

# mic\_Financial\_Inclusion\_Deter minats\_in\_Indonesia\_- \_Published.pdf

*by*

---

**Submission date:** 13-Feb-2023 02:16PM (UTC+0700)

**Submission ID:** 2012938903

**File name:** mic\_Financial\_Inclusion\_Determinats\_in\_Indonesia\_-\_Published.pdf (1.22M)

**Word count:** 9325

**Character count:** 54279

# Islamic financial inclusion determinants in Indonesia: an ANP approach

27

Mohammad Mahbubi Ali

*International Institute of Advanced Islamic Studies Malaysia, Kuala Lumpur,  
Malaysia and Tazkia Institute, Bogor, Indonesia*

Abrista Devi

*Ibn Khaldun University, Bogor, Indonesia*

51

Hafas Furqani

*Universitas Islam Negeri Ar-Raniry, Banda Aceh, Indonesia, and*

Hamzah Hamzah

*Pakuan University, Bogor, Indonesia*

Islamic  
financial  
inclusion  
determinants

Received 9 January 2019

Revised 26 April 2019

3 October 2019

13 December 2019

12 April 2020

Accepted 29 April 2020

46

## Abstract

**Purpose** – This study aims to uncover the determinants of Islamic financial inclusion in Indonesia.

**Design/methodology/approach** – This study uses the analytic network process (ANP) to gather expert opinions and responses from academics, regulators and practitioners.

**Findings** – The ANP analysis discovered that the level of Islamic financial inclusion in Indonesia is influenced by two main drivers: the supply and the demand. The demand factors for Islamic financial inclusion, ranked based on their level of significance, are as follows: financial literacy (0.27), religious commitment (0.22), socioeconomic factor (0.19) and social influence (0.17), respectively. From the supply side, primary catalysts for Islamic financial inclusion based on their level of importance are human capital (0.32), product and services (0.24), infrastructure (0.18) and policies and regulation (0.17), respectively.

**Research limitations/implications** – The present study does not include the Islamic insurance sector in its determinant framework of Islamic financial inclusion in Indonesia.

**Practical implications** – This study serves as a reference for regulators in formulating appropriate policy strategies to strengthen the Islamic financial inclusion in Indonesia.

**Originality/value** – This study is a pioneer attempt to identify distinctive factors that influence the level of Islamic financial inclusion in Indonesia by analyzing expert opinions from diverse groups of Islamic finance stakeholders.

**Keywords** Indonesia, Islamic finance, Financial inclusion, Demand factors, Supply factors

**Paper type** Research paper

## 1. Background

Financial inclusion has, since the past two decades, been a global agenda and a renewed concern for many governments and central banks worldwide. The Sustainable Development Goals of the United Nations Development Program, for instance, put financial access as an

13

This paper is part of a research project funded by the Central Bank of Indonesia – Bank Indonesia Institute under the Research Grant Bank Indonesia Program 2018. The authors would like to thank Dr M. Rizky Prima Sakti and Witri Aulia Maudy for their assistantship to this project.



essential enabler for development. A recent study showed that more than 50 countries have already set their formal targets and strategies in the quest for financial inclusion (Demirgüç-Kunt *et al.*, 2015).

Literature review shows a strong link between financial inclusion, inclusive growth and poverty reduction (World Bank, 2014; Beck *et al.*, 2000; Levine, 2005; Demirgüç-Kunt *et al.*, 2008). There is strong evidence that shows an increase in financial inclusion facilitates the lower segment of society in improving their economic situation (Aportela, 1999; Ashraf *et al.*, 2011; Dupas and Robinson, 2013). A high level of financial inclusion also contributes to greater stability in the banking sector (Ahmed and Mallick, 2019) and ensures a more equitable economy (Ahmed and Salleh, 2016). In contrast, a lack of financial access reinforces the poverty trap because of the paucity of opportunities to save during surplus or to borrow in times of hardship (Mohieldin *et al.*, 2011).

As a business entity established within the ambit of the *Shariah* principles, Islamic finance is often viewed as a potential sector that contributes positively to solving problems related to financial inclusion. The 2017 Global Findex Database estimated that about 6% of unbanked adults in developing countries do not have a banking account because of religious reasons (Demirgüç-Kunt *et al.*, 2018). Islamic finance could, therefore, enhance the people's access to various financial services while complying with a set of ethical values (Dusuki *et al.*, 2012). The International Monetary Fund (2015) also acknowledged that Islamic finance promotes economic well-being, establishing socio-economic justice, and equitable distribution of income and financial stability. For example, Zakat institutions could assist Zakat recipients in improving their financial situation and fulfilling their needs (Salleh, 2015).

The Islamic financial market in Indonesia has over the past three decades evolved and developed exponentially, emerging as an important jurisdiction in the global Islamic financial industry, standing at fourth place in 2018 after Malaysia, Bahrain and the United Arab Emirates (Islamic Cooperation for the Development of the Private Sector, 2019). The Indonesian government has also made significant efforts and progress in enhancing financial inclusion. The National Strategy for Financial Inclusion was outlined in 2012 to achieve a financial system that is accessible by all layers of the community. In 2014, Indonesia's Financial Services Authority (FSA) also issued POJK [1] No. 19 regarding branchless banking to strengthen financial inclusion. On September 27, 2016, Bank Indonesia also introduced a new regulation on Digital Financial Services for financial inclusion.

Nevertheless, financial exclusion remains a significant problem in the country. The World Bank's 2017 Global Index Database discovered that only 48.9% of Indonesian adults have access to finance, leaving more than half (51.1%) of them excluded from financial services – without an account at any financial institutions or access to a mobile wallet (World Bank, 2017). A 2016 survey by FSA found that the Islamic financial inclusion index stood at 11.1%, which means that out of 100 Indonesian, only 11 persons are benefitting from Islamic financial products and services (FSA, 2017). The Asian Development Bank (2016) revealed that financial inclusion in Indonesia is relatively low compared to some other countries in the region, such as Malaysia and Thailand.

This signifies the importance of policymakers to design more appropriate strategies for financial inclusion, therefore enabling a larger segment of society to benefit from financial products and services. Financial inclusion would ensure inclusive growth where the gap between the rich and the poor is less pronounced, and people would actively participate in wealth processes of various economic activities.

Apart from that, a cursory review of the literature finds that most existing studies on the determinants of financial inclusion are within the context of conventional finance, and in other jurisdictions (Demirgüç-Kunt and Klapper, 2013; Allen *et al.*, 2012; Kimutai, 2015; Zins and Weill, 2016; Clamara *et al.*, 2014; Kostov *et al.*, 2015). The present study, therefore, undertakes to fill the gap by examining the determinants of Islamic financial inclusion in Indonesia.

## 2. Literature review

Many previous studies suggested a significant relationship between financial inclusion and socio-demographic factors such as financial literacy, self-efficacy, infrastructure, documents, distance and religiosity (Demirgüç-Kunt *et al.*, 2013; Allen *et al.*, 2012; Kimutai, 2015; Zins and Weill, 2016). The subsection to follow reviews relevant literature on the relationship between financial inclusion and different factors.

### 2.1 Socioeconomic attributes

Socioeconomic characteristics and attributes are the drivers of financial inclusion (Demirgüç-Kunt *et al.*, 2013; Clamara *et al.*, 2014; Zins and Weill, 2016; Soumaré *et al.*, 2016; Evans, 2016; Abel *et al.*, 2018; Shihadeh, 2018). These include gender, living area, financial literacy, income, annual household spending, education, per-capita income and homeownership. For example, Soumaré *et al.* (2016) found that gender is the most significant catalyst for financial inclusion in Central Africa, while income is the most significant factor of financial inclusion in West Africa. Additionally, females and the poor are less likely to be included in the financial system, while education level enhances financial inclusion in the Middle East, North Africa, Afghanistan and Pakistan (Shihadeh, 2018; Demirgüç-Kunt *et al.*, 2013). Kermani and Afandi (2014) found that age, size, external auditing status and foreign ownership determine most financing obstacles for firms in Organisation of Islamic Cooperation countries. In Indonesia, Pepinsky (2013) identified a positive correlation between access to Islamic financial products and higher family income. This is true because people might get their income through a banking account.

### 2.2 Financial literacy

Financial literacy is an essential factor for financial inclusion (Kostov *et al.*, 2015; Chikalipah, 2017; Grandolini, 2015; Abel *et al.*, 2018). Low financial literacy is the main obstacle for financial inclusion in developing countries (Grandolini, 2015), South Africa (Kobov *et al.*, 2015) and Sub-Saharan Africa (Chikalipah, 2017). Many people are mostly aware of Islamic banking products but are unaware of their functions (Rammal and Zurbruegg, 2007). Thus, efforts to ensure financial competence and literacy regarding Islamic finance are imperative to improve financial inclusion (Shinkafi *et al.*, 2019; Khattak, 2010). A 2016 survey by PSA cited that Indonesia's Islamic financial literacy index stood at 8.1%, which means that out of 100 Indonesian, only eight people have sufficient knowledge and information on Islamic financial services. Kimutai (2015) proposed some indicators to measure financial literacy, namely, regular information updates, attendance of seminars, workshops and use of mass media.

### 2.3 Religiosity factor

Many literatures concluded that faith and ethnicity affect financial literacy and financial decisions (Guiso *et al.*, 2002; Barro and Mitchell, 2004; Gerrans *et al.*, 2009; Khan and Khanna, 2010; Demirgüç-Kunt and Klapper, 2012a, 2012b; Echchabi, 2012; Naceur *et al.*, 2017; Zulkhibri, 2016; Hassan *et al.*, 2018). More specifically, religiosity does indeed influence



the acceptance of Islamic banking and financial services (Amin and Aman, 2016; Jaffar and Musa, 2013; Maryam *et al.*, 2019), and especially in Muslim-majority countries (Zulkhibri, 2016 and Hassan *et al.*, 2018). There is also a study which concludes that stronger religious beliefs correlate positively with good economic attitudes (Guiso *et al.*, 2002). Many verses in the Qur'an encourage Muslims to put their best effort to attain perfection in their lives. For example, a Qur'anic verse in chapter al-Nahl (90) states: "Indeed, Allah orders justice, good conduct (*ihsan*), charity among relatives, and forbids immorality, bad conduct, and oppression." *Ihsan*, in this verse, signifies perfection.

#### 2.4 Social influence

The Social Learning Theory underpinning financial inclusion theory postulates that individual behavioral patterns can be affected by other people's behaviors through a process of differential support (Bandura, 1997). An individual can accept or reject certain decisions because of demand or influence by society (Ajzen, 1991). This theory further explains that skillful and knowledgeable individuals are highly influential and have a strong motivational effect on the general population. Many works of literature confirm that one's acceptance to and participation in Islamic banking are influenced by his surrounding references, parents, relatives, friends and community (Echchabi and Azouzi, 2015; Amin and Aman, 2016; Reni and Ahmad, 2016; Saleem, 2016; Maryam *et al.*, 2019).

