

## Promoting Islamic Financial Ecosystem to Improve Halal Industry Performance in Indonesia: A Demand and Supply Analysis

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**Purpose** – The research aims to identify and explore the problems that affecting halal industry performance in Indonesia.

**Design/methodology/approach** – A survey-based quantitative research, used a purposive and proportional sampling technique collected 1,985 samples of halal industry players (demandside). The data were analyzed using the PLS-Structural Equation Modeling (SEM) approach. Furthermore, it also conducted Focus Group Discussion (FGD) as confirmatory analysis, involving 35 participants from government, financial, social and education institutions (supplyside) as well as business owners (demand-side) in three separated times.

**Findings** – The result shows that literacy on Islamic finance, attitude and awareness strongly affect business owners' intention to use Islamic financial products. It is also found that subjective norm significantly influences literacy, attitude and awareness. Interestingly, religiosity does not significantly affect attitude toward Islamic financial products. According to the FGD, it generates several factors motivating business owners' preference to choose conventional rather than Islamic financial products, including expensive pricing, less developed technology, bad service quality, and the halal status of the products. It also explained the insignificant results of religiosity on the attitude that most of respondents are utilitarians who mainly perceived the financial products based on it sought benefits.

**Practical implication** – This research offers the government a road map showing the strategy to build Islamic financial ecosystem in Indonesia. The road map integrates supply-side which include government, financial industries, social & education institutions, scientific organization and demand-side which include the business owner or entrepreneur associations.

**Originality/value** — This research provides a wide range of samples derived from business owners' respondents of the halal industry in all representative islands in Indonesia. Therefore, it gives more holistic and representative findings. In addition, the analysis in this research covers not only the demand-side but also the supply-side perspective. Lastly, this research provides an Islamic financial ecosystem model that integrates all stakeholders to improve halal industry performance as a whole.

JEL Codes: G23, G41.

*Keywords*: religiosity, subjective norm, islamic financial literacy, attitude awareness, intention, halal industry.

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## 1. Introduction

There has been an increasing trend to use halal products in many countries worldwide. Such a situation indicates an escalating social awareness to recognize the quality and standards of halal products (Gillani, Ijaz and Khan, 2016). Public knowledge about halal products has helped increase the growth of the halal industry (Hamdan *et al.*, 2013; Rahman *et al.*, 2013). Halal is a requirement for Muslims intended not only for the afterlife but also for the worldly interests (Bohari, Hin and Fuad, 2013).

The halal industry can be defined as all economic activities producing goods or services that do not violate Islamic principles (Laldin, 2006). The halal industry includes all human activities in several sectors, including food, beverages, pharmaceuticals, tourism, transportation, logistics, as well as financial systems such as banking. Halal business owners not only covers the demand side such as business owners and users but also includes the supply side such as government, financial institutions and producers. All these stakeholders must be integrated to add more value to the Muslim community.

Indonesia, as the largest Muslim majority country in the world, has an enormous potential in optimizing the halal industry. Based on the Islamic Financial Services Board (IFSB) Stability Report data for 2018/2019, the total global Islamic financial assets at the end of 2017 reached about USD 2,050.2 billion. Meanwhile, according to the State of the Global Islamic Economy Report of 2019 Islamic financial assets in 2017, the number amounted to USD 2,438 billion, and in 2023 global Islamic financial assets are predicted to reach about USD 3,809 (Salaam Gateway, 2019). The report also shows that in 2023, the estimated total assets of several halal industrial sectors such as halal food, finance, travel, fashion, medicine, entertainment media, and cosmetics are expected to experience an average increase of 31%.

Ideally, Islamic financial institutions should play an important part in the halal industry. The high level of interaction between Islamic financial institutions and the halal industry shows the high level of accommodation of Islamic financial institutions to the halal industry, and vice versa (Tan, Razali and Desa, 2012). Therefore, building an integrated partnership is highly recommended by several researchers, such as (Ishak and Man, 2011).

The integration between the halal industry and Islamic financial institutions to create an Islamic ecosystem has a bright potential. Some empirical studies showing the positive attitude and behavioral intentions of both Muslims and non-Muslims towards Islamic financial products support this integration. This is evidenced by (Amin et al., 2011) in Malaysia and Echchabi and Azouzi (2015) in Tunisia. All of the research findings indicate a positive customer attitude towards Islamic financial products. Moreover, in Malaysia, as many as 80% of the business

owners have been committed to using Islamic financial services (Osman and Ali, 2008). However, in Indonesia, the government's effort to integrate the halal industry and Islamic financial institutions have yet to meet success criteria. A service and facilities improvement can help develop a mutually beneficial partnership model between Islamic banking and business owners (Gillani et al., 2016).

Previous studies have shown that intention to choose Islamic products are influenced by awareness (Abduh and Idrisov, 2014; Husin and Rahman, 2016). In the context of financial decision, Jamal *et al.* (2015) and Badshah *et al.* (2014) found that it is strongly influenced by Islamic financial literacy. TPB, coupled with knowledge and religiosity, are also used to predict intention to purchase Islamic home financing. However, those previous studies were mainly conducted with a sample size of less than 1,000. In addition, previous studies do not havedeep reasoning about the model's results, and yet to offer a comprehensive integrative model to improve the halal industry as a whole.

Therefore, in general, the purpose of this paper is to identify and to explore problems that might challenge the development of the halal industry. Specifically, the purpose of this study is divided into two studies. The first study is aimed to identify which factors among religiosity, subjective norm, Islamic financial literacy, awareness and attitude that strongly affects business owners' preference to purchase or use Islamic financial products. The second study is aimed to explore problems perceived by business owners (demand-side) and producers (supply-side) in a halal industry context. It also aims to confirm the results in the first study. In the end, by combining the demand and supply-side perspective, this study offers an integrative model of Islamic financial ecosystem to minimize the problems perceived by the halal industry players.

