
ATT5	<---	ATT	.915
ATT6	<---	ATT	.611
ATT7	<---	ATT	.589
ATT8	<---	ATT	.885
PBC8	<---	PBC	.665
PBC7	<---	PBC	.755
PBC6	<---	PBC	.594
PBC5	<---	PBC	.734
PBC4	<---	PBC	.733
PBC3	<---	PBC	.747
PBC2	<---	PBC	.796
PBC1	<---	PBC	.803
HBA8	<---	HBA	.883
HBA7	<---	HBA	.920
HBA6	<---	HBA	.759
HBA5	<---	HBA	.720
HBA4	<---	HBA	.884
HBA3	<---	HBA	.890
HBA2	<---	HBA	.903
HBA1	<---	HBA	.878
SN1	<---	SN	.870
SN2	<---	SN	.844

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SN3	<---	SN	.917
SN4	<---	SN	.544
SN5	<---	SN	.562
SN6	<---	SN	.571
SN7	<---	SN	.567
SN8	<---	SN	.495
FC8	<---	FC	.864
FC7	<---	FC	.796
FC6	<---	FC	.875
FC5	<---	FC	.860
FC4	<---	FC	.927
FC3	<---	FC	.924
FC2	<---	FC	.911
FC1	<---	FC	.834
INT1	<---	INT	.872
INT2	<---	INT	.895
INT3	<---	INT	.931
INT4	<---	INT	.946
INT5	<---	INT	.938
INT6	<---	INT	.956
INT7	<---	INT	.948
INT8	<---	INT	.816

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Covariances: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
PBC	<-->	HBA	1.310	.167	7.865	***	par_43
HBA	<-->	INT	1.055	.139	7.591	***	par_44

HBA	<-->	FC	1.026	.138	7.451	***	par_45
FC	<-->	INT	.945	.143	6.594	***	par_46
SN	<-->	INT	1.455	.231	6.295	***	par_47
SN	<-->	FC	1.277	.223	5.719	***	par_48
HBA	<-->	SN	1.021	.201	5.093	***	par_49
ATT	<-->	HBA	1.042	.125	8.362	***	par_50
ATT	<-->	PBC	1.135	.150	7.578	***	par_51
PBC	<-->	FC	1.247	.174	7.185	***	par_52
PBC	<-->	INT	1.440	.183	7.856	***	par_53
PBC	<-->	SN	1.568	.262	5.974	***	par_54
ATT	<-->	FC	.783	.118	6.621	***	par_55
ATT	<-->	INT	1.068	.133	8.036	***	par_56
ATT	<-->	SN	1.137	.187	6.073	***	par_57

Correlations: (Group number 1 - Default model)

			Estimate
PBC	<-->	HBA	.663
HBA	<-->	INT	.581
HBA	<-->	FC	.580
FC	<-->	INT	.483
SN	<-->	INT	.457
SN	<-->	FC	.411
HBA	<-->	SN	.354
ATT	<-->	HBA	.731
ATT	<-->	PBC	.663
PBC	<-->	FC	.586
PBC	<-->	INT	.660

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PBC	<-->	SN	.452
ATT	<-->	FC	.510
ATT	<-->	INT	.679
ATT	<-->	SN	.455

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
ATT	1.234	.158	7.814	***	par_58
PBC	2.376	.305	7.786	***	par_59
HBA	1.642	.180	9.149	***	par_60
SN	5.057	.570	8.870	***	par_61
FC	1.907	.226	8.425	***	par_62
INT	2.004	.221	9.080	***	par_63
e1	.706	.067	10.502	***	par_64
e2	1.571	.142	11.097	***	par_65
e3	.581	.057	10.222	***	par_66
e4	.863	.082	10.577	***	par_67
e5	.319	.039	8.251	***	par_68
e6	1.394	.124	11.255	***	par_69
e7	1.936	.171	11.298	***	par_70
e8	.406	.044	9.247	***	par_71
e9	2.052	.190	10.818	***	par_72
e10	2.069	.202	10.259	***	par_73
e11	3.420	.309	11.076	***	par_74
e12	2.349	.225	10.423	***	par_75
e13	1.359	.130	10.431	***	par_76
e14	1.588	.154	10.325	***	par_77

