Predicting Islamic Finance Adoption Behavior by MSMEs: Institutional Theory Approach

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Abstract
Research aims: This study aims to develop and validate a prediction model for the Islamic finance adoption by MSMEs based on isomorphism theory. In addition, this study also intends to show that the individual cognitive theory approach employed by previous studies in this area is not appropriate.

Design/Methodology/Approach: The research strived to develop a predictive model; therefore, variance-based SEM analysis was chosen. The research data were 242 MSMEs selected from four regencies/cities in Central Java Province, i.e., Semarang City, Pekalongan City, Jepara Regency, and Cilacap Regency. The analysis was carried out to ensure that the measurement and structural models were excellent and acceptable.

Research findings: This study successfully constructed and validated a model to predict the behavior of adopting Islamic finance by MSMEs employing the isomorphism theory framework. The resulting model has considered a more comprehensive domain, i.e., external organization (isomorphism pressure), internal organization (good corporate governance, GCG), and individual characteristics of the leaders (halal self-awareness, HSA).

Theoretical contribution/Originality: This study closed the research gap in investigating the determinants of Islamic finance adoption from the demand side using an organizational perspective, thereby contributing to building a body of knowledge in the domain of MSME behavior and Islamic finance. Theoretically, the resulting model can be an alternative or substitute for the previous approach. As an organization, MSME behavior should not be investigated using individual cognitive theory as done by all previous studies. This study also introduced a new construct called halal self-awareness (HSA). This construct can be exploited and further developed to investigate individual characteristics of halal products or concepts.

Practitioner/Policy implication: Stakeholders must have a strong commitment and earnest efforts to increase coercive and mimetic pressures, increase the HSA of MSME owner-managers, and realize good MSME governance. All this will encourage MSMEs to adopt Islamic finance to contribute positively to improving the national Islamic economic and financial landscape.

Research limitation/Implication: The HSA construct could not reveal its direct effect on the adoption behavior of MSMEs. Therefore, future studies need to pay more attention to the measures for the HSA construct, namely: HSA neutral (“I know exactly how well my awareness about...”) or HSA positive (“I know exactly that I have a good awareness of .... “). That way, the impact of the HSA becomes more accurate.

Keywords: Islamic Finance; Isomorphism Pressure; Halal Self-Awareness; Corporate Governance
Introduction

The market share of Islamic banking in Indonesia is still relatively small, only 6.52% in September 2021 (OJK, 2021). The small market share indicates that Indonesian Muslims have not maximized their potential to support the development of the Islamic finance industry. They are far more dominant in adopting conventional financial products and services than Islamic ones. This fact contradicts that 87.2% of Indonesia’s population is Muslim.

The low contribution of Islamic finance to the national financial portfolio has attracted researchers to conduct studies in this area from various perspectives. One is from a corporate perspective, especially in Micro, Small, and Medium Enterprises (MSMEs). The role and potential of MSMEs in the Indonesian economy are enormous in terms of Gross Domestic Product (GDP), labor absorption rates, and total exports, which continue to increase significantly from year to year (PPN/Bappenas, 2018). Nevertheless, the participation of MSMEs in Indonesian Islamic financial products and services is still small. As an illustration, of the 368.89 trillion financings (PYD) by Sharia Commercial Bank (BUS) and Sharia Business Unit of a Conventional Bank (UUS) in July 2020, only 18.56% was given to MSMEs, both for working capital and investment (OJK, 2020). The PYD of Sharia Rural Banks (BPRS) disbursed to MSMEs was only 4.70% compared to the total loans granted by Rural Banks (BPR).

The low contribution of MSMEs to the Islamic finance portfolio correlates with the many studies on the participation behavior of MSMEs in the Islamic finance industry. Most of the previous studies in this area investigated the determinants of Islamic financial products and services adoption by MSMEs. However, it should be noted that the investigations by these previous studies all used the basis of the owner-managers individual cognitive theory. In this regard, the Theory of Planned Behavior (TPB) from Ajzen (1985) and its derivatives, such as the Theory of Reasoned Action (TRA) from Fishbein and Ajzen (2009) and the Integrative Model of Behavioral Prediction (IMBP) from Fishbein (2000), have dominated as the basic framework of their investigation. There are many reasons for using TPB and its derivatives for this purpose, such as its relevance to evaluating decision-making in small businesses, where financial decisions result from the owner's personal preferences (Al Balushi et al., 2018). Another reason is that MSME owners and managers often link their company's financing needs with non-financial motives, so the behavioral perspective is suitable for investigating MSMEs’ financing needs (Badaj & Radi, 2018). Harrison et al. (1997) also argued that using TPB in the context of MSMEs is relevant because decisions in MSMEs are made by individual executives, not by the top management team.