### 2. Literature Review and Hypotheses

## 2.1. Religiosity and Islamic Financial Literacy

Some studies suggest that religiosity is an important social factor that can influence human behavior including consumption patterns (Weaver and Agle, 2002; Cleveland, Laroche and Hallab, 2013) and shopping orientation (Mokhlis, 2009). These effects are proven to be consistent in various contexts. In Malaysia, Alam, Mohd and Hisham, (2011) confirmed the effect of Muslim religiosity on general consumer behavioral intentions. In another context, Golan and Day, (2010) proved the effect of religiosity on perceived media credibility. Religiosity also impacts perceived advertising credibility (Ketelaar *et al.*, 2015), retail store

selection (Mcdaniel and Burnett, 1990), halal products (Mukhtar and Butt, 2012), self-control and social acceptance (Welch, Tittle and Grasmick, 2006).

Religiosity is an important factor in shaping consumer attitudes and behavior. The level of one's Islamic financial literacy can also be influenced by the level of religiosity. Several studies focusing on non-specific denomination samples have shown a positive correlation between religiosity and education level (LaRose, 2009). In addition, Regnerus and Elder (2003) also stated that religiosity could encourage someone to be better educated. Thus, there is some evidence of an effect of the level of religiosity on the level of education or literacy.

However, several studies have also found that a person's level of religiosity is negatively related to the level of literacy, as found by Lehrer, (1999), Darnell and Sherkat, (1997), Keysar and Kosmin, (1995), and Rhodes and Nam, (1970). However, these negative findingsoccurred in the context of Christian consumers. Thi study uses Muslims as the context. A Muslim with high religiosity is assumed to have heard or known several terminologies in the context of Islamic finance and banking services, such as *riba* (usury), *gharar*, and *maisir*. Therefore, the religiosity of business owners can positively have an impact on their Islamic financial literacy.

**H1** : There is a positive effect of religiosity on Islamic financial literacy of business owners in the halal industry.

## 2.2. Religiosity, Attitude, and Awareness

Muslim consumers will try to make consumption in accordance with religious norms (Alam, Mohd and Hisham, 2011). McDaniel and Burnett (1990) stated that religious beliefs are a strong predictor of consumer behaviour, which can also include attitudes (Graafland, 2017), and intention to behave. Individuals who have a strong commitment to their religious beliefs will tend to like products that have similar religious affiliations or attributes (Aji, 2018). Gayatri and Hume, (2005) found that the value of Islamic culture held by a Muslim strongly influenced the choice of restaurants, hotels and aviation services. Alam *et al.*, (2012) in their study, also found that religiosity together with TPB had a significant impact on attitudes and intentions to use Islamic funding.

A person's awareness can also be influenced by the level of religiosity. As explained earlier, religiosity can shape a person's attitudes and behaviour (McDaniel and Burnett, 1990). Theoretically, awareness can be defined as an individual's interest in something (Ambali and Bakar, 2013). Someone who has a strong connection with his/her beliefs will immediately realize or aware of something related to his/her beliefs. Therefore, in this study, religiosity is

hypothesized to have a positive impact on business owners' awareness to use Islamic financial products.

**H2** : There is a positive effect of religiosity on business owners' attitude toward Islamic financial products.

**H3** : There is a positive effect of religiosity on business owners' awareness toward Islamic financial products.

## 2.3. Subjective Norm and Islamic Financial Literacy

Subjective norm is defined as the individual perception of social pressure to do or not to do a behavior (Ajzen and Fishbein, 1980). Ajzen (1991) defined subjective norms as normative beliefs related to the possibility that the most important people will agree or disagree if someone is doing certain behaviors. Peter and Olson (2010) defined subjective norms as components that reflect consumers' perceptions of individual expectations so that other individuals may take action.

From its meaning, the subjective norm is similar to the social norm in other definitions. Mackie *et al.*, (2012) divided social norms into two, namely descriptive and injunctive norms. Descriptive norm is related to social behavior at a particular location, whereas injunctive norm assumes that social truth originates in moral beliefs or beliefs (Berkowitz, 2004; Burchell, Rettie and Patel, 2013).

A person's attitude and decisions are strongly influenced by what is done by the surrounding community, especially by those who are considered important in life (Ajzen, 1991). This attitude can also affect the level of individual literacy in society. In order to be accepted into a particular social group, an individual must follow the literacy standard of the population in a social group. The difference in literacy levels will create discomfort. Someone who comes from an educated family will certainly pursue the same level of education as the other family members. Family is one of several strong reasons for students in Indonesia to pursue a higher level of study (Kusumawati, 2013; Praboyo & Soedarsono, 2015). Thus, this study hypothesizes that subjective norms have a significant impact on Islamic financial literacy.

**H4** : There is an effect of subjective norm on Islamic financial literacy of business owners in Indonesia

## 2.4. Subjective Norm, Attitude and Awareness

Ganassali *et al.*, (2006) stated in a social psychology theory that social perception, pressure, appreciation, and sanctions have a very strong impact on the behavior of an individual in a society. In TPB, the subjective norm is proven to be a strong predictor of attitude. Empirically, it has also been proven in various research contexts. Alam and Sayuti, (2011), for example, have proven the significant impact of subjective norms on attitudes towards halal food. Similarly, Aji and Dharmmesta (2019)proved the existence of social influences that play a role in shaping Christian consumers' attitude toward Islamic TV advertisements. Likewise, the same result was revealed in the context of the Islamic financial industry as proven by Balushi, Locke and Boulanouar, (2018); Albashir, Zainuddin and Panigrahi, (2018); Jaffar, Musa and Mahamad, (2014). Based on this, in the context of this study, subjective norms are predicted to have a significant impact on attitudes toward and awareness of Islamic financial products.