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e15	1.418	.144	9.836	***	par_78
e16	1.313	.135	9.749	***	par_79
e17	.408	.040	10.163	***	par_80
e18	.295	.032	9.323	***	par_81
e19	1.199	.108	11.078	***	par_82
e20	1.248	.112	11.194	***	par_83
e21	.497	.049	10.154	***	par_84
e22	.446	.044	10.040	***	par_85
e23	.412	.042	9.803	***	par_86
e24	.487	.048	10.232	***	par_87
e25	1.627	.185	8.771	***	par_88
e26	1.485	.158	9.379	***	par_89
e27	.963	.141	6.842	***	par_90
e28	3.629	.322	11.274	***	par_91
e29	3.519	.313	11.237	***	par_92
e30	3.152	.281	11.218	***	par_93
e31	2.817	.251	11.228	***	par_94
e32	3.605	.317	11.358	***	par_95
e33	.835	.079	10.512	***	par_96
e34	1.269	.116	10.979	***	par_97
e35	.730	.070	10.387	***	par_98
e36	.828	.078	10.550	***	par_99
e37	.451	.049	9.291	***	par_100
e38	.475	.051	9.392	***	par_101
e39	.556	.057	9.744	***	par_102
e40	.836	.078	10.765	***	par_103
e41	.631	.058	10.929	***	par_104

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e42	.535	.050	10.736	***	par_105
e43	.341	.034	10.168	***	par_106
e44	.278	.029	9.716	***	par_107
e45	.322	.032	9.985	***	par_108
e46	.248	.027	9.254	***	par_109
e47	.285	.030	9.613	***	par_110
e48	.888	.079	11.194	***	par_111

First Modification

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
ATT1	<---	ATT	1.000				
ATT2	<---	ATT	1.050	.086	12.177	***	par_1
ATT3	<---	ATT	1.004	.065	15.367	***	par_2
ATT4	<---	ATT	1.074	.073	14.620	***	par_3
ATT5	<---	ATT	1.167	.064	18.156	***	par_4
ATT8	<---	ATT	1.093	.064	17.065	***	par_5
PBC8	<---	PBC	.752	.066	11.429	***	par_6
PBC7	<---	PBC	.955	.073	13.147	***	par_7
PBC5	<---	PBC	.947	.076	12.507	***	par_8
PBC4	<---	PBC	.774	.056	13.846	***	par_9
PBC3	<---	PBC	.885	.061	14.509	***	par_10
PBC2	<---	PBC	1.012	.060	16.823	***	par_11
PBC1	<---	PBC	1.000				
HBA8	<---	HBA	.938	.044	21.134	***	par_12
HBA7	<---	HBA	.998	.043	23.263	***	par_13
HBA6	<---	HBA	.995	.063	15.845	***	par_14

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HBA5	<---	HBA	.904	.062	14.557	***	par_15
HBA4	<---	HBA	1.038	.049	21.168	***	par_16
HBA3	<---	HBA	1.021	.047	21.552	***	par_17
HBA2	<---	HBA	1.050	.047	22.184	***	par_18
HBA1	<---	HBA	1.000				
SN1	<---	SN	1.000				
SN2	<---	SN	.824	.041	20.132	***	par_19
SN3	<---	SN	.979	.041	23.949	***	par_20
FC8	<---	FC	1.134	.062	18.287	***	par_21
FC7	<---	FC	1.073	.067	16.012	***	par_22
FC6	<---	FC	1.118	.060	18.689	***	par_23
FC5	<---	FC	1.111	.061	18.148	***	par_24
FC4	<---	FC	1.199	.058	20.743	***	par_25
FC3	<---	FC	1.205	.058	20.625	***	par_26
FC2	<---	FC	1.197	.060	20.111	***	par_27
FC1	<---	FC	1.000				
INT1	<---	INT	1.000				
INT2	<---	INT	1.037	.048	21.700	***	par_28
INT3	<---	INT	1.054	.044	23.803	***	par_29
INT4	<---	INT	1.086	.044	24.755	***	par_30
INT5	<---	INT	1.086	.045	24.237	***	par_31
INT6	<---	INT	1.143	.045	25.415	***	par_32
INT7	<---	INT	1.129	.045	24.922	***	par_33
INT8	<---	INT	.941	.052	18.035	***	par_34