Empirically, the use of TPB as a framework to investigate the behavior of SMEs in adopting Islamic finance did show positive results. It can be seen from the research results by Badaj and Radi (2018), Al Balushi et al. (2018), and Bananuka et al. (2019a). Brettel et al. (2009) also support the empirical validity of TPB in the financial context, particularly in the behavior of MSME financing decisions. Therefore, it is natural that many researchers use TPB to investigate the behavior of Islamic finance adoption by MSMEs.
Although their arguments are acceptable, the investigations have ignored the organizational aspects of MSMEs. The owner-managers personal preferences may drive MSMEs' decision to adopt Islamic finance. Still, the individual's financial behavior is also in his capacity as an organizational leader (MSME). The behavior contains the interests of their business organization, considers organizational aspects, uses business organization procedures, and pays attention to the influence of their business organizational environment. Thus, the organizational aspect cannot simply be ignored when MSMEs adopt Islamic finance. Although only in the context of a small organization, explaining the financial behavior of MSMEs by only basing it on the cognitive psychological aspects of individual behavior will lead to much debate.

In the context of innovation, Matthews (2002) stated that the critical function of the innovation process in SMEs is mapped on personal characteristics and organizational activities. The review results by Rogers (2003) of hundreds of studies on organizational innovation also concluded that several independent variables of organizational innovation are classified into leader, internal organizational, and external characteristics. Raghavan et al. (2018) also revealed that in addition to technological factors, the characteristics of MSME owner-managers, organizational factors, and institutional factors are key factors influencing the adoption of e-Business by MSMEs. Hence, investigating the behavior of MSMEs by only considering the leadership aspect and ignoring internal and external aspects in organizational decisions can give biased results. Therefore, it is imperative to pay attention to the internal and external aspects of the organization in any investigation related to MSME financial decisions.

For this reason, this study aims to develop and validate a model to predict the MSMEs’ Islamic finance adoption behavior. It will consider more comprehensive dimensions, including the organization's internal and external characteristics and leaders’ characteristics. Thus, this study will fill the gap in investigating the determinants of adopting Islamic finance from the demand side using an organizational perspective. The resulting research model can be an alternative or substitute framework for investigating Islamic finance adoption behavior by business organizations. Therefore, this research will contribute to shaping the body of knowledge in studying MSME behavior and Islamic finance.

**Literature Review and Hypotheses Development**

The critical role of MSME owner-managers is not only their personal characteristics but also their network and strategic vision (Adla et al., 2020). Franco and Matos (2015) revealed that a leader must pay attention to the sustainability of his organization by seeking consensus between the goals of the company, collaborators, and the environment. In this regard, MSMEs depend on the external environment to obtain organizational resources. This dependence is manifested in the form of relationships between formal and informal organizations or based on social relations (Corral de Zubielqui et al., 2015). According to Franco and Matos (2015), each SME is included in the social, economic, and environmental context in which its actions will impact.
Over time, the interaction of MSMEs with their external environment will become closer and ultimately has encouraged the development of homogeneity among MSMEs in their formal structure beyond the technical needs of each organization. With this view, the external environment of MSMEs, through its social process, also determines the policies taken by MSMEs. Thus, the intention to adopt Islamic finance may arise not because of rational considerations but due to the efforts to achieve legitimacy in their larger environment. This impulse will eventually result in these organizations (MSMEs) from time to time becoming more similar to one another, namely due to the ecological process of isomorphism. This change is suitable to be explained using institutional theory, which discusses the environmental pressures organizations face, causing organizations to change their structure, processes, and behavior. Institutional theory (DiMaggio & Powell, 1983) identifies three mechanisms through which isomorphic institutional change occurs, i.e., 1) coercive isomorphism stemming from political influence and legitimacy issues; 2) mimetic isomorphism resulting from standard responses to uncertainty; 3) normative isomorphism, which is related to professionalization.

Although several studies have provided empirical support for the relevance of TPB to be used as a framework for investigating Islamic financial behavior in the context of MSMEs, their investigations have neglected the organizational aspects of MSMEs. Accordingly, it can be concluded that institutional theory is appropriate to be used as a framework to investigate the adoption behavior of Islamic finance by MSMEs. As an organization, the behavior of MSMEs is considered appropriate to be approached using the perspective of this theory. Bukhari et al. (2020) stated that institutional theory provides a comprehensive and dynamic framework for analyzing organizational adoption behavior’s determinants.

