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THE INFLUENCE OF FINTECH SELF-EFFICACY AND ATTITUDE ON INVESTMENT DECISIONS OF MUSLIM INVESTORS IN MALAYSIA

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Abstract: *This study aims to identify the predictors of Islamic unit trust funds (IUT) investment intention from the investors' perspective. Additionally, this paper examines the moderating effect of fintech self-efficacy (FSE) on the relationship between attitude and investment intention. A total of 392 data were collected from IUT investors in Malaysia and analyzed using partial least squares structural equation modeling (PLS-SEM). The findings reveal that subjective norms have the highest impact on investment intention, followed by attitude and FSE, while religiosity is not significantly associated with investment intention in Islamic unit trust funds. Attitude significantly mediates religiosity-intention and Islamic financial literacy-intention relationships. Additionally, FSE significantly moderates the relationship between attitude and investment intention. The results shed light on the key factors that increase investing behavior and have direct managerial implications with regard to marketing strategies and target markets. These findings suggest that IUT service providers should take the lead in attracting customers through effective and targeted marketing initiatives, particularly by enhancing customers' FSE and capabilities. This study provides empirical evidence on the interrelationships between IFL, religiosity, and FSE in examining investors' behavior using the Theory of Planned Behavior (TPB) framework. The role of perceived behavioral control was substituted with FSE. The study explores the moderating role of FSE on the relationship between attitude and investment intention.*

Keywords: Investment intention, Islamic unit trust funds, Islamic financial literacy, Religiosity, Theory of Planned Behavior, Fintech self-efficacy

1. Introduction

Malaysia is renowned as a pioneer and leader in the development of Islamic finance (Gani & Bahari, 2021). It is one of the prominent global hubs for the Islamic capital market (ICM) (Securities Commission Malaysia (SC), 2020). It is also one of the concentration markets for Islamic funds' assets in the form of equity, fixed-income, sukuk, money market, and real estate (Islamic Financial Services Board (IFSB), 2022). However, the demand for Islamic unit trust funds (IUT) is distinctively small relative to conventional funds. Out of RM526.89 billion NAV of unit trusts, only RM128.33 billion (24.4%) is Shariah-compliant, with 3.2 million (15.7%) unit trust holder accounts compared to the 17.3 million (84.6%) conventional ones (SC 2020). Thus, it demonstrates massive potential growth of the IUT market to penetrate the untapped investors in Malaysia, considering it is a Muslim-majority country and internationally, with a prediction that the global Muslim population to reach 2.2 billion by 2030 (Ngah et al., 2020).

The surge in the global Muslim population who practice Islam as a way of life has created the demand for Shariah-compliant investment that complies with Islamic tenets. Undeniably, IUT offers a viable investment alternative to conventional funds. Recently, it also satisfied non-Muslim communities worldwide who are attracted to Shariah values that promote ethics, justice, and generosity (Abbas et al., 2019). Past research has claimed that IUT is a safe-haven investment, lower risk, less drawdown by investors, better resilient, and faster recovery during economic uncertainty such as the 2008 financial crisis and the Covid-19 pandemic (International Monetary Fund, 2021; Ishak et al., 2022). Besides, the mutual fund industry has more potential to grow in line with financial technology (Fintech) development (Abdullah et al., 2018). Fintech is revolutionizing the financial industry at an unprecedented rate (Frost et al., 2019), from mobile payments, robo-advisor platforms, and application-based investments, to online banking solutions (Panos & Wilson, 2020). The IUT is no exception, and fintech automates the system of finance and investment, operations and risk management, and data security (Miskam et al., 2019). Nonetheless, the unsolved puzzle remained, why is IUT less appealing among investors? How can more investors be attracted to invest in IUT? What factors influence investors' decisions in IUT? Therefore, it is vital to understand the factors influencing investors' investment intentions in IUT to promote the development of the IUT industry.

Numerous studies have examined investment behavioral intention but neglected IUT. For example, several studies have investigated stocks (Khawaja & Alharbi, 2021; Shehata et al., 2021), bonds (Duqi & Al-Tamimi, 2019; Khan et al., 2020), and retirement fund investment schemes (Bongini & Cucinelli, 2019). Although most studies on behavioral intention have been conducted in developed countries (Albaity & Rahman, 2019; Çal & Lambkin, 2017), a growing literature has focused on developing countries, such as Malaysia (Annamalah et al., 2019; Mahdzan et al., 2020; Yang et al., 2021), Indonesia (Dewi & Tamara, 2020), India (Akhtar & Das, 2019; Alhorani, 2019), Taiwan (Lai, 2019), and Vietnam (Cao et al., 2021). Mutual funds research has highlighted conventional funds in Malaysia (Annamalah et al., 2019; Kamil et al., 2018; Mahdzan et al., 2020) and India (Paliwal et al., 2018). Only a few studies have examined IUT in Indonesia (Sumiati et al., 2021) and Malaysia (Yusuff et al., 2020). Sumiati et al. (2021) analyzed the influence of attitudes, subjective norms, religiosity, and Islamic financial literacy (IFL) on the intention to invest among the millennial generation in Indonesia using the Theory of Reason Action (TRA). Yusuff et al. (2020) investigated the effect of product knowledge and information sources on IUT investment decisions using the Engel, Blackwell, and Miniard (EBM) decision-making model.

However, previous literature has failed to examine the role of technology skills in influencing IUT investment behaviors. Fintech and IT innovations have made financial products and services becoming digital and more complex (Sangwan et al., 2020). Plus, the Covid-19 pandemic has accelerated the cashless society culture and the use of digital platforms. Thus, investors need fintech self-efficacy (FSE) to make investment decisions. This study examined the influence of FSE on IUT investment intention. Specifically, it extended the Theory of Planned Behavior (TPB) model by replacing perceived behavioral control (PBC) with Fintech self-efficacy. Additionally, it added IFL and religiosity to the model. The TPB has been examined in various domains, such as food consumption (Scalco et al., 2017), internet purchasing (George, 2004; Ramayah et al., 2009), Takaful schemes (Bhatti & Md Husin, 2019), and Islamic banking depositors (Ganesan et al., 2020). Similarly, in investment study, the TPB is dominant, given the significant effect of attitude, subjective norms, and PBC in influencing

investment intention (Dewi & Tamara, 2020; Raut & Das, 2017; Sivaramakrishnan et al., 2017).

The findings provide theoretical and practical implications. From a theoretical perspective, this study analyzed the TPB framework in the context of Shariah investment, specifically IUT. It extended TPB by replacing PBC with FSE and tested FSE as a moderating variable between attitude and intention. Previous studies on self-efficacy were limited to computer self-efficacy in e-banking (Anouze & Alamro, 2020), self-efficacy in online health (Abu Seman, 2020), and financial self-efficacy in investment intention in the stock market (Akhtar & Das, 2019) and financial inclusion (Mindra & Moya, 2017). In this study, two additional predictors were added to the TPB, i.e., IFL and religiosity. It tested the role of attitude as a mediator between these two variables and intention to invest in IUT. From a practical perspective, it provides insights to policymakers and the industry in understanding investors' perceptions and behaviors. It will help them strengthen the marketing strategy for IUT by improving investors' capabilities, confidence, and access to digital financial technologies.

The paper is organized as follows: literature review, research questions, and hypotheses in Section 2; research methodology in Section 3; data analysis and results in Section 4; and conclusions and recommendations in Section 5.

2. Literature Review

Theory of Planned Behavior

The TPB developed by Ajzen (1991) is often used to predict future consumer behavior at the individual level. Based on this theory, three types of belief can motivate human behavior: 1) the belief regarding the potential outcomes of a particular behavior and the evaluations of those outcomes (behavioral belief), 2) the belief concerning the significance of others' normative expectations and the urge to conform to those expectations (normative beliefs), and 3) the belief related to the lack (existence) of other elements that may hinder (facilitate) the behavioral performance, which denotes the perceived strength of these factors (control beliefs). Behavioral beliefs constitute a positive or negative attitude towards a specific behavior. Subjective norms are derived from normative beliefs, while control beliefs constitute the PBC. The combination of attitude, subjective norms, and PBC creates a behavioral intention (Ajzen, 1991).

We use TPB over the Technology Acceptance Model (TAM) or Unified Theory of Acceptance and Use of Technology (UTAUT) because it takes into account the role of intentions in determining behavior, which is considered an important mediator between attitudes and behavior. In addition, TPB also accounts for the influence of subjective norms on behavior, an important factor not captured by the other two models. The aim of the study is to examine consumer behavior determinants, specifically the intention to invest in the IUT context. In the TPB, intentions act as "the motivating factors that influence behavior," with intentions determining a person's effort to perform a behavior (Ajzen, 1991).

