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# CONCEPTUALIZING AND OPERATIONALIZING ISLAMIC FINANCIAL LITERACY: A MULTIDIMENSIONAL FRAMEWORK

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**Abstract:**

Islamic financial literacy is a prerequisite for Muslim financial well-being. Despite the fact that Islam provides clear guidance on financial arrangements, Muslims, particularly in Malaysia, have demonstrated financial ineptitude as evidenced by poor financial behaviours and a high number of bankruptcies, which warrants due scrutiny by current research. Nevertheless, determining the actual level of Islamic financial literacy, let alone devising control measures, has been challenging due to the lack of a validated measurement model of Islamic financial literacy. Furthermore, the lack of a standard definition has hampered empirical research in this area. Therefore, this study aims to scrutinize the concept of financial literacy from Islamic standpoint prior proposing a standard measurement. Underpinned by the Theory of Family Resource Management (FRM), Islamic financial literacy is denoted by Islamic financial knowledge, Islamic financial attitudes, and Islamic financial behaviours. These three primary components are further broken down into three sub-components: Islamic financial products, Islamic philanthropy, and financial management. The proposed measurement of Islamic financial literacy would serve as a parameter for measuring the level of Islamic financial literacy of the community in various groups, allowing subsequent measures to strengthen it to be devised.

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**Keywords:**

Islamic Financial Literacy, Islamic Financial Knowledge, Islamic Financial Behaviours, Islamic Financial Attitudes, Theory Of Family Resource Management

## Introduction

Financial literacy is a global agenda aimed at individual's financial empowerment and ensuring the general stability of the financial system (OECD, 2017a). In Malaysia, initiatives to promote financial literacy have been demonstrated over the last decade with the release of the Financial Sector Blueprint 2011–2020, which emphasized the importance of financial consumer protection and education (Central Bank of Malaysia, 2011). Afterwards, the Malaysian government launched the National Strategy for Financial Literacy 2019-2023, a five-year plan aimed at increasing Malaysians' financial literacy, promoting responsible behaviour, and encouraging a rational attitude, with the goal of improving Malaysians' financial well-being (FEN, 2019).

The same aspiration is shared by Islamic financial literacy. The ability of a Muslim to manage personal finances in accordance with Shari'ah is a critical life skill, not only for success in this world, but also for success in the eternal afterlife, known as al-*falah* (Al-Qur'an. Al-Mu'minun 23:1-11). Attaining success of an individual in this world relates towards attaining 'a good life' (*hayatan tayyibah*) (Al-Qur'an. An-Nahl 16:97), while in the hereafter, it pertains to the attainment of entering paradise (Al-Qur'an. Al-Baqarah 2:25). Islamic financial literacy is, therefore, a religious responsibility of every Muslim in the realization of *al-falah*. Er et al. (2015) (as cited by Er and Mutlu, 2017) contended that Islamic financial literacy is a religious matter rather than an economic issue.

According to Setiawati, Nidar, Anwar, and Masyita (2018), the importance of Islamic financial literacy is driven by twofold factors: the obligation of Muslims to comply with Shari'ah in their financial affairs (internal motive) and the availability of complex financial products and instruments that perceptibly persecute those who are financially illiterate (external motive). Having adequate Islamic financial knowledge and applying it appropriately, referred to as being a 'financially literate Muslim', will result in a sustained improvement in living standards and will be rewarded accordingly in the hereafter.

Despite clear guidance in Islam regarding financial arrangements including among others, spending, saving, borrowing, and investing, the reality however is astonishing. The AKPK revealed that financial well-being of Malaysian, including Muslims, requires immediate attention due to the inability to make ends meet, financial hardship, a lack of financial resilience, and high indebtedness (AKPK, 2018). Furthermore, bankruptcy case is recorded high in Malaysia from 2015 to 2019, with 56 per cent are Malays (MdI, 2019), most of whom are Muslims. Financial literacy, therefore, should be re-examined to cater the specific requirement of Islamic Financial literacy, with a focus on Muslims, which is certainly different from a conventional viewpoint.

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Furthermore, as Malaysia is on the verge of becoming a leading global hub for Islamic finance (n.a., 2019), a lack of Islamic financial literacy will pose a significant threat to the long-term viability of Islamic finance industry. The adoption of Islamic finance services will be stymied by a lack of customer awareness and understanding of Islamic finance (Mahdzan, Zainudin, & Au, 2017; Mariadas & Murthy, 2017), hampering the growth potential of the Islamic finance industry. According to Haron, Ahmad, and Planisek (1994), customers of Islamic banks are more likely to establish a relationship with the bank if they have a thorough understanding of the bank's operations. Therefore, Islamic financial literacy is deemed as one of the most critical aspects for establishing a strong and sustainable Islamic financial system.

