Impact of brand equity on purchase intentions: empirical evidence from the health *takāful* industry of the United Arab Emirates

Shahid Rizwan
Universiti Kuala Lumpur Business School, Kuala Lumpur, Malaysia

Husam-Aldin Al-Malkawi
The British University in Dubai, Dubai, United Arab Emirates, and

Kamisan Gadar, Ilham Sentosa and Naziruddin Abdullah
Universiti Kuala Lumpur Business School, Kuala Lumpur, Malaysia

Abstract

Purpose – Although 76% of the population of the United Arab Emirates (UAE) is Muslim, *takāful* (Islamic insurance) has a much smaller share of business in the UAE than conventional insurance does. The purpose of this study is to highlight the importance of brand equity (BE), which is known as the incremental value that provides reason to buy a brand. This study provides useful insights that can help the health *takāful* industry to gain a feasible market share in the UAE.

Design/methodology/approach – This is a quantitative study in which stratified random sampling was adopted for data collection from 300 respondents through a self-administered questionnaire from August to November 2018. Underpinning the study is the theory of planned behavior (TPB) and the structural equation modeling (SEM) technique has been used to examine the impact of BE on purchase intentions (PI) through the moderating role of demographic factors such as age, income, education and religion. Three dimensions of BE, i.e. brand awareness (BAW), brand association (BAS) and perceived quality (PQ), are evaluated in terms of their significance as dimensions of BE.

Findings – The major findings of this study confirm that BE has a strong positive influence on the PIs of health *takāful* customers in the UAE and that all three dimensions of BE make significant contributions to the overall BE. The results show that education does moderate the relationship between BE and PI while age, income and religion do not. A new finding of this study is the nonsignificant moderating role of religion, whereby it was found that *takāful* products in the UAE are not limited to Muslim customers but can include potential customers who are followers of other religions.

Originality/value – To the best of our knowledge, the present study is the first of its kind to examine the impact of BE on the PI of health *takāful* customers in the UAE. The findings of the study give academia, researchers and marketers a better understanding of the importance of BE and of its vital role in promoting *takāful* products in the Gulf Cooperation Council (GCC) countries such as the UAE.

Keywords Brand equity, Demographic factors, Purchase intentions, SEM, *Takāful*, UAE

Paper type Research paper

Introduction

Takāful (Islamic insurance) is the Islamic alternative to conventional insurance, being in line with the principles of Sharīʾah (Islamic law). *Takāful* is based on the principles of solidarity, brotherhood and mutual assistance (Billah, 1998). *Takāful* contract means that the rules of interest and uncertainty that apply to exchange contracts do not apply to it Ayub (2007).

Between 2011 and 2018, the global *takāful* industry witnessed compound average growth of 8.5%, having reached US$27.07bn in 2018 (IFSB, 2020). This growth was mainly contributed by the Gulf Cooperation Council (GCC) region, with an average contribution of 43.2% in the global *takāful* industry. Among GCC nations, Bahrain and Oman demonstrated double-digit year-on-year business growth of 22% and 13%, respectively, while the UAE could not manage to achieve the threshold of 10% in 2018 (IFSB, 2020).

It is important to note that the UAE is among the pioneers of the global *takāful* industry as the second *takāful* company in the world, Islamic Arab Insurance Company (SALAMA), was established in Dubai in 1979 (Mughal, 2007). However, even 40 years after its inception, the *takāful* industry has not managed to achieve a feasible market share in the UAE. This is despite the unveiling by His Highness Sheikh Mohammad Bin Rashid Al Maktoum − Vice-President and Prime Minister of the UAE and Ruler of Dubai − in 2013 of his vision of making Dubai the hub of the Islamic economy (GIFR, 2016).

As of July 2020, the UAE had 62 insurance companies, of which 50 were conventional health insurance companies, while 12 were *takāful* companies (EIA, 2019). According to Law No. 23 of 2005, health insurance is mandatory in Abu Dhabi for all residents (HAAD, 2010), and similarly, Law No. 11 of 2013 enforces compulsory health insurance for all residents of Dubai (DHA, 2014). Based on current market share of the *takāful* industry, it is estimated that 90% of the total population of Abu Dhabi and Dubai have insurance coverage through conventional health insurance plans, while the remaining 10% are covered by health *takāful* plans (IFSB, 2020).

In view of the low market share of the *takāful* business in the UAE, this study ensures its contribution by emphasizing the importance of BE and how it can help the *takāful* industry to gain a substantial market size in the UAE. According to Kotler and Armstrong (2004), BE is the distinctive impact of a brand that comes to a customer's mind while interacting with the product or service of a brand. Past studies have shown that BE and its dimensions have a significant influence on the growth of the insurance industry and that they have been identified as being among the most important factors to be considered by insurance firms (Gunawardane *et al.*, 2016; Eslami, 2020). According to Mahmood (2019), BE is one of the most significant assets of insurance firms and has fostered the growth of many insurance companies across the world.

A review of the relevant literature has revealed that previous studies have discussed the individual dimension of BE and suggested further research on other dimensions to know their significance (Tariq *et al.*, 2017). Similarly, prior work on the insurance industry has recommended further research on the role of demographic factors on the PI of customers (Rizwan *et al.*, 2016; Fatoki, 2020).

To bridge the gap in previous studies, this study contributes in the following ways. First, it has combined BE and its three dimensions (BAW, BAS and PQ) in a single study. Second, four important elements of demography (age, income, education and religion) are tested in terms of their moderating role between BE and PI. The element of religion is particularly included in this study, since studies on consumer behavior have stressed the importance of religious beliefs in the purchase of Sharīʾah-compliant financial products (Laraib, 2017). Third, this study has included the literature on BE's application to the service industry since

most of the prior studies have only applied BE concepts to the goods industry (Tariq *et al.*, 2017).

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This study adopts a systematic approach to address the issue of low market share of health *takāful* in the UAE. The potential factors are identified through an extensive literature review of relevant studies and then the structural equation modeling (SEM) approach of smart partial least squares (PLS) is used to test those factors. This study contributes to the literature by highlighting the importance of BE and its three dimensions.

Theoretical background and literature review

Underpinning theory

This study adopts the theory of planned behavior (TPB) as the underpinning theory due to its relevance to the topic. Past studies have concluded that the TPB is a comprehensive framework to conceptualize, test and empirically identify those factors that influence PI of customers (Ashraf *et al.*, 2017; Lama, 2017). The TPB was developed by Icek Ajzen in 1985 and is an extension of the theory of reasoned action (TRA), which was jointly developed by Martin Fishbein and Icek Ajzen in 1967 (and further amended until 1975) (Ozer and Yilmaz, 2011; Fatoki, 2020).