**H5** : There is an effect of subjective norm on business owners attitude toward Islamic financial products.

**H6** : There is an effect of subjective norm on business owners' awareness of Islamic financial products

## 2.5. Awareness, Attitude, and Intention to Use Islamic Financial Products

Theoretically, awareness includes human perception and cognitive reactions to a certain condition. Awareness does not require a person to understand or be knowledgeable. Therefore, awareness is different from literacy or knowledge. In the context of the halal industry, awareness means an interest in halal products and what happens in the halal industry (Ambali and Bakar, 2013). Awareness is the first step in the process of purchasing a product or service, in which customers who initially do not know about the product become familiar with the existing product or service (Bashir *et al.*, 2019).

Previous research confirmed that awareness is the first step of customer involvement in products or services purchased (Ayinde and Echchabi, 2012; Abduh and Idrisov, 2014; Husin and Rahman, 2016). For example, Abduh and Idrisov, (2014) tested the intention of customers in Dagestan, Russia, to use Islamic banks. They found that customer awareness of Islamic bank products in Russia was still quite low at only 11.8%, but they found that awareness had a significant positive effect on customer's attitudes towards Islamic banks.

Husin and Rahman (2016) examined Islamic insurance (*takaful*) in Klang Valley, Malaysia. They found that awareness had a significant positive effect on customer's attitude

toward *takaful*. In a similar context, Ayinde and Echchabi, (2012) who examined 200 respondents in Malaysia, found that awareness had a significant positive effect on the intention to use *takaful* products. On this basis, it can be implied that the higher the customer awareness of Islamic financial products, the more likely they will use Islamic financial products.

**H7** : There is an effect of Islamic financial products' awareness on business owners' attitudes toward Islamic financial products.

**H8** : There is an effect of Islamic financial products' awareness on business owners' intention to use Islamic financial products.

## 2.6. Islamic Financial Literacy, Attitude, and Intention to Use Islamic Financial Products

Financial literacy can also be defined as financial knowledge (Hilgert, Hogarth and Beverly, 2002). Based on OJK's National Strategy on Indonesian Financial Literacy (SNLKI), a person can be said to be well-literate if they have knowledge and beliefs about financial institutions, products and services, and skills in understanding the features, benefits, risks, rights, and obligations of financial products (Otoritas Jasa Keuangan, 2017).

Several studies have shown the influence of financial literacy on financial decisions. Jamal *et al.* (2015) conducted research in Sabah, Malaysia and found that financial literacy had a significant positive effect on attitude and saving behaviour. In addition, Badshah *et al.* (2014) found that financial literacy had an effect on short-term investment intentions in Pakistan. Therefore, in the context of this study, the high level of Islamic financial literacy is positively related to business owners' attitude and intention to use Islamic financial products.

**H9**: There is an effect of Islamic financial literacy on business owners' attitude toward Islamic financial products

**H10**: There is an effect of Islamic financial literacy on business owners' intention to use Islamic financial products

#### 2.7 Attitude and Intention to Use Islamic Financial Products

The attitude in marketing literature is defined as the overall evaluation of an object (Peter and Olson, 2010). In the context of halal products, attitude is a person's evaluation of halal product consumptions (Marmaya, Zakaria and Mohd Desa, 2019), which can then influence the intention to purchase halal products (Alam and Sayuti, 2011). In the context of social psychology, it is said that attitude is the best predictor of an individual's actions or behavior (Farhat, Aslam and Sanuri, 2019). In addition, consumer attitude has the potential to influence

customer intentions to purchase products or services (Davis, Bagozzi and Warshaw, 1989). Previous research about family takaful found that attitude is an antecedent of intention to use family takaful (Farhat, Aslam and Sanuri, 2019). In terms of this study, the positive attitude of business owners towards Islamic financial products is predicted to have a positive impact on their intentions in using Islamic financial products.

H11 : There is an effect of business owners' attitude on the intention to useIslamic financial products

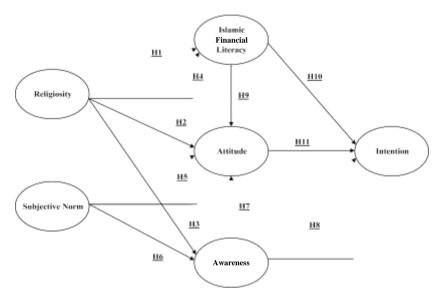


Figure 1. Research Model

## 3. Research Methods

This research is divided into two studies. The first study has a purpose to identify factors influencing intention to choose Islamic financial products. Whereas the second study is aimed to explore the problems from the demand and supply-side in relation to halal industry performance. The research flow can be seen in figure 2.

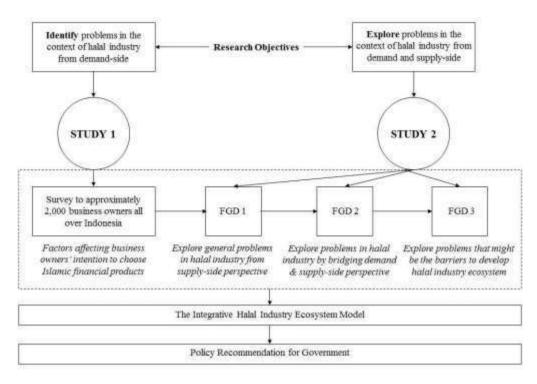


Figure 2. Research flow

## 3.1. Study 1

## 3.1.1. Design

In order to identify some factors in the first study, a survey-based quantitative method was implemented. The model was tested using Structural Equation Modeling (SEM). Questionnaires were distributed online and offline. The online questionnaire was made by Microsoft form and distributed via social media. Enumerators were prepared to distribute the questionnaire directly in selected locations in Indonesia. Respondents were requested to answer questions on a five-point Likert scale, ranging from "strongly agree" to "strongly disagree".