The framework developed by conventional studies is insufficient to explain the financial literacy of Muslims. Apart from recognizing the attainment of knowledge through experimental and empirical efforts, Islam also affirms that there is an absolute source of authority in knowledge, namely revelation and prophecy, which are the key references for all Muslims. Unfortunately, the comprehensive model of Islamic financial literacy is very limited. Hence, a robust and reliable model of Islamic financial literacy that caters to Muslims need to be established. The basic guidelines of Islamic financial literacy must strictly adhere to Islamic principles, which does not simply mean transforming transactions into an Islamic mode but must also cover a broader aspect with specific demands to be implemented.

## Literature Review

Literacy refers to the ‘ability to read and write’ and ‘knowledge or skills in a specific area’ (Oxford Learner’s Dictionary, n.d.). The concept of literacy, however, appears to be evolving; it is constantly being redefined to reflect criteria for social, political, religious, and economic relevance and expectations (Ntiri, 2009). Studies on literacy have been conducted in various field including health literacy (Okan et al., 2020; Rudd, 2016), computer literacy (Hoffman & Blake, 2003; Tsai, Wang, & Hsu, 2018) scientific literacy (Sjöström & Eilks, 2017) as well as financial literacy (Er & Mutlu, 2017; Huston, 2010; OECD, 2017a).

In Islam, literacy is not a foreign concept. Since the first revelation, the first commandment was Iqra’ (Al-Qur’an. Al-Alaq 96:1), which means ‘read’, imposed the importance of literacy. According to Ibnu Katsir (2017), the verses in surah (chapter) of Al-‘Alaq verses one (1) to five (5) imply that the honour and nobility of man are in his knowledge. The importance of literacy has also been emphasized in the Quran that knowledge enables people to differentiate between the *haq* (truthfulness) and the *bathil* (falsehood) (Al-Qur’an. Al An-am 6:119). In the context of financial dealings, Muslims are obliged to be knowledgeable in order to distinguish between halal and haram.

### *Definition and Development of the Concept of Financial Literacy*

The definition of financial literacy has shifted from being knowledgeable about financial matters to the ability to apply that knowledge to daily financial arrangements (Huston, 2010). Financial literacy has also been differently defined and presented due to differences in focuses and purposes behind every studies. The different definitions have led to the differences in the development of its constructs and measurements. For instance, Bowen (2002); Courchane & Zorn (2005); and PISA (2012) simply defined financial literacy as financial knowledge, whilst ANZ (2015) and Vitt et al. (2000) defined financial literacy as an individual's ability to apply financial knowledge. Instead, a study conducted by Servon and Kaestner (2008) incorporates both knowledge and the ability to apply that knowledge as a concept of financial literacy.

Huston (2010) reviewed 71 financial literacy studies and discovered no such thing as a standardized concept of financial literacy. Huston (2010) then designed and developed a financial literacy model comprising of two (2) components: understanding (knowledge of personal finance) and using (application of personal finance knowledge).

Later studies have defined financial literacy more comprehensively. The operational definition of financial literacy used by the Adult Financial Literacy in Australia surveys in 2002, 2005 and 2008 mainly focused on people’s financial knowledge and numeracy, but recent studies were modified by placing greater emphasis on people’s financial behaviour (ANZ, 2015). Bhabha (2014) defines financial literacy as a mishmash of awareness, knowledge, skills, attitude, and behaviour vital to sound financial decision-making and ultimately to individual financial well-being. The most well-known and in-depth study of financial literacy, the OECD (2016), perceived financial literacy as a combination of awareness, knowledge, skills, attitudes, and behaviours needed to make informed and responsible decisions that lead to financial well-being. This definition is also applied by the AKPK Financial Behaviour Survey 2018 (AKPK, 2018).

***Conceptualizing Islamic Financial Literacy***

Islamic financial literacy has distinctive attributes, based on the teachings of the Qur’an and prophetic traditions, which are disregarded by conventional counterparts. Conventional financial literacy however, rooted in the established financial literacy studies hence do not fully represent the Islamic worldview (*tasawwur*). In order to precisely define what Islamic financial literacy is, it must be contended that it would be identical to the existing definitions developed by the well-established studies, with the significant inclusion that the components conform with Islamic principles. It is noticeable that there is no contradiction between the established definitions of financial literacy with the principles of Islam. In fact, knowledge and practice as a sequence are highly emphasized in Islam, “But those who had been given knowledge said, “Shame on you! The reward of Allah is better for he who believes and does righteousness”. And none are granted it except the patient” (Al-Qur’an. Al-Qasas 28: 80).