The primary objective of the TPB is to provide a comprehensive framework for understanding the various factors that influence the intentions of individuals (Ajzen, 1991). Since the past three decades, the TPB has been successfully applied across many industries such as retail, health care, sports, finance and online shopping to predict consumer behavior (Arif, 2016; Ruangkanjanases *et al.*, 2020). Past studies have found a significant impact of the TPB variables on the PI of customers (Tuan and Vinh, 2016; Lama, 2017; Fatoki, 2020).

According to Ajzen (1985), the TPB encapsulates that human intentions are primarily influenced by three factors: attitude, subjective norms and perceived behavioral control. Details of each factor are presented in the following sections.

Attitude

According to Ajzen (1985), attitude toward a behavior is seen as "the degree to which a person has favorable or unfavorable evaluation of the behavior in question" (p. 12). Attitude is a behavioral belief of an individual, which includes a perceived positive or negative consequence of performing a certain behavior. For example, an individual might think what the outcome of his decision will be and, based on his behavioral belief, he will decide whether to involve himself in a behavior or not (Ajzen, 1991). Attitude is an aspect of human beings that is linked to their minds and it provides them with a reason to form an intention or behavior (Arif, 2016; Nomi and Sabbir, 2020).

Subjective norms

According to the TPB, subjective norm is defined as "the perceived social pressure to perform or not to perform the behavior" by the individual (Ajzen, 1985, p. 12), and this pressure is primarily from the people who are important to the individuals and are considered by them in the decision-making process (Wang, 2014; Fatoki, 2020). For example, an individual might think of what others might expect from him or what others will think about him if he makes a certain decision. Subjective norm can also be defined as social pressure that an individual has from the people around him and this pressure guides him to perform or avoid a certain type of behavior (Tuan and Vinh, 2016; Nomi and Sabbir, 2020).

Perceived behavioral control

The TPB defines perceived behavioral control as "the perceived ease or difficulty of performing the behavior" (Ajzen, 1985, p. 34). For example, an individual might think of all possible sources (such as ability and affordability, etc.) which are required in a certain behavior. Perceived behavioral control is also known as the potential and the ability of an individual to perform a behavior independently (Ashraf *et al.*, 2017). According to Ajzen (1991), perceived behavioral controls comprise two core elements, which are controllability and self-efficacy. Controllability refers to the availability of resources to perform a behavior while self-efficacy refers to the confidence of an individual to perform a behavior (Tuan and Vinh, 2016; Ruangkanjanases *et al.*, 2020).

Through a review of literature, certain links are established between the TPB and this study. First, past studies have identified BE as having a significant influence on customer attitude (Lama, 2017) and according to the TPB, customers' attitudes have a direct influence on their intentions (Arif, 2016; Fatoki, 2020). Second, this study includes age, income, education and religion as moderating variables, and according to the TPB, demographic factors are considered background factors that influence human intention. Considering the above evidence, this study has chosen the TPB as the underpinning theory to know the impact of BE on the PI of customers through the moderating role of demographic factors.

Brand equity

According to Aaker (1991, p. 15), "brand equity is a set of assets and liabilities linked to a brand" and BE can be analyzed through its dimensions, which include BAW, BAS, PQ, brand loyalty and other proprietary assets. Farquhar (1989, p. 27) defines BE as "an accumulative value or asset of a product or brand which combines customer's positive emotions, opinion and intention to purchase a product" while Kotler and Pfoertsch (2007, p. 358) believe that "brand equity is the distinctive impact of a brand which comes to a customer's mind while interacting with the product or service of a brand."

Previous studies by Perera *et al.* (2019) and Dissabandara (2020) found that BE has a significant influence on the PI of customers. Similarly, Adam and Akber (2016) concluded that during the brand selection process, when a customer selects one brand over another, despite more features of alternate brands, then it is simply the result of BE. Therefore, BE should primarily be the focus of business firms and marketers to gain enhanced market share and profit.

According to Aaker (1991), BAW, BAS, PQ, brand loyalty and other proprietary assets are the five dimensions of BE. As a dimension, other propriety assets do not have a significant contribution to measure BE, therefore, this dimension has not been applied in various studies (Buil *et al.*, 2013; Schmitz and Roman, 2018). Moreover, in this study, the dimension of brand loyalty is also not included because brand loyalty is often studied in the context of repetitive purchases only. Since, this study focuses on those dimensions that influence PI of customers, three dimensions of BE are included in this study, notably BAW, BAS and PQ. These dimensions are discussed later.

Brand awareness

BAW is an imagination of a brand in the mind of a customer and the ability of the customer to recognize and recall a brand in various situations (Keller, 1993; Aaker, 1994). BAW is the ability of a brand to get recognized by customers before they make PI (Civelek and Ertemelb, 2019).

Tariq *et al.* (2017) concluded that BAW is highly significant for BE since it has strong relationship with PI. Similarly, Akhtar *et al.* (2016) and Noorlitaria *et al.* (2020) found that

BAW is closely linked with PI since it portrays important information related to a brand in a customer's mind. Customers buy only those brands that they know, and they know only brands that they consider good.

Brand association

BAS is a combination of brand-related opinions, perceptions, ideas, past experiences, knowledge, concepts and approaches (Keller, 2009). It includes those experiences, beliefs, attitudes, perceptions, feelings, colors, images and thoughts that a customer affiliates with a brand (Kotler and Gertner, 2002). Dissabandara (2020) conducted a study on the impact of BAS on PI and found that BAS is closely related to the PI of customers because it provides them with favorable information, a positive attitude and reason to buy a product or service.

Studies have shown that BAS is a core constituent that has a strong impact on BE (Gordon *et al.*, 2016; Ahsan *et al.*, 2020). BAS is the most essential element of BE since it is something that resides in the minds of customers (Keller, 1993).

Perceived quality

According to Aaker (1994), PQ is the overall recognition in a customer's mind about the features and benefits of a brand compared to its competitors. PQ is also defined as an intangible overall opinion about a brand and it shows the extent to which a brand can meet the needs, wants and expectations of the customers (Padhy and Sawlikar, 2018; Ahsan *et al.*, 2020).

Earlier studies by Perera *et al.* (2019) and Dissabandara (2020) concluded that PQ is directly linked with PI and it influences PI in many ways. Therefore, PQ is an essential constituent of BE.