#### 92 Infrastructure readiness

Lack of supporting infrastructure is a significant barrier to financial access in rural area (Allen *et al.*, 2012; Kimutai, 2015; Zins and Weill, 2016). Lack of infrastructure would lead to other problems, such as high cost, distance barriers and a lack of suitable financial products. Therefore, providing adequate infrastructure is vital to improving financial access, and hence, financial inclusion. Indicators to measure infrastructure readiness include location, distance, branding (Kimutai (2015), ATM penetration (Allen *et al.*, 2012) and mobile banking (Zins and Weill, 2016). For instance, Abel *et al.* (2018) found a negative correlation between distance and financial inclusion. The greater the distance between the people and financial centers, the smaller number of people will be financially included. This rings true for Islamic financial inclusion in Indonesia, especially in the eastern part of the country, where it is estimated that one branch of Islamic financial institution (IFI) has to serve up to 100,000 people (Umar, 2017).

#### 2.6 Human capital

As an institution established within the ambit of *Shariah*, the Islamic financial industry is a specialized industry, which requires a specific set of competencies and skills, such as *Shariah* understanding and financial knowledge. Skilled staff will ensure that Islamic banking products and services are efficient without compromising *Shariah* principles. Adequate knowledge and lack of expertise of the human capital, for instance, will affect the quality of Islamic financial products in terms of its *Shariah*-compliance and level of efficiency (Izhar, 2012). Li *et al.* (2016) and Zhou *et al.* (2018) confirmed the influence of employees' education on financial inclusion. Thus, Wang and Liu (2016) included labor force training as an input to measure human capital.

#### 2.7 Product and services

Financial inclusion refers to an effort to make financial products and services accessible and affordable to all segments of society (Demirgüç-Kunt, 2018). It is, therefore, imperative for IFIs to offer products and services that are inexpensive and tailor-made to the client's needs,

encompassing greater collateral flexibility, and outlining more straightforward documentation requirements. Allen *et al.* (2012) cited the cost of products and services as significant factors for financial inclusion. Purba and Purwanti (2016) and Beck *et al.* (2008) considered product design and sophisticated documentation requirements as two critical barriers to financial inclusion. Besides, The Global Findex Survey (World Bank, 2017) quoted cost and complicated documentation (10%) as among the essential reasons why people are unbanked (20%).

### 2.8 Policies and regulation

The role of governmental regulation in financial inclusion is undeniable. Strict regulation might impede the financial inclusion agenda. For example, regulation on capital adequacy and supervisory rules may restrict the attractiveness of small deposits, loans and other financial products. The strict requirement for opening branches and ATMs would also limit financial inclusion in remote areas (Jorgan *et al.*, 2018). Asadov and Mogilevskii (2018) observed that government failure to understand market evolution leads to a reluctance to adopt new technology-based financial products in Tajikistan.

Despite the various studies on the determinants of financial inclusion in both Islamic and conventional literature, most of them were carried in other jurisdictions, looking from the perspectives of clients, or using secondary data. To the best of the authors' knowledge, none of the studies had favored to uncover the determinants of Islamic financial inclusion in Indonesia. The present study, therefore, undertakes to fill this gap by examining the determinants of Islamic financial inclusion in Indonesia using the analytic network process (ANP) approach.

### 3. Research methodology

The present study uses the ANP – a mathematic theory developed by Saaty in 1996 – as a new generation of analytic hierarchy process – to allow one variable to deal systematically with dependence and feedback, which can capture and combine tangible and intangible factors by using ratio scale (Saaty, 2005). ANP enables the researchers to examine complex interrelationships among decision levels and attributes. The ANP approach substitutes hierarchies with networks in which the relationship between levels is not easily reflected as higher or lower, dominated or being dominated, directly or indirectly (Lee, 2010). ANP network is constructed based on clusters comprising criteria and alternatives, commonly known as a node.

ANP assumes four relatively simple axioms (Saaty and Vargas, 2006):

- (1) A priority or weight, which is an absolute number, belongs to the closed interval  $[0, 1]$  and is a measure of relative dominance.
- (2) Reciprocal. This axiom requires that if PC (EA, EB) is a paired comparison of Elements A and B with respect to their parent, Element C, representing how many times more the Element A possesses a property than element B does, then PC (EB, EA) = 1/PC (EA, EB). For instance, if A is four times larger than B, then B is one-fourth as large as A.
- (3) Homogeneity exists, which is the motivation for the Saaty 1/2 evaluation scale whereby the upper limit of 9 on that scale is because of the requirement of homogeneity to maintain the stability of the eigenvector to perturbation from consistency, and to the requirement that only a small number of elements should be compared (see Table 2).
- (4) A dependence condition is assumed that the system can be decomposed into parts.

### 3.1 Analytic network process selection

ANP is selected in this study to discover the determinants of Islamic financial inclusion because it can provide a general framework for the decision-making process, which does not require any assumption on the independency variables in the higher level from variables in the lower level, and on the independent variables within the same level (Ascarya and Yumanita, 2006). The identification of financial inclusion determinants is part of the decision-making process, which helps the government decide on the most appropriate strategy for financial inclusion. Saaty and Vargas (2006) submitted that the ANP model does not encounter statistical problems such as multicollinearity, a common problem faced by an econometric model in the same process. The ANP model shares a similar conceptual foundation with traditional composite indicator methods, which also attempt to select indicators across a broad spectrum of economic processes.

As for its primary function, ANP provides decision-making, a feature that allows a manager and stakeholder to arrive at an appropriate decision through expert opinion. Many existing problems in the banking industry cannot be solved through quantitative measures alone. Certain problems require a qualitative approach. There have been various studies that combined the two approaches. For example, Wankar *et al.* (2016a, 2016b) used a two-stage TOPSIS, neural networks approach and integrated multi-criteria decision-making (MCDM) approaches to predict the efficiency of Islamic banks. ANP is part of the analytical tool for MCDM approach. A study by Rusydiana and Devi (2013) applied ANP in their investigation on the challenges facing *Baitul Maal wat Tamwil* in Indonesia.

Besides, the researchers found out that most existing literature on financial inclusion applied the parametric statistical approach, using either primary or secondary data. It is argued that the parametric approach is less accurate in the decision-making process. ANP is an expert-based methodology that helps understand complex issues and offer more objective decision-making. Rezaei *et al.* (2012) claimed that expert-based academic research is a valid alternative methodology to arrive at a more objective finding.

### 3.2 Data

The ANP model applies primary data through several steps, namely, model decomposition through literature review and focus group discussion (FGD); model quantification via pairwise questionnaire; and synthesis and analysis. The initial variables were derived from financial inclusion literature, which is used to construct an ANP framework. The draft of the ANP framework was subsequently confirmed via FGD. The FGD respondents in this study are composed of the ten most knowledgeable personalities in the field of Islamic financial inclusion in Indonesia, representing three different groups of experts: practitioners, academics and regulators. Mishra (2016) and Dilshad and Latif (2013) recommended that the number of FGD participants and ANP respondents ranges from 10 to 12 and 6 to 12 participants, respectively.

The respondents from a group of practitioners were selected based on the following criteria:

- The expert has vast experience in the Islamic finance industry in Indonesia and deals directly with the financial inclusion agenda.
- The expert is equipped with in-depth knowledge and understanding of the theory and practice of Islamic financial inclusion.
- The expert from academics and regulators are prolific in publishing their research on financial inclusion and presenting their research findings in both local and international conferences.



Subsequently, the study selected 12 experts from three different clusters: four practitioners, four regulators and four academics to fill in a simplified ANP pair-wise comparison questionnaire. Table 1 depicts the expert respondent profiles in this study.

### 3.3 Research steps of analytic network process

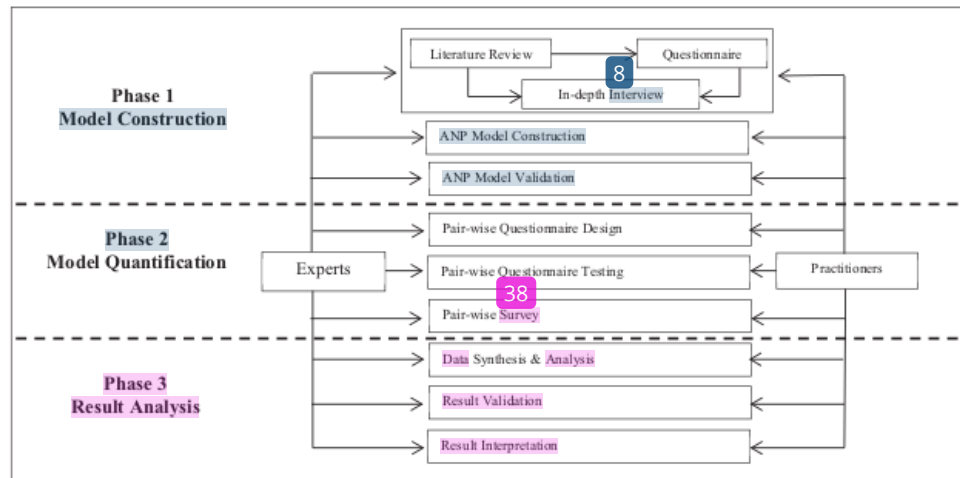
The ANP process in this research has three steps, namely, model construction, model quantification and result analysis. The steps of the ANP are illustrated in Figure 1.