Certain Islamic financial literacy studies inclined to extend the definition proposed in conventional studies without modification (Er & Mutlu, 2017; Rahman, Tajudin, Fadzli, & Tajuddin, 2018), and adopted the measuring instrument developed in conventional studies (Er and Mutlu, 2017; Mokhtar, Thinagaran, Sabri, and Ho, 2018). This adoption creates confusion in identifying the distinguishing features of Islamic financial literacy. On the other hand, few efforts have been made to tailor the conventional concept of financial literacy to the Islamic framework, with certain demands that have to be fulfilled. For example, the definition of Islamic financial literacy by Abdullah, Wahab, Sabar, & Abu (2017); and Abdullah & Anderson (2015) was derived from the definition of literacy by Huston (2010), that is the knowledge acquired by education and/or personal experience of prominent concepts and products of Islamic finance. Likewise, Abdul Rahim, Abdul Rashid, and Hamed (2016) defined Islamic financial literacy by maintaining its strong connection with the OECD's (2012) concept of financial literacy, that is a person's ability to utilize financial knowledge, skills, and attitudes in the management of financial resources according to Islamic teachings.

Meanwhile others, such as those provided by Abdul Rahim, Abdul Rashid, and Hamed (2016), and Hidajat and Hamdani (2016) emphasized on the ability to use financial knowledge in making financial decisions. Later studies of Islamic financial literacy such as Antara, Musa and

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Hassan (2017), Er and Mutlu (2017) and Setiawati, Nidar, Anwar and Masyita (2018) tend to focus on a combination of knowledge, attitudes and behaviours of individuals. Abdullah and Razak (2015) and Lahsasna (2016) conceptualized Islamic financial literacy within certain obligations to be observed which are fundamentals in Islam, including basic money or wealth management, financial planning including takaful, pension schemes, Shari'ah-compliant investments, charity donation, waqf and *sadaqah*, as well as zakat, law of inheritance (*faraid*) and will (*wasiyah*). Lahsasna (2016) goes so far to add few other elements including retirement planning, zakat calculation, Shari'ah guidelines relating to financial transactions, debt management and partnership.

Many studies, however, fail to conceptually define Islamic financial literacy. In some studies, the definition of Islamic financial literacy can be inferred from the given text; however, in others, the reader must draw their own conclusions about what the author means by Islamic financial literacy based on how financial literacy was measured. Table 1 illustrates the conceptual definitions of Islamic financial literacy in previous studies in chronological order.

**Table 1: Definitions of Islamic Financial Literacy**

| No. | Source | Conceptual Definition |
|---|---|---|
| 1. | Abdullah and Anderson (2015) | Knowledge acquired through education and/or specific experience related to key concepts and products of Islamic finance (built on the definition of financial knowledge by Huston (2010). |
| 2. | Abdul Rahim, Abdul Rashid, and Hamed (2016) | A person's ability of using financial knowledge, skills, and attitude (OECD, 2012) in financial management in accordance with Islamic teachings. |
| 3. | Hidajat and Hamdani (2016) | Knowledge of Islamic finance which is used in making financial decisions. |
| 4. | Antara et al. (2016) | Individuals' ability to integrate a collection of knowledge, awareness, and skills to understand Islamic financial information and services that influence attitudes in making effective Islamic financial decisions. |
| 5. | Lahsasna (2016) | Knowledge and understanding of financial issues, including banking, real estate, insurance, investment, savings and tax planning, as well as understanding of *faraid*, *zakat* calculation, retirement planning, Shari'ah guidelines on financial transactions, debt management and partnership, in the Islamic context. |
| 6. | Abdullah, Ab Wahab, Sabar, and Abu (2017) | Ability to understand finance on the basis of Shari'ah compliance. |
| 7. | Bünyamin Er, Mesut Mutlu (2017) | Attitude, behaviour and knowledge of individuals to rationally manage themselves on cash management. |
| 8. | Mohamad Azmi Abdullah, Siti Nur Aqilah Ab Wahab, Salehudin Sabar, Falah Abu (2017) | The ability to understand finance based on sharia compliance. |

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| | | |
|---|---|---|
| 9. | Setiawati et al. (2018) | A person's capability to manage finances based on Islamic financial principles from the aspects of knowledge, attitudes, and behaviours. |
| 10. | Biplob and Abdullah (2019) | Ability to understand the principles of money, debt, saving, expenses, *zakat* and Shari'ah-compliant and non-compliant elements involved in financial transactions such as usury, gambling, corruption, uncertainty and fraud. |

Apparently, knowledge (or understanding) is the most basic element for the definitions of Islamic financial literacy. However, most financial literacy studies, whether conventional (AKPK, 2018; ANZ, 2015; OECD, 2016) or Islamic (Antara et al., 2017; Setiawati et al., 2018), conceptualize Islamic financial literacy by incorporating financial knowledge and application components.