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate

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ATT1	<---	ATT	.795
ATT2	<---	ATT	.685
ATT3	<---	ATT	.820
ATT4	<---	ATT	.790
ATT5	<---	ATT	.923
ATT8	<---	ATT	.883
PBC8	<---	PBC	.637
PBC7	<---	PBC	.707
PBC5	<---	PBC	.682
PBC4	<---	PBC	.734
PBC3	<---	PBC	.758
PBC2	<---	PBC	.836
PBC1	<---	PBC	.846
HBA8	<---	HBA	.883
HBA7	<---	HBA	.921
HBA6	<---	HBA	.758
HBA5	<---	HBA	.719
HBA4	<---	HBA	.884
HBA3	<---	HBA	.891
HBA2	<---	HBA	.902
HBA1	<---	HBA	.878
SN1	<---	SN	.910
SN2	<---	SN	.851
SN3	<---	SN	.935
FC8	<---	FC	.864
FC7	<---	FC	.796
FC6	<---	FC	.875

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FC5	<---	FC	.860
FC4	<---	FC	.927
FC3	<---	FC	.924
FC2	<---	FC	.911
FC1	<---	FC	.834
INT1	<---	INT	.872
INT2	<---	INT	.895
INT3	<---	INT	.931
INT4	<---	INT	.946
INT5	<---	INT	.938
INT6	<---	INT	.956
INT7	<---	INT	.948
INT8	<---	INT	.816

Covariances: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
PBC	<-->	HBA	1.364	.171	7.964	***	par_35
HBA	<-->	INT	1.055	.139	7.592	***	par_36
HBA	<-->	FC	1.025	.138	7.449	***	par_37
FC	<-->	INT	.945	.143	6.594	***	par_38
SN	<-->	INT	1.401	.235	5.956	***	par_39
SN	<-->	FC	1.197	.227	5.279	***	par_40
HBA	<-->	SN	.944	.205	4.610	***	par_41
ATT	<-->	HBA	1.041	.125	8.354	***	par_42
ATT	<-->	PBC	1.202	.155	7.741	***	par_43
PBC	<-->	FC	1.252	.177	7.075	***	par_44
PBC	<-->	INT	1.532	.190	8.060	***	par_45

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PBC	<-->	SN	1.583	.278	5.690	***	par_46
ATT	<-->	FC	.795	.119	6.693	***	par_47
ATT	<-->	INT	1.069	.133	8.037	***	par_48
ATT	<-->	SN	1.035	.188	5.504	***	par_49

Correlations: (Group number 1 - Default model)

			Estimate
PBC	<-->	HBA	.655
HBA	<-->	INT	.581
HBA	<-->	FC	.580
FC	<-->	INT	.483
SN	<-->	INT	.421
SN	<-->	FC	.369
HBA	<-->	SN	.313
ATT	<-->	HBA	.733
ATT	<-->	PBC	.668
PBC	<-->	FC	.558
PBC	<-->	INT	.666
PBC	<-->	SN	.415
ATT	<-->	FC	.520
ATT	<-->	INT	.681
ATT	<-->	SN	.397

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
ATT	1.228	.158	7.777	***	par_50
PBC	2.638	.313	8.437	***	par_51

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HBA	1.642	.179	9.148	***	par_52
SN	5.531	.580	9.530	***	par_53
FC	1.905	.226	8.420	***	par_54
INT	2.004	.221	9.083	***	par_55
e1	.713	.068	10.469	***	par_56
e2	1.535	.139	11.045	***	par_57
e3	.605	.059	10.245	***	par_58
e4	.855	.081	10.514	***	par_59
e5	.291	.038	7.688	***	par_60
e8	.413	.045	9.181	***	par_61
e9	2.185	.200	10.935	***	par_62
e10	2.404	.227	10.602	***	par_63
e12	2.726	.254	10.740	***	par_64
e13	1.355	.130	10.428	***	par_65
e14	1.528	.149	10.234	***	par_66
e15	1.164	.126	9.210	***	par_67
e16	1.052	.117	9.014	***	par_68
e17	.409	.040	10.164	***	par_69
e18	.294	.032	9.309	***	par_70
e19	1.202	.108	11.080	***	par_71
e20	1.250	.112	11.196	***	par_72
e21	.497	.049	10.154	***	par_73
e22	.445	.044	10.034	***	par_74
e23	.413	.042	9.808	***	par_75
e24	.487	.048	10.233	***	par_76
e25	1.153	.164	7.047	***	par_77
e26	1.424	.152	9.360	***	par_78