Moreover, coercive pressures are manifested in the form of formal and informal pressure exerted on organizations by other organizations on which they depend and pressures by cultural expectations in the society in which the organization exists (DiMaggio & Powell, 1983). However, instead of being formal, coercive pressure for MSMEs will undoubtedly be more dominant, which is informal. This pressure can be in the form of an invitation or persuasion from the government, for example, through its campaign to increase national Islamic financial inclusion. Pressure can also be in the form of requests and solicitations from customers, suppliers, and the MSME community and can also come from the social environment and religious factors. Coercive pressure is thought to have a significant role in the behavior of MSMEs in adopting Islamic finance. Several previous studies have also provided the support that coercive pressure had a significant influence on various adoption behaviors, namely in the context of MSMEs (Caldera et al., 2019; Damak-Ayadi et al., 2020; Raghavan et al., 2018; Sadress et al., 2019; Shibin et al., 2020) and in the context of Islamic business and finance (Bashir, 2019a; Bukhari et al., 2020; Talib et al., 2020). Therefore, against this coercive pressure, the following hypothesis could be formulated:

**H$_1$: The greater the coercive pressure on MSMEs, the more likely they will adopt Islamic finance.**
The second isomorphism mechanism is a mimetic process, i.e., an imitation process carried out by an organization on other organizations in its environment to respond to uncertainty. According to DiMaggio and Powell (1983), this imitation occurs when the organization lacks understanding of technology, unclear organizational goals, or the environment creates symbolic uncertainty. Imitation is also associated with competitors' actions in an uncertain environment to maintain a competitive advantage (Raghavan et al., 2018). According to Bukhari et al. (2020), when an organization feels uncertain in responding to environmental changes or specific goals and pressures, the organization will also imitate other organizations in the same environment.

As with coercive pressure, the mimetic mechanism can also determine the behavior of MSMEs' adoption of Islamic finance. It could be that MSMEs face various uncertainties related to financing their business, choosing the best institution to save or invest their funds, or related to other financial services that offer solutions that are not yet clear. This situation will encourage MSMEs to carry out a mimetic process by imitating MSMEs or other organizations to meet the needs of these financial products and services. Mimetic mechanisms have also been shown to have a significant role in some adoption behaviors, both in the context of MSMEs as in a study by Bakr and Napier (2020), Sadress et al. (2019), Caldera et al. (2019), Masocha and Fatoki (2018), and Raghavan et al. (2018), as well as in the context of Islamic business and finance, as researched by Bashir (2019a) and Talib et al. (2020). Therefore, the following hypothesis could be formulated:

**H2:** The greater the mimetic pressure on MSMEs, the more likely they will adopt Islamic finance.

The third isomorphic pressure is normative pressure caused by professionalism. With this pressure, individuals in an organization will show much in common with their professional counterparts in other organizations. These similarities can come from the same educational and training backgrounds and then be filtered through the same attributes. They will tend to view problems in the same way, see the same policies, procedures, and structures, and make decisions in much the same way (DiMaggio & Powell, 1983).

It will be possible for MSMEs to get internal encouragement to adopt Islamic finance. This internal encouragement can come from personnel with a positive experience in using Islamic financial products and services, whether from their educational background, training, or previous work experience in other organizations. Previous studies have also supported evidence that normative pressure had a significant influence on various adoption behaviors, namely in the context of MSMEs (Caldera et al., 2019; Damak-Ayadi et al., 2020; Raghavan et al., 2018; Sadress et al., 2019) and in the context of Islamic business and finance (Bashir, 2019a; Talib et al., 2020). Therefore, normative pressure should be suspected as a direct antecedent of the behavior of MSMEs to adopt Islamic financial products and services. Thus, the following hypothesis could be formulated:

**H3:** The greater the normative pressure on MSMEs, the more likely they will adopt Islamic finance.
Furthermore, Rogers (2003) and Raghavan et al. (2018) revealed that the leader’s characteristics, i.e., the owner-manager of MSMEs, are one of the main determining factors in organizational adoption behavior. Matthews (2002) also mentioned that personal characteristics are one of the critical functions of the innovation process in SMEs. More specifically, a study by Al Balushi et al. (2019) uncovered that the owner-manager characteristics of MSMEs had a significant role in the intention to adopt Islamic finance. Meanwhile, this study introduces a new construct called halal self-awareness (HSA), which is defined as a person's level of understanding of his abilities, drives, needs, perceptions, and moods related to halal products, all of which make him know how to behave in dealing with scenarios or complex situations. HSA represents the characteristics of leaders that need to be investigated for their role in the behavior of MSMEs to adopt Islamic finance. This construct is entirely new, so there is no empirical evidence from previous studies explaining its role in adoption behavior. However, previous studies have proved the positive role of self-awareness on an individual’s ability to adequately perform certain behaviors (Prentice-Dunn & Jacobs, 1986). They have also been shown to significantly increase the effectiveness of leaders in making changes (Higgs & Rowland, 2010). In the context of MSMEs, self-awareness has been shown to have a positive influence on the behavior of MSME owners-managers in adopting HR practices (Cuéllar-Molina et al., 2019), preventing MSME owners-managers from trial-and-error learning (Lans et al., 2010), and influencing the decision of MSME owner-managers to adopt halal certification for their businesses (Viverita et al., 2017). Thus, it is strongly suspected that HSA has a significant role in the behavior of product adoption and Islamic finance by MSMEs.