***Approach for Measuring Islamic Financial Literacy***

Islamic financial knowledge is mostly used as a proxy for Islamic financial literacy, most of which focuses on (1) knowledge of the principles, features and basic concepts of Islamic finance (Abdul Rahim et al., 2016; Albaity & Rahman, 2019; Antara et al., 2017; Hidajat & Hamdani, 2016; Setyowati, Harmadi, & Sunarjanto, 2018), (2) knowledge of Islamic financial products and instruments (Abdullah et al., 2017; Abdullah & Anderson, 2015; Abdullah & Razak, 2016), (3) knowledge of Islamic financial contracts (Ahmad, Widyastuti, Susanti, & Mukhibad, 2020; Albaity & Rahman, 2019; Antara et al., 2017; Hidajat & Hamdani, 2016; Pratiwi & Affandy, 2020), (4) knowledge of wealth planning and management (Abdullah & Anderson, 2015) and (5) philanthropy (Abdullah & Razak, 2016; Antara et al., 2017; Setyowati et al., 2018). The numerical or arithmetic abilities have also been assessed by constructing the questions of multiplication and division (Er and Mutlu, 2017; Setyowati et al., 2018), as well as the calculation of inflation, risk and profit rate (Er and Mutlu, 2017). In addition, Islamic banking literacy is also one of the popular studies in the field of Islamic financial literacy where the knowledge of Islamic banking products, services and principles were examined as an indicator of Islamic financial literacy (Abdullah & Anderson, 2015; Albaity & Rahman, 2019; Bley & Kuehn, 2003; Hamid & Nordin, 2000; Mokhtar, Sabri, Ho, & Dass, 2018; Pratiwi & Affandy, 2020).

Interestingly, few attempts have been made to examine Islamic financial literacy on a multidimensional basis. Abdullah and Anderson (2015) for example, incorporated opinion of and attitudes towards Islamic finance, but ignore the output of Islamic financial literacy, that is financial behaviours. Meanwhile Er and Mutlu (2017) and Shafik and Ahmad (2019) integrates knowledge, skills, awareness, attitudes, and behaviours to build a comprehensive model of Islamic financial literacy. However, Er and Mutlu (2017) failed to ensure that all of their measurement items are in line with Shari'ah by mixing up the interest-related items in the questionnaires. The measurement of Islamic financial literacy by Shafik and Ahmad (2019) and Abdullah et al. (2017) on the other hand, focuses on students, who are less exposed to diverse financial activities. Therefore, the measurement is limited only to certain areas. Similarly, Setiawati et al. (2018) and Setyowati et al. (2018) integrated knowledge, attitudes, and behaviours in measuring Islamic financial literacy, but unfortunately ignoring philanthropic elements.

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Due to the shortcomings of existing measurements, a comprehensive and distinctive measurement of Islamic financial literacy is needed. While acknowledging the challenge of creating a multidisciplinary measure, this paper concurs with Potrich, Viera, and Silva (2016) that emphasized the importance of a variety of measures to enhance financial literacy by focusing on the bare minimum financial knowledge, attitude, and behaviour.

Table 2 shows the dimensional basis of Islamic financial literacy.

**Table 2: Dimensional Basis of Islamic Financial Literacy**

| | Dimensions | Sources |
|---|---|---|
| **One Dimension** | **1. Islamic financial knowledge**<br>i. Islamic finance principles<br>*ii. (riba, gharar, maysir*, basic financial concepts, objectives of islamic finance)<br>iii. Methods (contracts) and products<br>iv. *(mudharabah, musyarakah, murabahah, ijarah, istisna', salam, qardhu hasan)*<br>v. Personal financial management (borrowing, saving/investment, financial protection)<br>vi. Islamic philanthropy | Albaity and Rahman (2019)<br>Mokhtar et al. (2018)<br>Setyowati et al. (2018)<br>Antara et al. (2017)<br>Hidajat and Hamdani (2016)<br>Abdul Rahim et al. (2016)<br>Bley and Kuehn (2003)<br>Hamid and Nordin (2001) |
| **Multiple Dimensions** | + | |
| | **2. Financial attitudes**<br>i. Awareness and confidence to find source of financing<br>ii. Spending funds in halal, beneficial and Shari'ah-compliant | Abdullah and Anderson (2015) |
| | + | |
| | **3. Financial behaviors**<br>i. Planning<br>ii. Earning<br>iii. Spending<br>iv. Saving<br>**v.** Allocating | Setiawati et al. (2018)<br>Er and Mutlu (2017)<br>Abdullah et al. (2017)<br>Md.Shafik and Ahmad (2019) Setyawati and Suroso (2016) |