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e27	.765	.141	5.445	***	par_79
e33	.834	.079	10.509	***	par_80
e34	1.270	.116	10.979	***	par_81
e35	.730	.070	10.385	***	par_82
e36	.828	.078	10.548	***	par_83
e37	.451	.049	9.287	***	par_84
e38	.475	.051	9.385	***	par_85
e39	.556	.057	9.744	***	par_86
e40	.837	.078	10.766	***	par_87
e41	.631	.058	10.928	***	par_88
e42	.535	.050	10.737	***	par_89
e43	.341	.034	10.167	***	par_90
e44	.278	.029	9.716	***	par_91
e45	.322	.032	9.984	***	par_92
e46	.249	.027	9.260	***	par_93
e47	.285	.030	9.614	***	par_94
e48	.889	.079	11.194	***	par_95

Second Modification

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
ATT1	<---	ATT	1.000				
ATT2	<---	ATT	1.050	.086	12.179	***	par_1
ATT3	<---	ATT	1.003	.065	15.363	***	par_2
ATT4	<---	ATT	1.074	.073	14.629	***	par_3
ATT5	<---	ATT	1.168	.064	18.197	***	par_4
ATT8	<---	ATT	1.091	.064	17.056	***	par_5

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PBC8	<---	PBC	.888	.082	10.782	***	par_6
PBC7	<---	PBC	1.162	.093	12.464	***	par_7
PBC5	<---	PBC	1.169	.096	12.164	***	par_8
PBC4	<---	PBC	.893	.073	12.244	***	par_9
PBC3	<---	PBC	.990	.081	12.269	***	par_10
PBC1	<---	PBC	1.000				
HBA8	<---	HBA	.922	.041	22.404	***	par_11
HBA7	<---	HBA	.974	.040	24.431	***	par_12
HBA6	<---	HBA	.963	.060	16.037	***	par_13
HBA4	<---	HBA	.998	.047	21.314	***	par_14
HBA3	<---	HBA	.990	.045	22.194	***	par_15
HBA2	<---	HBA	1.000				
SN1	<---	SN	1.000				
SN2	<---	SN	.824	.041	20.160	***	par_16
SN3	<---	SN	.979	.041	23.900	***	par_17
FC8	<---	FC	.945	.044	21.587	***	par_18
FC6	<---	FC	.931	.042	22.260	***	par_19
FC5	<---	FC	.926	.043	21.408	***	par_20
FC4	<---	FC	1.001	.038	26.220	***	par_21
FC3	<---	FC	1.011	.038	26.391	***	par_22
FC2	<---	FC	1.000				
INT1	<---	INT	1.000				
INT2	<---	INT	1.030	.048	21.417	***	par_23
INT4	<---	INT	1.073	.045	24.045	***	par_24
INT5	<---	INT	1.089	.044	24.468	***	par_25
INT6	<---	INT	1.149	.044	25.852	***	par_26
INT7	<---	INT	1.133	.045	25.197	***	par_27

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INT8	<---	INT	.944	.052	18.163	***	par_28

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
ATT1	<---	ATT	.796
ATT2	<---	ATT	.685
ATT3	<---	ATT	.819
ATT4	<---	ATT	.790
ATT5	<---	ATT	.924
ATT8	<---	ATT	.883
PBC8	<---	PBC	.666
PBC7	<---	PBC	.763
PBC5	<---	PBC	.746
PBC4	<---	PBC	.750
PBC3	<---	PBC	.752
PBC1	<---	PBC	.749
HBA8	<---	HBA	.897
HBA7	<---	HBA	.929
HBA6	<---	HBA	.759
HBA4	<---	HBA	.878
HBA3	<---	HBA	.893
HBA2	<---	HBA	.889
SN1	<---	SN	.910
SN2	<---	SN	.852
SN3	<---	SN	.934
FC8	<---	FC	.861
FC6	<---	FC	.872