However, as defined, the HSA of the MSME owner-manager will enable them to behave in various scenarios, including everything that comes from their external environment. Likewise, he will take the best attitude when there is isomorphic pressure on his business related to his financial decisions. That way, it is also necessary to investigate the role of self-awareness in the relationship between isomorphism and adoption behavior. Therefore, the owner-manager HSA is suspected of changing the regression coefficient in the relationship between isomorphism pressure and the adoption of Islamic finance behavior and products by MSME. In other words, there is an interaction between financial self-awareness and pressure isomorphism. It is, therefore, reasonable to suspect that there is a moderating role of HSA in the relationship between isomorphic pressure and the behavior of adopting Islamic finance. Thus, several hypotheses related to HSA could be formulated as follows:

\( H_{4a} \): The higher the HSA level of the MSME owner-manager, the more likely the MSME is to adopt Islamic finance.

\( H_{4b} \): The higher the HSA level of MSME owners-managers, the greater the effect of coercive pressure on MSME behavior to adopt Islamic finance.

\( H_{4c} \): The higher the HSA level of MSME owners-managers, the greater the effect of mimetic pressure on MSME behavior to adopt Islamic finance.
**H$_{4D}$**: The higher the HSA level of MSME owners-managers, the greater the effect of normative pressure on MSME behavior to adopt Islamic finance.

Another factor that needs to be considered in the study of organizational innovation or adoption behavior is internal organizational factors. Previous studies have considered their relevance to the context of the adoption behavior discussed in determining the internal factors. Thinking that this research is related to the behavior of MSMEs adopting Islamic financial products and services, the internal factors taken into account are related to MSME access to financial products and services.

Specifically, Indonesian MSMEs face several main obstacles to accessing financial products and services: collateral issues, legal aspects, and financial records (Fuad & Trianna, 2018; Irjayanti & Azis, 2012; Kistanti et al., 2019). The particular problem with MSMEs is related to the criteria for accountability and transparency, which are central to the principles of good corporate governance. Jaswadi et al. (2015) revealed that increasing accountability and transparency will make it easier for MSMEs to meet the requirements set by banks (bankable). Abor and Adjasi (2007) concluded that a consistently good governance track record would significantly help MSMEs access finance. Likewise, Abor and Biekpe (2007) revealed that one of the main implications of a well-functioning corporate governance system (MSMEs) is more accessible access to funding from investors and financial institutions. In their study, Htay and Salman (2013) emphasized the importance of MSMEs ensuring transparency, accountability, and disclosure of all financial information for the company’s progress. Therefore, MSMEs need to implement good corporate governance (GCG) practices, including written policies on corporate governance practices and the board of directors’ responsibilities. Thus, corporate governance should be considered an internal factor that serves as a predictor of the behavior of MSMEs to adopt Islamic finance.

Corporate governance is also proven to instill better MSME management practices, more vigorous internal audits, and increased growth opportunities (Abor & Biekpe, 2007). Implementing GCG principles can also overcome credit constraints in financial institutions and overcome managerial incompetence in the MSME sector (Abor & Adjasi, 2007). In addition, GCG contributes to transparency and accountability so that MSMEs can better meet banking and investment requirements, which positively impacts MSME performance and competitiveness (Hove-Sibanda et al., 2017; Jaswadi et al., 2015). Thus, it is strongly suspected that GCG principles will further increase the opportunities for MSMEs to access Islamic financial products and services.

On the other hand, implementing corporate governance in MSMEs must use a different approach. MSMEs are responsible to the owner and their constituent stakeholders, i.e., the community (Abor & Adjasi, 2007). This approach views the MSME business as a socially responsible institution. It is also per the principles of corporate governance proposed by Du Plessis et al. (2018) and Fernando et al. (2017), i.e., the principle of social responsibility and being responsive to social needs. Emphasizing more social responsibility will allow for pressure from the community, which is needed to improve the
performance of MSMEs (Abor & Adjasi, 2007). Thus, an intersection between GCG and the social environment puts pressure on the company. It should also be suspected that there is a fundamental role of GCG in the relationship between isomorphic pressures, especially coercive and mimetic pressures. In addition, companies (MSMEs) with a good track record in GCG are also suspected of being related to the company's professionalism. Professionalization, which is the cause of normative pressure, also encourages companies (MSMEs) to implement GCG practices. Hence, there is a relationship between the normative pressures received by the company and the application of GCG principles. Sharma et al. (1981) also explained that when a predictor interacts with other predictors, it indicates a moderating relationship. Thus, it is strongly suspected that GCG moderates the relationship between isomorphism pressure and the adoption of Islamic financial products and services. The following hypotheses could be formulated:

**H5A**: The higher the level of GCG principles implementation by MSMEs, the more likely the MSME is to adopt Islamic finance.