Source: Summarised by Farah Amalina Md Nawi, Muhammad Ridhwan Ab. Aziz and Syahidawati Shahwan from Various Sources

### *Understanding Islamic Finance as a Basis for Conceptualization and Measurement*

Islamic finance activities are based on the underlying principle that money is regarded as property held by man in his capacity as vicegerent of God. Hence, money should be spent wisely in accordance with the demands of the ultimate owner, as dictated by Shari'ah. The fundamental principle of conventional finance, 'time has value', is incompatible with Islamic finance principles because this method adds value to money solely by increasing time rather than the effort that leads to *ribawi* transactions (Muda & Hasibuan, 2017). Prohibition of

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interest is clearly stated in the Qur'an, “O you who have believed, do not consume usury, doubled and multiplied, but fear Allah that you may be successful.” (Al-Qur’an. Ali ‘Imran 3:130) and “And whatever you give for interest to increase within the wealth of people will not increase with Allah. But what you give in *zakat*, desiring the countenance of Allah, those are the multipliers.” (Al-Qur’an. Ar-Rum 30:39).

The fundamental principles of Islamic finance are rooted in the belief in divine law and underpinned by the philosophy of the Islamic economy, which prioritizes social welfare over economic gains (Ibrahim and Alam, 2017). Islamic finance strives for justice, fairness, trust, honesty, integrity, and a balanced society. The goals of Islamic finance including the promotion of economic well-being, the alleviation of poverty, the fulfilment of basic human needs, the optimization of the use of natural resources, the fulfilment of spiritual needs and the promotion of universal brotherhood and economic and social justice (ISRA, 2016).

The key Shari’ah principles concerning the financial affairs includes the prohibition of interest (*riba*), prohibition of uncertainty (*gharar*), prohibition of speculative behaviours (*maysir*), division of profit, lost and risk, money as potential capital, sanctity of contract and prohibition of investments that violate public interest (Daly and Frikha, 2014; Tatiana, Igor and Liliya, 2015; ISRA, 2016), development of religiously legitimized (*halal*) aspect of business trade and investments and prohibition of making money out of money (Hussein, 2011; ISRA, 2016) and promotion of moderation, balance and harmony in life, prohibition of monopoly and the importance of alms-giving (*zakat, sadaqah, waqf*) (ISRA, 2016).

***Initial Understanding of Islamic Financial Literacy***

In keeping with the established study in this area and consistent with the principles of Islamic finance, the operational definition of Islamic financial literacy in this study is proposed by emphasizing the consequence of financial knowledge towards financial attitudes and financial behaviours. Islamic financial literacy in this study is defined as: ‘The ability of a person to manage personal finances from the aspects of knowledge, attitude and behaviours based on Shari’ah’. This definition is clear, does not refute or undermine existing definitions of financial literacy in the literature, is consistent with other standardized literacy constructs, and most importantly, does not contradict Islamic principles. This definition implies that one is regarded to be financially literate if he or she has sufficient Islamic financial knowledge, demonstrates the right financial attitude, and can apply and practice that knowledge in real life, as determined by Shari’ah.

***Components of Islamic Financial Literacy***

Based on the initial understanding of Islamic financial literacy, there are three major components namely financial knowledge, financial attitudes, and financial behaviours. The measures of financial literacy primarily focused on basic personal finance knowledge and how people behave in their financial arrangements such as savings, spending, debt management, financial protection, risk management, and financial product selection (Huston, 2010). Meanwhile, in the Islamic financial literacy context, a detailed debate is extended with respect to the divine revelation, with the inclusion of Islamic philanthropy as one of the fundamental components of Islamic finance. Based on extensive literature review, this study categorized these three major components into three sub-components of Islamic financial literacy: Islamic finance principles and products, Islamic philanthropy and financial management. Table 3 illustrates the components and sub-components of Islamic financial literacy.

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**Table 3: Components of Islamic Financial Literacy**

| **Component 1: Financial knowledge** | **Component 2: Financial attitudes** | **Component 3: Financial behaviours** |
|---|---|---|
| **Islamic finance principles** | Attitude towards Islamic finance in general | |
| **Islamic financial products** | Attitude towards saving products | Saving in Islamic bank |
| | Attitude towards financing products | Financed by Islamic bank |
| | Attitude towards investment products | Investment in Islamic financial instruments |
| | Attitude towards Takaful | Participation in Takaful |
| **Philanthropic activities** | Attitude towards *zakat* | *Zakat* compliance |
| | Attitude towards *waqf* | *Waqf* contribution |
| | Attitude towards s*adaqah* | Almsgiving |
| **Personal financial management** | Spending attitude | Spending behaviour |
| | Saving attitude | Saving behaviour |
| | Borrowing attitude | Borrowing behaviour |
| | Investing attitude | Investing behaviour |
| | Attitude towards takaful | Contributing to financial protection/takaful |