A debated issue in the TPB literature is whether the self-efficacy construct can replace PBC. This concept has been widely discussed in studies on entrepreneurial intentions (Akhtar & Das, 2019; Roy et al., 2017). Previous studies have emphasized self-efficacy as a more specific construct, which reflects a better correlation with intentions than PBC (Armitage &

Conner, 2001). Ajzen (1991) stated that TPB places self-efficacy or PBC within a more general framework. As FSE serves the same function as self-efficacy in this study, the construct was employed in place of self-efficacy. Akhtar and Das (2019) and Mindra and Moya (2017) substituted PBC with FSE. The FSE should be adapted accordingly as it refers to a person's perceived ability to manage their finances (Armitage & Conner, 2001) or achieve specific financial goals through fintech. The use of self-efficacy is more appropriate due to the clarity of the concept and the accuracy of its measurement (Bandura, 1977). This is proven by the study of Koh and Mackert (2016), who put both PBC and self-efficacy as determinants of intention and found that self-efficacy is a more significant factor than PBC. In this study, FSE was replaced by PBC to assess the influence of behavioral control in financial technology on IUT investment intention.

Apart from the common TPB predictors (attitude, subjective norms, and PBC), pertinent constructs can be incorporated to improve predictability, which enhances the understanding of investment behavioral intention (Ajzen, 2020). This study enriches investor behavior studies by adding IFL and religiosity into the TPB model, with attitude as a mediator and FSE as a moderator. Specifically, the ability and performance of TPB were improved in predicting consumer behavior towards IUT. The findings provide insights for Shariah-compliant mutual fund service providers, fund managers, and Muslim consumers worldwide.

Investment intention

Behavioral intention is a person's determination to place effort into attempting a reality (Ajzen, 1991). Intention represents a person's motivation, plan, or earnest decision to exert efforts and subsequently behavior. Fishbein and Azjen (1975) suggest that intentions are the most reliable indicator of actual behavior, where the likelihood that the behavior will be performed increases with the strength of the intentions. Several studies have measured the influence of certain factors on the intention and behavior of users in various Islamic finance industries, such as Islamic insurance (takaful) (Aziz et al., 2019; Bhatti & Md Husin, 2019), banking (Albaity & Rahman, 2019; Hati et al., 2020), and bond (sukuk) (Ashidiqi & Arundina, 2017; Warsame & Ireri, 2016). This study examined the factors determining the intention to invest in IUT.

Attitude

Attitude denotes a person's positive or negative judgment of a specific behavior (Ajzen & Fishbein, 1980). Allport (1967) describes attitude as a mental state that can directly or indirectly impact a person's response to all the connected things and events. Numerous studies have demonstrated attitude as one of the most significant influencers on consumer behavior. Raut (2020) discovered a positive relationship between attitude and intention to invest in the Indian stock market. Other studies highlighted a positive relationship between attitude and intention to use Islamic credit cards (Ali et al., 2017) and the adoption of Islamic banking (Ganesan et al., 2020). Thus, this study proposed the following hypothesis:

Hypothesis 1. Attitude is positively related to IUT investment intention.

Subjective norms

The second factor influencing behavioral intention is subjective norms, which reflect how someone interprets the social context of behavior. The term involves societal pressure, which determines whether an individual would engage in the behavior. Several studies have examined the relationship between social impact, a person's surroundings, and behavioral intention. Observably, social influence plays a significant role in influencing investors' and consumers' behavioral intentions (Ali et al., 2017; Raut, 2020). The significance of this variable in the current Malaysian society is an interesting study topic; hence the following hypothesis was proposed:

Hypothesis 2. Subjective norms are positively related to IUT investment intention.

Fintech self-efficacy

The FSE is the third determinant in place of the PBC construct in TPB. Self-efficacy is a dynamic property that appears in various contexts and changes based on certain individual behavior, biological event, and the environment (Stajkovic & Luthans, 1998). Being pessimistic about one's ability to use the new system will not significantly affect one's behavior. Therefore, self-efficacy can influence an individual's behavior. In this study, fintech refers to any financial transaction or activity that has been modernized and reinvented by incorporating technology to benefit financial institution clients. Computer self-efficacy positively impacts innovation and e-banking (Anouze & Alamro, 2020; Mcilroy et al., 2007). The FSE also influences stock market investment intention (Akhtar & Das, 2019). An interesting topic to examine is the effect of FSE in influencing individuals' behavioral intention in investing. Hence, this study suggested the third hypothesis as follows:

Hypothesis 3. FSE is positively related to IUT investment intention.

Islamic financial literacy

According to Atkinson and Messy (2012), financial literacy is a combination of awareness, knowledge, skills, attitudes, and behaviors that can influence the goodness of financial decisions and achieve individual financial well-being. Meanwhile, IFL is an individual's ability, skills, and attitude to understand and analyze financial information based on Islamic perspectives (Abdul Rahim et al., 2016). Antara et al. (2016) defined IFL as the level of individual knowledge, awareness, and skills to understand the basis of information and Islamic financial services, which influence their attitude toward making appropriate Islamic financing decisions.

Previous studies have highlighted the impact of IFL on people's intention to use Islamic banking in the UAE (Albaity & Rahman, 2019; Warsame & Ireri, 2018) and Oman (Al Balushi et al., 2019). Meanwhile, financial literacy has influenced financial decision-making in the United Kingdom and Malaysia (Janor et al., 2016), United States (Lusardi, 2008), and Belgium (Bellofatto, D'Hondt, and De Winne 2018). The stock market investors' attitude in India was also influenced by financial literacy (Raut, 2020). Alshater et al. (2021) suggested that future research should investigate whether financial literacy and religiosity influence preference in Islamic finance over conventional finance. The study proposed the following hypotheses based on the aforementioned discussion:

Hypothesis 4. IFL is positively related to IUT investment intention.

Hypothesis 5. IFL is positively related to attitude.

Religiosity

Religiosity or religious commitment is the degree to which a person adheres to religious values, beliefs, and practices and applies them in daily life (Worthington et al., 2003). Religion affects human behavior and attitudes (Ab Hamid et al., 2021; Weaver & Agle, 2002). Religiosity plays a dominant and influential role in Muslim consumers' attitudes in Bangladesh (Newaz et al., 2016) and UAE (Albaity & Rahman, 2021). Additionally, religiosity is essential in decision-making as it influences individual cognition and behavior (Alam et al., 2012). Duqi and al-Tamimi (2019) state that religiosity is a prominent predictor of UAE investors' investment in sukuk. In Jamaludin and Gerrans (2015), religiosity is closely related to an individual's decision in choosing the type of fund. The analysis of EPF investors revealed that casual and liberal Muslims prefer conventional funds, while obedient and devoted Muslims favor Islamic funds, which suggests that religion influences an individual's mutual fund investment decision. Hence, this study proposed the following:

Hypothesis 6. Religiosity is positively related to attitude.

Hypothesis 7. Religiosity is positively related to IUT investment intention.

Mediation

This study examined the mediating role of attitude in investigating IUT investment intention, which develops the inference quality and substantially contributes to the study (Aguinis et al., 2017). Previous studies suggested the vital role of attitude as a mediator of behavioral intention in financial services, specifically between religiosity and purchase intention towards Islamic insurance in Bangladesh (Newaz et al., 2016), financial knowledge and investment intention in India (Akhtar & Das, 2019), and halal brand purchasing between religiosity and halal brand purchase intention in India (Garg & Joshi, 2018). In Islamic banking adoption, Albaity and Rahman (2019) suggested attitude as a fully mediating factor for customers' behavioral intentions between IFL and intention to use Islamic banking in UAE. Souiden and Rani (2015) discovered that attitude mediates religiosity and the purchase intention of Islamic bank services in Tunisia. Therefore, attitude mediates the relationship between IFL and investment intention and the relationship between religiosity and investment intention:

Hypothesis 8. Attitude mediates the relationship between IFL and investment intention.

Hypothesis 9. Attitude mediates the relationship between religiosity and investment intention.

Moderation

A moderator can increase the ability to predict outcomes in a study. Moderating factor affects the strength or direction of the relationship between an independent or predictor variable and a dependent or criterion variable (Aguinis et al., 2017; Baron & Kenny, 1986). In the current study, attitude is regarded as a predictor, investment intention as a result, and FSE is a contingency factor. Moderating variables are often used in unreliable or contradictory studies.