**H5B**: The higher the level of GCG principles implementation by MSMEs, the greater the effect of coercive pressure on MSME behavior to adopt Islamic finance.

**H5C**: The higher the level of GCG principles implementation by MSMEs, the greater the effect of mimetic pressure on MSME behavior to adopt Islamic finance.

**H5D**: The higher the level of GCG principles implementation by MSMEs, the greater the effect of normative pressure on MSME behavior to adopt Islamic finance.

The conceptual framework can be proposed as depicted in Figure 1.
Research Methods

This explanatory research explained the determinants of the behavior of MSMEs to adopt Islamic finance. The strategy used was a survey collecting information from MSME owners-managers to explain their knowledge, attitudes, and behavior regarding adopting Islamic finance for their businesses.

The instrument was developed through a literature review to identify the measurement attributes of each construct, i.e., coercive (Azam & Quaddus, 2012; Bashir, 2019a; Caldera et al., 2019; Jalaludin et al., 2011), mimetic (Azam & Quaddus, 2012; Caldera et al., 2019; Jalaludin et al., 2011; Li & Wang, 2018), normative (Damak-Ayadi et al., 2020; Jalaludin et al., 2011; Khalifa & Davison, 2006; Sadress et al., 2019), HSA (Aziz & Chok, 2013; Bashir, 2019b; Goleman, 2019; Özek & Ferraris, 2018), GCG (Hove-Sibanda et al., 2017; IFC, 2018; KNKG, 2006; Simpson, 2004), and adoption (Ali et al., 2018; Fishbein & Ajzen, 2009; Maulana et al., 2018; Warsame & Ireri, 2016). Instrument editing was done to meet face validity. To ensure the instrument’s validity and reliability, a pretest was conducted on 40 MSMEs in Semarang City. The researchers consulted the instrument with experts, which was reworded for clarity.

The researchers used a combination of dichotomous scales, categorical scales, and open-ended questions for administrative questions and baseline variables. Considering the diverse educational backgrounds of respondents, the researchers measured the indicators of the latent variables using a 5-point Likert scale.

The target population was MSMEs in Central Java Province, while the target sub-populations were MSMEs in Semarang City, Pekalongan City, Jepara Regency, and Cilacap Regency, which met the criteria: a) Muslim owner-manager, b) having the number of workers at least four people, and c) MSMEs running at least two years. Then, the four regencies/cities were selected considering the form of government (regencies/cities), geographical distribution, and industrial intensity. The sample size for each regency/city was determined proportionally (stratified) according to the intensity of the industry, while the sample elements were selected purposively.

The researchers distributed the questionnaires to prospective respondents through members of the MSME community in Google Forms, and some of the questionnaires that the researchers distributed were in paper-based form. After removing outliers and incorrect responses, 242 responses could be used. Noting that this research is not to confirm theory but rather to develop a theory to explain the target construct, the analysis technique used was variance-based SEM, i.e., Partial Least Square (PLS)-SEM. According to Hair Jr et al. (2017), in cases where there is little a priori knowledge of structural relations or measurement characteristics for each latent construct, or when the emphasis is on exploration rather than confirmation, PLS-SEM is more appropriate than covariance-based SEM. The method used to generate interaction terms for moderator variables was the two-stage method. This method was chosen because both the exogenous construct and the moderator construct were measured using reflective indicators, while the purpose of the analysis was to reveal the significance of the moderating effect.
Results and Discussion

The respondents of this study were 242 MSME owner-managers who met the sample criteria. Male respondents were 61.2%, and more than 80% of respondents were over 30 years old. In addition, more respondents had a high school education or higher. Thus, it could represent the maturity level of respondents in making financial decisions. Meanwhile, the dominant MSME business sector was fashion and furniture, the proportions of which were 23.6% and 22.7%, respectively. Other dominating businesses were the food and beverage processing and services and trade sectors. In addition, 61.2% of this study’s sample were MSMEs with four workers (micro-businesses). Nearly 70% of the sampled MSMEs had adopted Islamic financial products and services, especially savings products (66%). Meanwhile, access to sharia financing was 38%. Islamic banks dominated both adoptions in the form of savings and financing.

Moreover, it must be ensured beforehand that the analyzed data are not too far from the normal distribution. Although PLS-SEM does not require normally distributed data, too far from normal data will cause problems in assessing the significance of the parameters. The examination results showed that none of the indicator variables had an absolute skewness value greater than 1, and neither had an absolute kurtosis value greater than 2. Hence, it indicates no serious violations related to data normality so that it would support the parameters significance assessment using the bootstrapping procedure.