Following the two major dimensions of financial literacy (understanding and application) by Huston (2010), this study examines Islamic financial literacy based on the Theory of Planned Behaviour (TPB). According to TPB, there are three factors that influence behavioural intention: attitudes toward behaviour, subjective norms regarding the behaviour, and perceived control over the behaviour (Ajzen, 1991). Ajzen (2005) further integrates three underlying factors that influence an individual's attitude toward behaviour, namely personal, social, and informational factors. In the context of this study, a person who intends to engage in Shariah-compliant financial behaviours may upon trying to do so, discover that he or she lacks the necessary information and knowledge that would affect attitudes towards behaviour and in turn, behaviour itself. Therefore, a financially literate Muslim must be well-versed in Islamic finance, have positive financial attitudes, and demonstrate prudent financial behaviours, which is the basis of the proposed model in the current study. The proposed framework of this study is depicted in Figure 1.

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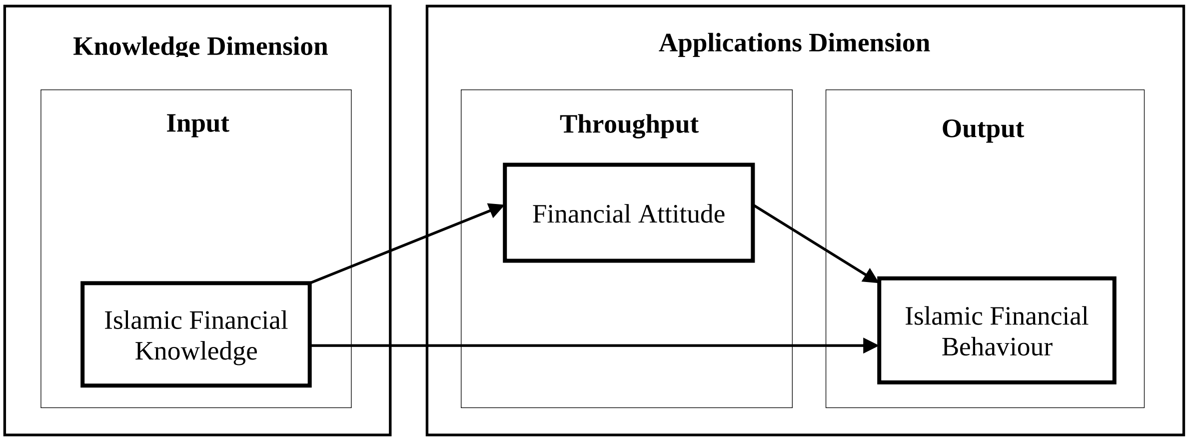


**Figure 1: Proposed Conceptual Framework of Islamic Financial Literacy**

Financial knowledge is deployed as 'input', in which knowledge of Islamic finance principles, products, philanthropy, and financial management are assessed. Then, financial attitudes as the 'throughput' of the study will be assessed based on the attitudes toward Islamic finance, Islamic financial products, philanthropy, and financial management. The 'output' of Islamic financial literacy is financial behaviours, which are assessed in term of individuals' behaviour of Islamic financial products adoption, philanthropic behaviours and behaviours in personal financial management.

## Methods

Given that the measurement for Islamic financial literacy has to be tested, Churchill's (1979) structured framework is applied to verify the reliability of the measures developed. The scale development process introduced by Churchill is applied on the basis of its systematic, repetitive sequence of measures focused on the evaluation of the reliability and validity of the instrument. The sequence of steps is as shown in Figure 2.

A set of questionnaires were developed and sent to the experts for verification. Then, the pilot test is conducted by distributing the questionnaires to 40 respondents, to detect any problems relevant to the instrument used for the study. The collected data is then analysed using Partial Least Square (PLS) Structural Equation Modelling (SEM). According to Vinzi, Chin, Henseler, & Wang (2010), PLS is used to model comprehensive multivariable relationships among observed and latent variables, which allows examining causal relationships between variables.