Although most studies discovered that behavioral intention and TPB characteristics are consistently positively correlated, some have revealed the opposite (Ahmed et al., 2019; Juliana et al., 2022). Thus, incorporating a moderator in testing the attitude-intention relationship is valid.

Self-efficacy is a dynamic property that emerges in various contexts, which can be changed by certain individual behaviors, biological events, and their environment (Stajkovic & Luthans, 1998). One of the main factors influencing financial behavior is self-efficacy, which is confidence in a person's ability to manage financial situations (Mindra & Moya, 2017). Researchers believe that self-confident and optimistic individuals tend to invest when they feel they can do so with fintech and vice versa. The FSE could be a significant moderator of the IUT investment intention. Thus, the following hypothesis was presented:

Hypothesis 10. The positive relationship between attitude and investment intention will be stronger when FSE is high.

Figure 1 displays the research model and includes all the proposed study relationships.

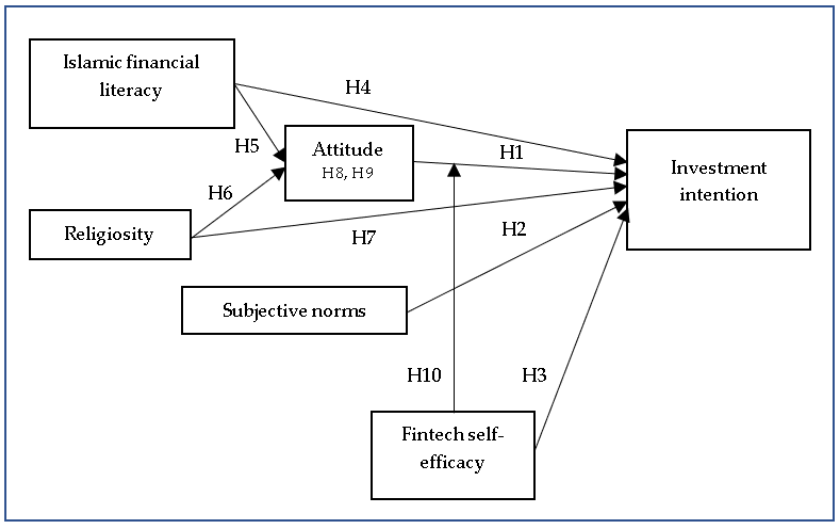

Figure. 1 Research Framework

3. Research Methodology

3.1 Instrument Design

The measured constructs were adapted from and validated based on previous studies. The five items used to measure investment intention were adapted from Lai (2019). Meanwhile, attitude was measured based on four items adapted from Akhtar and Das (2019) and Shahab Aziz et al. (2019). Social influence was evaluated using four items adapted from Amin (2016). The FSE construct was assessed based on five items modified from Mindra and Moya (2017), while the six items used in evaluating IFL were adapted from Abdul Rahim et al. (2016). Lastly, religiosity was measured using ten items from Mahdzan et al. (Mahdzan et al., 2020) (based on. Wan Ahmad et al. (2008) and Tiliounie and Belgoumidi (2009)).

All exogenous variables were measured with a five-point Likert scale, a more suitable method for the general population who are less familiar with questionnaires (Weijters et al., 2010). Additionally, the endogenous variables (investment intention) were measured with a seven-point scale. Employing different Likert scales reduces the common method variance (CMV) (Podsakoff et al., 2003) with an added marker variable. An expert validation was conducted before distributing the questionnaire survey, where five academic and business experts reviewed the instrument. The study ensured that the instrument could be clearly understood before data collection by conducting a pre-test cognitive interview with 15 community members. Subsequently, a pilot test was conducted among 30 respondents with similar characteristics within the target population. The actual questionnaire distribution was conducted in May and June 2022. After data collection, the proposed hypothesis was tested using structural equation modeling in Smart Partial Least Squares (SmartPLS) 4.0.

3.2 Sampling Technique and Data Collection

The study used a purposive sampling method focused on Muslim investors with fintech experience. Data were collected and disseminated online via mutual fund agents. The representatives were from several fund management firms, including Public Mutual Berhad, Kenanga Investors Berhad, PMB Investment Berhad, and RHB Islamic International Asset Management Berhad, who assisted in distributing the questionnaires to their clients online. The respondents circulated the questionnaire online to their networks and recommended the names of potential respondents to be contacted. This snowball sampling-based online survey operated until the desired number of respondents was achieved. The respondents for the sampling frame were selected based on three screening questions to ensure they matched the aforementioned sampling criteria. Firstly, the respondents must be Muslims over 18 years old. The second inquiry concerned past fintech service usage and the specific service used. Thirdly, the respondents were asked about their history in IUT investment. A total of 417 data were collected, but 25 were eliminated following the straight-lining and outliers review procedure. Thus, the final data amounted to 392.

3.3 Common Method Variance

The CMV tests are essential in data collected via self-administered questionnaires, specifically when the same person provides the predictor and criterion variables (Podsakoff et al., 2012). This study used five-point and seven-point Likert-type scales for all independent and dependent variables, respectively, based on Podsakoff et al.'s suggestion.

Kock's (Kock, 2015) full collinearity analysis was applied to establish that CMV was not severe in the current study. Therefore, CMV is established if the variance inflated factor (VIF) exceeds or is equal to 3.3. Given that all VIF values were below the recommended threshold value, the CMV was not severe.

A marker variable was assessed for CMV, which entailed using a source measure incorporating method variance as a covariate in the statistical analysis (Podsakoff et al., 2003). Using Ronkko and Ylitalo's (2011) method, the marker variables for this study were derived from Lin et al. (2015), which consists of three unrelated items. The addition of marker variables did not significantly change the Beta (β) value or the path coefficient and R^2, demonstrating that the data is free of CMV issues.

3.4 Multivariate Normality

Kline (2011) stated that the normal multivariate skewness value is ≤ 3 and the normal kurtosis value is ≤ 20. Multivariate normality in this study was assessed using the Web Power online tool, which evaluates Mardia's multivariate skewness, kurtosis coefficients, and p-values. Resultantly, the pooled data skewness ($\beta = 9.941$, $p < 0.01$) and kurtosis ($\beta = 93.401$, $p < 0.01$) were not multivariate normal. Thus, the results align with the SmartPLS requirements as a non-parametric software data analysis.

3.5 Data Analysis Method

Variance-based PLS-SEM (SmartPLS) estimation was utilized considering the exploratory nature and non-normality issues in this study (Hair et al., 2011). Data analysis and reporting involved two stages; the first stage tested the measurement model construct validity and reliability, while the second stage analyzed the structural model support for the conceptual model (Chin, 2010). The analysis was performed using SmartPLS 4.0, which is a structural equation-based variance modeling software.

4. Data analysis and results

4.1 Profile of Respondents

Out of 392 respondents, 52.6% were female, and 41.9% were between the ages of 41 and 50. Most respondents were from the public sector (53.1%) with over 21 years of work experience (25.8%), possessed a Bachelor's degree (45.2%), and earned RM4000 to RM8000 monthly (45.1%). Table 1 summarizes the respondent profile.

Table 1. Profile of respondents

	Category	**N**	**%**
Gender	Male	186	47.4
	Female	206	52.6
Age group	18-30 years	57	14.5
	31-40 years	115	29.3
	41-50 years	164	41.8
	51-60 years	39	9.9
	61 years and above	17	4.3
Education	Secondary school	18	4.6
	Certificate/Diploma	70	17.9
	Bachelor's Degree	177	45.2
	Master's Degree	88	22.4
	PhD	39	9.9
Employment	Public Service	208	53.1

	Category	N	%
	Private Service	92	23.5
	Business/Self-employed	37	9.4
	Student	28	7.1
	Pensioner	19	4.8
	Not working	8	2.0
Monthly income	Less than RM2000	24	6.1
	RM2001-RM4000	53	13.5
	RM4001-RM6000	91	23.2
	RM6001-RM8000	86	21.9
	RM8001-RM10000	42	10.7
	RM10001 and above	68	17.3
	No fixed income	28	7.1
Working experience	Less than five years	38	9.7
	5-10 years	48	12.2
	11-15 years	87	22.2
	16-20 years	83	21.2
	Over 21 years	101	25.8
	N/A	35	8.9

4.2 Internal Consistency Reliability, Indicator Reliability, and Convergent Validity

The consistency and reliability of the measurement model were assessed using Cronbach's alpha and the composite reliability index. Cronbach's alpha ranges from 0.790 to 0.947, where an acceptable range is a value of 0.7 or above (Hair et al., 2017). In this study, CR ranged from 0.856 to 0.960, and AVE ranged from 0.529 to 0.826, which meet the minimum requirements (Hair et al., 2017). Therefore, the convergent measurement was valid and reliable (refer Table 2).