![Figure 2](image-url)  
**Figure 2** Structural Model and Parameter Estimation Results

Furthermore, the model parameters were estimated using the PLS-SEM Algorithm, and the estimation results in the state of path coefficients can be seen in Figure 2. All measurement models in this study used reflective indicators to evaluate the validity and reliability of this measurement model, including internal consistency reliability.
convergent validity, and discriminant validity (Hair Jr et al., 2017). None of the constructs in this research model had Cronbach's alpha or composite reliability (CR) statistics, whose value was less than 0.7. Thus, all constructs met the reliability of internal consistency. To meet convergent validity, all construct indicators must be statistically significant and have an outer loading of at least 0.7 ($r^2 = 0.5$). The analysis revealed that all indicators were significant as a measure of each latent construct, and there was only one indicator with an outer loading value of less than 0.7 (i.e., 0.690). In other words, all constructs met convergent validity according to the loading indicator value and significance. Convergent validity is also shown by the resulting average variance extracted (AVE) value, at least 0.5 for each construct. The analysis showed that all constructs had an AVE value greater than 0.5.

The evaluation of the following measurement model uncovered the fulfillment of discriminant validity, which means a set of measurement items (indicators) from a construct can distinguish itself from a set of measurement items (indicators) belonging to other constructs. According to the Fornell-Larcker criteria, the discriminant validity of a construct is stated to be fulfilled when the square root of the AVE ($\sqrt{AVE}$) of the construct is greater than the correlation between the construct and other constructs. According to the Heterotrait-Monotrait Ratio (HTMT) criteria, a construct is stated to maintain discriminant validity when the HTMT value of the construct is not greater than 0.9. According to both Fornell-Larcker and HTMT criteria, the discriminant validity of all constructs in this research model was met. Thus, it can be concluded that the measurement model of this study is promising because all constructs in the model met internal consistency reliability, convergent validity, and discriminant validity.

Moreover, the evaluation of the structural model in PLS-SEM is not based on the global model fit but on heuristic criteria determined by the model's ability to predict the dependent variable. The structural model evaluation includes diagnosing collinearity, assessing the coefficient of determination $R^2$, assessing the effect size of $f^2$, and assessing the predictive relevance of $Q^2$.

All constructs in this study were measured using reflective indicators, so there was no collinearity check between indicators (outer VIF). Multicollinearity was checked using the Variance Inflation Factor (VIF) coefficient, and it was proven that there was no exogenous construct with a VIF value greater than 5. Thus, there was no violation of collinearity in this research model. In addition, this research model produced an $R^2$ value of 0.623 and an adjusted $R^2$ value of 0.605. Hence, this research model was good enough to predict the adoption behavior of MSMEs toward Islamic financial products and services. The absolute fit measure of root means square residual covariance (RMSs) of 0.115 (< 0.120) denotes theory justification built, although theory confirmation is not the focus of this study. Four constructs had $f^2$ values less than 0.02, i.e., Normative, HSA, HSA-Normative, and GCG-Normative. Thus, the four exogenous constructs contributed relatively little to the model's predictive ability ($R^2$). Besides, the analysis results operating a blindfolding procedure using a deletion distance of 7 obtained a $Q^2$ value for the endogenous construct of adoption of 0.444 ($> 0$), implying that the model met predictive relevance, i.e., accurately predicts data not used in the model estimation.
The structural relation hypothesis test was carried out utilizing the PLS-SEM application software bootstrapping procedure with a sub-sample of 5000. The t-statistic was obtained from this procedure, and the significant level of observation (p-value) was the basis for accepting or rejecting the null hypothesis. The structural relation hypothesis test results can be seen in Table 1. It can be seen that $H_3$, $H_{4A}$, $H_{4D}$, and $H_{5D}$ were not supported, while the remaining hypotheses were supported.