**3.3.1 Model construction.** Model construction is the first phase in ANP. In this phase, the researchers conducted an FGD by inviting ten experts from various backgrounds. Based on the inputs from the FGD, the study develops an ANP framework on the determinants of Islamic financial inclusion from both the demand and the supply factors. The demand factors include socio-economic aspects, financial literacy, religious commitment and social influence. The supply factors are infrastructure; products and services; human capital; and policies and regulation. This ANP framework was subsequently validated by an expert who

No.	Name	Institution	Designation
<i>Expert respondents of focus group discussion (FGD)</i>			
1	RR	Lembaga Penjamin Simpanan (LPS)	Lead Specialist, International Affairs
2	ITS	Bogor Agricultural University (IPB)	Lecturer
3	IA	Bank Muamalat Indonesia	Board of Director
4	AS	Bank Indonesia Institute	Researcher
5	ES	Otoritas Jasa Keuangan (OJK)	Deputi Komisioner Pengawas Industri Keuangan Nonbank (IKNB) Otoritas Jasa Keuangan (OJK)
6	AAA	Bank Indonesia Institute	Senior Researcher
7	EF	Paramadina Islamic Management Institute	Lecturer
8	DA	Bursa Efek Indonesia (BEI)	Market Development Unit, Indonesia Stock Exchange
9	RM	BTPN Syariah	Compliance Head, BTPN Syariah
10	HH	BTPN Syariah	Business Development Head, BTPN Syariah
<i>Expert respondents of ANP pair-wise comparison questionnaire</i>			
1	RR	Lembaga Penjamin Simpanan (LPS)	Lead Specialist, International Affairs
2	AAA	Bank Indonesia Institute	Regulator (Researcher)
3	ES	Otoritas Jasa Keuangan (OJK)	Regulator [Deputi Komisioner Pengawas Industri Keuangan Nonbank (IKNB) Otoritas Jasa Keuangan (OJK)]
4	DA	Bursa Efek Indonesia (BEI)	Regulator (Market Development Unit, Indonesia Stock Exchange)
5	HH	BTPN Syariah	Practitioner (Business Development Head, BTPN Syariah)
6	AH	BPRS Amanah Ummah	Practitioner (Marketing Director)
7	SA	MNC Sekuritas	Practitioner (Manager)
8	SW	BMT Sidogiri	Director of Marketing
9	ITS	Bogor Agricultural University (IPB)	Academics (Lecturer)
10	LT	STEI Tazkia	Academics (Lecturer)
11	EF	Paramadina Islamic Management Institute	Academics (Lecturer)
12	HT	Ibn Khaldun University	Academics (Lecturer)

**Table 1.**  
ANP respondent  
profile





**Figure 1.**  
Steps of ANP

Source: Ascarya (2013)

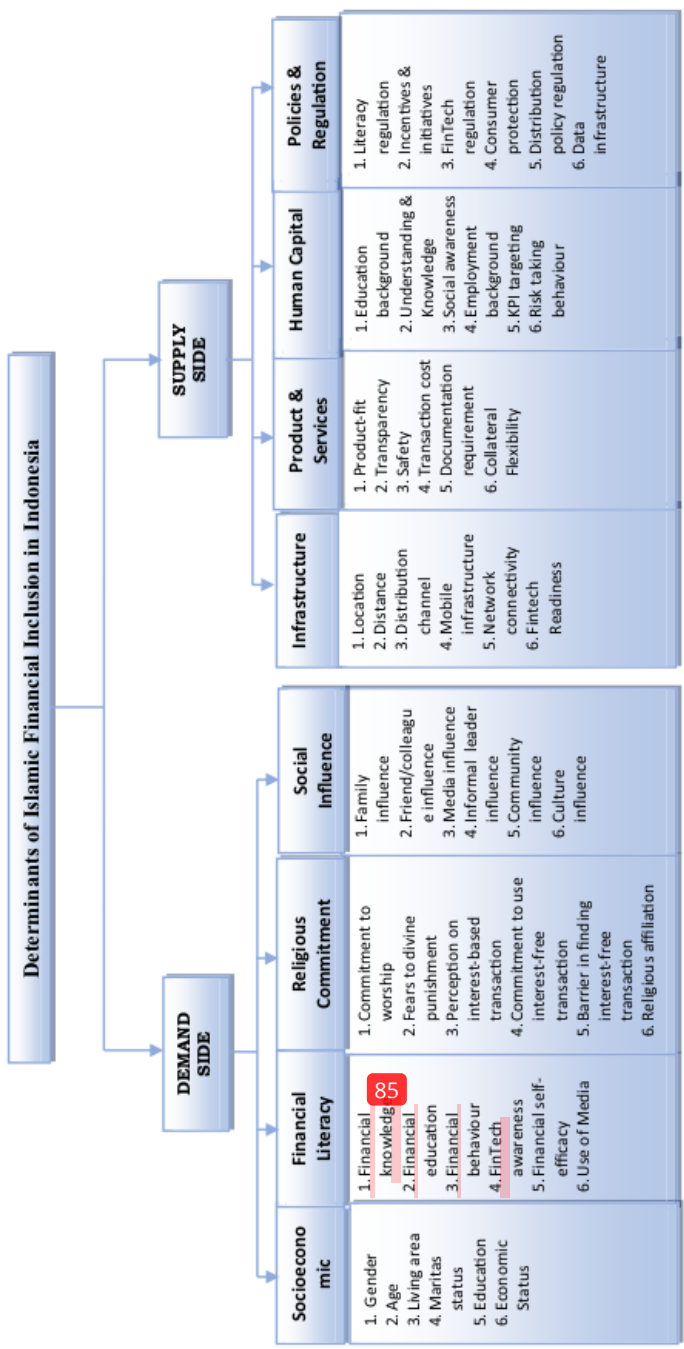
is deemed the most knowledgeable respondent among the peers. Figure 2 shows the ANP framework.

Based on the ANP framework above, the ANP network on the determinants of Islamic financial inclusion is constructed (Figure 3).

**3.3.2 Model quantification.** Phase 2 in the ANP model is to quantify and measure the ANP network. In this phase, pair-wise questionnaires are computed using the “Super Decisions Software” based on the established ANP framework. The questionnaire experiment is carried out to ensure that the questionnaire is filled and responded to within a tolerable inconsistency. Modifications on the questionnaire may be made to obtain the appropriate data. From the theoretical perspective, ANP adopts a *supermatrix* calculation to obtain the *eigenvector* result. The eigenvector is derived from the matrix and supermatrix calculation based on reciprocal theory from one to nine fundamental scale as in Table 2.

**3.3.3 Result analysis.** Phase 3 presents the results and synthesis of the ANP network. The data are subsequently exported to Excel worksheet to produce the expected outputs. Afterwards, a geometric mean/average of all responses was calculated and re-synthesized to produce a scientific “consensus” result analysis. Subsequently, Kendall’s coefficient of concordance or Kendall’s  $W$  is computed to determine the level of agreements among raters or respondents. The interpretation of detailed (individual) and overall (geometric mean) results is presented and used in formulating conclusions and policy recommendations. Kendall’s coefficient of concordance is identified when  $(W; 0 < W \leq 1)$ , whereby  $W = 1$  shows a perfect agreement among respondents. If the value of  $W = 0$ , it signifies a perfect disagreement among respondents, and their responses are regarded as ignorantly random. An intermediate value  $0 < W < 1$  means a greater or lesser degree of agreement among raters or respondents. A higher value indicates a higher level of agreement.

Legendre (2005) provided the calculation for Kendall’s ( $W$ ) coefficient based on the following assumption: suppose that object  $i$  is given the rank  $r_{i,j}$  by judge number  $j$ , where there are in total  $n$  objects and  $m$  judges, then the total rank given to object  $i$  is:



Islamic financial inclusion determinants

Figure 2. ANP framework

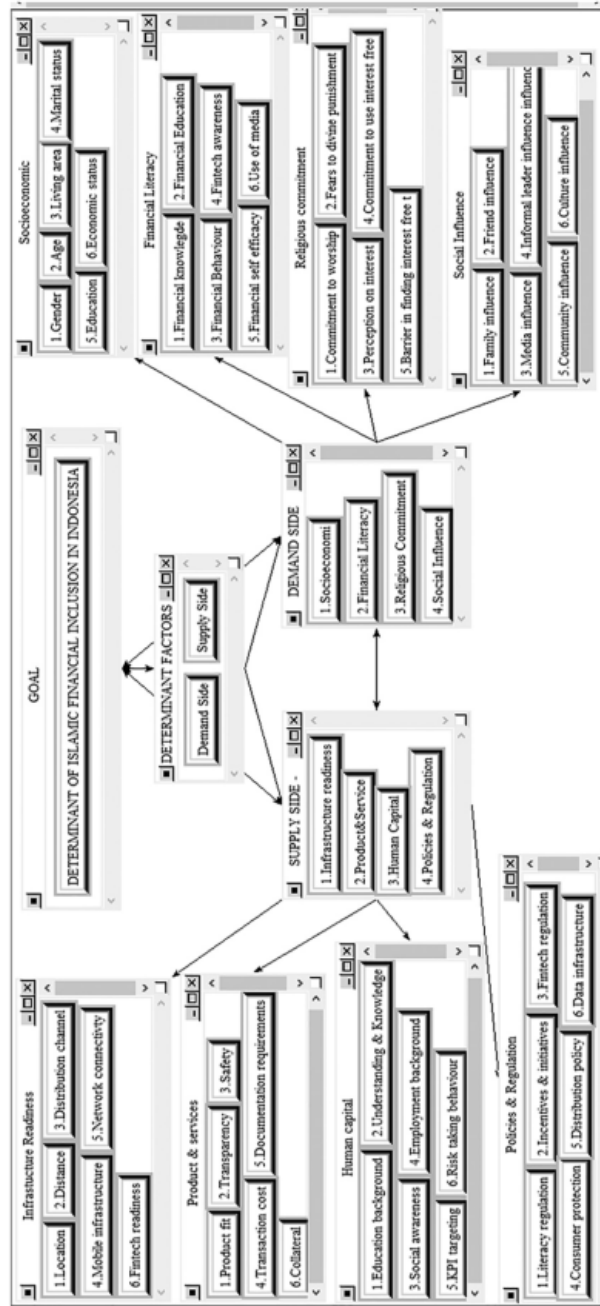


Figure 3.  
ANP network of  
Islamic financial  
inclusion

$$R_i = \frac{1}{m} \sum_j r_{i,j} \quad (3.1)$$

When the mean from total ranking is:

$$R = \frac{1}{2} m(n + 1) \quad (3.2)$$

The sum of deviation quadratic (S) is calculated by the following formula:

$$S = \sum_i (R_i - R)^2 \quad (3.3)$$

and then, Kendall's W is defined as:

$$W = \frac{12S}{m^2(n^3 - n)} \quad (3.4)$$

where W is the Kendall's coefficient, n is total objects, m is total judges and s is the sum of quadratic deviation.

#### 4. Findings

The overall ANP result shows that the determinants of Islamic financial inclusion from the demand side, based on the level of their significance, are financial literacy, followed by religious commitment, socioeconomic factor and social influence, with a relatively insignificant value of rater agreement ( $W = 0.026$ ). This signifies that all respondents from three different groups of expert have relatively divergent views on the priority of demand factors (see Figure 4).

Based on the detailed priority of each sub-clusters of demand factors, the overall ANP result found that the two most important determinants of Islamic finance inclusion under the financial literacy cluster are financial knowledge and financial behavior. The rater agreement under this cluster is relatively low at 0.27, which signifies a high level of divergence among the respondents (see Figure 5).

Concomitantly, Figure 5 explains that the two most significant elements of religious commitment are fear of divine punishment and a commitment toward interest-free products. Meanwhile, the influence of an informal leader and family influence are the two most important determinants under the social influence cluster. All groups of respondents show a relatively convergent view on the importance of informal leader influence with a W value at 0.34.