Table 2. Indicator Reliability, Internal Consistency Reliability, and Convergent Validity

Variable	Item	Indicator Reliability	Internal Consistency Reliability		Convergent Validity
		Outer Loadings	Composite Reliability (CR)	Cronbach's Alpha	Average Variance Extracted (AVE)
		>0.70	>0.7	>0.7	>0.50
Islamic financial literacy (IFL)	IFL2	0.703	0.856	0.790	0.544
	IFL3	0.787			
	IFL4	0.769			
	IFL5	0.679			
	IFL6	0.743			
Religiosity (REL)	REL3	0.769	0.870	0.822	0.529
	REL4	0.749			
	REL6	0.701			
	REL7	0.732			
	REL8	0.645			
	REL9	0.759			
Fintech self-efficacy (FSE)	FSE1	0.842	0.919	0.889	0.695
	FSE2	0.835			
	FSE3	0.752			
	FSE4	0.884			
	FSE5	0.849			
Attitude (ATT)	ATT1	0.882	0.942	0.918	0.802
	ATT2	0.902			
	ATT3	0.927			
	ATT4	0.870			
Subjective norms (SN)	SN1	0.835	0.874	0.808	0.636
	SN2	0.825			
	SN3	0.787			
	SN4	0.738			
Investment intention (INTENT)	INTENT1	0.885	0.960	0.947	0.826
	INTENT2	0.920			
	INTENT3	0.886			
	INTENT4	0.931			
	INTENT5	0.922			

Note: IFL1, REL1, REL2, REL5, and REL10 were deleted due to low loadings

4.3 Discriminant Validity

Discriminant validity was established using the heterotrait-monotrait ratio (HTMT) (Henseler et al., 2015). Table 3 indicates that the HTMT values for all the constructs were under HTMT.85. Thus, discriminant validity was established in this study (Franke & Sarstedt, 2019).

Table 3. HTMT criterion

	IFL	REL	FSE	ATT	SN	INTENT
IFL						
REL	0.349					
FSE	0.434	0.202				
ATT	0.505	0.279	0.267			
SN	0.513	0.314	0.250	0.672		
INTENT	0.477	0.234	0.404	0.553	0.617	

4.4 Structural Model Assessment

Table 4 highlights the hypothesis criteria developed in the study. Only one of the nine direct hypotheses was unsupported. The relationship between IFL and INTENT was significantly positive ($\beta = 0.106$, $p < 0.01$), ATT ($\beta = 0.240$, $p < 0.01$), SN ($\beta = 0.313$, $p < 0.01$), and FSE ($\beta = 0.209$, $p < 0.01$). Surprisingly, the relationship between REL and INTENT was not supported ($\beta = -0.001$, $p = 0.490$). Thus, H1, H3, H4, and H5 were supported, while H2 was not supported. The relationship between IFL and REL with ATT was also significantly positive ($\beta = 0.401$, $p < 0.001$) and ($\beta = 0.138$, $p < 0.01$), respectively.

Table 4. Hypothesis testing result

		Std. Beta	Std. Dev	t-value	p-value	BCI LL	BCI UL	Decision	f^2	R^2	Q^2
H1	ATT -> INTENT	0.240	0.065	3.715	0.000	0.133	0.349	supported	0.060	0.416	0.350
H2	SN -> INTENT	0.313	0.062	5.077	0.000	0.214	0.413	supported	0.105		
H3	FSE -> INTENT	0.209	0.048	4.395	0.000	0.132	0.287	supported	0.064		
H4	IFL -> INTENT	0.106	0.047	2.261	0.012	0.031	0.186	supported	0.013		
H5	IFL -> ATT	0.401	0.054	7.492	0.000	0.307	0.484	supported	0.188	0.211	0.196
H6	REL -> ATT	0.138	0.048	2.891	0.002	0.054	0.211	supported	0.022		
H7	REL -> INTENT	-0.001	0.043	0.026	0.490	-0.075	0.067	not supported	0.000		
H8	IFL -> ATT -> INTENT	0.096	0.029	3.272	0.001	0.053	0.151	supported			
H9	REL -> ATT -> INTENT	0.033	0.015	2.269	0.012	0.014	0.062	supported			
H10	ATT*FSE -> INTENT	0.270	0.045	2.411	0.008	0.036	0.185	supported			

These factors explained 41.6% ($R^2 = 0.416$) of the variance in investment intention and 21.1% ($R^2 = 0.211$) of the variance in attitude. In Table 4, IFL did not affect ($f^2 = 0.013$) on INTENT, while ATT ($f^2 = 0.060$) and FSE ($f^2 = 0.064$) demonstrated a small effect on INTENT. Meanwhile, SN had a moderate effect on INTENT ($f^2 = 0.105$). Moreover, no 0 straddles were observed between the Lower and Upper Limits (Henseler et al., 2015), excluding REL-INTENT. Therefore, all results were significant except for the religiosity-investment intention relationship. The Q^2 value of 0.35 (exceeded zero), which signifies the high predictive power of the model. implies the sizable predictive significance of the model (Hair, 2017).

Preacher and Hayes (2008) guidelines were applied to test the mediation analysis by bootstrapping the indirect effect. Resultantly, the relationship between IFL -> ATT -> INTENT ($\beta = 0.096$, $p < 0.01$) and REL -> ATT -> INTENT ($\beta = 0.033$ $p < 0.01$). Hence, attitude mediates both relationships, thus supporting H8 and H9. The moderation effect of FSE on the relationship between ATT and INTENT indicated a significantly positive interaction (t-value = 2.411; p-value = 0.008). Figure 2 illustrates a simple slope analysis of the moderating effect of FSE on attitude and investment intention. The interaction plot denotes that the relationship between ATT and INTENT is stronger when the FSE is high, thus supporting H10.

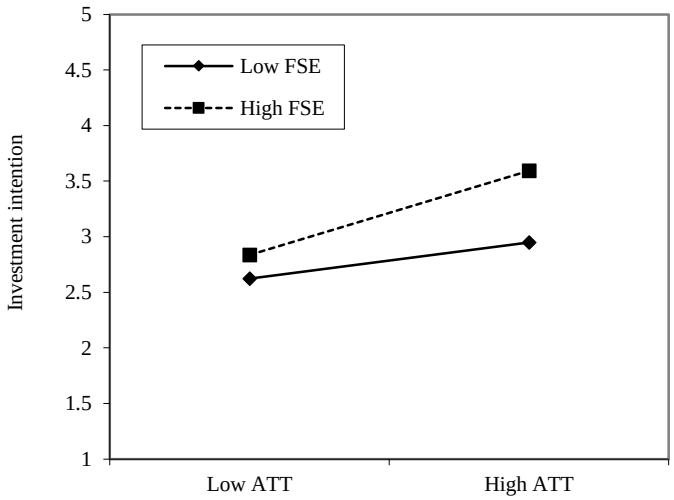

Figure. 1 Interaction plot

5. Discussion and Conclusion

This study analyzes the factors influencing individuals' intentions to invest in IUT in Malaysia. A research model based on the TPB was tested to gain insights into the factors. This model also replaces the PBC in the TPB with the FSE to determine if this factor can influence the intention. There are ten examined hypotheses, and the results of the study indicate that nine hypotheses are supported, and just one is not supported. All TPB dependent variables, namely attitude, subjective norms, and FSE, have a positive and significant relationship with IUT investment intention. These findings are consistent with the TPB's theoretical framework, which assumes that the individual context (attitude and PBC) and the environment (subjective norms) are driving variables in the adoption of a behavior.

Subjective norms have a positive relationship with IUT intention with the largest magnitude, followed by attitude, FSE, and IFL. Hence, societal pressure influences individual behavior in Malaysia and Southeast Asia (Ngah et al., 2020; Ramayah et al., 2012), which confirms previous findings in other Islamic finance areas. For instance, subjective norms are significant in Islamic credit cards in Pakistan (Ali et al., 2017) and Islamic banking in Malaysia (Ganesan et al., 2020). The findings regarding conventional investment support Lai's (Lai, 2019) work in the Taiwan stock market. Influential individuals' (family and friends) opinion is crucial in IUT investment intention. Consistent with behavioral finance studies, an individual's decision-making is influenced by psychological elements, such as herding behavior (Yang et al., 2021). Investors make decisions based on the cognitive bias of their social circles., such as

friends and family. The results also confirmed studies of high-context cultures, such as among the Chinese and Arabs (Ayyub et al., 2019; Awn & Azam, 2020), Japanese (Köster et al., 2018), and Malaysians (Lau et al., 2020). Correspondingly, Malaysians are collectivist and prefer to comply with societal norms.