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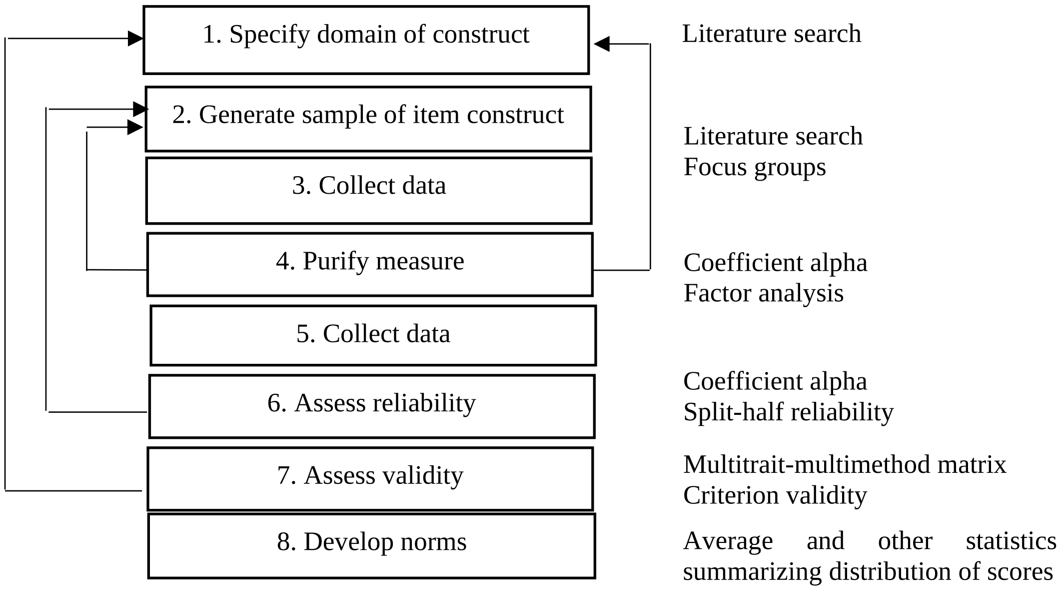


**Figure 2: Churchill's Measures Development Procedure**

**Proposed Measurement of Islamic Financial Literacy**

Following the method applied by the OECD (2016), the level of Islamic financial literacy is calculated by summing up the three sub-scores (behaviour, knowledge, and attitude) to create an overall financial literacy score. The questions about knowledge of Islamic finance principles are inspired by Albaity and Rahman (2019) and Antara et al. (2017). Knowledge of Islamic financial products are assessed by adapting the instruments developed by Hassan, Salman, Kassim, and Majdi (2018), Mokhtar, Thinagaran, Sabri, and Ho (2018) and Pratiwi and Affandy (2020). Philanthropy elements are added by referring to the measures developed by Abdullah and Razak (2016) and BAZNAS (2019), encompassing the knowledge of waqf, zakat and *sadaqah*, while the questions of financial management knowledge are adapted from Abdullah and Anderson (2015). Responses are analysed based on a true-false option where one (1) point will be given for the correct answer, while (0) point for the wrong answer. Respondents will also be given 'not sure' choices besides 'true' and 'false' options to avoid them from answering questions indifferently, which are regarded as the wrong answer. The scores for financial knowledge are obtained after summing up all the points.

Second, the measurement of Islamic financial attitude is inspired by Abdullah and Anderson (2015); Kaakeh, Hassan, and Almazor (2018); Kashif, Jamal, and Rehman (2016); and Rajna, Ezat, Al Junid, and Moshiri (2011), to measure the attitudes towards Islamic finance and its products, philanthropy activities and attitudes towards personal financial management. Lastly, questions for Islamic financial behaviours are adapted from Abdullah and Razak (2016); AKPK (2018); and Er and Mutlu (2017), which measure the behaviours of financial management, financial products adoption, and philanthropy. All questions of financial attitudes and behaviours are measured on a five-point Likert type scale ranging from 1 (strongly disagree) to 5 (strongly agree), with 5 indicates the best attitude and best practices. Scales ranging from 1 to 3 is considered as low level, thus zero (0) point is given, while the scale ranged from 4 to 5 is considered as high level, hence one (1) point is given. The points will be summed up in order to derive the score, hence the level of Islamic financial literacy will be

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discovered. Table 4 shows the summary of categories and items for the proposed measurement of Islamic financial literacy.