Demographic factors

Demographic factors are characteristics of the population, including age, gender, education, income, religion, ethnicity, social status, nationality, etc. These are very basic and are the easiest source to differentiate the various groups of a population (customers) with the aim of exploring their needs, wants and preferences (Kotler and Gertner, 2002). Demographic factors are simple indicators that are used in marketing and marketing-mix elements (product, price, place and promotion) because of their significant influence on marketing-related concepts (Keller, 2009).

Several studies have shown that demographic factors make core contributions to shaping customer PI. For example, Shrivastava and Singh (2017) conducted a study on the effect of demographic factors on the PI of life insurance. They concluded through their studies that demographic factors such as age, income and education play a critical role in the purchase of life insurance. Considering the findings of previous studies, four core elements of demographics are included, namely, age, income, education and religion. Details of each element are as follows.

Age

Age is a single-dimensional factor, measured from the time of birth and is often used by many researchers of contemporary social sciences to categorize people into different age groups (Rai, 2019). Being the primary factor of demographics, age has been commonly used in business research since it is a highly effective variable to divide the population into various groups. Age has also been identified as the best variable due to its primary contribution to dividing the market into different segments (Saad *et al.*, 2013).

Income

Income is a monetary reward that can be in the form of profit, rent or earnings and provides the capacity to purchase a product or service (Saad *et al.*, 2013). Income is an important variable of demographics that is closely associated with buying power and buying decisions of customers since buying power is derived from income and people buy what their income level allows them (Pratap, 2017). Shrivastava and Singh (2017) conducted a detailed study in India for life insurance products and found that PI of customers are positively related to income. In other words, people with high income are more likely to buy insurance products as opposed to customers with low income.

Education

Education is the process of acquiring knowledge, skills and attitudes, and the preferences of customers are linked with their level of education (Kumar and Kumar, 2019). Since education changes the way people perceive things, it influences customer intentions (Pratap, 2017).

Studies have shown that both general and religious education have influence on PI of customers. For example, Kumar (2014) and Shrivastava and Singh (2017) found in their studies that education has a highly positive influence on the PI of life insurance customers. The reason behind this is the priority that well-educated people give to their families; they want to protect them from unforeseen circumstances that are part and parcel of routine life. Similarly, Laraib (2017) concluded that religious education is linked with the likes and dislikes of customers, which are ultimately reflected in their PI. In this way, people having better knowledge of Islam can demonstrate stronger PI toward *takāful* products.

Religion

To some researchers, religion is a set of beliefs shared by groups of people, which are applied in routine life; however, this set of beliefs is linked to a reality that cannot be empirically tested. Other scholars take religion as a belief-based system that is created by God for His believers, its aim being to show people the way of life that they should adopt (Clarke and Byrne, 1993).

Being a global phenomenon, religion is a primary concern for many businesses. Therefore, religion-related information about a population is essential for effective market segmentation. Religiosity affects personality characteristics of people, which ultimately influence their PI (Laraib, 2017). Besides this, it is also observed that higher levels of religiosity will have a strong influence on PI, while lower levels of religiosity will have a comparatively weaker influence on the purchase intention of customers. Past studies have concluded that Muslim customers prefer Sharīʿah-compliant insurance products as they agree with the teachings of Islam and this is a source of spiritual satisfaction for them (Rehman and Shabbir, 2010; Nomi and Sabbir, 2020).

Purchase intentions

Plan and desire to purchase a product or service by the customer are known as purchase intention (Padhy and Sawlikar, 2018; Noorlitaria *et al.*, 2020). PI also refers to the prediction of current and successive purchases by the customer. Based on this prediction, business firms forecast the buying behavior of their customers (Saad *et al.*, 2013; Civelek and Ertemelb, 2019).

There are two main perspectives on PI, namely, from existing customers and from new customers. The PI of new customers reveal interest, choice and overall behavior of customers while the PI of existing customers anticipate customer trust, satisfaction and assurance of repetitive purchase in the future (Santoso and Cahyadi, 2014; Ruangkanjanases *et al.*, 2020).

Marketers are always eager to know factors that influence the PI of customers. By knowing these factors, they can direct their customers to a specific brand, which is the goal of all marketers (Tariq *et al.*, 2017).

Conceptual framework and research hypotheses

Based on previous literature discussed above and consistent with the TPB, the conceptual framework of this study is depicted in Figure 1, followed by the research hypotheses.

(1) *H1*: BE of *takāful* has a significant relationship with the PI of health *takāful* customers in the UAE.

(2) *H1a*: BAW is a significant dimension of BE in terms of health *takāful* buying in the UAE.

(3) *H1b*: BAS is a significant dimension of BE in terms of health *takāful* buying in the UAE.

(4) *H1c*: PQ is a significant dimension of BE in terms of health *takāful* buying in the UAE.

(5) *H2*: age moderates the relation of BE with the PI of health *takāful* customers in the UAE.

(6) *H3*: income moderates the relation of BE with the PI of health *takāful* customers in the UAE.

(7) *H4*: education moderates the relation of BE with the PI of health *takāful* customers in the UAE.

(8) *H5*: religion moderates the relation of BE with the PI of health *takāful* customers in the UAE.

Research methodology
Data analyses of this study are done through PLS using the SEM technique.

Population, sample and data collection
The target population of this study comprises the customers of health insurance in Abu Dhabi and Dubai who have sponsored their dependents through different health insurance plans. Based on geographical location, a stratified random sampling technique was adopted
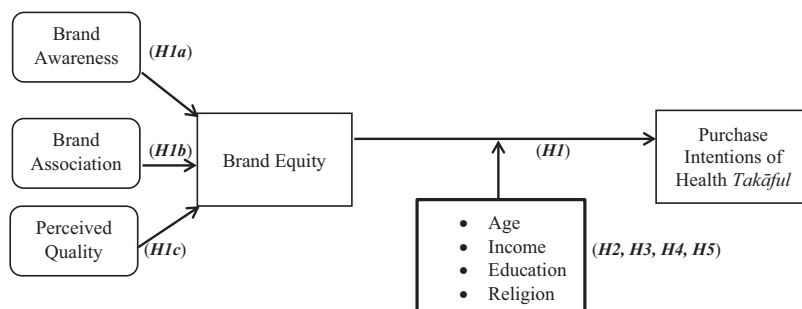

Source: Authors' own

Figure 1.
Conceptual
framework of the
study

for data collection through self-administered questionnaires distributed by the researcher. Considering the average daily customer flow of health insurance companies, the respondents of the study were selected. There are two reasons for selecting the respondents of this study from Abu Dhabi and Dubai. First, Abu Dhabi and Dubai are the pioneer states of the UAE, where the law of mandatory health insurance was implemented in 2005 and 2014, respectively (Alpen Capital, 2016). Second, among the seven states of the UAE, these two states are the largest states, having almost 60% of the total population. Based on mid-year estimates of 2019, Abu Dhabi has an estimated total population of 3.2 million (GMI, 2019) while year-end estimates of 2018 show that Dubai has a total population of more than 3.2 million (DSC, 2019). It is important to note that the total population of both the states includes UAE citizens (commonly known as Emiratis) and the noncitizen residents (expatriates).