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FC5	<---	FC	.858
FC4	<---	FC	.926
FC3	<---	FC	.928
FC2	<---	FC	.911
INT1	<---	INT	.873
INT2	<---	INT	.890
INT4	<---	INT	.935
INT5	<---	INT	.942
INT6	<---	INT	.962
INT7	<---	INT	.952
INT8	<---	INT	.819

Covariances: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
PBC	<-->	HBA	1.268	.166	7.620	***	par_29
HBA	<-->	INT	1.054	.142	7.423	***	par_30
HBA	<-->	FC	1.233	.165	7.494	***	par_31
FC	<-->	INT	1.111	.168	6.619	***	par_32
SN	<-->	INT	1.382	.235	5.882	***	par_33
SN	<-->	FC	1.414	.268	5.274	***	par_34
HBA	<-->	SN	.929	.211	4.402	***	par_35
ATT	<-->	HBA	1.052	.127	8.277	***	par_36
ATT	<-->	PBC	1.097	.147	7.467	***	par_37
PBC	<-->	FC	1.396	.196	7.119	***	par_38
PBC	<-->	INT	1.334	.177	7.547	***	par_39
PBC	<-->	SN	1.212	.249	4.872	***	par_40
ATT	<-->	FC	.948	.139	6.804	***	par_41

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ATT	<-->	INT	1.064	.133	8.010	***	par_42
ATT	<-->	SN	1.036	.188	5.507	***	par_43

Correlations: (Group number 1 - Default model)

			Estimate
PBC	<-->	HBA	.665
HBA	<-->	INT	.561
HBA	<-->	FC	.563
FC	<-->	INT	.475
SN	<-->	INT	.415
SN	<-->	FC	.364
HBA	<-->	SN	.298
ATT	<-->	HBA	.716
ATT	<-->	PBC	.687
PBC	<-->	FC	.587
PBC	<-->	INT	.654
PBC	<-->	SN	.358
ATT	<-->	FC	.518
ATT	<-->	INT	.677
ATT	<-->	SN	.397

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
ATT	1.229	.158	7.783	***	par_44
PBC	2.071	.297	6.968	***	par_45
HBA	1.755	.188	9.317	***	par_46
SN	5.531	.580	9.529	***	par_47

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FC	2.728	.280	9.737	***	par_48
INT	2.007	.221	9.089	***	par_49
e1	.712	.068	10.465	***	par_50
e2	1.536	.139	11.046	***	par_51
e3	.607	.059	10.251	***	par_52
e4	.855	.081	10.514	***	par_53
e5	.288	.038	7.638	***	par_54
e8	.416	.045	9.201	***	par_55
e9	2.043	.193	10.578	***	par_56
e10	2.012	.206	9.781	***	par_57
e12	2.262	.227	9.968	***	par_58
e13	1.284	.129	9.921	***	par_59
e14	1.563	.158	9.906	***	par_60
e16	1.618	.163	9.930	***	par_61
e17	.362	.038	9.618	***	par_62
e18	.264	.031	8.538	***	par_63
e19	1.200	.109	10.984	***	par_64
e21	.520	.052	9.996	***	par_65
e22	.435	.045	9.699	***	par_66
e23	.467	.048	9.796	***	par_67
e25	1.152	.164	7.032	***	par_68
e26	1.418	.152	9.336	***	par_69
e27	.772	.141	5.471	***	par_70
e33	.850	.082	10.369	***	par_71
e35	.746	.073	10.232	***	par_72
e36	.838	.081	10.403	***	par_73
e37	.456	.051	8.951	***	par_74

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e38	.451	.051	8.868	***	par_75
e39	.556	.059	9.446	***	par_76
e41	.628	.058	10.840	***	par_77
e42	.561	.052	10.689	***	par_78
e44	.332	.034	9.883	***	par_79
e45	.305	.032	9.662	***	par_80
e46	.216	.025	8.520	***	par_81
e47	.265	.029	9.163	***	par_82
e48	.875	.079	11.131	***	par_83

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Model Fit

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	0.069	0.064	0.074	0
Independence model	0.254	0.25	0.258	0

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	0.153	0.802	0.77	0.69
Saturated model	0	1		
Independence model	1.38	0.115	0.061	0.108

Baseline Comparisons

Model	NFI	RFI	IFI	TLI	CFI
	Delta1	rho1	Delta2	rho2	
Default model	0.886	0.875	0.932	0.926	0.932
Saturated model	1		1		1
Independence model	0	0	0	0	0

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	83	1178.202	512	0	2.301
Saturated model	595	0	0		
Independence model	34	10362.588	561	0	18.472

Assessment of normality (Group number 1)

Variable	min	max	skew	c.r.	kurtosis	c.r.