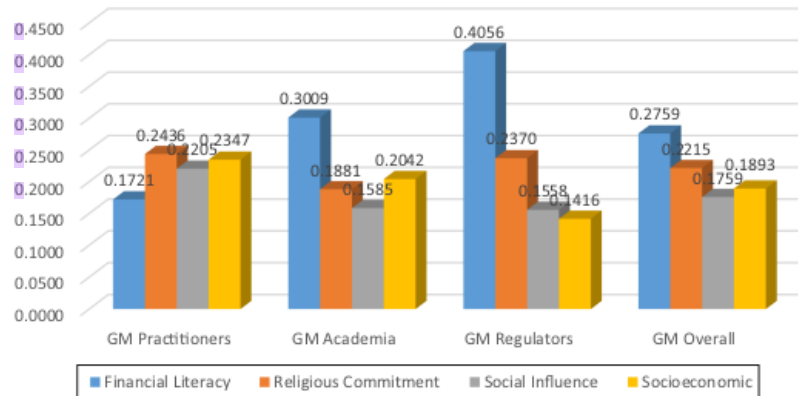
1	Equal importance
3	Moderate importance of one over another
5	Strong or essential importance
7	Very strong or demonstrated importance
9	Extreme importance
1/2, 1/3, 1/5, 1/7, 1/9	Intermediate values
1/2, 1/3, 1/5, 1/7, 1/9	Use reciprocals for inverse comparisons

Source: Saaty (2007)

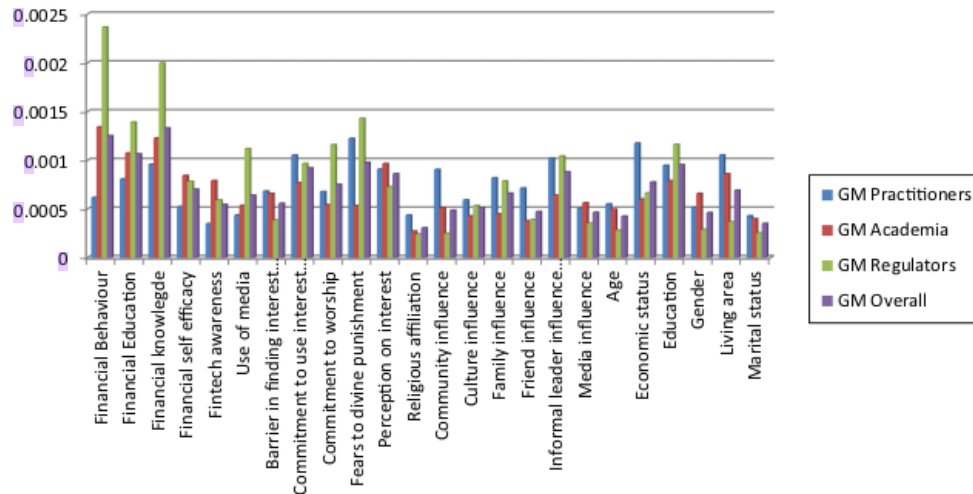
Table 2.  
Fundamental scale



**Figure 4.** General demand determinants of Islamic financial inclusion



**Figure 5.** Geometric mean subclusters of demand determinants of Islamic financial inclusion



Additionally, Figure 5 illustrates the significance of the socioeconomic cluster, in which education and economic status are the top two priorities. The rater agreement on this shows a significant value of 0.30.

90 On the supply factors, the detailed ANP results established that human capital and products and services are the two main factors of Islamic financial inclusion, with a low rater agreement ( $W = 0.17$ ) (Figure 6).

The priority of each sub-clusters within the supply factors is provided to have a more detailed framework on the Islamic financial inclusion determinants in Indonesia (see Figure 7). For the human capital cluster, the ANP analysis discovered that the overall respondents are unanimous in considering understanding and knowledge and educational background as the two most important factors of Islamic financial inclusion, with a  $W$  value of 0.20. As for the products services cluster, most respondents agree that security and transaction costs are the two most critical determinants of Islamic financial inclusion. The overall rater agreement shows a relatively insignificant value ( $W = 0.18$ ).

Figure 7 presents the ANP analysis on infrastructure cluster: distribution channel takes the highest priority, whereas fintech readiness is the least priority. Nevertheless, the *W* value under this cluster shows a relatively low rater agreement (0.26).

Additionally, Figure 7 also illustrates information about the policies and regulation cluster: incentives and initiatives take the highest priority, whereas fintech regulation indicates the least priority. The rater agreement shows a relatively moderate *W* value of 0.33.

5. Discussion

Based on the ANP results, the study discovered that Islamic financial inclusion in Indonesia is determined by two main drivers, namely, demand and supply. On the demand side, financial literacy is the key driver of Islamic financial inclusion. A plethora of empirical literature confirmed that literacy is a perfect predictor for the demand for financial products and services (Rastogi and Ragabiruntha, 2018; Cohen and Nelson, 2011; Cui et al., 2009). Bassir et al. (2014) argued that the level of knowledge and religiosity affects the usage of Islamic financial products and services among Muslims. Financially literate people can

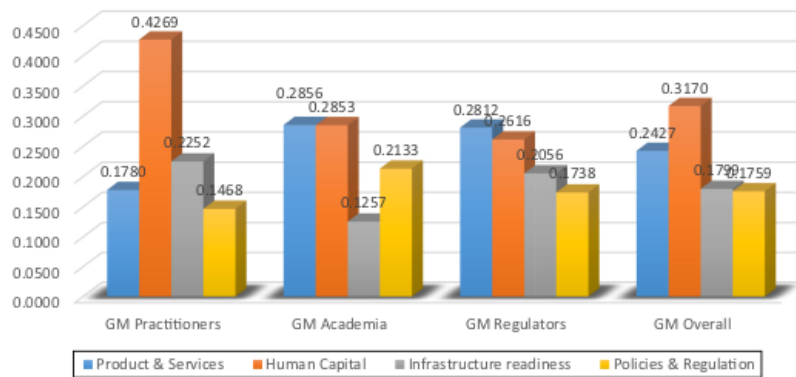


Figure 6. General supply determinants of Islamic financial inclusion

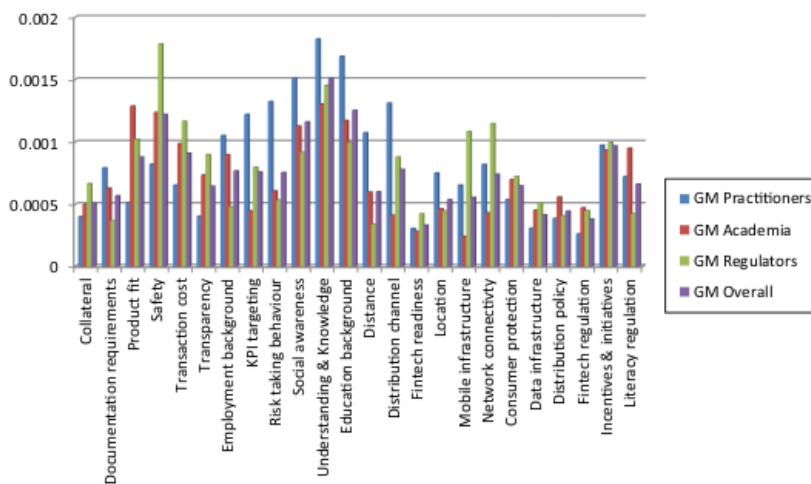


Figure 7. Geometric mean subclusters of supply-side determinant for Islamic financial inclusion

understand the benefit of financial products, and they are more well-informed to make any financial decision (63) *et al.*, 2018). Likewise, Ramakrishnan (2012) concluded that Islamic financial literacy is the most important solution to (72) courage people to participate in the Islamic financial system. In this regard, Hussain *et al.* (2018) suggested the inclusion of financial literacy lessons in the school curricula. Kimutai (2015) recommended several actions to help the government improve financial literacy, namely, improving financial education, providing regular information update on financing, setting up more seminars and workshops, boosting media campaign and improving access to the internet.

(61) Religious commitment provides a significant contribution to Islamic financial inclusion. This finding is consistent (101) with previous studies (Guiso *et al.*, 2002; Barro and Mitchell, 2004; Gerrans *et al.*, 2009; Khan and Khanna, 2010; Demirgüç-Kunt and Klapper, 2012a, 2012b; Echchabi and Aziz, 2012; Naceur *et al.*, 2017; Zulkhibri, 2016; Hassan *et al.*, 2018). Jouti (2018) concluded that *Shariah*-compliance is the primary catalyst for unbanked religious people to adopt Islamic financial products. Muslims in Indonesia are generally religious; the Pew Research Center Surveys in 2017 found that 93% of Indonesian Muslims consider religion as very important and a way of life, whereas 84% of them (77) perform daily prayers (Lipka, 2017). Nevertheless, other factors also contributed to the problem of financial exclusion in Indonesia, such as the absence of need, location barrier, complicated administrative procedures, lack of required documents and incompatible price/product features.

Surprisingly, socioeconomic factors and social influence assume less significant influences on Islamic financial inclusion in Indonesia. (106) finding conflicts with previous literature arguing (7) that socioeconomic factors provide a considerable positive influence on financial inclusion (Allen *et al.*, 2012; Clamara *et al.*, 2014; Naceur *et al.*, 2017; Zins and Weill, 2016; Wang and Guan, 2017).

(108) Looking from the variables of each cluster, financial knowledge and financial behavior are the two priorities of financial literacy, whereas fear of divine punishment and a commitment to using interest-free products are the two top priorities under the religious commitment cluster. On the other hand, the priorities of the socioeconomic cluster are education and economic status. This finding confirms previous studies, arguing that education (7) and income correspond positively to financial inclusion (Abel *et al.*, 2018; Kimutai, 2015; Allen *et al.*, 2012; Clamara *et al.*, 2014; Naceur *et al.*, 2017; Zins and Weill, 2016). People who have a higher level of education are more likely to be financially included. This is because of the advantages of making informed decisions that will improve access to financial instruments. Similarly, the more people earn, the more likely they are to be financially included. This is, perhaps, because of their higher financial capability and exposure to formal banking transactions.

Finally, an informal (109) leader and family influences serve the two top priorities of the (50) social influence cluster. These results are consistent with the finding of previous literature such as Fox *et al.* (2000), Shim *et al.* (2010) and Xia (71) *et al.* (2007). The role of an informal leader has also been discussed by Pescosolido (2001), Durham *et al.* (1997) and Wheelan and Johnston (1996). According to them, an informal leader assumes the greatest influence on people's perceptions, beliefs and expectations. Nienhaus and Brauksiepe (1997), on the other hand, added shared altruistic values as essential characteristics for community members to participate in financial institutions in Bangladesh. Accordingly, almost all informal leaders are established through the community (102) (both formal and informal communities).