In addition, attitude was also found to have a significant relationship with investment intention. Attitude is a significant predictor of the behavioral intention to purchase Islamic banking products and services in Malaysia (Hoque et al., 2019) and Pakistan (Ayyub et al., 2019). Attitude is also crucial in sukuk investment intention among Libyan investors (Awn and Azam, 2020). Therefore, Muslim customers and investors believe that Shariah-compliant products are essential in preserving Islamic principles of their wealth creation, which influence their attitudes. They also believe investing in IUT is a practical and wise choice and favor the idea of IUT investment. The results aligned with TPB, which states that attitude describes the extent to which a person has a positive or negative evaluation or judgment of the intended behavior (Ajzen, 1991).

A significant positive relationship was also revealed between FSE and IUT investment intention. Respondents are more confident in making investment decisions when they are technologically savvy and own the devices and infrastructures to conduct online investments. These findings aligned with past studies on the financial self-efficacy for the stock market (Akhtar & Das, 2019) and financial inclusion (Mindra & Moya, 2017), as well as computer self-efficacy for e-banking services (Anouze & Alamro, 2020). Hence, technological skills need to be enhanced to motivate people to invest in IUT. Facilities and infrastructures are critical in facilitating investors. The presence of many investors results in a deeper market, which attracts more investors and boosts national financial development. This situation distinguishes the financial development between developed and emerging economies (Koepke, 2019).

The findings disclosed that IFL has a significant positive relationship with attitude and IUT investment intention. Warsame and Ireri (Warsame & Ireri, 2018) highlighted similar results in the adoption of Islamic banking services among consumers in the UAE and Al-Balushi et al. (Al Balushi et al., 2019) in small and medium enterprises (SMEs) in Oman. Financial literacy influenced financial decision-making in the United States (Lusardi, 2008) and Belgium (Bellofatto, D'Hondt, and De Winne 2018), which significantly impacted stock market investors' attitudes in India (Raut, 2020). This study is primarily based on current financial literacy research, specifically concerning the characteristics of IFL that encourage investors' IUT preference over conventional unit trust funds. The instruments in previous studies are based on conventional perspectives without explicitly outlining Islamic perspectives.

Therefore, IFL in this study used the same concept with an Islamic perspective, which is defined as "the capacity to apply financial knowledge, skill, and attitude in managing financial resources in accordance with Islamic teachings" (Abdul Rahim et al., 2016). This study investigated the relationship between subjective IFL and IUT investment intention. The IFL has been deeply engrained in Malaysian culture due to national regulations and being a Muslim-dominated country. Therefore, IFL significantly impacts Malaysian investors' financial decisions, which explains the importance of IFL on investment intention for other Islamic financial products. The benefits of Islamic financial instruments, such as ethical investment, no involvement in speculative activities, and support from underlying assets,

encouraged investment in Shariah-compliant products. Muslims who gain IFL tend to invest in Islamic financial products. Additionally, Islam demands that money be accumulated based on Shariah principles. Wise people will attempt to accumulate wealth in line with Shariah.

Religiosity influences attitude but is not significant towards IUT investment intention. This result contradicts previous studies on Islamic bonds (sukuk) in the UAE (Duqi & Al-Tamimi, 2019), ICM products (interest-bearing sukuk and stocks) in Bangladesh (Newaz et al., 2016), and Islamic banking products in Kashmir (Charag et al., 2019). Nonetheless, the finding aligned with earlier studies on portfolio allocation (Mahdzan et al., 2017), intention to purchase halal brands (Garg & Joshi, 2018), and willingness to pay for halal transportation (Ngah et al., 2020). The terminologies used convinced the consumer that certain guidelines had been followed. Thus, religiosity is not affected in the case of "Islamic" branded products. The level of religiosity is insignificant if the consumer is informed and aware that the instrument is free of riba. Religiosity did not directly affect intention but had an indirect effect when mediated by attitude. This demonstrated the importance of attitude in establishing a substantial relationship between religiosity and intention. Furthermore, higher levels of religiosity have a greater influence on Muslims' attitudes. Therefore, respondents' attitudes improve when they commit to the religion as they read the al-Quran and perform zikr. Islam is a religion that instructs Muslims on how to behave in all situations; hence religiosity determines a Muslim's attitude (Ngah et al., 2020).

Attitudes also significantly mediated the relationship between IFL and investment intention, which confirms previous studies (Akhtar & Das, 2019; Albaity & Rahman, 2019; Souiden & Rani, 2015). Attitude plays a vital mediating role in determining investment intention, thus suggesting the importance of attitude. Fund managers should create a favorable perception of their services to Muslims if they are concerned about Muslims' intentions.

The FSE moderated the link between attitude and investment intention. The influence of FSE strengthens the marginal impact of attitudes towards intention. This finding parallels Doanh (Cong Doanh, 2021) in Vietnam, where self-efficacy positively moderated the relationship between attitude and entrepreneurial intention. Similarly, Lee et al. (Lee et al., 2011) mentioned that computer self-efficacy positively moderated the attitude-online banking relationship among Taiwanese bank customers. The availability of skills and facilities strengthens the relationship between attitude and intention to invest in IUT. As banks, stock trading firms, and financial institutions have recently moved online (Sabri & Aw, 2019), investment platforms, especially mutual funds, should move in a similar direction.

Theoretical implications

This study has some valuable contributions to the field of behavioral finance. No previous study has integrated the basic TPB model with FSE in examining investor behavior. It theoretically revised and extended the TPB model by employing IFL and religiosity and substituting the PBC with FSE. The results broadened the understanding of the factors influencing IUT behavioral intention from the Muslim investors' perspective in Malaysia. Another contribution of this study is that it also contributes to the body of knowledge by analyzing the mediating role of attitude between IFL-intention and religiosity-intention relationships and the moderating role of FSE between attitude and intention which has not been done before with regard to the investment intention in IUT.

Managerial implications

Comprehending investors' behavioral intention enables policymakers and fund managers to develop suitable marketing strategies for IUT by increasing positive attitudes among investors, potential investors, and surrounding people. Essentially, attitude is critical in influencing the relationship between religiosity and IFL towards intention. Muslim consumers' positive attitude toward their investment products can be encouraged through promoting Islamic finance products by authorities, such as the Security Commission and the Malaysian Islamic Development Department (JAKIM), by appointing respected idols as product ambassadors (Ngah et al., 2021). Marketing and advertising strategies should not rely exclusively on aspects that produce favorable attitudes but instead focus on efforts to engage family and friends (primary and secondary audiences) in nurturing positive behavior towards Islamic financial instruments, specifically IUT. The secondary audience (individuals without purchasing power) may influence the primary audience (individuals with purchasing power). For instance, a father could invest in IUT for his children who are still studying if the children manage to convince him of the IUT benefits. Alternatively, the young IT-savvy millennials could assist their fathers in dealing with the online purchasing process while the father funds the investment.

Apart from instilling positive attitudes via advertisement to society, policymakers and fund managers need to promote educational programs that educate and explain the virtues and benefits of IUT. Service providers can improve by expanding investor access, including the availability of online payment transactions on websites or applications and the security guarantees for investors' transactions. Efforts should be made to improve the quality of system features and services and the cyber security safety features. Consequently, the investors can experience better service, thus increasing their confidence and trust in online IUT investment.

Limitations and future suggestions

As for limitations, the current study provided substantial insights into the factors influencing Malaysians' IUT investment intention using expanded TPB, but the sample only highlighted Muslim investors. Future studies should extend the research scope to all Malaysians regardless of religion. This study also adopted a cross-sectional research design, thus, future research should utilize a longitudinal and experimental study for a better understanding.

Conclusion

In conclusion, the objective of this study was to contribute to the literature on behavioral finance by investigating the factors that influence investment intentions in IUT among Malaysian investors. To this end, we examined the mediating role of attitude between IFL and religiosity and intention and the moderating role of FSE in the relationship between attitude and investment intention. Building on the TPB, we discovered that attitude, subjective norms, FSE, and IFL directly influence investors' investment intention, whereas religiosity does not. However, when attitude mediates the relationship, it becomes positive and significant. Moreover, the results indicate that FSE positively moderates the relationship between attitude and investment intention. This study highlights the importance of attitude, IFL, and FSE in investors' decision-making. It suggests that fund managers and service providers should

improve their marketing strategies to enhance investors' attitudes, IFL knowledge, and fintech skills to attract their interest, confidence, and ability to invest in IUT.