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INT8	3.000	10.000	-.697	-4.690	-.357	-1.203
INT7	3.000	10.000	-.711	-4.787	-.247	-.832
INT6	3.000	10.000	-.900	-6.057	.301	1.012
INT5	4.000	10.000	-.704	-4.743	-.312	-1.049
INT4	3.000	10.000	-.800	-5.388	.080	.270
INT2	3.000	10.000	-.851	-5.732	.194	.654
INT1	3.000	10.000	-.626	-4.214	-.252	-.850
FC2	2.000	10.000	-.528	-3.553	-.373	-1.256
FC3	3.000	10.000	-.428	-2.883	-.675	-2.271
FC4	3.000	10.000	-.360	-2.422	-.766	-2.579
FC5	2.000	10.000	-.409	-2.752	-.454	-1.527
FC6	2.000	10.000	-.478	-3.219	-.538	-1.813
FC8	3.000	10.000	-.284	-1.914	-1.040	-3.501
SN3	1.000	10.000	-.519	-3.496	-.465	-1.564
SN2	1.000	10.000	-.630	-4.240	-.280	-.944
SN1	1.000	10.000	-.443	-2.985	-.712	-2.396
HBA2	5.000	10.000	-1.021	-6.875	-.034	-.114
HBA3	5.000	10.000	-.993	-6.684	-.116	-.389
HBA4	5.000	10.000	-1.076	-7.243	.114	.383
HBA6	3.000	10.000	-.732	-4.927	-.502	-1.690
HBA7	5.000	10.000	-1.004	-6.761	.097	.327
HBA8	5.000	10.000	-1.133	-7.626	.342	1.152
PBC1	2.000	10.000	-.466	-3.135	-.518	-1.745
PBC3	2.000	10.000	-.619	-4.164	-.310	-1.043
PBC4	3.000	10.000	-.671	-4.516	-.110	-.372
PBC5	1.000	10.000	-.416	-2.802	-.603	-2.031
PBC7	1.000	10.000	-.568	-3.826	-.430	-1.448

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PBC8	2.000	10.000	-.452	-3.043	-.439	-1.477
ATT8	5.000	10.000	-.910	-6.126	.067	.227
ATT5	5.000	10.000	-.684	-4.604	-.192	-.646
ATT4	4.000	10.000	-.457	-3.077	-.645	-2.172
ATT3	5.000	10.000	-.515	-3.470	-.529	-1.780
ATT2	4.000	10.000	-.546	-3.677	-.651	-2.192
ATT1	5.000	10.000	-.872	-5.872	-.119	-.401
Multivariate					545.293	90.882

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Appendix G – Structural Model

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
INT	<---	PBC	.307	.078	3.922	***	
INT	<---	HBA	.032	.078	.404	.686	
INT	<---	FC	.029	.051	.574	.566	
INT	<---	SN	.081	.031	2.656	.008	
INT	<---	ATT	.473	.101	4.672	***	

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
INT	<---	PBC	.312
INT	<---	HBA	.029
INT	<---	FC	.034
INT	<---	SN	.135
INT	<---	ATT	.370

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Covariances: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
PBC	<-->	HBA	1.268	.166	7.620	***	
HBA	<-->	FC	1.233	.165	7.494	***	
SN	<-->	FC	1.414	.268	5.274	***	
HBA	<-->	SN	.929	.211	4.402	***	
ATT	<-->	HBA	1.052	.127	8.277	***	
ATT	<-->	PBC	1.097	.147	7.467	***	
PBC	<-->	FC	1.396	.196	7.119	***	
PBC	<-->	SN	1.212	.249	4.872	***	

ATT	<-->	FC	.948	.139	6.804	***	
ATT	<-->	SN	1.036	.188	5.507	***	

Correlations: (Group number 1 - Default model)