## 3.1.2. Data Collection and Sampling Technique

This study used purposive and proportional sampling techniques by taking into account the type of industry and the proportion of regional distribution to represent the halal industry in Indonesia. Purposively, the respondents of this study were the player in the halal industry. The respondents were not only limited to the business owner but also covered the managers who have central or strategic decision making authority. The halal industry in this study was classified into large, medium and small industries. According to the Indonesian Central Statistics Agency, industry scale can be distinguished based on the number of employees, in which large, medium and small industry is an industry which consists of company with more than 100 employees, 20-99 employees, and 5-19 employees respectively. Proportionally, the

sample was divided based on the OJK's data on the amount of financing from Islamic banking to small and medium industries. According to the data, the distribution percentage of Islamic banking financing was 17% in Sumatera island, 76.03% in Java and Bali islands, 0.42% in Kalimantan, 2.08% in Sulawesi and Maluku islands, and 4.47% in Nusa Tenggara island.

#### 3.1.3. Items Measurement

All items in this paper were taken from previously validated instruments. Religiosity was measured by scales from Barro and Mccleary, (2003); Jamal and Sharifuddin, (2015). The construct of subjective norm, attitude and behavioral intention were measured by scales from Ajzen, (1991), while Islamic financial literacy was measured by scales adapted from Otoritas Jasa Keuangan, (2017).

## 3.1.4. Data Analysis

The data in this study were tested by using SmartPLS version 3.0M. SmartPLS uses the Partial Least Square (PLS) approach. PLS is one of the alternative methods of model estimation in Structural Equation Modeling (SEM). The analysis on the relationship between complex variables using SEM required the following steps: (1) model specifications; (2) identification; (3) model estimation; and (4) the model goodness-of-fit and significance test. The specification of the model in the first stage was related to the formation of relationships between variables in SEM. The second step in SEM was identifying misspecification model. The good model is good, then the estimation parameters from the relationship between variables can result. The third step was estimating the model. After that, the significance test of the relationship between variables in SEM could be done.

### 3.2. Study 2

## 3.2.1. Design

In order to explore the problems and to get develop practical policies for government, the Focus Group Discussion (FGD) was conducted. It is a tool commonly used for qualitative analysis (Sekaran, 2007; Stokes & Bergin, 2006; Maxwell, 2005; Hines, 2000; Ruyter, 1996; Cooper & Emory, 1995). FGDs are designed for open discussion between researchers and selected participants (Walden, 2006). The purpose of FGD is to provide input to proposals and to provide information related to data collection and information on the results of data processing based on personal perceptions (Larson et al., 2004).

## 3.2.2. Participants Selection

To get diverse views of participants from different institutions, FGD was divided into three batches, and it is important to have several sessions to get cross-sectional views of diverse populations (Kritzinger, 1995; Grudens-Schuck et al. 2004). FGD 1 discussed the general problems occurring in the halal industry within supply-side perspective by inviting government financial institutions as well as Islamic banking industry managers. FGD 2 was held with the purpose to bridge the demand and supply-side perspective. It discussed the problems mainly faced by the users of business owners (demand-side perspective) and Islamic bank managers (supply-side) that impeded the development of the halal industry. Lastly, FGD 3 discussed the role of government institutions to solve problems generated in FGD 1 and FGD 2.

## 3.2.3. Validity and Credibility

Validity, accuracy, and credibility of FGD consist of strategies to identify and eliminate the possible existing threats (Wall, 2001; Maxwell, 2005). Bias was a serious concern in conducting FGD which involved content, process or participation and interpretation of research result. According to Grudens-Schuck et al. (2004), the question was arranged from general to specific to trigger openness and avoid bias. Moderators in FGD should understand the research topics discussed (Prince & Davies, 2001) because they already had an experience in the field of management of Islamic financial institutions.

## 4. Results

### 4.1. Study 1

### 4.1.1. Respondent Demographics

In total, there were 1.985 sample respondents collected from Java, Bali, Nusa Tenggara, Sumatera Kalimantan, Sulawesi, and Papua islands. The majority of the respondents were from Java islands (1,299 or 65.44%) in line with the proportional sampling technique as aforementioned. Out of these respondents, 66 (3.32%) were non-Muslims. The distribution was relatively normal in terms of age, in which as many as 36.42% were business owners aged 20-30 years old, 29.37% aged 31-40 years old. Therefore, the majority of business owners sample in this study (65.79%) were aged from 20-40 years old, while the rest (34.21%) were above 40 years old.

Table 1. Demographic data of respondents

Demographic variables	N	%
Gender		
Male	1,14	57.43%
Female	845	42.57%
Age		
< 20	244	12.29%
20 – 30	723	36.42%
31 – 40	583	29.37%
41 – 50	323	16.27%
> 50	112	5.64%
Region (Island)		
Sumatera	570	28.72%
Java	1,299	65.44%
Kalimantan	37	1.86%
Sulawesi	46	2.32%
Bali	4	0.20%
Nusa Tenggara	25	1.26%
Papua	4	0.20%

Demographic variables	N	%
Religion		
Muslim	1,919	96.68%
Non-Muslim	66	3.32%
Business Turnover / Year		
IDR < 300 Million	1,724	86.85%
IDR 300 Million - 2.5 Billion	223	11.23%
IDR 2.5 Billion - 50 Billion	30	1.51%
IDR > 50 Billion	8	0.40%
Number of Employees		
< 5 Employees	1,638	82.52%
5-19 Employees	255	12.85%
20-100 Employees	75	3.78%
> 100 Employees	17	0.86%

In terms of gender, this study collected 1,140 (57.43%) responses from male respondents and 845 (42.57%) from the female respondent. As many as 723 respondents (36.42%) aged 20-30 years old and most of them, or as many as 1,919 (96.68%) were Muslims. Table 1 also shows that about 1,724 (86.85%) of the respondents' business turnover was less than IDR 300 million a year. It is the highest percentage of all the business turnover ranges. Apart from that, the majority of the respondent (1,638 or 82.52%) had less than five employees. The complete data are presented in table 1.