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References

Ab Hamid, S. N., Jusoh, W. J. W. & Maulan, S. (2021). The influence of spiritual brand attributes towards the corporate brand image of islamic banking institutions in Malaysia. *Jurnal Pengurusan*, *61*, 31–41. https://doi.org/10.17576/pengurusan-2021-61-03

Abbas, A., Nisar, Q. A., Mahmood, M. A. H., Chenini, A. & Zubair, A. (2019). The role of Islamic marketing ethics towards customer satisfaction. *Journal of Islamic Marketing*, *11*(4), 1001–1018. https://doi.org/10.1108/JIMA-11-2017-0123

Abdul Rahim, S. H., Abdul Rashid, R. & Hamed, A. B. (2016). International Journal of Economics and Financial Issues Islamic Financial Literacy and its Determinants among University Students: An Exploratory Factor Analysis. *International Journal of Economics and Financial Issues* |, *6*(S7), 32–35. http:www.econjournals.com

Abdullah, E. M. E., Rahman, A. A., Rahim, R. A., Abdul Rahman, A., Abdul Rahim, R., Abdul-Rahman, A. & Rahim, R. A. (2018). Adoption of financial technology (Fintech) in mutual fund/ unit trust investment among Malaysians: Unified Theory of Acceptance and Use of Technology (UTAUT). *International Journal of Engineering and Technology(UAE)*, *7*(2), 110–118. https://doi.org/10.14419/ijet.v7i2.29.13140

Abu Seman, S. A. (2020). *Willingness to Pay for mHealth Application: The Relationship Between Attitude, Social Influence and Self-Efficacy with the Moderating Effect of Initial Trust*. Universiti Sains Malaysia.

Aguinis, H., Edwards, J. R. & Bradley, K. J. (2017). Improving Our Understanding of Moderation and Mediation in Strategic Management Research. *Organizational Research Methods*, *20*(4), 665–685. https://doi.org/10.1177/1094428115627498

Ahmed, W., Najmi, A., Faizan, H. M. & Ahmed, S. (2019). Consumer behaviour towards willingness to pay for Halal products. *British Food Journal*, *121*(2), 492–504. https://doi.org/10.1108/BFJ-02-2018-0085

Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, *50*(2), 179–211.

Ajzen, I. (2020). The theory of planned behavior: Frequently asked questions. *Human Behavior and Emerging Technologies*, *April*, 1–11. https://doi.org/10.1002/hbe2.195

Ajzen, I. & Fishbein, M. (1980). Theory Of Reasoned Action / Theory Of Planned Behavior. *Social Psychology*.

Akhtar, F. & Das, N. (2019). Predictors of investment intention in Indian stock markets. *International Journal of Bank Marketing*, *37*(1), 97–119. https://doi.org/10.1108/IJBM-08-2017-0167

Al Balushi, Y., Locke, S. & Boulanouar, Z. (2019). Determinants of the decision to adopt Islamic finance: evidence from Oman. *ISRA International Journal of Islamic Finance*, *11*(1), 6–26. https://doi.org/10.1108/IJIF-02-2018-0020

Alam, S. S., Janor, H., Che Wel, C. A., Zanariah & Ahsan, M. N. (2012). Is Religiosity an important factor in influencing the intention to undertake Islamic home financing in Klang Valley? *World Applied Sciences Journal*, *19*(7), 1030–1041. https://doi.org/10.5829/idosi.wasj.2012.19.07.392

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

Albaity, M. & Rahman, M. (2021). Customer loyalty towards islamic banks: The mediating role of trust and attitude. *Sustainability (Switzerland)*, *13*(19), 1–19. https://doi.org/10.3390/su131910758

Alhorani, A. (2019). Factors affecting the financial investors' decision in the adoption of mutual funds. *Management Science Letters*, *9*(Special Issue 13), 2269–2276. https://doi.org/10.5267/j.msl.2019.7.027

Ali, M., Raza, S. A. & Puah, C. H. (2017). Factors affecting to select Islamic credit cards in Pakistan: the TRA model. *Journal of Islamic Marketing*, *8*(3), 330–344. https://doi.org/10.1108/JIMA-06-2015-0043

Allport, G. W. (1967). *Attitudes in Attitude Theory and Measurement,*. University of CA, Berkeley, CA.

Alshater, M. M., Hassan, M. K., Khan, A. & Saba, I. (2021). Influential and intellectual structure of Islamic finance: a bibliometric review. *International Journal of Islamic and Middle Eastern Finance and Management*, *14*(2), 339–365. https://doi.org/10.1108/IMEFM-08-2020-0419

Amin, H. (2016). Willingness to Open Islamic Gold Investment Accounts. *Journal of Internet Banking and Commerce*, *January*. http://www.icommercecentral.com/%0Ahttp://www.icommercecentral.com/ArchiveJIBC/currentissue-internet-banking-and-commerce.php

Annamalah, S., Raman, M., Marthandan, G. & Logeswaran, A. K. (2019). An empirical study on the determinants of an investor's decision in unit trust investment. *Economies*, *7*(3), 1–23. https://doi.org/10.3390/economies7030080

Anouze, A. L. M. & Alamro, A. S. (2020). Factors affecting intention to use e-banking in Jordan. *International Journal of Bank Marketing*, *38*(1), 86–112. https://doi.org/10.1108/IJBM-10-2018-0271

Antara, P. M., Musa, R. & Hassan, F. (2016). Bridging Islamic Financial Literacy and Halal Literacy: The Way Forward in Halal Ecosystem. *Procedia Economics and Finance*, *37*(16), 196–202. https://doi.org/10.1016/s2212-5671(16)30113-7

Armitage, C. J. & Conner, M. (2001). Efficacy of the theory of planned behaviour: A meta-analytic review. *British Journal of Social Psychology*, *40*(4), 471–499. https://doi.org/10.1348/014466601164939

Ashidiqi, C. & Arundina, T. (2017). Indonesia Students's intention to invest in Sukuk : Theory of planned behaviour approach. *International Journal of Economic Research*, *14*(15), 395–407.

Atkinson, A. & Messy, F.-A. (2012). Measuring Financial Literacy: Results of the OECD. *OECD Working Papers on Finance, Insurance and Private Pensions*, *44*(2), 296–316.

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

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, *84*(2), 191–215. https://doi.org/10.1037/0033-295X.84.2.191

Baron, R. M. & Kenny, D. A. (1986). The Moderator-Mediator Variable Distinction in Social Psychological Research. Conceptual, Strategic, and Statistical Considerations. *Journal of Personality and Social Psychology*, *51*(6), 1173–1182. https://doi.org/10.1037/0022-3514.51.6.1173

Bellofatto, A., D'Hondt, C. & De Winne, R. (2018). Subjective financial literacy and retail investors' behavior. *Journal of Banking and Finance*, *92*, 168–181. https://doi.org/10.1016/j.jbankfin.2018.05.004

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

Bongini, P. & Cucinelli, D. (2019). University students and retirement planning: never too early. *International Journal of Bank Marketing*, *37*(3), 775–797. https://doi.org/10.1108/IJBM-03-2018-0066

Çal, B. & Lambkin, M. (2017). Stock exchange brands as an influence on investor behavior. *International Journal of Bank Marketing*, *35*(3), 391–410. https://doi.org/10.1108/IJBM-05-2016-0072

Cao, M. M., Nguyen, N. T. & Tran, T. T. (2021). Behavioral Factors on Individual Investors' Decision Making and Investment Performance: A Survey from the Vietnam Stock Market. *Journal of Asian Finance, Economics and Business*, *8*(3), 845–853. https://doi.org/10.13106/jafeb.2021.vol8.no3.0845

Charag, A. H., Fazili, A. I. & Bashir, I. (2019). Determinants of consumer's readiness to adopt Islamic banking in Kashmir. *Journal of Islamic Marketing*, *11*(5), 1125–1154. https://doi.org/10.1108/JIMA-10-2018-0182

Chin, W. W. (2010). Handbook of Partial Least Squares. In V. Esposito Vinzi, W. W. Chin, J. Henseler & H. Wang (Eds.), *Handbook of Partial Least Squares*. Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-540-32827-8

Cong Doanh, D. (2021). The moderating role of self-efficacy on the cognitive process of entrepreneurship: An empirical study in Vietnam. *Journal of Entrepreneurship, Management and Innovation*, *17*(1), 147–174. https://doi.org/10.7341/20211715

Dewi, M. K. & Tamara, D. (2020). The Intention to Invest in Retail Bonds in Indonesia. *Academic Journal of Interdisciplinary Studies*, *9*(5), 188. https://doi.org/10.36941/ajis-2020-0097

Duqi, A. & Al-Tamimi, H. (2019). Factors affecting investors' decision regarding investment in Islamic Sukuk. *Qualitative Research in Financial Markets*, *11*(1), 60–72. https://doi.org/10.1108/QRFM-01-2018-0009

Fishbein, M. & Azjen, I. (1975). *Belief, attitude, intention and behavior: an introduction to*

theory and research. Addison-Wesley, Reading.