**Table 1 Hypothesis testing results**

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Path</th>
<th>Coefficient</th>
<th>t-value</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>$H_1$</td>
<td>Coercive → Adoption</td>
<td>0.296</td>
<td>***</td>
<td>4.198</td>
</tr>
<tr>
<td>$H_2$</td>
<td>Mimetic → Adoption</td>
<td>0.319</td>
<td>***</td>
<td>3.350</td>
</tr>
<tr>
<td>$H_3$</td>
<td>Normative → Adoption</td>
<td>0.070</td>
<td>0.866</td>
<td>Not supported</td>
</tr>
<tr>
<td>$H_{4A}$</td>
<td>HSA → Adoption</td>
<td>0.081</td>
<td>1.127</td>
<td>Not supported</td>
</tr>
<tr>
<td>$H_{4B}$</td>
<td>HSA–Coercive → Adoption</td>
<td>0.133</td>
<td>*</td>
<td>1.729</td>
</tr>
<tr>
<td>$H_{4C}$</td>
<td>HSA–Mimetic → Adoption</td>
<td>-0.154</td>
<td>*</td>
<td>1.788</td>
</tr>
<tr>
<td>$H_{4D}$</td>
<td>HSA–Normative → Adoption</td>
<td>0.045</td>
<td></td>
<td>Not supported</td>
</tr>
<tr>
<td>$H_{5A}$</td>
<td>GCG → Adoption</td>
<td>0.272</td>
<td>***</td>
<td>3.679</td>
</tr>
<tr>
<td>$H_{5B}$</td>
<td>GCG–Coercive → Adoption</td>
<td>0.176</td>
<td>**</td>
<td>2.776</td>
</tr>
<tr>
<td>$H_{5C}$</td>
<td>GCG–Mimetic → Adoption</td>
<td>0.201</td>
<td>**</td>
<td>2.642</td>
</tr>
<tr>
<td>$H_{5D}$</td>
<td>GCG–Normative → Adoption</td>
<td>-0.061</td>
<td></td>
<td>Not supported</td>
</tr>
</tbody>
</table>

Notes: *p < 0.05; **p < 0.01; ***p < 0.001

This study successfully constructed a framework in the form of a behavioral model of Islamic finance adoption by MSMEs using an organizational perspective. The analysis results using the PLS-SEM technique showed that the proposed conceptual model passed a sequence of validity and reliability tests, thus making it an acceptable research model. In addition, evaluation of the structural model uncovered that the research model had an excellent predictive ability ($\text{adjusted-}R^2 = 0.605$). This research model also revealed a good measure of global fit, meaning that it can confirm the theory built even though confirmation of this theory is not the focus of this study. Thus, the isomorphism theory approach from DiMaggio and Powell (1983) has proven to be well applied to predict the behavior of these SMEs. These results strengthen the argument that the investigation of MSME behavior should use an organizational approach, not an individual one, as done by previous studies. The analysis results also support HSA and GCG to be included in this research model. Both are additional predictors of the behavior of Islamic finance adoption by SMEs and, simultaneously, as moderators of the relationship between the three isomorphism pressures on the adoption behavior.

Then, this study concludes that coercive pressure significantly and positively affected MSMEs adopting Islamic financial products and services ($\beta = 0.296; p < 0.001$). In the context of the sharia finance adoption by MSMEs, there is no coercive pressure in the formal form through government regulations or informal coercion in the form of standardization of products or business processes by related organizations. The only form of coercion exclusively comes from sharia requirements that must be met by every individual MSME actor who claims to be a Muslim. Thus, MSMEs management must avoid all transactions or activities that contain elements of usury, *maysir*, and *gharar*. From a religious perspective, this coercion is formal but cannot be categorized as coercion in...
other contexts. The coercive pressure from sharia requirements was stated by Bashir (2019a) as carrying out religious orders. For the rest, the adoption by MSMEs is voluntary, for example, in the form of persuasion or socialization and sharia finance campaigns by the Financial Services Authority (OJK) and the Indonesia Sharia Economic Festival (ISEF) initiated by Bank Indonesia and the National Committee for Sharia Economy and Finance (KNEKS). Of course, there is no direct confirmation from previous studies of this study's results, but several studies in the area of financial system adoption behavior by MSMEs have supported these findings, such as Chathurangani and Hemathilake (2019), Damak-Ayadi et al. (2020), and Sadress et al. (2019). The findings of this study are also supported by the results of studies in Islamic finance, such as Bukhari et al. (2020) and Talib et al. (2020).

Mimetic pressure has also been shown to positively and significantly impact MSMEs adopting Islamic finance ($\beta = 0.319; p < 0.001$). Hence, the behavior of MSMEs is also based on a follow-up process, especially by imitating other MSMEs that they considered successful after getting financing from Islamic financial institutions. The ignorance of MSMEs also drives the mimetic process to obtain business financing and ignorance of the best institutions to store their funds. In addition, it is also driven by the perception of the benefits received by other MSMEs adopting Islamic finance or by other well-known MSMEs, even without certain success. These results are in line with Chathurangani and Hemathilake (2019), Bakr and Napier (2020), Sadress et al. (2019), and Talib et al. (2020).