## 4.1.2. Validity and Reliability Test

Cronbach's alpha and composite reliability score for each construct are greater than 0.70, which means that all constructs in this study were reliable, or the respondents answered the questionnaire consistently. In addition, to determine whether the measuring instrument is valid or not, researchers did other methods by looking at the factor loadings on each indicator. It can

be seen in Table 2 that all items in this study have a loading factor greater than 0.60. Therefore, the items in this study are valid (Hair et al., 2006). The average variance extracted (AVE) for each construct is above the recommended value of 0.50 (Hair et al., 2006). All items used in this study are free from convergent and discriminant validity issues.

Table 2. Validity and Reliability Test

Indicator	Statements	Loadings		
Religiosity (CA=0.937; CR= 0.945; AVE=0.633)				
R1	I believe in God.	0.757		
R2	I believe in the hereafter.	0.727		
R3	I believe in the existence of paradise and hellfire.	0.787		
R4	I believe in my religious holy book.	0.774		
R5	I understand the halal concept.	0.777		
R6	I allocate time for religious activities.	0.766		
R7	Religion influences all decisions in my life.	0.835		
R8	I spent some time to upgrade understanding about my religion.	0.845		
R9	Religion is very important to me since it can help to answer the question about life.	0.828		
R10	I give a financial contribution to my religious organization.	0.849		
Subje	ective norms (CA=0. 895; CR=0.927; AVE= 0.760)			
NS1	Most people I know use Islamic financial products.	0.846		
NS2	Important people in my life use Islamic financial products.	0.881		
NS3	Most people I know will agree if I use Islamic financial products.	0.882		
NS4	Most people I know think that I should use Islamic financial products.	0.878		
Islamic F	Financial Literacy (CA=0.941; CR=0.949; AVE=0.608)			
LIT1	I am a customer of Islamic financial products/services	0.747		
LIT2	I have Islamic insurance savings.	0.838		
LIT3	I invest in the Islamic Capital Market.	0.776		

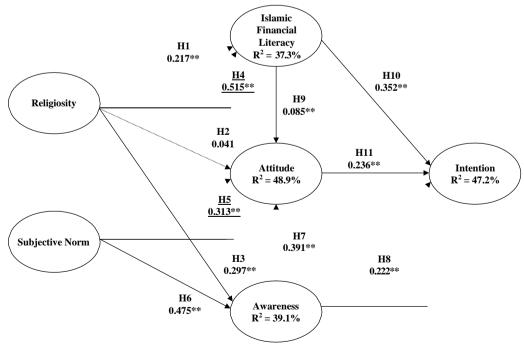
LIT4	Indicator	Statements	Loadings			
LIT5		I understand the principles used in Islamic financial				
LIT5 I understand some prohibitions in Islamic financial products (for example riba, gharar, maysir, haram).  LIT6 I understand the benefits of Islamic financial products.  LIT7 I understand the risk of using Islamic financial products.  LIT8 I know the rights I will obtain when using Islamic financial products.  LIT9 I know the liabilities I must fulfil when I use Islamic financial products.  LIT10 I already know the liabilities I must fulfil when I ask for financing in Islamic banks.  LIT11 I already know the liabilities I must fulfil when I invest in Islamic capital market.  LIT12 I already know the liabilities I must fulfil when I invest in Islamic capital market.  LIT12 I already know the liabilities when I use Islamic insurance (takafitl)  Attitude (CA=0.910; CR=0.937; AVE=0.789)  ATT1 Using Islamic financial products is good.  ATT2 Using Islamic financial products is useful.  O.895  ATT3 Using Islamic financial products is useful.  O.909  ATT4 Using Islamic financial products is the best decision to make.  Awareness (CA=0.897; CR=0.921; AVE=0.660)  AW1 I realize that the Islamic bank is different from a conventional bank.  I realize that the Islamic bank operates under Islamic principles.  I realize that the Islamic bank is helpful for all customer regardless his/her religious background.  I realize that my saving money will not be invested by the Islamic bank in a place infringing Islamic principles  0.811	LIT4	products/services (e.g. Wadiah, Mudharabah,	0.765			
LITS products (for example riba, gharar, maysir, haram).  LIT6 I understand the benefits of Islamic financial products.  LIT7 I understand the risk of using Islamic financial products.  LIT8 I know the rights I will obtain when using Islamic financial products.  LIT9 I know the liabilities I must fulfil when I use Islamic financial products.  LIT10 I already know the liabilities I must fulfil when I ask for financing in Islamic banks.  LIT11 I already know the liabilities I must fulfil when I invest in Islamic capital market.  LIT12 I already know the liabilities when I use Islamic insurance (takaful)  Attitude (CA=0.910; CR=0.937; AVE=0.789)  ATT1 Using Islamic financial products is good.  ATT2 Using Islamic financial products is useful.  Using Islamic financial products is the best decision to make.  Awareness (CA=0.897; CR=0.921; AVE=0.660)  AW1 I realize that the Islamic bank is different from a conventional bank.  I realize that the Islamic bank operates under Islamic principles.  I realize that the Islamic bank is helpful for all customer regardless his/her religious background.  I realize that my saving money will not be invested by the Islamic bank in a place infringing Islamic principles 0.811		Murabahah, Musyarakah, Ijarah).				
products (for example riba, gharar, maysir, haram).  LIT6 I understand the benefits of Islamic financial products. 0.691  LIT7 I understand the risk of using Islamic financial products. 0.711  LIT8 I know the rights I will obtain when using Islamic financial products. 0.782  I know the liabilities I must fulfil when I use Islamic financial products. 0.737  LIT9 I already know the liabilities I must fulfil when I ask for financing in Islamic banks. 0.843  LIT11 I already know the liabilities I must fulfil when I invest in Islamic capital market. 0.854  LIT12 I already know the liabilities when I use Islamic insurance (takaful) 0.854  Attitude (CA=0.910; CR=0.937; AVE=0.789)  ATT1 Using Islamic financial products is good. 0.860  ATT2 Using Islamic financial products is profitable. 0.895  ATT3 Using Islamic financial products is useful. 0.909  ATT4 Using Islamic financial products is the best decision to make. 0.887  Awareness (CA=0.897; CR=0.921; AVE=0.660)  AW1 I realize that the Islamic bank is different from a conventional bank. 0.790  AW2 I realize that the Islamic bank operates under Islamic principles. 0.807  I realize that the Islamic bank is helpful for all customer regardless his/her religious background. 1. 1 realize that my saving money will not be invested by the Islamic bank in a place infringing Islamic principles 0.811	I understand some prohibitions in Islamic financial		0.735			
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AW3  I realize that the Islamic bank is helpful for all customer regardless his/her religious background.  I realize that my saving money will not be invested by the Islamic bank in a place infringing Islamic principles  0.807	AW2	I realize that the Islamic bank operates under Islamic	0.831			
AW3 regardless his/her religious background.  I realize that my saving money will not be invested by  AW4 the Islamic bank in a place infringing Islamic principles 0.811	11112	principles.	0.031			
regardless his/her religious background.  I realize that my saving money will not be invested by the Islamic bank in a place infringing Islamic principles  0.811	AW3	I realize that the Islamic bank is helpful for all customer	0.807			
AW4 the Islamic bank in a place infringing Islamic principles 0.811	11113	regardless his/her religious background.	0.007			
		I realize that my saving money will not be invested by	0.811			
(such as gambling, alcoholic, prostitution companies).	AW4	the Islamic bank in a place infringing Islamic principles				
		(such as gambling, alcoholic, prostitution companies).				