Moving to the supply side, human capital is the most important determinant of Islamic financial inclusion. This finding confirms previous studies (Loo, 2010; Buchari *et al.*, 2015), arguing that social awareness and attitudes are essential key performance indicators in evaluating the competitiveness of IFI employees. Kimutai (2015) explained that a banking



agent must offer outstanding service quality for all segments of customers. Having knowledge-based work management and competent human capital is imperative in the industrial sector, particularly the IFI. Bontis (1998) argued that human resources are part of a structural capital, which has a function to create, acquire and use consumer capital for the success of an organization. Namasivayam and Denizci (2006) discovered the important role of human capital in designing, developing and maintaining the organization. Thus, the lack of human capital and high financial illiteracy might prevent many people from benefitting financial services (Arora, 2012).

Besides, products and services also provide a significant influence on the level of Islamic financial inclusion. For obvious reasons, the features offered by the products and services would highly determine an individual's decision to participate in financial institutions. In line with this, the respondents suggested that Islamic financial products should ensure the following features: safe and secure, affordable, tailored, better collateral flexibility and more straightforward documentation requirements. This finding is consistent with previous studies (Beck *et al.*, 2008; Allen *et al.*, 2012; Purba and Purwanti, 2016; World Bank, 2017), citing cost variables, product design and sophisticated documentation as significant barriers to financial inclusion.

Interestingly, the study also revealed that infrastructure, as well as policies and regulations, are less significant factors in Islamic financial inclusion. This finding is in contrast with previous studies that emphasized the vital role of infrastructure and regulation in financial inclusion (Allen *et al.*, 2012; Kimutai, 2015; Zins and Weill, 2016; Umar, 2017; Abel *et al.*, 2018; Morgan *et al.*, 2018; Asadov and Mogilevskii, 2018).

Concerning the variables of each cluster under the supply factor, understanding and knowledge, and educational background are the two main determinants under the human capital cluster. Security and transaction costs are the two top priorities in the product and services cluster. Distribution channels and network connectivity are the two main priorities in the infrastructure cluster. Finally, incentives and initiatives, and literacy regulation are the two most essential elements in the policies and regulation cluster. In this regard, it is concluded that appropriate incentives are imperative to facilitate easy and affordable financial access to the low-income segment. For example, the low-income segment needs to be exempted from the purview of PMK (Peraturan Menteri Keuangan – Regulation of Finance Minister) No. 137/PMK.03/2011 on Taxation for Islamic Banks in Indonesia.

## 6. Conclusion and policy recommendation

In its investigation on the determinants of Islamic financial inclusion in Indonesia, this study found that the Islamic financial inclusion in Indonesia is dependent on both the demand side and supply side. The determinants of Islamic financial inclusion from the demand side, based on their level of significance, are financial literacy (0.2759), religious commitment (0.2215), socioeconomy (0.1893) and social influence (0.1759). Second, the determinants of Islamic financial inclusion from the supply side, ranked based on their level of significance, are human capital (0.3170), product and services (0.2427), infrastructure readiness (0.1799) and policies and regulation (0.1759).

The study, therefore, proposes that the Islamic financial inclusion agenda should focus on enhancing financial literacy, human capital and products and services. In this regard, the Indonesian government has a significant role in instilling Islamic financial literacy, particularly in its Muslim-majority regions. Islamic finance modules should, therefore, be one of the main components in the national education curriculum. Additionally, regulators are advised to revisit the PMK No. 137/PMK.03/2011 as to create level-playing field to the low-income segment.



---

## IMEFM

---

The study also recommends the following to IFIs:

- to develop a systematic approach and strategy to enhance financial knowledge and literacy of low-income segments by actively engaging informal religious leaders and introducing sustainable community-based education programs;
- to enhance their products and services compatibility by offering a more straightforward procedure and documentation requirements; affordable price; proactive services; collateral flexibility; PLS-based product; and subsidized products;
- to strengthen human capital competencies and skills of IFIs via training and education, capacity building, social awareness programs and risk culture creation programs; and
- to improve IFIs' infrastructure by unlocking/reaching more remote areas; widening network connectivity; and leveraging on fintech and mobile connectivity.

### Note

80

1. POJK refers to [Peraturan Otoritas Jasa Keuangan – Financial Services Authority Regulations](#).

### References

- Abel, S., Mutandwa, L. and Roux, P.L. (2018), "A review of determinants of financial inclusion", *International Journal of Economics and Financial Issues*, Vol. 8 No. 3, pp. 1-8.
- Ahamed, M.M. and Mallick, S.K. (2019), "Is financial inclusion good for bank stability? International evidence", *Journal of Economic Behavior and Organization*, Vol. 157, pp. 403-427.
- Ahmed, H. and Salleh, A. (2016), "Inclusive Islamic financial planning: a conceptual framework", *International Journal of Islamic and Middle Eastern Finance and Management*, Vol. 9 No. 2, pp. 170-189.
- Ajzen, I. (1991), "The theory of planned behavior", *Organizational Behavior and Human Decision Processes*, Vol. 50 No. 2, pp. 179-211.
- Allen, F., Demirgüç-Kunt, A., Klapper, L. and Peria, M.M. (2012), "Foundations of financial inclusion", Policy Research Working Paper, 6290.
- Amin, K. and Aman, Q. (2016), "Determinants of attitude towards the acceptance of Islamic banking: a case of district Peshawar, Pakistan", *Journal of Managerial Sciences*, Vol. 10 No. 1, pp. 140-155.
- Aportela, F. (1999), "Effects of financial access on savings by low-income people", Banco de México. Research Department.
- Arora, R.U. (2012), "Financial inclusion and human capital in developing Asia: the Australian connection", *Third World Quarterly*, Vol. 33 No. 1, pp. 177-197.
- Asadov, S. and Mogilevskii, R. (2018), Financial inclusion, regulation, financial literacy, and financial education in Tajikistan, ADBI Working Paper 847, Asian Development Bank Institute, Tokyo, available at: [www.adb.org/publications/financial-inclusion-regulation-literacyeducation-tajikistan](http://www.adb.org/publications/financial-inclusion-regulation-literacyeducation-tajikistan)
- Ascarya and Yumanita, D. (2006), "The lack of profit and loss sharing financing in Indonesian Islamic banks: problems and alternative solutions", *Paper presented at "INCEIF Islamic Banking and Finance Educational Colloquium: Creating Sustainable Development of Human Capital and Knowledge in Islamic Finance through Education"*, KLCC, Kuala Lumpur, Malaysia, 3-5 April.
- Ascarya (2013), "The root causes of financial crisis in Islamic economic perspective using structural equation modeling", Paper presented at "10th International Conference on Tawhidi and World-System: God Conscious Organization and Conscious Social Order", Organized by IIH-UKM, RCIEF-FEM-UKM, and IEF Trisakti, University of Indonesia, Kuala Lumpur, 27-28 December, 2013.

- Ashraf, N., Aycinena, D., Martinez, C. and Yang, D. (2011), "Remittances and the problem of control: a field experiment among migrants from El Salvador", Working Paper.
- Asian Development Bank (2016), *Financial Inclusion in Indonesia: Summary Sector Assessment*, ADB, Manila.
- Bandura, A. (1997), "The anatomy of stages of change", *American Journal of Health Promotion*, Vol. 12 No. 1, pp. 8-10.
- Barro, R. and Mitchell, J. (2004), *Religious Faith and Economic Growth: What Matters Most – Belief or Belonging?*, Heritage Foundation, Washington, DC.
- Bassir, N.F., Zakaria, Z., Hasan, H.A. and Alfian, E. (2014), "Factors influencing the adoption of Islamic home financing in Malaysia", *Transformations in Business and Economics*, Vol. 13 No. 1, p. 31.
- Beck, T., Kunt, A.D. and Peria, M.S.M. (2008), "Banking services for everyone? Barriers to bank access and use around the world", *The World Bank Economic Review*, Vol. 22 No. 3, pp. 397-430.
- Beck, T., Livine, R. and Loayza, N. (2000), "Finance and the sources of growth", *Journal of Financial Economics*, Vol. 58 Nos 1/2, pp. 261-300.
- Bontis, N. (1998), "Intellectual capital: an exploratory study that develops measures and models", *Management Decision*, Vol. 36 No. 2, pp. 63-76.
- Buchari, I., Rafiki, A. and Al Qassab, M.A.H. (2015), "Awareness and attitudes of employees towards Islamic banking products in Bahrain", *Procedia Economics and Finance*, Vol. 30, pp. 68-78.
- Chibba, M. (2009), "Financial inclusion, poverty reduction and the millennium development goals", *The European Journal of Development Research*, Vol. 21 No. 2, pp. 213-230.
- Chikalipah, S. (2017), "What determines financial inclusion in Sub-Saharan Africa?", *African Journal of Economic and Management Studies*, Vol. 8 No. 1, pp. 8-18.
- Clamara, N., Pena, X. and Tuesta, D. (2014), "Factors that matter for financial inclusion: evidence from Peru", BBVA Research Working Paper No. 14/09.
- Cohen, M. and Nelson, C. (2011), "Financial literacy: a step for clients towards financial inclusion: evidence from Peru", *Global Microcredit Summit*, pp. 14-17.
- Demirgüç-Kunt, A., Beck, T. and Honahan, P. (2008), *Finance for All – Policies and Pitfalls in Expanding Access*, The World Bank, Washington, DC.
- Demirgüç-Kunt, A. and Klapper, L. (2012a), "Financial inclusion in Africa", Policy Research Working Paper. The World Bank Development Research Group Finance and Private Sector Development Team, pp. 1-18.
- Demirgüç-Kunt, A. and Klapper, L. (2012b), "Measuring financial inclusion: the global finindex database", Policy Research Working Paper. The World Bank Development Research Group. Finance and Private Sector Development Team, April 2012.
- Demirgüç-Kunt, A. and Klapper, L. (2013), "Measuring financial inclusion: explaining variation in use of financial services across and within countries", *Brookings Papers on Economic Activity*, Vol. 2013 No. 1, pp. 279-340.
- Demirgüç-Kunt, A., Klapper, L., Singer, D. and Van Oudheusden, P. (2015), "Measuring financial inclusion around the world", Policy Research Working Paper, WPS7255. World Bank, Washington, DC.
- Demirgüç-Kunt, A., Klapper, L. and Randall, D. (2013), "Islamic finance and financial inclusion: measuring use of and demand for formal financial services among Muslim adults", The World Bank.
- Demirgüç-Kunt, A., Klapper, L., Singer, D., Ansar, S. and Hess, J. (2018), "The Global Finindex Database 2017: measuring financial inclusion and the fintech revolution", The World Bank.
- Dilshad, R.M. and Latif, M.I. (2013), "Focus group interview as a tool for qualitative research: an analysis", *Pakistan Journal of Social Science (PJSS)*, Vol. 33 No. 1, pp. 191-198.