For the study, 435 questionnaires were distributed, of which 220 questionnaires were in Abu Dhabi and 215 questionnaires in Dubai between August and November 2018. Out of 435, 308 questionnaires were returned, yielding a response rate of 71%. All questionnaires were screened for validity, and final 300 questionnaires were used for data analysis, of which 156 (52%) questionnaires were from Abu Dhabi and 144 (48%) questionnaires were from Dubai.

Measurement of scales
To test the measurement scales of the study, a pilot test of the questionnaire was conducted. According to Saunders *et al.* (2009) a sample size of ten units is quite reasonable to assess a research instrument; therefore, ten respondents were selected for the pilot test of the questionnaire. The primary purpose of the pilot test was to ensure clarity of each item. After getting an initial feedback, minor changes were made to the questionnaire and the modified questionnaire was used for the main survey. The questionnaire consists of 25 questions (items) and is divided into two sections. Section one contains five questions on the demographic profile of the respondents, while section two contains 20 questions, in which each measurement scale has five questions. A total of four measurement scales were included in the study, namely, BAW, BAS, PQ and PI. All four scales are measured through five questions each on a five-point Likert scale, in which 1 = "strongly disagree," 2 = "disagree," 3 = "undecided," 4 = "agree" and 5 = "strongly agree."

Data analysis
For this study, data analysis was done in two stages. The first stage pertained to evaluate the measurement (outer) model, while the second stage pertained to evaluate the structural (inner) model of the study.

Second-order confirmatory factor analysis
In Smart PLS, dimensions of a construct are measured through second-order confirmatory factor analysis (CFA). Therefore, second-order CFA was run to evaluate the influence of BAW, BAS and PQ. Figure 2 shows the results of second-order CFA for the three dimensions of BE.

To measure the influence of each dimension on BE, four assessments were primarily made, which included an assessment of path coefficient (β), t-statistics value, p-value and R-square (R^2). Cohen (1992) suggested a criterion for the significance of path coefficient; and mentioned that path coefficient values of 0.02, 0.15 and 0.35 are considered small, medium and large, respectively, while the acceptable values for t-statistics and p-test are greater than 1.96 and less than 0.05, respectively (Rifai and Hasan, 2016). According to Hair *et al.* (2014),
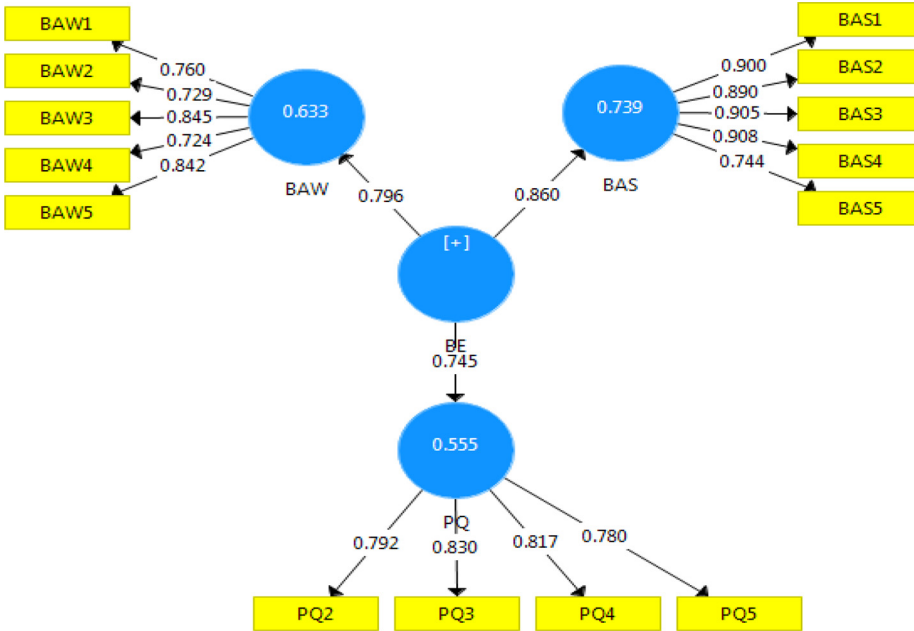
Source: Output of data analysis

Figure 2.
Second-order CFA for
BE

in studies of consumer behavior, R^2 value of 0.20 is considered high. Details of results derived through the second-order CFA are shown in Table 1.

The overall results of second-order CFA confirmed that all three dimensions of BE have important contributions to BE. Among the three dimensions of BE, BAS has the highest impact on BE followed by PQ and BAW.

Evaluation of the measurement model
Hair *et al.* (2012) proposed four basic assessments to evaluate the measurement model, including composite reliability, indicator reliability, convergent validity (average variance extracted) and discernment validity.

According to Urbah and Ahleman (2010), the value of composite reliability should be greater than 0.70 while the acceptable value of indicator reliability is 0.70 and above (Hair *et al.*, 2014). In this study, one item (PQ1) of "perceived quality scale" showed a value of 0.481

Relationship	(β)	t-statistics	p-value	R^2
BAW to BE	0.796	17.979	0.000	0.633
BAS to BE	0.860	23.267	0.000	0.739
PQ to BE	0.745	12.003	0.000	0.555

Notes: BAW = brand awareness, BAS = brand association, BE = brand equity, PQ = perceived quality
Source: Authors' own

Table 1.
Consolidated results
of second-order CFA

and was removed since scholars have suggested the removal of items with factor loading of less than 0.50 (Ghozali and Latan, 2015). The commonly used method to measure convergent validity is the average variance extracted (AVE) with an AVE value greater than 0.50 (Hair *et al.*, 2014) while the rule of thumb for discriminant validity is that the items of a scale should load strongly on the intended construct and weakly on unintended constructs (Gefen and Straub, 2005). Tables 2 and 3 show the results of all tests conducted to evaluate the measurement model of this study.