Indicator	Statements	Loadings
AW5	I realize that the Islamic bank implements a profit and loss sharing scheme.	0.827
AW6	I realize that the Islamic bank is well-managed since its operations are under government control.	0.808
Intention to use Islamic financial products (CA=0.924;		
CR=0.952; AVE=0.868)		
NI1	I intend to use Islamic financial products in the future.	0.936
NI2	I will frequently use Islamic financial products in the future.	0.943
NI3	I will recommend Islamic financial products to others.	0.916

Note: CA= Cronbach's Alpha, CR= Composite Reliability, AVE= Average Variance Extracted

### 4.1.3. Structural Model Test

Coefficient of Determination (R<sup>2</sup>) was 47.2% for overall Intention to use Islamic financial products. It means that the model explained 47.2% variance in intention to use Islamic financial products when enabling factors (financial literacy, attitude, and awareness) are modelled together. Meanwhile, the combination of religiosity, subjective norm, financial literacy, and awareness explained 48.9% of attitude. In addition, the combination of religiosity and subjective norm explained 37.3% and 39.1% of financial literacy and awareness, respectively.



Notes: The dotted lines indicate non-significant paths. \*p<0.05; \*\*p<0.001

Figure 3. Structural Model Results

The findings reveal that religiosity significantly affects Islamic financial literacy (path coefficients = 0.217). The result also reveals that religiosity has no effect on attitude (path coefficients = 0.041), yet it has a significant effect on awareness (path coefficients = 0.297). These results support H1 and H3. Meanwhile, the subjective norm has a significant effect on Islamic financial literacy (path coefficients = 0.515). It also significantly affects attitudes (path coefficients = 0.313) and awareness (OS = 0.475). This finding supports H4, H5, and H6. The results show that awareness significantly affects attitude (path coefficients = 0.391) and intention (path coefficients = 0.222). This finding supports H7 and H8. In addition, other findings show that Islamic financial literacy significantly influences attitudes (path coefficients = 0.085) and intention to use Islamic financial products (path coefficients = 0.352). These findings support H9 and H10. The latest findings show that attitude has a positive effect on intention (path coefficients = 0.236), giving support to H11. A summary of the findings and validation of the hypothesis are provided in Figure 3.

## 4.2. Study 2

## 4.2.1. FGD Participants

OJK invites participants from government bodies, financial institutions, social institutions, educational institutions, entrepreneur associations, and expert organization to develop the halal industry. Thus, the FGD for the purpose of this research was conducted three times in a different schedule, place, and media. The first FGD was conducted on July 2, 2019, inviting 6 participants from various organizations and through media of video conference. While the second FGD was conducted on 18 July 2019 in Yogyakarta, involving 20 participants from various institutions. The third FGD was conducted on 18 July 2019 in Yogyakarta, involving 17 participants. The institutions invited in every FGD are presented in Table 4.

## 4.2.2. Results of FGD

FGD 1 aims to explore general problems that occur in the supply side of the halal industry. FGD 1 reveals that currently, Institution of Islamic financial service has not been integrated systemically with the halal industry. Hence, it is necessary to enhance the role of Halal Product Guarantee Agency (BPJPH) to establish an integration between Institution of Islamic financial service and halal industry. The results of FGD 1 were elaborated more technically in FGD 2, which focused on the attempt to emphasize the synergy between government institutions, financial institutions, social institutions, educational institutions and business associations in

helping and resolving the problems of halal industry. On this account, OJK is required to take part in harmonizing strategies between the Institution of Islamic financial service and initiating policies in developing the halal industry.

The main focus of FGD 3 is to discuss the results obtained in FGD 1, FGD 2 and Study 1 to formulate an Islamic financial ecosystem to develop the halal industry. FGD 3 revealed that Islamic banking, BMT, BWM has a direct role in providing financing and assistance to business owners. Islamic banking focuses on providing financing to medium and large business owners. BMT and BWM provide financing to ultra-micro, micro and small business owners. The role of LAZIS is to provide facilities from productive zakat to business owners at the ultra-micro and micro level. Meanwhile, the role of the capital market is to provide capital through the issuance of *Sukuk*. In addition to that, Islamic insurance can play a role of providing guarantee on security risk for financial institutions and business owners.