Franke, G. & Sarstedt, M. (2019). Heuristics versus statistics in discriminant validity testing: a comparison of four procedures. *Internet Research, 29*(3), 430–447. https://doi.org/10.1108/IntR-12-2017-0515

Frost, J., Gambacorta, L., Huang, Y., Shin, H. S. & Zbinden, P. (2019). BigTech and the changing structure of financial intermediation. *Economic Policy, 34*(100), 761–799. https://doi.org/10.1093/epolic/eiaa003

Ganesan, Y., Allah Pitchay, A. Bin & Mohd Nasser, M. A. (2020). Does intention influence the financial literacy of depositors of Islamic banking? A case of Malaysia. *International Journal of Social Economics, 47*(5), 675–690. https://doi.org/10.1108/IJSE-01-2019-0011

Gani, I. M. & Bahari, Z. (2021). Islamic banking's contribution to the Malaysian real economy. *ISRA International Journal of Islamic Finance, 13*(1), 6–25. https://doi.org/10.1108/ijif-01-2019-0004

Garg, P. & Joshi, R. (2018). Purchase intention of "Halal" brands in India: the mediating effect of attitude. *Journal of Islamic Marketing, 9*(3), 683–694. https://doi.org/10.1108/JIMA-11-2017-0125

George, J. F. (2004). The theory of planned behavior and Internet purchasing. *Internet Research, 14*(3), 198–212. https://doi.org/10.1108/10662240410542634

Hair. (2017). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). Thousand Oaks. *Sage*, 165.

Hair, J. F., Hult, G. T., Ringle, C. & Sarstedt, M. (2017). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM) - Joseph F. Hair, Jr., G. Tomas M. Hult, Christian Ringle, Marko Sarstedt. In *Sage*.

Hair, J. F., Ringle, C. M. & Sarstedt, M. (2011). PLS-SEM: Indeed a Silver Bullet. *Journal of Marketing Theory and Practice, 19*(2), 139–152. https://doi.org/10.2753/MTP1069-6679190202

Hati, S. R. H., Wibowo, S. S. & Safira, A. (2020). The antecedents of Muslim customers' intention to invest in an Islamic bank's term deposits: evidence from a Muslim majority country. *Journal of Islamic Marketing*. https://doi.org/10.1108/JIMA-01-2020-0007

Henseler, J., Ringle, C. M. & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science, 43*(1), 115–135. https://doi.org/10.1007/s11747-014-0403-8

International Monetary Fund. (2021). *After-effects of the covid-19 pandemic: prospects for medium-term economic damage* (Issue April).

Ishak, N., Shari, A., Japang, M. & Ab Rahim, F. (2022). Performance of islamic equity and fixed-income funds during the covid-19 pandemic in Malaysia. *Cogent Economics and Finance, 10*(1). https://doi.org/10.1080/23322039.2022.2122184

Islamic Financial Services Board. (2022). *Islamic Financial Services Industry Stability Report 2022: Resilience Amid A Resurging Pandemic*. 1–152. www.ifsb.org.

Jamaludin, N. & Gerrans, P. (2015). Retirement savings investment decisions: evidence from Malaysia. *Journal of the Asia Pacific Economy, 20*(4), 644–657. https://doi.org/10.1080/13547860.2015.1045324

Janor, H., Yakob, R., Hashim, N. A., Aniza, C. & Wel, C. (2016). Financial literacy and

investment decision in Malaysia and UK - Comparitive Study. *Malaysian Journal of Society and Space*, *2*(2), 106–118.

Juliana, N., Lada, S., Chekima, B. & Adis, A. A. A. (2022). Exploring Determinants Shaping Recycling Behavior Using an Extended Theory of Planned Behavior Model: An Empirical Study of Households in Sabah, Malaysia. *Sustainability (Switzerland)*, *14*(8). https://doi.org/10.3390/su14084628

Kamil, N. M., Subramaniam, M., Ali, H. E., Musah, M. B., Alex, A., Mohammed Kamil, N., Subramaniam, M., Ali, H. E., Musah, M. B. & Alex, A. (2018). Factors influencing the selection of unit trust funds among Malaysian retail investors. *Journal of Islamic Accounting and Business Research*, *9*(2), 155–170. https://doi.org/10.1108/JIABR-11-2015-0057

Khan, S. U., Khan, I. U., Khan, I., Din, S. U. & Khan, A. U. (2020). Evaluating ṣukūk investment intentions in Pakistan from a social cognitive perspective. *ISRA International Journal of Islamic Finance*, *12*(3), 347–365. https://doi.org/10.1108/IJIF-12-2019-0194

Khawaja, M. J. & Alharbi, Z. N. (2021). Factors influencing investor behavior: an empirical study of Saudi Stock Market. *International Journal of Social Economics*, *48*(4), 587–601. https://doi.org/10.1108/IJSE-07-2020-0496

Kline, R. B. (2011). Principles and Practice of Structural Equation Modeling THIRD EDITION. In *A Division of Guilford Publications, Inc* (Vol. 3).

Kock, N. (2015). Common method bias in PLS-SEM: A full collinearity assessment approach. *International Journal of E-Collaboration*, *11*(4), 1–10. https://doi.org/10.4018/ijec.2015100101

Koepke, R. (2019). What Drives Capital Flows to Emerging Markets ? A Survey of the Empirical Literature What Drives Capital Flows to Emerging Markets ? A Survey of the Empirical Literature. *Journal of Economic Surveys*, *33*(2), 516–540. https://mpra.ub.uni-muenchen.de/62770/1/MPRA_paper_62770.pdf

Koh, H. & Mackert, M. (2016). A study exploring factors of decision to text while walking among college students based on Theory of Planned Behavior (TPB). *Journal of American College Health*, *64*(8), 619–627. https://doi.org/10.1080/07448481.2016.1215986

Köster, M., Itakura, S., Yovsi, R. & Kärtner, J. (2018). Visual attention in 5-year-olds from three different cultures. *PLoS ONE*, *13*(7), 1–21. https://doi.org/10.1371/journal.pone.0200239

Lai, C.-P. P. (2019). Personality traits and stock investment of individuals. *Sustainability (Switzerland)*, *11*(19), 5474. https://doi.org/10.3390/su11195474

Lee, K. W., Tsai, M. Ten & Lanting, M. C. L. (2011). From marketplace to marketspace: Investigating the consumer switch to online banking. *Electronic Commerce Research and Applications*, *10*(1), 115–125. https://doi.org/10.1016/j.elerap.2010.08.005

Lin, T. C., Huang, S. L. & Hsu, C. J. (2015). A dual-factor model of loyalty to IT product - The case of smartphones. *International Journal of Information Management*, *35*(2), 215–228. https://doi.org/10.1016/j.ijinfomgt.2015.01.001

Lusardi, A. (2008). Financial Literacy : An Essential Tool for Informed Consumer Choice ? (Dartmouth College , Harvard Business School , and NBER). *Most*, *1*(May), 1–29.

Mahdzan, N. S., Zainudin, R., Hashim, R. C. & Sulaiman, N. A. (2017). Islamic religiosity and portfolio allocation : the Malaysian context. *International Journal of Islamic and Middle*

Eastern Finance and Management, *10*(3), 434–452. https://doi.org/10.1108/IMEFM-11-2016-0162

Mahdzan, N. S., Zainudin, R. & Yoong, S. C. (2020). Investment literacy, risk tolerance and mutual fund investments: An exploratory study of working adults in Kuala Lumpur. *International Journal of Business and Society*, *21*(1), 111–133.