**Table 4: Components and Items for the Measurement of Islamic Financial Literacy**

| Components | Items | Test-based Question | Sources |
|---|---|---|---|
| A. Islamic financial knowledge | K1. Islamic finance principles | 1. Prohibition of *riba*<br>2. Prohibition of *gharar*<br>3. Prohibition of *maysir*<br>4. Ownership of the subject of sale<br>5. Concept of money in Islam | 1. Antara, Musa, & Hassan (2017)<br>2. Albaity & Rahman (2019) |
| | K2. Islamic financial products | 6. Islamic financial products' risk and return<br>7. Source of income for Islamic financial institutions<br>8. Methods of Islamic financing<br>9. Islamic credit card<br>10. Deposit products<br>11. Financing products<br>12. Investment products<br>13. Financial protection products | 1. Hassan, Salman, Kassim, & Majdi (2018)<br>2. Mokhtar, Thinagaran, Sabri, & Ho (2018)<br>3. Pratiwi & Affandy (2020) |
| | K3. Islamic philanthropy | 14. *Zakat* obligation<br>15. *Zakat* calculation<br>16. Knowledge of *waqf*<br>17. Knowledge of *sadaqah* | 1. Abdullah & Razak (2016)<br>2. BAZNAS (2019) |
| | K4. Personal financial management | 18. Knowledge of wise spending<br>19. Knowledge of financial planning and management<br>20. Knowledge of debt repayment obligation | 1. Abdullah & Anderson (2015) |
| B. Islamic financial attitudes | A1. Attitude towards Islamic finance in general | 21. Islamic finance represents the true values of Islam<br>22. Islamic finance represents fairness and justice<br>23. Respect towards Islamic finance | 1. Kaakeh, Hassan, & Almazor (2018) |
| | A2. Attitude towards Islamic financial products | 24. Islamic financial products adoption<br>25. Financial products preference<br>26. Islamic financial products provide competitive returns<br>27. Islamic financial instruments are safer alternative investment products<br>28. Buying takaful coverage is necessary<br>29. Takaful assists people during | 1. Abdullah & Anderson (2015)<br>2. Setiawati et al. (2018) |

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| | | | |
|---|---|---|---|
| | | hardship | |
| | A3. Attitudes towards philanthropy | 30. Happy to pay *zakat*<br>31. *Zakat* purifies wealth<br>32. Paying *zakat* would help other Muslims<br>33. Waqf benefiting the ummah<br>34. *Sadaqah* purifies heart from greedy | 1. Kashif, Jamal, & Rehman (2016) |
| | A4. Attitudes towards financial management | 35. Attitude in saving<br>36. Attitude in budgeting<br>37. Attitude in borrowing<br>38. Attitude in Islamic investment | 1. Abdullah & Anderson (2015)<br>2. Rajna, Ezat, Al Junid, & Moshiri (2011) |
| C. Islamic financial behaviours | B1. Behaviour in financial products adoption | 39. Islamic bank account<br>40. Financed by Islamic financial institutions<br>41. Invest in Shari'ah compliant products/instrument<br>42. Participation in takaful<br>43. Only choose Islamic financial products | Self-developed questions |
| | B2. Philanthropic behaviours | 44. Pay *zakat*<br>45. Give *sadaqah*<br>46. Contribute to *waqf* | 1. Abdullah & Razak (2016) |
| | B3. Financial management behaviour | 47. Prepare spending budget<br>48. Assess affordability before purchasing<br>49. Spend according to plan<br>50. Priority in spending<br>51. Saving before spending<br>52. Saving for hajj<br>53. Saving for retirement<br>54. Invest money in Shariah-compliant investment<br>55. Borrowing for essentials<br>56. Pay loan/financing on time<br>57. Credit card payment<br>58. Prioritizing debt repayment | 1. AKPK (2018)<br>2. Er & Mutlu (2017) |

Source: Summarised by Farah Amalina Md Nawi, Muhammad Ridhwan Ab. Aziz and Syahidawati Shahwan from various sources

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**Limitation**

As an exploratory endeavour, the measurement of Islamic financial literacy in this study is not expected to represent all Islamic financial literacy components. This study only focuses on three components of Islamic financial literacy, namely financial knowledge, attitudes, and behaviours. Other components that might also shape individuals' financial literacy such as financial skills should be considered in future research. Given the wide spectrum of Islamic finance, future research may expand the study by focusing on various types of philanthropy, including other types of zakat and waqf; other area of Islamic finance such as *faraid*, *wasiyyah*, and *hibah*, various types of investment such as investment in gold, as well as financial literacy pertaining to Islamic money and capital markets instruments.

**Conclusion**

A peculiar and robust measurement of Islamic financial literacy that cater to Muslims is required since the identity of Muslims is very much different than the others (Al-Qur'an. Al-Baqarah 2:138). Therefore, understanding every aspect of a Muslim's life should be instituted in tandem with the Islamic worldview. A Muslim is said to be a highly financially literate Muslim if he or she has sufficient knowledge of Islamic finance, positive financial attitudes, and good financial behaviours. This paper proposes three components, four sub-components and 58 items to comprehensively measure Islamic financial literacy. The proposed Islamic financial literacy measures in this study may benefit the authorities and relevant parties, such as the Credit Counselling and Debt Management Agency (CCDMA), by providing a new perspective on the issue of financial literacy.

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