This ecosystem will be effective if there is an alignment of types of financing and assistance from banks, capital markets and insurance, as well as industry and trade offices, tourism agencies, KNKS, MUI, Islamic boarding schools, universities, Islamic economic organizations, business communities, LAZIS, BWM and BMT. Communication and coordination between institutions are needed to optimize a measured and planned ecosystem program. Coordination from government institutions, such as OJK, is needed to maintain the spirit and consistency of Islamic financial ecosystem in developing the halal industry. In addition, upgrading in terms of facilities and services is certainly needed (Gillani, Ijaz and Khan, 2016) for business owners to feel the added value of this halal industry ecosystem. Overall, the halal industry ecosystem model can be seen in Figure 4.

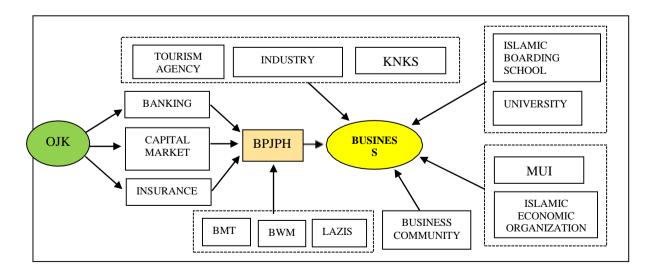


Figure 4. Halal Industry Ecosystem Model

## 5. Discussion

The result of study 1 is consistent with the findings of LaRose, (2009) and Regnerus and Elder, (2003). It indicates that the level of religiosity of business owners in Indonesia affects their level of Islamic finance literacy. This situation shows that religiosity is very important in influencing the business owners' understanding of Islamic financial products and institutions. Study 1 also found that religiosity had no effect on attitudes toward Islamic financial products. These results are not in accordance with the previous studies such as Graafland, (2017) and Alam *et al.*, (2012). It addresses a gap between spirituality and business logic. This result implied that most of the halal business owners in Indonesia evaluate Islamic financial products not based on the religious evaluation, but based on utilitarianism (cost-benefit) evaluation.

This statement is supported by the result of study 2. A business owner participant in FGD 2 admitted that he refused Islamic financing because he perceived it to be relatively more expensive than the conventional one, even though he also realized the risk of riba in conventional financing. The insignificant relationship between religiosity and attitude is also confirmed by an FGD 2 participant. He said that based on his research that the more religious a customer, the more s/he gets away from Islamic banking.

The research results, however, show a significant connection between religiosity and awareness of Islamic financial products. This finding supports Mcdaniel and Burnett, (1990) and Ambali and Bakar, (2013). Therefore, it can be implied that the more religious the halal business owners are, the more they are aware of Islamic financial products. This result confirmed the first argument that 'someone who has a strong connection with his/her beliefs will immediately realize or aware of something related to his/her beliefs'. In the FGD 3, a participant also revealed that public now has a strong Islamic spirit that is consequently related to their awareness on Islamic financial products.

The subjective norm in this study is found significantly influence the Islamic financial literacy of business owners in Indonesia. It supports Berkowitz, (2004) and Burchell, Rettie and Patel, (2013) who stated that subjective norm might affect the social behavior of business owners in a particular area. This situation is supported by a growing number of Islamic movement communities who always consistently speak up, spread, and socialize the prohibition of riba (usury), which strongly connected with Islamic financial institutions' activities. The more people enlightened by this movement it means, the stronger the social effect, which eventually affects individuals in a society in terms of Islamic financial literacy and attitude.

In addition, subjective norm also found to significantly affect business owners' awareness of Islamic financial products, confirming Lada, Tanakinjal and Amin, (2009; Jaffar,

Musa and Mahamad, (2014); Albashir, Zainuddin and Panigrahi, (2018); Balushi, Locke and Boulanouar, (2018). Therefore, this result suggests the need to start building awareness of the use of Islamic financial institution products by building public understanding of Islamic financial products. It is because awareness is the first step before achieving the goals (Ambali and Bakar, 2013; Bashir *et al.*, 2019). In line with this argument, an FGD 3 participant strongly highlighted the role of education institutions to improve the public's Islamic product literacy and understanding.

Awareness in this study significantly affects attitude toward Islamic financial products. Giving support to Abduh and Idrisov, (2014); Ayinde and Echchabi, (2012); and Husin and Rahman, (2016). Attitude is an overall evaluation of an object, and no one can evaluate an object unless he/she is aware of it. Since awareness is the previous step before attitude, this finding suggests the need to establish a frequent and engaged socialization program to generate public awareness. Socialization programs will have a positive direct impact on Islamic financial literacy. As is revealed, the result significantly affects attitude toward and intention to use Islamic financial products. This result is in accordance with Jamal *et al.* (2015) and Badshah *et al.*, (2014).

From the demand-side perspective, the issue on competitive pricing and facilities of Islamic financial products perceived by business owners becomes the main barrier of the development of halal industry ecosystem. In addition, without a painstaking effort to improve public literacy on Islamic financial products, the development of halal industry ecosystem is hardly realized. However, from study 1 and study 2, it can be understood that there is a positive public awareness of Islamic financial products and strong spirit to live an Islamic life. This is a bright potential for the development of the halal industry ecosystem.

Policy recommendations for OJK in developing Islamic financial ecosystem include:

- OJK should encourage financial service institutions to promote financing based on profit-sharing schemes for the halal industry by adjusting prudential provisions, such as provision of Tier 1 capital, asset quality, Risk-Weighted Assets (RWA) and Legal Lending Limit (LLL)
- 2. OJK is advised to facilitate cluster of people business credit (KUR), Ultra Micro Credit, and Family Welfare Development Program to develop the halal industry by optimizing the function of BMT and BWM as a fund manager. Utilization of funds shall be controlled and monitored by BPJPH and Team for Acceleration of Regional Financial Access (TPAKD)

- 3. OJK is required to encourage the formation of halal supply chain based on the use of financial technology in collaboration with business associations. This collaboration can be realized by creating a special economic zone of sharia and digital.
- 4. OJK should facilitate the use of the capital market to develop halal industry in the regions through regional Sukuk and the development of the halal industry concerning environmental preservation through green Sukuk.
- 5. OJK needs to initiate to form a halal industry curriculum at high school by collaborating with KNKS and educational institutions (Universities). The purpose of this curriculum is to enhance students' knowledge, understanding and experience of halal industry.