According to the evaluation criteria of Hair *et al.* (2012), the composite reliability, indicator reliability, convergent validity (AVE) and discriminant validity for the outer model have been tested. Results of tests show that all constructs of the measurement model were valid and reliable.

Evaluation of the structural model
After evaluating the measurement model, the next step is to evaluate the structural model, which is also known as the inner model. The main purpose for evaluating the inner model is

Latent variable	Indicator	Outer loading	Composite reliability	AVE
BAS	BAS1	0.900	0.940	0.760
	BAS2	0.890		
	BAS3	0.905		
	BAS4	0.909		
	BAS5	0.745		
BAW	BAW1	0.760	0.886	0.610
	BAW2	0.728		
	BAW3	0.845		
	BAW4	0.725		
	BAW5	0.842		
PI	PI1	0.881	0.951	0.797
	PI2	0.940		
	PI3	0.922		
PQ	PI4	0.924	0.880	0.648
	PI5	0.788		
	PQ2	0.792		
	PQ3	0.830		
	PQ4	0.817		
	PQ5	0.780		

Notes: BAW = brand awareness, BAS = brand association, PI = purchase intentions, PQ = perceived quality
Source: Authors' own

Table 2.
Combined results for validity and reliability of measurement model

	BAS	BAW	PI	PQ
BAS	0.872	–	–	–
BAW	0.501	0.781	–	–
PI	0.468	0.470	0.893	–
PQ	0.472	0.450	0.548	0.805

Notes: BAW = brand awareness, BAS = brand association, PI = purchase intentions, PQ = perceived quality
Source: Authors' own

Table 3.
Discriminant validity of latent variables

to examine the relationship among latent variables of the structural model (Rifai and Hasan, 2016). The evaluation of the structural model includes three steps, which are collinearity assessment through VIF (variance inflation factor), R^2 (coefficient of determination) and significance of path coefficient. According to the standard evaluation criteria, the value of VIF should be less than 5 (Hair *et al.*, 2014) while path coefficient values of 0.02, 0.15 and 0.35 are considered small, medium and large (Cohen, 1992). Similarly, Urbah and Ahleman (2010) suggested that the R^2 value below 0.25 is considered weak, above 0.25 is moderate and more than 0.50 is high.

The structural model of this study comprises one independent variable (BE) and one dependent variable (PI). According to the standard evaluation criteria, the value of VIF should be less than 5 (Hair *et al.*, 2014). Analysis of Smart PLS shows that the value of VIF for the predictor construct (BE) was less than 5, which met the standard evaluation criteria for VIF value.

The second step for assessment of the structural model is the coefficient of determination (R^2), which is commonly used to evaluate the structural model. R-square is calculated as the squared correlation between actual and predicted values of the endogenous variable, and it represents the combined effect of exogenous variables on the endogenous variable. According to Hair *et al.* (2014), in studies of consumer behavior, R^2 value of 0.20 is considered high. The results show that the value of R^2 for the endogenous variable (PI) was 0.370, which is significant according to standard evaluation criteria of Hair *et al.* (2014).

The next step is the assessment of relationships of the structural model, which is done through the bootstrapping method of the Smart PLS by examining the value of path coefficient, *t*-statistics and *p*-values (Hair *et al.*, 2014). For this study, a total of eight relationships were tested: four direct relationships and four indirect relationships. Details of the evaluation of the path coefficient significance are shown in Table 4. All four direct relationships were significant while only one of the four indirect relationships was significant.

Results and discussion

As shown in Table 5, most of the respondents of this study were male, since most of the dependents in the UAE were sponsored by males. Most were aged between 35 and 44 years and possessed degree qualifications. A total of 69% were Muslims, while most had monthly incomes between US$1,100 to US$3,000.

Path	Type	(β)	*t*-statistic	*p*-value	Remarks
BE → PI	Direct	0.608	7.853	0.000	Significant
BAW → BE	Direct	0.796	17.979	0.000	Significant
BAS → BE	Direct	0.860	23.267	0.000	Significant
PQ → BE	Direct	0.745	12.003	0.000	Significant
Age → BE	Moderating	0.516	1.173	0.237	Non-significant
Income → BE	Moderating	0.523	0.812	0.412	Non-significant
Education → BE	Moderating	0.534	1.979	0.049	Significant
Religion → BE	Moderating	0.512	0.487	0.617	Non-significant

Notes: BAW = brand awareness, BAS = brand association, BE = brand equity, PI = purchase intentions, PQ = perceived quality
Source: Authors' own

Variable	Description	Frequency	(%)
Gender	Male	246	82
	Female	54	18
Age	Between 25 and 34 years	57	19
	Between 35 and 44 years	147	49
	Between 45 and 54 years	96	32
Nationality	UAE nationals (citizens)	69	23
	Expatriates (noncitizen residents)	231	77
Education	College graduate	63	21
	University graduate	153	51
	Postgraduate or equivalence	84	28
Religion	Islam	207	69
	Christianity	54	18
	Hinduism	39	13
Income (monthly)	Between US$1,100 and US$3,000	129	43
	Between US$3,100 and US$5,000	111	37
	More than US$5,000	60	20
Source: Authors' own			

Table 5.
Demographic profile
of respondents

This section of the study discusses the results of hypothesis testing, including four hypotheses of the direct relationship and four hypotheses of the indirect (moderating) relationship.

Results of analyses show that *H1* is supported, which means that BE has a strong positive influence on PI of health *takāful* customers in the UAE. This finding is consistent with those of Samadi *et al.* (2017) and Dissabandara (2020). Similarly, *H1a* is also supported, which confirmed that BAW is a significant dimension of BE in terms of health *takāful* buying in the UAE. This result is supported by the findings of previous studies including Ekhveh and Darvishi (2015) and Noorlitaria *et al.* (2020). Next, the hypothesis (*H1b*) of this study is used to measure the significance of BAS as a dimension of BE. Through results of the second-order CFA, it is confirmed that *H1b* is accepted, and this result is supported by the earlier work of Santoso and Cahyadi (2014) and Ahsan *et al.* (2020). The fourth hypothesis (*H1c*) is that "perceived quality is a significant dimension of BE in terms of health *takāful* buying in the UAE." Results of Smart PLS analysis confirmed that the fourth hypothesis is accepted and is consistent with the work of Severi and Ling (2013) and Dissabandara (2020).