Mcilroy, D., Sadler, C. & Boojawon, N. (2007). Computer phobia and computer self-efficacy: their association with undergraduates' use of university computer facilities. *Computers in Human Behavior*, *23*(3), 1285–1299. https://doi.org/10.1016/j.chb.2004.12.004

Mindra, R. & Moya, M. (2017). Financial self-efficacy: A mediator in advancing financial inclusion. *Equality, Diversity and Inclusion*, *36*(2), 128–149. https://doi.org/10.1108/EDI-05-2016-0040

Miskam, S., Yaacob, A. M. & Rosman, R. (2019). Fintech and Its Impact on Islamic Fund Management in Malaysia: A Legal Viewpoint. *Emerging Issues in Islamic Finance Law and Practice in Malaysia*, 223–246. https://doi.org/10.1108/978-1-78973-545-120191019

Newaz, F. T., Fam, K. S. & Sharma, R. R. (2016). Muslim religiosity and purchase intention of different categories of Islamic financial products. *Journal of Financial Services Marketing*, *21*(2), 141–152. https://doi.org/10.1057/fsm.2016.7

Ngah, A. H., Gabarre, S., Eneizan, B. & Asri, N. (2020). Mediated and moderated model of the willingness to pay for halal transportation. *Journal of Islamic Marketing*. https://doi.org/10.1108/JIMA-10-2019-0199

Paliwal, S., Bhadauria, S. & Singh, S. P. (2018). Determinants of Mutual Funds Investment Intentions: Big Five Personality Dimension. *Purushartha - A Journal of Management , Ethics and Spirituality*, *11*(1), 39–49. https://doi.org/10.21844/pajmes.v11i1.14608

Panos, G. A. & Wilson, J. O. S. (2020). Financial literacy and responsible finance in the FinTech era: capabilities and challenges. *European Journal of Finance*, *26*(4–5), 297–301. https://doi.org/10.1080/1351847X.2020.1717569

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y. & Podsakoff, N. P. (2003). Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies. *Journal of Applied Psychology*, *88*(5), 879–903. https://doi.org/10.1037/0021-9010.88.5.879

Podsakoff, P. M., MacKenzie, S. B. & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual Review of Psychology*, *63*, 539–569. https://doi.org/10.1146/annurev-psych-120710-100452

Preacher, K. J. & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, *40*(3), 879–891. https://doi.org/10.3758/BRM.40.3.879

Ramayah, T., Lee, J. W. C. & Lim, S. (2012). Sustaining the environment through recycling: An empirical study. *Journal of Environmental Management*, *102*, 141–147. https://doi.org/10.1016/j.jenvman.2012.02.025

Ramayah, T., Rouibah, K., Gopi, M. & Rangel, G. J. (2009). A decomposed theory of reasoned action to explain intention to use Internet stock trading among Malaysian investors. *Computers in Human Behavior*, *25*(6), 1222–1230. https://doi.org/10.1016/j.chb.2009.06.007

Raut, R. K. (2020). Past behaviour, financial literacy and investment decision-making process

of individual investors. *International Journal of Emerging Markets*, *15*(6), 1243–1263. https://doi.org/10.1108/IJOEM-07-2018-0379

Raut, R. K. & Das, N. (2017). Individual investors' attitude towards online stock trading: some evidence from a developing country. *International Journal of Economics and Business Research*, *14*(3/4), 254. https://doi.org/10.1504/IJEBR.2017.10008358

Rönkkö, M. & Ylitalo, J. (2011). PLS marker variable approach to diagnosing and controlling for method variance. *International Conference on Information Systems 2011, ICIS 2011*, *3*, 2054–2069.

Roy, R., Akhtar, F. & Das, N. (2017). Entrepreneurial intention among science & technology students in India: extending the theory of planned behavior. *International Entrepreneurship and Management Journal*, *13*(4), 1013–1041. https://doi.org/10.1007/s11365-017-0434-y

Sabri, M. F. & Aw, E. C. X. (2019). Financial literacy and related outcomes: The role of financial information sources. *International Journal of Business and Society*, *20*(1), 286–298.

Sangwan, V., Harshita, Prakash, P. & Singh, S. (2020). Financial technology: a review of extant literature. *Studies in Economics and Finance*, *37*(1), 71–88. https://doi.org/10.1108/SEF-07-2019-0270

Scalco, A., Noventa, S., Sartori, R. & Ceschi, A. (2017). Predicting organic food consumption: A meta-analytic structural equation model based on the theory of planned behavior. *Appetite*, *112*, 235–248. https://doi.org/10.1016/j.appet.2017.02.007

Securities Commission Malaysia. (2020). *Annual Report 2020: Vol. I.*

Shehata, S. M., Abdeljawad, A. M., Mazouz, L. A., Aldossary, L. Y. K., Alsaeed, M. Y. & Sayed, M. N. (2021). The moderating role of perceived risks in the relationship between financial knowledge and the intention to invest in the Saudi Arabian stock market. *International Journal of Financial Studies*, *9*(1), 1–16. https://doi.org/10.3390/IJFS9010009

Sivaramakrishnan, S., Srivastava, M. & Rastogi, A. (2017). Attitudinal factors, financial literacy, and stock market participation. *International Journal of Bank Marketing*, *35*(5), 818–841. https://doi.org/10.1108/IJBM-01-2016-0012

Souiden, N. & Rani, M. (2015). Consumer attitudes and purchase intentions toward Islamic banks: The influence of religiosity. *International Journal of Bank Marketing*, *33*(2), 143–161. https://doi.org/10.1108/IJBM-10-2013-0115

Stajkovic, A. D. & Luthans, F. (1998). Self-efficacy and work-related performance: A meta-analysis.: Carlos Albizu Virtual Library. *Psychological Bulletin*, *124*(2), 240–261. https://eds-a-ebscohost-com.ucapr.cobimet3.org/eds/pdfviewer/pdfviewer?vid=1&sid=2e30ea97-2349-4465-8594-36b74b5c2e46%40sessionmgr4010

Sumiati, A., Widyastuti, U., Takidah, E. & Suherman. (2021). The millennials generation's intention to invest: A modified model of the theory of reasoned action. *International Journal of Entrepreneurship*, *25*(3), 1–11.

Tiliouine, H. & Belgoumidi, A. (2009). An exploratory study of religiosity, meaning in life and subjective wellbeing in muslim students from Algeria. *Applied Research in Quality of Life*, *4*(1), 109–127. https://doi.org/10.1007/s11482-009-9076-8

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.

Warsame, M. H. & Ireri, E. M. (2016). Does the theory of planned behaviour (TPB) matter in Sukuk investment decisions? *Journal of Behavioral and Experimental Finance*, *12*, 93–100. https://doi.org/10.1016/j.jbef.2016.10.002

Warsame, M. H. & Ireri, E. M. (2018). Moderation effect on Islamic banking preferences in UAE. *International Journal of Bank Marketing*, *36*(1), 41–67. https://doi.org/10.1108/IJBM-08-2016-0121

Weaver, G. R. & Agle, B. R. (2002). Religiosity and Ethical Behavior in Organizations: A Symbolic Interactionist Perspective. *The Academy of Management Review*, *27*(1), 77. https://doi.org/10.2307/4134370

Weijters, B., Cabooter, E. & Schillewaert, N. (2010). The effect of rating scale format on response styles: The number of response categories and response category labels. *International Journal of Research in Marketing*, *27*(3).

Worthington, E. L., Wade, N. G., Hight, T. L., Ripley, J. S., McCullough, M. E., Berry, J. W., Schmitt, M. M., Berry, J. T., Bursley, K. H. & O'Connor, L. (2003). The Religious Commitment Inventory-10: Development, refinement, and validation of a brief scale for research and counseling. *Journal of Counseling Psychology*, *50*(1), 84–96. https://doi.org/10.1037/0022-0167.50.1.84

Yang, M., Mamun, A. Al, Mohiuddin, M., Al-Shami, S. S. A. & Zainol, N. R. (2021). Predicting Stock Market Investment Intention and Behavior among Malaysian Working Adults Using Partial Least Squares Structural Equation Modeling. *Mathematics*, *9*(8), 873. https://doi.org/10.3390/math9080873

Yin Yin Lau, P., Park, S. & McLean, G. N. (2020). Learning organization and organizational citizenship behaviour in West Malaysia: moderating role of team-oriented culture. *European Journal of Training and Development*, *44*(8–9), 847–864. https://doi.org/10.1108/EJTD-01-2020-0007

Yusuff, N., Mansor, F., Musadik, S. H. S. A., Bakar, A. A. & Omar, H. H. (2020). Information sources and investment decision among malaysian investors: Clarifying the role of gender and product knowledge. *Journal of Critical Reviews*, *7*(8), 1738–1742. https://doi.org/10.31838/jcr.07.08.338