## 6. Conclusion and Recommendation

It can be concluded that in study 1, all variables namely subjective norm, Islamic financial literacy, awareness, and attitude are proven to be the strong predictors of intention to use Islamic financial products, except for religiosity. In addition, combining the insight from study 2, a utilitarianism-evaluation is argued to be the reason for the insignificant effect of religiosity-intention. It can also be implied that business owners better understand religiosity related to the issue of divinity (creed) and worship, but not on the issue of business contracts and transactions (*muamalah*). Therefore, it is recommended that future research examine the effect of utilitarianism-motivation in the model.

Cooperation between Islamic financial institutions, Islamic social institutions and government agencies is important to create a roadmap of synergy in the halal industry ecosystem by emphasizing the role of each institution in minimizing the problems related to the halal industry. Islamic financial institutions, such as commercial banks, rural banks (BPR), BMT, insurance and capital markets, play an important role in financing provision. Meanwhile, Islamic public financial institutions such as BAZNAS, LAZIS and BWM play an important role in providing productive funding assistance. In addition, government institutions such as OJK, KNKS and BPJPH perform the function of policymaking. Professional and Islamic institutions, such as MUI, IAEI and MES, take part in providing assistance to market players. If all institutions are integrated into carrying out their respective role in the same direction, the Islamic financial ecosystem will form a strong halal industry community.

Lastly, it is recommended that all parties, including financial institutions, professional institutions, social institutions and government agencies, have a common vision in developing the halal industry. Therefore, it is necessary to create a road map that is verified in the design of strategies to guide these institutions. If the halal industry ecosystem is developed measurably based on target, the halal industry can be the source of national competitive advantage.

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# Appendix

**Table 4. Focus Group Discussion Participants** 

FGD 1		FGD 2	FGD 3	
Video Conference	Facu	ulty of Economics,	Jakarta	
Yogyakarta-Jakarta	Uı	niversitas Islam	1 October 2019	
2 July 2019	Indo	nesia, Yogyakarta		
		18 July 2019		
Bank Syariah Mandiri	1 Ba	nk Indonesia (BI),	1.	Bank Syariah Mandiri
2. Bank Negara	DI	Y	2.	Bank Negara Indonesia
Indonesia Syariah	2 DI	Y Government		Syariah
3. Bank Rakyat	Of	ffice of	3.	Bank Rakyat Indonesia
Indonesia Syariah	Co	ooperatives, Micro,		Syariah
4. Bank Tabungan	Sn	nall, and Middle	4.	Bank Tabungan
Pensiunan Nasional	En	iterprises		Pensiunan Nasional
Syariah	3 DI	Y Government		Syariah
5. Halal Product	Of	fice of Industry and	5.	Halal Product
Guarantee Agency	Tra	ading		Guarantee Agency
6. Indonesian Muslim	4 DI	Y Government		(BPJPH)
Entrepreneur	Of	fice of Tourism	6.	Indonesian Muslim
Community	5 Ba	nk Pembangunan		Entrepreneur
	Da	nerah (BPD), DIY		Community (KPMI)

FGD 1	FGD 2	FGD 3
Video Conference	Faculty of Economics,	Jakarta
Yogyakarta-Jakarta	Universitas Islam	1 October 2019
2 July 2019	Indonesia, Yogyakarta	
	18 July 2019	
	6 Islamic Rural Bank	7. Department of Sharia
	(BPRS) Mitra	Economic and Finance,
	Cahaya, DIY	Bank Indonesia
	7 Micro Waqf Bank	8. Islamic Economic
	(BWM) Al Muna	Society
	Berkah Mandiri, DIY	9. National Islamic
	8 Baitul Maal was	Finance Committee
	Tamwil (BMT),	(KNKS)
	Bringharjo	10. Paytren Asset
	9 The Assessment	Management
	Institute for Foods,	11. PT Trihamas Finance
	Drugs and Cosmetics	Syariah
	Indonesian Council of	12. PT Asuransi Takaful
	Ulama (LPPOM	13. Integrated Financial
	MUI), DIY	Service Policy Group
	10 Indonesian Muslim	(GKKT)
	Entrepreneur	14. Directorate of Islamic
	Community (KPMI),	Capital Market
	DIY	(DPMS)
	11 Asbisindo DIY	15. Directorate of Sharia
	12 Institution of Amil	IKNB (DNBS)
	Zakat Infaq and	16. Directorate of Islamic
	Shadaqah	Banking Regulation
	Muhammadiyah	(DP3S)
	(LAZISMU)	17. Directorate of
	13 Institution of Amil	Financial Education
	Zakat, Infaq and	and Literacy
	Shadaqah Nahdlatul	
	Ulama (LAZIS-NU)	

FGD 1	FGD 2	FGD 3
Video Conference	Faculty of Economics,	Jakarta
Yogyakarta-Jakarta	Universitas Islam	1 October 2019
2 July 2019	Indonesia, Yogyakarta	
	18 July 2019	
	14 Student Business	
	Incubation (IBISMA)	
	UII	
	15 Pesantren Al Mumtaz	
	16 Indonesian	
	Association of Islamic	
	Economist (IAEI)	
	DIY	
	17 Islamic Economic	
	Society (MES) DIY	
	18 Academics of	
	Universitas Gadjah	
	Mada (UGM)	
	19 Entrepreneur of Petak	
	Umpet	
	20 Entrepreneur of	
	Sogan Batik	