Fifth is the hypothesis of the moderating role of age on BE and PI. Results of the analysis show that age is not a significant moderator for the above relationship, and this finding is consistent with those of previous studies by Saad *et al.* (2013) and Maina (2016). Next is the hypothesis of the moderating role of income in BE and PI. The analytical evidence reveals that income does not moderate the relation of BE with PI. This result is supported by findings of earlier studies including those of Oladele *et al.* (2016) and Maina (2016). For the seventh hypothesis, the moderating role of education is evaluated between BE and PI. The results show that education significantly moderates the relation of BE with PI, and this is consistent with the findings of previous studies such as that of Kumar (2014). The last hypothesis is the moderating role of religion in BE and PI. Through analysis, religion was found as a nonsignificant moderator of the above relationship, and this outcome is similar to the findings of past studies by Kusumawardhini *et al.* (2016) and Ashraf *et al.* (2017).

Conclusion

This study aims to highlight the significance of BE and how it can contribute toward the growth and expansion of the *takāful* industry in the UAE. For this purpose, a conceptual model was developed comprising potential variables identified through an extensive review of the literature related to this topic. Results of the analysis show that BE has a significant positive impact on PI of health *takāful* customers in the UAE. Similarly, BAW, BAS and PQ are found to be significant dimensions of BE in terms of health *takāful* buying in the UAE.

An analysis of the moderating variables revealed that education is a significant moderator while age, income and religion are nonsignificant moderators for the relationship of BE with the PI of health *takāful* customers in the UAE.

An interesting finding of this study is the nonsignificant moderating role of religion in the PI of health *takāful* customers in the UAE, despite the 69% Muslim samples. This shows that the scope of Sharīʿah-compliant insurance products is not limited to a certain community in the UAE and that potential customers can include followers of many religions.

Policy implications

This study contributes to the existing body of knowledge on the relationship between BE and PI of health *takāful*. The findings provide several important policy implications in different ways and which can be summarized as follows:

First, the results of the analysis confirmed that creating strong BE of *takāful* products and services can positively influence the PI of customers. Therefore, much focus is required by the marketers of *takāful* companies to build *takāful* as a brand. This finding stresses that the UAE *takāful* operators should suggest well-developed and competitive marketing strategies that can create awareness and promote *takāful* simultaneously among UAE residents.

Second, the analysis shows that religion is a nonsignificant moderator between BE and PI. This finding has paved the way for marketers to design and adopt standardized marketing strategies that can equally target customers of different religious backgrounds. In this way, the findings of this study have expanded the target market of *takāful* in the UAE.

Finally, this study has identified that education positively moderates the relation of BE and PI. Therefore, government bodies such as the Dubai Islamic Economy Development Centre (DIEDC) should focus on educational institutes across the UAE to create awareness about *takāful* since the DIEDC aims to make the UAE the hub of Islamic finance.

Recommendations for further research

This study recommends further research on the PI of corporate customers. The aim is to investigate factors that are primarily considered by corporate clients in their selection of products and services of insurance companies. With the information on potential factors influencing PI, *takāful* operators could expand their business to include corporate clients as they can generate substantial business volumes. Second, future research is recommended on the influence of marketing-mix elements (price, place, promotion and product) and service quality on the PI of *takāful* customers. This will identify other potential factors that can help *takāful* businesses to have a competitive advantage over conventional insurance operators.

References

Aaker, D.A. (1991), *Managing Brand Equity*, Free Press, New York, NY.

Aaker, D.A. (1994), "Building a brand: the Saturn story", *California Management Review*, Vol. 36 No. 2, pp. 114-133.

Adam, M.A. and Akber, S.N. (2016), "The impact of Brand equity on consumer purchase decision of cell phones", *European Journal of Business and Innovation Research*, Vol. 4 No. 4, pp. 60-133.

Ahsan, S.M.H., Azam, M.K.G., Raihan, M.Z., Iman, I.B. and Islam, M.N. (2020), "Impact of brand equity on consumer purchase decisions of smart phone: a case study on university students in Chittagong, Bangladesh", *Global Journal of Management and Business Research*, Vol. 20 No. 6, pp. 37-41.

Ajzen, I. (1985), "From intentions to actions: a theory of planned behavior", in Kuhl, J. and Beckman, J. (Eds), *Action-Control: From Cognition to Behavior*, Springer, Heidelberg, pp. 11-39.

Ajzen, I. (1991), "The theory of planned behavior", *Organizational Behavior and Human Decision Processes*, Vol. 50 No. 2, pp. 179-211.

Akhtar, N., Ain, Q., Siddiqi, U.I., Ashraf, A. and Latif, M. (2016), "Impact of brand equity on consumer purchase decision in L'Oreal skincare products", *International Review of Management and Business Research*, Vol. 5 No. 3, pp. 808-816.

Alpen Capital (2016), *GCC Healthcare Industry Report*, Alpen Capital, Dubai.

Arif, A. (2016), "Brand equity's impact on consumer willingness to pay premium price: an extension to theory of planned behavior", Master's thesis, COMSATS Institute of Technology.

Ashraf, S., Yaseen, A. and Hasnain, A. (2017), "Do they care what they believe? Exploring the impact of religiosity on intention to purchase luxury products", *Pakistan Journal of Commerce and Social Sciences*, Vol. 11 No. 2, pp. 428-447.

Ayub, M. (2007), *Understanding Islamic Finance*, John Wiley and Sons, Singapore.

Billah, M.M. (1998), "Islamic insurance: its origins and development", *Arab Law Quarterly*, Vol. 13 No. 4, pp. 386-422.

Buil, I., Martinez, E. and de Chernatony, L. (2013), "The influence of brand equity on consumer responses", *Journal of Consumer Marketing*, Vol. 30 No. 1, pp. 62-74.

Civelek, M.E. and Ertemelb, A.V. (2019), "The role of brand equity and perceived value for stimulating purchase intention in B2C e-commerce web sites", *Business and Economics Research Journal*, Vol. 10 No. 1, pp. 233-243.

Clarke, P.B. and Byrne, P. (1993), *Religion Defined and Explained*, Palgrave Macmillan, London.

Cohen, J. (1992), "Statistical power analysis", *Current Directions in Psychological Science*, Vol. 1 No. 3, pp. 98-101.

DHA (2014), *Health Insurance Law of Dubai; Employer's Information Pack*, Dubai Health Authority, Dubai.