			Estimate
PBC	<-->	HBA	.665
HBA	<-->	FC	.563
SN	<-->	FC	.364
HBA	<-->	SN	.298
ATT	<-->	HBA	.716
ATT	<-->	PBC	.687
PBC	<-->	FC	.587
PBC	<-->	SN	.358
ATT	<-->	FC	.518
ATT	<-->	SN	.397

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Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
ATT	1.229	.158	7.783	***	
PBC	2.071	.297	6.968	***	
HBA	1.755	.188	9.317	***	
SN	5.531	.580	9.529	***	
FC	2.728	.280	9.737	***	
e49	.916	.106	8.664	***	
e1	.712	.068	10.465	***	
e2	1.536	.139	11.046	***	
e3	.607	.059	10.251	***	

e4	.855	.081	10.514	***	
e5	.288	.038	7.638	***	
e8	.416	.045	9.201	***	
e9	2.043	.193	10.578	***	
e10	2.012	.206	9.781	***	
e12	2.262	.227	9.968	***	
e13	1.284	.129	9.921	***	
e14	1.563	.158	9.906	***	
e16	1.618	.163	9.930	***	
e17	.362	.038	9.618	***	
e18	.264	.031	8.538	***	
e19	1.200	.109	10.984	***	
e21	.520	.052	9.996	***	
e22	.435	.045	9.699	***	
e23	.467	.048	9.796	***	
e25	1.152	.164	7.032	***	
e26	1.418	.152	9.336	***	
e27	.772	.141	5.471	***	
e33	.850	.082	10.369	***	
e35	.746	.073	10.232	***	
e36	.838	.081	10.403	***	
e37	.456	.051	8.951	***	
e38	.451	.051	8.868	***	
e39	.556	.059	9.446	***	
e41	.628	.058	10.840	***	
e42	.561	.052	10.689	***	
e44	.332	.034	9.883	***	

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e45	.305	.032	9.662	***	
e46	.216	.025	8.520	***	
e47	.265	.029	9.163	***	
e48	.875	.079	11.131	***	

Squared Multiple Correlations: (Group number 1 - Default model)

	Estimate
INT	.544

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Appendix H – Moderating Effect

IT on ATT

UNCONSTRAINED MODEL

High IT

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	83	980.152	512	0	1.914

Low IT

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	83	1060.944	512	0	2.072

CONSTRAINED MODEL

High IT

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	82	1001.086	513	0	1.951

Low IT

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	82	1068.006	513	0	2.082

IT on SN

UNCONSTRAINED MODEL

High IT

CMIN

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Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	83	980.152	512	0	1.914

Low IT

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	83	1060.944	512	0	2.072

CONSTRAINED MODEL

High IT

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	82	1166.39	513	0	2.274

Low IT

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	82	1140.088	513	0	2.222

IT on PBC

UNCONSTRAINED MODEL

High IT

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	83	980.152	512	0	1.914

Low IT

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	83	1060.944	512	0	2.072

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CONSTRAINED MODEL

High IT

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	82	1003.129	513	0	1.955

Low IT

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	82	1077.089	513	0	2.1

COMPARISON OF STANDARDIZED BETA ESTIMATES FOR HIGH IT

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
INT	<---	PBC	.395	.098	4.047	***	
INT	<---	HBA	.134	.142	.938	.348	
INT	<---	FC	.050	.067	.737	.461	
INT	<---	SN	.097	.038	2.574	.010	
INT	<---	ATT	.184	.154	1.192	.233	

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
INT	<---	PBC	.417
INT	<---	HBA	.080
INT	<---	FC	.057
INT	<---	SN	.186
INT	<---	ATT	.115

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COMPARISON OF STANDARDIZED BETA ESTIMATES FOR LOW IT

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
INT	<---	PBC	.225	.123	1.831	.067	
INT	<---	HBA	-.054	.087	-.625	.532	
INT	<---	FC	-.029	.071	-.404	.686	
INT	<---	SN	.052	.048	1.091	.275	
INT	<---	ATT	.586	.130	4.494	***	

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
INT	<---	PBC	.222
INT	<---	HBA	-.071
INT	<---	FC	-.035
INT	<---	SN	.090
INT	<---	ATT	.567

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