- Dupas, P. and Robinson, J. (2013), "Savings constraints and microenterprise development: evidence from a field experiment in Kenya", *American Economic Journal: Applied Economics*, Vol. 5 No. 1, pp. 163-192.
- Durham, C.C., Knight, D. and Locke, E.A. (1997), "Effects of leader role, team-set goal difficulty, efficacy, and tactics on team effectiveness", *Organizational Behavior and Human Decision Processes*, Vol. 72 No. 2, pp. 203-231.
- Dusuki, A.W., Ali, M.M. and Hussain, L. (2012), "A framework for Islamic financial institutions to deal with Shari'ah Non-Compliant Transactions", ISRA.
- Echchabi, A. (2012), "The relationship between religiosity and customers' adoption of Islamic banking services in Morocco", *Oman Chapter of Arabian Journal of Business and Management Review*, Vol. 1 No. 10, pp. 1-6.
- Echchabi, A. and Aziz, H.A. (2012), "Empirical investigation of customers' perception and adoption towards Islamic banking services in Morocco", *Middle-East Journal of Scientific Research*, Vol. 12 No. 6, pp. 849-858.
- Echchabi, A. and Azouzi, D. (2015), "Predicting customers' adoption of Islamic banking services in Tunisia: a decomposed theory of planned behaviour approach", *Tazkia Islamic Finance and Business Review*, Vol. 9 No. 1.
- Evans, O. (2016), Determinants of financial inclusion in Africa: a dynamic panel data approach, MPRA Paper 81326, University Library of Munich, Germany.
- Financial Services Authority (2017), "Survei nasional literasi dan inklusi keuangan 2016", available at: [www.ojk.go.id/d/berita-dan-kegiatan/siaranpers/Documents/Pages/Siaran-Pers-OJK-Indeks-Literasi-dan-Inklusi-Keuangan-Meningkat/buku%20statistik\\_172911.pdf](http://www.ojk.go.id/d/berita-dan-kegiatan/siaranpers/Documents/Pages/Siaran-Pers-OJK-Indeks-Literasi-dan-Inklusi-Keuangan-Meningkat/buku%20statistik_172911.pdf) (accessed 12 April 2020).
- Fox, S.E., Levitt, P. and Nelson, C.A. III (2000), "How the timing and quality of early experiences influence the development of brain architecture", *Child Development*, Vol. 81 No. 1, pp. 28-40.
- Gerrans, P., Clark-Murphy, M. and Truscott, K. (2009), "Financial literacy and superannuation awareness of indigenous Australians: pilot study results", *Australian Journal of Social Issues*, Vol. 44 No. 4, pp. 417-439.
- Grandolini, G.M. (2015), "Five challenges prevent financial access for people in developing countries", The World Bank IBRD-IDA, retrieved 20 March, 2017.
- Guiso, L., Haliassos, M. and Jappelli, T. (Eds) (2002), *Household Portfolios*, MIT press.
- Hassan, M.K., Hossein, S. and Unsal, O. (2018), "Religious preference and financial inclusion: the case for Islamic finance", in Kabir Hassan, M. and Rashid, M. (Eds), *Management of Islamic Finance: Principle, Practice, and Performance*, (*International Finance Review*), Emerald Publishing Limited, Vol. 19, pp. 93-111.
- Hussain, J., Salia, S. and Karim, A. (2018), "Is knowledge that powerful? Financial literacy and access to finance: an analysis of enterprises in the UK", *Journal of Small Business and Enterprise Development*, Vol. 25 No. 6, pp. 985-1003.
- International Monetary Fund (2018), "IMF executive board adopts decisions to formally recognize the core principles for Islamic finance regulation (CPIFR) for banking", Press Release Nos 18/193, available at: [www.imf.org/en/News/Articles/2018/05/24/pr18193imf-adopts-decisions-to-the-cpifr-for-banking](http://www.imf.org/en/News/Articles/2018/05/24/pr18193imf-adopts-decisions-to-the-cpifr-for-banking) (accessed 11 April 2020).
- Islamic Cooperation for the Development of the Private Sector (2019), "ICR – definitive Islamic finance development indicator", available at: [https://icd-ps.org/uploads/files/IFDI%202019%20DEF%20digital1574605094\\_7214.pdf](https://icd-ps.org/uploads/files/IFDI%202019%20DEF%20digital1574605094_7214.pdf) (accessed 12 April 2020)
- Izhar, H. (2012), "Modelling operational risk measurement in Islamic banking: a theoretical and empirical investigation", Durham theses, Durham University, available at Durham E-Theses Online: <http://etheses.dur.ac.uk/4471/>
- Jaffar, M.A. and Musa, R. (2016), "Determinants of attitude and intention towards Islamic financing adoption among non-users", *Procedia Economics and Finance*, Vol. 37 No. 16, pp. 227-233.



- Jouti, A.T. (2018), "Islamic finance: financial inclusion or migration?", *ISRA International Journal of Islamic Finance*, Vol. 10 No. 2, pp. 277-288.
- Kermani, M. and Afandi, E. (2014), "What prevents firms from access to finance? A case study of OIC countries", *Journal of Economic Cooperation and Development*, Vol. 35 No. 1, pp. 103-132.
- Khan, A.K. and Khanna, T. (2010), *Is Faith a Luxury for the Rich? Examining the Influence of Religious Beliefs on Individual Financial Choices*, Harvard Business School.
- Khattak, N.A. (2010), "Customer satisfaction and awareness of Islamic banking system in Pakistan", *African Journal of Business Management*, Vol. 4 No. 5, p. 662.
- Kimutai, B.J. (2015), "Factors influencing financial inclusion in rural Kenya: a case study of Kenya commercial bank agent outlets in Marakwet west sub county", Unpublished PhD, thesis, University of Nairobi, Department of Extra Mural Studies, Nairobi, pp. 1-8.
- Kostov, P., Arun, T. and Annim, A. (2015), "Access to financial services: the case of the 'Mzansi' account in South Africa", *Review of Development Finance*, Vol. 5 No. 1, pp. 34-42.
- Lee, M. (2010), "The analytic hierarchy and the network process in multicriteria decision making: performance evaluation and selecting key performance indicators based on ANP model", *Convergence and Hybrid Information Technologies*, INTECH, Croatia.
- Legendre, P. (2005), "Species associations: the Kendall coefficient of concordance revisited", *Journal of Agricultural, Biological, and Environmental Statistics*, Vol. 10 No. 2, p. 226.
- Levine, R. (2005), "Finance and growth: theory and evidence", in Aghion, P. and Durlauf, S.N. (Eds), *Handbook of Economic Growth*, Elsevier, The Netherlands, Vol. 1A, pp. 865-934.
- Li, T., Xu, X. and Sun, S. (2016), "Inclusive finance and economic growth", *Journal of Financial Services Research*, Vol. 4, pp. 1-16.
- Lipka, M. (2017), "Muslims and Islam: key findings in the US and around the world", Pew Research Center, p. 9.
- Loo, M. (2010), "Attitudes and perceptions towards Islamic banking among Muslims and non-Muslims in Malaysia: implications for marketing to baby boomers and x-generation", *International Journal of Arts and Sciences*, Vol. 3 No. 13, pp. 453-485.
- Maryam, S.Z., Mehmood, M.S. and Khaliq, C.A. (2019), "Factors influencing the community behavioral intention for adoption of Islamic banking", *International Journal of Islamic and Middle Eastern Finance and Management*, Vol. 12 No. 4.
- Mishra, L. (2016), "Focus group discussion in qualitative research", *Technolearn: An International Journal of Educational Technology*, Vol. 6 No. 1, pp. 1-5.
- Mohieldin, M., Iqbal, Z., Rostom, A. and Fu, X. (2011), "The role of Islamic finance in enhancing financial inclusion in Organization of Islamic Cooperation (OIC) countries", The World Bank.
- Morgan, P.J., Zhang, Y. and Kydyrbayev, D. (2018), "Overview of financial inclusion, regulation, financial literacy, and education in central Asia and South caucasus", ADBI Working Paper 878, Asian Development Bank Institute, Tokyo, available at: [www.adb.org/publications/financial-inclusion-regulation-literacy-education-centralasia-south-caucasus](http://www.adb.org/publications/financial-inclusion-regulation-literacy-education-centralasia-south-caucasus) (accessed 12 April 2020).
- Naceur, S.B., Barajas, A. and Massara, A. (2017), "Can Islamic banking increase financial inclusion?", *Handbook of Empirical Research on Islam and Economic Life*, Edward Elgar Publishing.
- Namasivayam, K. and Denizci, B. (2006), "Human capital in service organizations: identifying value drivers", *Journal of Intellectual Capital*, Vol. 7 No. 3, pp. 381-393.
- Nienhaus, V. and Brauksiepe, R. (1997), "Explaining the success of community and informal economies: shared altruistic values or effective social control?", *International Journal of Social Economics*, Vol. 24 No. 12, pp. 1422-1438.
- Pepinsky, T.B. (2013), "Development, social change, and Islamic finance in contemporary Indonesia", *World Development*, Vol. 41, pp. 157-167.