Dissabandara, R. (2020), "Impact of brand equity and loyalty on consumer behavior for clothing industry in Sri Lanka", *International Journal of Current Research*, Vol. 11 No. 5, pp. 3782-3787.

DSC (2019), *Population Bulletin Emirate of Dubai 2018*, Dubai Statistics Center, Dubai.

EIA (2019), *Annual Report on the Activity of Insurance Sector in the UAE 2018*, Emirates Insurance Authority, Abu Dhabi.

Ekhveh, A. and Darvishi, Z.A. (2015), "The impact of brand awareness on re-purchase intention of customers with trilogy of emotions approach: case study for cell phones", *Journal of Applied Mathematics in Engineering, Management and Technology*, Vol. 3 No. 4, pp. 25-30.

Eslami, S. (2020), "The effect of brand experience on brand equity and brand loyalty through the mediating role of brand awareness, brand image and perceived quality", *Archives of Pharmacy Practice*, Vol. 11 No. 1, pp. 98-104.

Farquhar, P.H. (1989), "Managing brand equity", *Marketing Research*, Vol. 1, pp. 24-33.

Fatoki, O. (2020), "Factors influencing the purchase of energy-efficient appliances by young consumer in South Africa", *Foundations of Management*, Vol. 12 No. 1, pp. 151-166.

Gefen, D. and Straub, D. (2005), "A practical guide to factorial validity using PLS-graph: tutorial and annotated example", *Communications of the Association for Information Systems*, Vol. 16 No. 1, pp. 91-109.

Ghozali, I. and Latan, H. (2015), *Partial Least Squares: Concepts, Techniques, and Applications Using Smart PLS 3.0 Program for Empirical Researchers*, Agency Publisher Diponegoro University, Semarang.

GIFR (2016), *Islamic Financial Policy*, Global Islamic Finance Report, London.

GMI (2019), *UAE Population 2019 Infographics*, Global Media Insight, Dubai.

Gordon, B.S., James, J.D. and Yoshida, M. (2016), "The development of brand association measures in multiple product categories: new findings and implications for goods and service brands", *International Journal of Business Administration*, Vol. 7 No. 3, pp. 140-152.

Gunawardane, N., Munasinghe, A. and Dissanayake, D.M.R. (2016), "Relationship between brand equity and purchase intention of life insurance brands in Sri Lanka: a concept paper", *International Journal of Business and Management Invention*, Vol. 5 No. 12, pp. 106-111.

HAAD (2010), *Book 2: Health Insurance*, Health Authority Abu Dhabi, Abu Dhabi.

Hair, J.F., Ringle, C.M. and Sarstedt, M. (2014), "PLS-SEM: indeed, a silver bullet", *Journal of Marketing Theory and Practice*, Vol. 19 No. 2, pp. 139-152.

Hair, J.F., Sarstedt, M., Ringle, C.M. and Mena, J.A. (2012), "An assessment of the use of partial least squares structural equation modeling in marketing research", *Journal of the Academy of Marketing Science*, Vol. 40 No. 3, pp. 414-433.

IFSB (2020), *Islamic Financial Services Industry Stability Report*, Islamic Financial Services Board, Kuala Lumpur.

Keller, K.L. (1993), "Conceptualizing, measuring and managing customer-based brand equity", *Journal of Marketing*, Vol. 57 No. 1, pp. 1-22.

Keller, K.L. (2009), "Building strong brands in modern marketing communication environment", *Journal of Marketing Communications*, Vol. 15 Nos 2/3, pp. 139-155.

Kotler, P. and Armstrong, G. (2004), *Principle of Marketing*, 10th ed., Prentice Hall, NJ.

Kotler, P. and Gertner, D. (2002), "Country as brand, product and beyond: a place marketing and brand management perspective", *Journal of Brand Management*, Vol. 9 No. 4, pp. 249-261.

Kotler, P. and Pfoertsch, W. (2007), "Being known or being one of many: the need for brand management for business-to-business (B2B) companies", *Journal of Business and Industrial Marketing*, Vol. 22 No. 6, pp. 357-362.

Kumar, R. and Kumar, R. (2019), "Impact of various demographic factors on consumer behavior: an empirical study of electronic products in rural Himachal (India)", *Indian Journal of Economics and Business*, Vol. 19 No. 1, pp. 109-127.

Kumar, S.P. (2014), "Impact of educational qualification of consumers on information search: a study with reference to car", *International Journal of Global Business Management*, Vol. 2 No. 2, pp. 1-10.

Kusumawardhini, S.S., Hati, S.R.H. and Daryanti, S. (2016), "Understanding Islamic brand purchase intention: the effects of religiosity, value consciousness and product involvement", paper presented at 3rd International Conference on Business and Economics, Malaysia.

Lama, A. (2017), "Consumer purchase intention: an empirical study of consumer buying behavior with respect to country of origin, BAW, brand loyalty, brand image and perceived quality", Master's thesis, Nord University, Norway.

Laraib, A. (2017), "Impact of religious affiliation of retailer on consumer purchase intention with mediating role of consumer buying motives and moderating role of intrinsic and extrinsic religiosity", Master's thesis, Capital University of Science and Technology, Pakistan.

Mahmood, H. (2019), "Investigation of the effect of the brand equity on the purchase intention by mediation of the brand attractiveness and brand trust", *ECORFAN Journal Mexico*, Vol. 10 No. 23, pp. 23-33.

Maina, S.M. (2016), "Consumer ethnocentrism, demographic characteristics and willingness to buy commercial banking services in Kenya", *European Scientific Journal*, Vol. 12 No. 25, pp. 306-322.

Mughal, Z. (2007), "*Takāful*-Islamic insurance", available at: www.alhudacibe.com/newsletter/1-15oct/article_2.html (accessed 17 April 2018).

Nomi, M. and Sabbir, M.M. (2020), "Investigating the factors of consumer's purchase intention towards life insurance in Bangladesh: an application of the theory of reasoned action", *Asian Academy of Management Journal*, Vol. 25 No. 2, pp. 135-165.

Noorlitaria, G., Pangestue, F.R., Fitriansyah, S.U. and Mahsvar, S. (2020), "How does brand awareness affect purchase intention in medication by perceived quality and brand loyalty", *Journal of Critical Reviews*, Vol. 7 No. 2, pp. 103-109.

Oladele, P.O., Arogundade, K.K. and Awolaja, A.M. (2016), "Influence of demographic factors on mobile phone purchasing among university students in Nigeria", *Quarterly Journal of Business Studies*, Vol. 2 No. 4, pp. 174-180.