- 
- Pescosolido, A.T. (2001), "Informal leaders and the development of group efficacy", *Small Group Research*, Vol. 32 No. 1, pp. 74-93.
- Purba, M.F. and Purwanti, E.Y. (2016), "Analisis Keterkaitan Indeks Inklusi Keuangan Terhadap Kemiskinan dan Ketimpangan Pendapatan Jawa Tengah 2010-2014", Doctoral dissertation, Fakultas Ekonomika dan Bisnis.
- Ramakrishnan, D. (2012), "Financial literacy and financial inclusion", 13th Thinkers and Writers Forum, at Mumbai, India, 9 June, available at SSRN: <https://ssrn.com/abstract=2204173>
- Rammal, H.G. and Zurbruegg, R. (2007), "Awareness of Islamic banking products among Muslims: the case of Australia", *Journal of Financial Services Marketing*, Vol. 12 No. 1, pp. 65-74.
- Rastogi, S. and Ragabiruntha, E. (2018), "Financial inclusion and socioeconomic development: gaps and solution", *International Journal of Social Economics*, Vol. 45 No. 7, pp. 1122-1140.
- Reni, A. and Ahmad, N.H. (2016), "Application of theory reasoned action in intention to use Islamic banking in Indonesia", *Al-Iqtishad: Journal of Islamic Economics*, Vol. 8 No. 1, pp. 137-148.
- Rezaei, J., Ortt, R. and Scholten, V. (2012), "Measuring entrepreneurship: expert-based vs data based methodologies", *Expert Systems with Applications*, Vol. 39 No. 4, pp. 4063-4074.
- Rusydia, A.S. and Devi, A. (2013), "Challenges in developing baitul maal wat tamwil (BMT) in Indonesia using analytic network process (ANP)", *Business and Management Quarterly Review*, Vol. 4 No. 1, pp. 51-62.
- Saaty, T.L. (2005), "Theory and applications of the analytic network process: decision making with benefits, opportunities, costs, and risks", RWS publications.
- Saaty, T.L. (2007), "The analytic hierarchy and analytic network measurement processes: applications to decisions under risk", *European Journal of Pure and Applied Mathematics*, Vol. 1 No. 1, pp. 122-196.
- Saaty, T.L. and Vargas, L.G. (2006), *Decision Making with the Analytic Network Process: Economic, Political, Social and Technological Applications with Benefits, Opportunities, Costs and Risks*, Springer, University of Pittsburgh, Pittsburgh, PA.
- Saleem, M.A. (2016), "Predictors of customer loyalty in the Pakistani banking industry: a moderated-mediation study", *International Journal of Bank Marketing*, Vol. 34 No. 3, pp. 411-430.
- Salleh, A. (2015), "Integrating financial inclusion and saving motives into institutional zakat practices: a case study on Brunei", *International Journal of Islamic and Middle Eastern Finance and Management*, Vol. 8 No. 2, pp. 150-170.
- Shihadeh, F. (2018), "How individual's characteristics influence financial inclusion: evidence from MENAP", *International Journal of Islamic and Middle Eastern Finance and Management*, Vol. 11 No. 4, pp. 553-574.
- Shim, S., Barber, B.L., Card, N.A., Xiao, J.J. and Serido, J. (2010), "Financial socialization of first-year college students: the roles of parents, work, and education", *Journal of Youth and Adolescence*, Vol. 39 No. 12, pp. 1457-1470.
- Shinkafi, A.A., Yahaya, S. and Sani, T.A. (2019), "Realising financial inclusion in Islamic finance", *Journal of Islamic Marketing*, Vol. 11 No. 1, pp. 143-160.
- Soumaré, I., Tchana, F.T. and Kengne, T.M. (2016), "Analysis of the determinants of financial inclusion in central and West Africa", *Transnational Corporations Review*, Vol. 8 No. 4, pp. 231-249.
- Umar, A.I. (2017), "Index of syariah financial inclusion in Indonesia", *Buletin Ekonomi Moneter Dan Perbankan*, Vol. 20 No. 1, pp. 99-126.
- Wang, X. and Guan, J. (2017), "Financial inclusion: measurement, spatial effects and influencing factors", *Applied Economics*, Vol. 49 No. 18, pp. 1751-1762.
- Wang, Y. and Liu, S. (2016), "Education, human capital and economic growth: empirical research on 55 countries and regions (1960-2009)", *Theoretical Economics Letters*, Vol. 6 No. 2, pp. 347-355.

- Wanke, P., Azad, M.A.K. and Barros, C.P. (2016a), "Predicting efficiency in Malaysian Islamic banks: a two-stage TOPSIS and neural networks approach", *Research in International Business and Finance*, Vol. 36, pp. 485-498.
- Wanke, P., Azad, M.A.K., Barros, C.P. and Hassan, M.K. (2016b), "Predicting efficiency in Islamic banks: an integrated multicriteria decision making (MCDM) approach", *Journal of International Financial Markets, Institutions and Money*, Vol. 45, pp. 126-141.
- Wheelan, S.A. and Johnston, F. (1996), "The role of informal member leaders in a system containing formal leaders", *Small Group Research*, Vol. 27 No. 1, pp. 33-55.
- World Bank (2014), *Global Financial Development Report: Financial Inclusion*, The World Bank, Washington, DC.
- World Bank (2017), *Global Findex Database*, The World Bank, Washington, DC.
- Xiao, J.J., Tang, C., Serido, J. and Shim, S. (2007), "Antecedents and consequences of risky credit behavior among college students: application and extension of the theory of planned behavior", *Journal of Public Policy and Marketing*, Vol. 30 No. 2, pp. 239-245.
- Zhou, G., Gong, K., Luo, S. and Xu, G. (2018), "Inclusive finance, human capital and regional economic growth in China", *Sustainability*, Vol. 10 No. 4, p. 1194.
- Zins, A. and Weill, L. (2016), "The determinants of financial inclusion in Africa", *Review of Development Finance*, Vol. 6 No. 1, pp. 46-57.
- Zulhibri, M. (2016), "Financial inclusion, financial inclusion policy and Islamic finance", *Macroeconomics and Finance in Emerging Market Economies*, Vol. 9 No. 3, pp. 303-320.

**Corresponding author**

Mohammad Mahbubi Ali can be contacted at: [mahbubi@iais.org.my](mailto:mahbubi@iais.org.my)

---

For instructions on how to order reprints of this article, please visit our website:

[www.emeraldgrouppublishing.com/licensing/reprints.htm](http://www.emeraldgrouppublishing.com/licensing/reprints.htm)

Or contact us for further details: [permissions@emeraldinsight.com](mailto:permissions@emeraldinsight.com)

# mic\_Financial\_Inclusion\_Determinats\_in\_Indonesia\_-\_Published.pdf

## ORIGINALITY REPORT

23%

SIMILARITY INDEX

19%

INTERNET SOURCES

16%

PUBLICATIONS

0%

STUDENT PAPERS

## PRIMARY SOURCES

1	<a href="#">1library.net</a> Internet Source	1%
2	<a href="#">run.unl.pt</a> Internet Source	1%
3	<a href="#">media.neliti.com</a> Internet Source	1%
4	<a href="#">www.intechopen.com</a> Internet Source	1%
5	<a href="#">pure.tue.nl</a> Internet Source	1%
6	Akilu Aliyu Shinkafi, Sani Yahaya, Tijjani Alhaji Sani. "Realising financial inclusion in Islamic finance", Journal of Islamic Marketing, 2019 Publication	1%
7	<a href="#">academicjournals.org</a> Internet Source	<1%
8	<a href="#">islamicmarkets.com</a> Internet Source	<1%
9	<a href="#">www.seacen.org</a>	

Internet Source

<1 %

10

[www.econstor.eu](http://www.econstor.eu)

Internet Source

<1 %

11

[jibm.org](http://jibm.org)

Internet Source

<1 %

12

[ejournal.iain-tulungagung.ac.id](http://ejournal.iain-tulungagung.ac.id)

Internet Source

<1 %

13

Luqyan Tamanni, Indra Indra, Yaser Taufik Syamlan, Anita Priantina. "Islamic social finance and commercial finance: a marriage made in heaven?", *Journal of Islamic Accounting and Business Research*, 2022

Publication

<1 %

14

[repo.iainbatusangkar.ac.id](http://repo.iainbatusangkar.ac.id)

Internet Source

<1 %

15

[repository.essex.ac.uk](http://repository.essex.ac.uk)

Internet Source

<1 %

16

[repository.unair.ac.id](http://repository.unair.ac.id)

Internet Source

<1 %

17

[docksci.com](http://docksci.com)

Internet Source

<1 %

18

[docplayer.net](http://docplayer.net)

Internet Source

<1 %

19

[jabu.edu.ng](http://jabu.edu.ng)

Internet Source

<1 %



20	<a href="http://wikimili.com">wikimili.com</a> Internet Source	<1 %
21	<a href="http://cjed.hiroshima-u.ac.jp">cjed.hiroshima-u.ac.jp</a> Internet Source	<1 %
22	<a href="http://dspace.lu.lv">dspace.lu.lv</a> Internet Source	<1 %
23	<a href="http://repo.iain-padangsidimpuan.ac.id">repo.iain-padangsidimpuan.ac.id</a> Internet Source	<1 %
24	<a href="http://www.abacademies.org">www.abacademies.org</a> Internet Source	<1 %
25	<a href="http://www.republika.co.id">www.republika.co.id</a> Internet Source	<1 %
26	<a href="http://www.saaa.org.za">www.saaa.org.za</a> Internet Source	<1 %
27	Nur Hasnida Abd Rahman, Mohd Zaidi Md Zabri, Mohammad Mahbubi Ali. " Addressing the agricultural financing gap in Malaysia via Agricultural Financing Model: will Islamic banks go the extra mile? ", Agricultural Finance Review, 2021 Publication	<1 %
28	<a href="http://nrb.org.np">nrb.org.np</a> Internet Source	<1 %
29	Mallika Saha, Kumar Debasis Dutta. "Nexus of financial inclusion, competition, concentration and financial stability",	<1 %

# Competitiveness Review: An International Business Journal, 2020

Publication

---

30 Abul Kalam Azad, Kwek Kian-Teng, Muzalwana Abdul Talib. "Unveiling black-box of bank efficiency", International Journal of Islamic and Middle Eastern Finance and Management, 2017

Publication

<1 %

---

31 Maged Nasser, Naomie Salim, Hentabli Hamza, Faisal Saeed, Idris Rabiou. "Improved Deep Learning Based Method for Molecular Similarity Searching Using Stack of Deep Belief Networks", Molecules, 2020

Publication

<1 %

---

32 [www.coursehero.com](http://www.coursehero.com)

Internet Source

<1 %

---

33 Ak Md Hasnol Alwee Pg Md Salleh. "Integrating financial inclusion and saving motives into institutional zakat practices", International Journal of Islamic and Middle Eastern Finance and Management, 2015

Publication

<1 %

---

34 Issouf Soumaré, Fulbert Tchana Tchana, Thierry Martial Kengne. "Analysis of the determinants of financial inclusion in Central and West Africa", Transnational Corporations Review, 2016

Publication

<1 %

---

35	<a href="http://erepository.uonbi.ac.ke">erepository.uonbi.ac.ke</a> Internet Source	<1 %
36	Ascarya Ascarya, Muhamad Nadratuzzaman Hosen, Siti Rahmawati. "Designing simple productive waqf models for Indonesia", International Journal of Ethics and Systems, 2022 Publication	<1 %
37	Rahmawati, Hafiz Majdi Ab Rashid, Hairul Azlan Bin Annuar, Siti Alawiyah Siraj. "Chapter 5 Financial Inclusion Disclosure in Islamic Microfinance: The Case of Baitul Mal Wa Tamwil", Springer Science and Business Media LLC, 2020 Publication	<1 %
38	<a href="http://dakwah.unisnu.ac.id">dakwah.unisnu.ac.id</a> Internet Source	<1 %
39	<a href="http://jeed.sesric.org">jeed.sesric.org</a> Internet Source	<1 %
40	<a href="http://kar.kent.ac.uk">kar.kent.ac.uk</a> Internet Source	<1 %
41	<a href="http://psasir.upm.edu.my">psasir.upm.edu.my</a> Internet Source	<1 %
42	<a href="http://test.isra.my">test.isra.my</a> Internet Source	<1 %
43	<a href="http://upcommons.upc.edu">upcommons.upc.edu</a> Internet Source	<1 %