Ozer, G. and Yilmaz, E. (2011), "Comparison of the theory of reasoned action and the theory of planned behavior: an application on accountants' information technology usage", *African Journal of Business Management*, Vol. 5 No. 1, pp. 50-58.

Padhy, S.K. and Sawlikar, R.K. (2018), "The role of brand equity and brand awareness on consumer's purchase intention", *International Journal of Business and Management Invention*, Vol. 7 No. 1, pp. 12-16.

Perera, K., Wijisekera, K., Priyadarshani, B., Koodippili, L. and Jayssuriya, N.A. (2019), "The study of brand equity and purchase intention of shampoo market in Sri Lanka", *Global Journal of Management and Business Research: E-Marketing*, Vol. 19 No. 4, pp. 24-28.

Pratap, A. (2017), "Effect of demographic factors on consumer behavior: age, sex, income and education", available at: www.cheshnotes.com/2017/07/effect-of-demographic-factors-on-consumer-behavior-age-sex-income-and-education/ (accessed 24 March 2018).

Rai, B. (2019), "The effect of demographic factors on consumer purchase intention in buying television set in Khatmandu valley: an empirical study", *Pravaha*, Vol. 25 No. 1, pp. 23-32.

Rehman, A. and Shabbir, M.S. (2010), "The relationship between religiosity and new product adoption", *Journal of Islamic Marketing*, Vol. 1 No. 1, pp. 6-69.

Rifai, A. and Hasan, B. (2016), "Exploring user expectancy with regard to the use of institutional repositories among university academics in Indonesia: a case study at Syarif Hidayatullah State Islamic University", *E-Journal of Library Philosophy and Practice*, pp. 1-16.

Rizwan, M., Chockalingam, A., Nassar, S. and Upadhye, N. (2016), "Consumer buying intention towards health insurance: empirical evidence from the United Arab Emirates (UAE)", *Gulf-Pacific Journal of Business Administration*, Vol. 1 No. 2, pp. 109-125.

Ruangkanjanases, A., You, J.J., Chien, S.W., Ma, Y., Chen, S.C. and Chao, L.C. (2020), "Elucidating the effect of antecedents on consumers' green purchase intentions: an extension of the theory of planned behavior", *Frontiers in Psychology*, Vol. 11, pp. 1-13.

Saad, R., Ishak, H. and Johari, N.R. (2013), "The impact of demographic factors toward customer loyalty: a study on credit card users", *Elixir Marketing Management*, Vol. 55, pp. 13078-13084.

Samadi, M., Ghanbarzad, A. and Sheykhaghaee, K. (2017), "Impact of brand equity of exhibitors on purchase intentions of visitors with mediating role of competition intensity of the exhibition", *International Journal of Scientific Study*, Vol. 5 No. 5, pp. 1-7.

Santoso, C.R. and Cahyadi, T.E. (2014), "Analyzing the impact of brand equity towards purchase intention in automotive industry: a case study of ADC in Surabaya", *iBuss Management*, Vol. 2 No. 2, pp. 29-39.

Saunders, M., Lewis, P. and Thornhill, A. (2009), *Research Methods for Business Students*, 5th ed., Pearson Education, London.

Schmitz, A. and Roman, N.V. (2018), "Do brands matter in unlisted firms? An empirical study of the association between brand equity and financial performance", *Administrative Sciences*, Vol. 8 No. 4, pp. 1-12.

Severi, E. and Ling, K.C. (2013), "The mediating effects of brand association, brand loyalty, brand image and perceived quality on brand equity", *Asian Social Science*, Vol. 9 No. 3, pp. 125-137.

Shrivastava, N. and Singh, R.P. (2017), "Effect of consumer characteristics on purchase motives and attitude towards life insurance: study in Punjab region", *Scholarly Research Journal for Interdisciplinary Studies*, Vol. 4 No. 35, pp. 6421-6427.

Tariq, M., Abbas, T., Abrar, M. and Iqbal, A. (2017), "EWOM and brand awareness impact on consumer purchase intention: mediating role of brand image", *Pakistan Administrative Review*, Vol. 1 No. 1, pp. 84-102.

Tuan, T.N. and Vinh, T.T. (2016), "An exploration in the theory of planned behavior: a case of organic food in Vietnam", *International Journal of Applied Business and Economic Research*, Vol. 14 No. 6, pp. 4951-4972.

Urbah, N. and Ahleman, F. (2010), "Structural equation modelling in information system research using partial least squares", *Journal of Information Technology and Application*, Vol. 11 No. 2, pp. 5-40.

Wang, Y. (2014), "Consumer's purchase intentions of shoes: theory of planned behavior and desired attributes", *International Journal of Marketing Studies*, Vol. 6 No. 4, pp. 50-58.

About the authors

Shahid Rizwan, PhD, is a UAE-based business management professional having over 15 years of industry experience with leading business organizations of various domains. He completed his PhD in Management from the Universiti Kuala Lumpur Business School, Malaysia. Shahid Rizwan is the corresponding author and can be contacted at: shahidrizwanadil@yahoo.com

Husam-Aldin Al-Malkawi, PhD, is a Professor of Finance at the Faculty of Business and Law, The British University in Dubai, UAE. Prof. Al-Malkawi is a Certified Islamic Finance Executive (CIFE). He has worked in various capacities at different institutions in the UAE, Saudi Arabia, Jordan and Australia.

Kamisan Gadar, PhD, is an Associate Professor of Islamic Finance at the Universiti Kuala Lumpur School of Business. He received his PhD in Islamic finance in 2004 from the University of Durham, UK. He is a panel member and program assessor of International Business and Islamic Finance at the Malaysian Qualifications Agency (MQA). Currently, he teaches the MBA and MSc Management programs at the Universiti Kuala Lumpur, Malaysia and the Universiti Pendidikan Sultan Idris, Malaysia.

Ilham Sentosa, PhD, is an Associate Professor at the Universiti Kuala Lumpur Business School, Malaysia. He obtained his PhD from the Universiti Utara Malaysia and has more than 18 years of lecturing experience at graduate and postgraduate levels.

Naziruddin Abdullah, PhD, is a Professor of Economics at the Universiti Kuala Lumpur Business School, Malaysia. He earned his PhD from the University of Tsukuba (Japan) and has more than 35 years of experience teaching economics and management courses (Islamic and conventional), both at the graduate and undergraduate levels, at a couple of universities in Malaysia and abroad.