44	<a href="http://www.bb.org.bd">www.bb.org.bd</a> Internet Source	<1 %
45	"Enhancing Financial Inclusion through Islamic Finance, Volume I", Springer Science and Business Media LLC, 2020 Publication	<1 %
46	Hameedah Sayani, Hela Miniaoui. "Determinants of bank selection in the United Arab Emirates", International Journal of Bank Marketing, 2013 Publication	<1 %
47	Ibrahim Nandom Yakubu, Alhassan Musah. "The nexus between financial inclusion and bank profitability: a dynamic panel approach", Journal of Sustainable Finance & Investment, 2022 Publication	<1 %
48	<a href="http://cemla.org">cemla.org</a> Internet Source	<1 %
49	<a href="http://recherche.inseec.com">recherche.inseec.com</a> Internet Source	<1 %
50	<a href="http://www.cbsl.gov.lk">www.cbsl.gov.lk</a> Internet Source	<1 %
51	<a href="http://www.jurnal.ar-raniry.ac.id">www.jurnal.ar-raniry.ac.id</a> Internet Source	<1 %
52	FADI HASSAN SHIHADDEH. "INDIVIDUAL'S BEHAVIOR AND ACCESS TO FINANCE:	<1 %



# EVIDENCE FROM PALESTINE", The Singapore Economic Review, 2019

Publication

53

Habib Ahmed, Ak Md Hasnol Alwee Pg Md Salleh. "Inclusive Islamic financial planning: a conceptual framework", International Journal of Islamic and Middle Eastern Finance and Management, 2016

Publication

<1 %

54

Irfan Butt, Nisar Ahmad, Amjad Naveed, Zeeshan Ahmed. "Determinants of low adoption of Islamic banking in Pakistan", Journal of Islamic Marketing, 2018

Publication

<1 %

55

M. Mostak Ahamed, Sushanta K. Mallick. "Is financial inclusion good for bank stability? International evidence", Journal of Economic Behavior & Organization, 2017

Publication

<1 %

56

[cibng.org](http://cibng.org)  
Internet Source

<1 %

57

[digitalcollection.zhaw.ch](http://digitalcollection.zhaw.ch)  
Internet Source

<1 %

58

[download.atlantis-press.com](http://download.atlantis-press.com)  
Internet Source

<1 %

59

[erl.ucc.edu.gh:8080](http://erl.ucc.edu.gh:8080)  
Internet Source

<1 %

60

[fdic.gov](http://fdic.gov)  
Internet Source

<1 %

---

61	<a href="http://icbm.sjp.ac.lk">icbm.sjp.ac.lk</a> Internet Source	<1 %
62	<a href="http://innovation-entrepreneurship.springeropen.com">innovation-entrepreneurship.springeropen.com</a> Internet Source	<1 %
63	<a href="http://irep.iium.edu.my">irep.iium.edu.my</a> Internet Source	<1 %
64	<a href="http://jfin-swufe.springeropen.com">jfin-swufe.springeropen.com</a> Internet Source	<1 %
65	<a href="http://open.uct.ac.za">open.uct.ac.za</a> Internet Source	<1 %
66	<a href="http://research-repository.griffith.edu.au">research-repository.griffith.edu.au</a> Internet Source	<1 %
67	<a href="http://www.atlantis-press.com">www.atlantis-press.com</a> Internet Source	<1 %
68	<a href="http://www.escholar.manchester.ac.uk">www.escholar.manchester.ac.uk</a> Internet Source	<1 %
69	"Computational Science and Its Applications -- ICCSA 2016", Springer Science and Business Media LLC, 2016 Publication	<1 %
70	Abdinur Ali Mohamed. "Determinants of Financial Inclusion of Female Entrepreneurs in Somalia.", Research Square Platform LLC, 2022 Publication	<1 %

---

71

Journal of Organizational Change  
Management, Volume 21, Issue 2 (2008-04-  
13)

Publication

<1 %

72

Mohamed Albaity, Mahfuzur Rahman. "The  
intention to use Islamic banking: an  
exploratory study to measure Islamic  
financial literacy", International Journal of  
Emerging Markets, 2019

Publication

<1 %

73

Muntasir Murshed, Rizwan Ahmed, Raad  
Mahmoud Al-Tal, Chamaiporn Kumpamool,  
Witchulada Vetchagool, Rafael Avarado.  
"Determinants of financial inclusion in South  
Asia: The moderating and mediating roles of  
internal conflict settlement", Research in  
International Business and Finance, 2023

Publication

<1 %

74

Sayed Zeenat Maryam, Ashfaq Ahmad,  
Nauman Aslam, Sadia Farooq. "Reputation  
and cost benefits for attitude and adoption  
intention among potential customers using  
theory of planned behavior: an empirical  
evidence from Pakistan", Journal of Islamic  
Marketing, 2021

Publication

<1 %

75

Suadiq Mehammed Hailu, Ayhan  
Kapusuzoglu, Nildag Basak Ceylan. "chapter  
24 The Role of Islamic Financial Product

<1 %

# Innovation in Reduction of Financial Exclusion in Ethiopia", IGI Global, 2019

Publication

- 
- |    |  |      |
|----|--|------|
| 76 | Vinay Kandpal, Deep Chandra, Narendra N. Dalei, Jatinder Handoo. "Chapter 1 Sustainable Development Goals – An Initiative towards Inclusive Growth and Circular Economy", Springer Science and Business Media LLC, 2023<br>Publication | <1 % |
| 77 | <a href="https://dspace.nwu.ac.za">dspace.nwu.ac.za</a><br>Internet Source   | <1 % |
| 78 | <a href="https://eprints.bournemouth.ac.uk">eprints.bournemouth.ac.uk</a><br>Internet Source   | <1 % |
| 79 | <a href="https://eprints.glos.ac.uk">eprints.glos.ac.uk</a><br>Internet Source   | <1 % |
| 80 | <a href="https://es.scribd.com">es.scribd.com</a><br>Internet Source   | <1 % |
| 81 | <a href="https://euneighbours.eu">euneighbours.eu</a><br>Internet Source   | <1 % |
| 82 | <a href="https://fbj.springeropen.com">fbj.springeropen.com</a><br>Internet Source   | <1 % |
| 83 | <a href="https://jefjournal.org.za">jefjournal.org.za</a><br>Internet Source   | <1 % |
| 84 | <a href="https://journal.inceif.org">journal.inceif.org</a><br>Internet Source   | <1 % |
| 85 | <a href="https://koreascience.or.kr">koreascience.or.kr</a><br>Internet Source   | <1 % |



<1 %

86

[repository.derby.ac.uk](https://repository.derby.ac.uk)

Internet Source

<1 %

87

[repository.ju.edu.et](https://repository.ju.edu.et)

Internet Source

<1 %

88

[repository.umi.ac.id](https://repository.umi.ac.id)

Internet Source

<1 %

89

[s3-ap-southeast-1.amazonaws.com](https://s3-ap-southeast-1.amazonaws.com)

Internet Source

<1 %

90

[search.trdizin.gov.tr](https://search.trdizin.gov.tr)

Internet Source

<1 %

91

[staffnew.uny.ac.id](https://staffnew.uny.ac.id)

Internet Source

<1 %

92

[www.ejournalofbusiness.org](http://www.ejournalofbusiness.org)

Internet Source

<1 %

93

[www.fao.org](http://www.fao.org)

Internet Source

<1 %

94

[www.iris.umd.edu](http://www.iris.umd.edu)

Internet Source

<1 %

95

[www.isroset.org](http://www.isroset.org)

Internet Source

<1 %

96

[www.open-access.bcu.ac.uk](http://www.open-access.bcu.ac.uk)

Internet Source

<1 %

97

"Financing Sustainable Development in Africa", Springer Science and Business

<1 %

## Media LLC, 2018

Publication

---

98

Miranti Kartika Dewi, Ilham Reza Ferdian. "Enhancing Islamic financial literacy through community-based workshops: a transtheoretical model", Journal of Islamic Accounting and Business Research, 2021

Publication

---

<1 %

99

Mohammad Pasban, Sadegheh Hosseinzadeh Nojeh. "A Review of the Role of Human Capital in the Organization", Procedia - Social and Behavioral Sciences, 2016

Publication

---

<1 %

100

Nimra Noor, Irem Batool, Hafiz Muhammad Arshad. "Financial literacy, financial self-efficacy and financial account ownership behavior in Pakistan", Cogent Economics & Finance, 2020

Publication

---

<1 %

101

Souheila Kaabachi, Hassan Obeid. "Determinants of Islamic banking adoption in Tunisia: empirical analysis", International Journal of Bank Marketing, 2016

Publication

---

<1 %

102

[theses.gla.ac.uk](https://theses.gla.ac.uk)

Internet Source

---

<1 %

103

"Financial Technology (FinTech), Entrepreneurship, and Business

<1 %

Development", Springer Science and  
Business Media LLC, 2022

Publication

---

104 "Islamic FinTech", Springer Science and  
Business Media LLC, 2021

Publication

<1 %

---

105 "Islamic Finance and Sustainable  
Development", Springer Science and  
Business Media LLC, 2021

Publication

<1 %

---

106 Eleonora Sofilda, Muhammad Zilal Hamzah,  
Ari Mulianta Ginting. "Analysis of  
determining the financial inclusion index of  
composite, conventional and sharia banking  
in Indonesia", Banks and Bank Systems,  
2022

Publication

<1 %

---

107 Falak Khan, Muhammad Ayub Siddiqui,  
Salma Imtiaz. "Role of financial literacy in  
achieving financial inclusion: A review,  
synthesis and research agenda", Cogent  
Business & Management, 2022

Publication

<1 %

---

108 Jing Jian Xiao, Nilton Porto. "Financial  
capability and wellbeing of vulnerable  
consumers", Journal of Consumer Affairs,  
2021

Publication

<1 %

---

109 Xinrui Wang, Nan Zhu, Lei Chang.  
"Childhood unpredictability, life history, and

<1 %

# intuitive versus deliberate cognitive styles", Personality and Individual Differences, 2022

Publication

---

110

Sarvari, Rakhshanifar, Tamošaitienė, Chan, Beer. "A Risk Based Approach to Evaluating the Impacts of Zayanderood Drought on Sustainable Development Indicators of Riverside Urban in Isfahan-Iran", Sustainability, 2019

Publication

---

<1 %

---

Exclude quotes    On

Exclude matches    Off

Exclude bibliography    On