Nevertheless, this study could not prove the role of normative pressure on the Islamic finance adoption behavior by MSMEs ($\beta = 0.070; p > 0.05$). This result occurred because, in essence, Indonesia's Islamic finance has not been used as a benchmark for financial activity by the industrial community, including MSMEs. It is per what Bappenas (Indonesian Ministry of National Development Planning) stated that the corporate sector and MSMEs still regard Islamic financial institutions as a secondary option (K. PPN/Bappenas, 2016). In this case, Islamic financial products and services are only supplements. They have not become necessary, so naturally, no standards need to be fought for as a benchmark for the organization's business processes or as a requirement or consideration in employee recruitment. In addition, Indonesian MSMEs were dominated by micro-enterprises with no more than four workers (61.2% of respondents in this study were MSMEs with four workers). As a result, employee profiles could not color an organization's financial decisions. Although there were MSME workers with good financial literacy or experience with Islamic financial products and services, they were not recruited because of the need for MSMEs to adopt Islamic financial products and services. Hence, it just happened that these MSMEs had workers familiar with Islamic financial products and services. Thus, a normative mechanism in MSMEs was not sufficient reason as an antecedent to adopting Islamic finance. In other words, their adoption behavior is not driven by reasons to follow professional norms because they have not considered it a norm that must be followed. This finding is in agreement with Shibin et al. (2020), Jabbour and Abdel-Kader (2016), and Bukhari et al. (2020). However, studies in the context of MSMEs on IFRS adoption (Damak-Ayadi et al., 2020), environmental management accounting adoption (Chathurangani & Hemathilake, 2019), tax compliance (Sadress et al., 2019), and internet-based technology adoption (Azam & Quaddus, 2012; Li & Wang, 2012).
showed a significant role for this normative pressure. Therefore, it can be hypothesized that normative pressures will tend to influence the adoption of systems or products that require special skills to be implemented from education or training within a certain period or are considered the organization's primary needs.

Moreover, the results of this study conclude that HSA did not significantly influence the behavior of Islamic finance adoption by MSMEs ($\beta = 0.081; p > 0.05$). In the case of MSME owners-managers who knew the rules of halal-haram and halal products, they had a solid reason to use halal products. Therefore, owner-managers with a high HSA would adopt Islamic financial products and services. On the other hand, if they were aware that they did not have good knowledge of the rules of halal-haram and halal products, they had a strong reason not to use halal products. In this case, owner-managers with a high HSA tend not to adopt Islamic financial products and services. Hence, a high HSA could not lead to a decision to adopt or not to adopt Islamic financial products and services. In other words, someone with a high HSA means he has high awareness, both that he knows and the awareness that he does not know. In addition, noting that HSA is an entirely new construct in the academic literature, there are no previous studies that can directly confirm the results of this study. However, other studies on self-awareness can be used as a reference to justify the results of this study. The results of a study on financial self-awareness (FSA) by Bazley et al. (2021) concluded that the FSA is needed so that each individual can make a rational portfolio, whereas, according to Chowdhry and Dholakia (2020), a higher FSA will encourage a person to make wise financial decisions. Implicitly, the two studies have supported the results of this study. Thus, MSME owner-managers with a higher HSA will be more rational and wiser in their financial decisions, so they will not tend to adopt or not adopt Islamic finance but wisely consider their needs, abilities, and knowledge to carry out this behavior.

Furthermore, HSA has been proved to have a significant and positive effect on the dependency relationship between coercive pressure and the behavior of Islamic finance adoption by MSMEs ($\beta = 0.133; p < 0.05$). In this case, coercive pressures received by MSMEs in the form of coercion by sharia provisions and other social pressures would be responded to more to adopt sharia finance by owner-managers with higher HSA levels. Although not in the same context, several previous studies have supported this result. Atwater and Yammarino (1992) showed that self-awareness moderated the relationship between leader performance and behavior, while Church and Waclawski (1999) concluded that higher levels of managerial self-awareness positively magnified the effect of influence behavior on managerial effectiveness. More strong support was obtained from Amundson (1995). He concluded that people with high levels of self-awareness have a more proactive response to external environmental conditions and exert more control over their decisions and long-term effects.

Meanwhile, HSA significantly and negatively affected the dependency relationship between mimetic pressure and Islamic finance adoption behavior by MSMEs ($\beta = -0.154; p < 0.05$). Related to that, imitating other parties to adopt Islamic finance would be better if the self-awareness of the MSME owner-managers accompanied it. The involvement of HSA would direct MSME financial decisions based on more rational considerations.
Therefore, mimetic isomorphism, which is a follow-up impulse not based on rational considerations, would be able to reduce its influence with the presence of this HSA. By definition, HSA will enable MSME owner-managers to respond to various scenarios, including anything from the external environment.

In contrast to the response to coercive pressure, the best attitude to respond to mimetic pressure was not to strengthen the attitude of simply imitating what other MSMEs did but instead to reduce the attitude of joining in when facing uncertainty. Several previous studies reinforce the findings of this study, although not directly. Lans et al. (2010), for example, concluded that self-awareness could prevent MSME owner-managers from trial-and-error learning or, in other words, could avoid efforts to overcome uncertainty with other uncertainties. In addition, Akuffo and Kivipõld (2019) proved that self-awareness as a component of a leader’s internal competence could reduce decisions not based on rational considerations.

In addition, the researchers concluded that HSA had no significant effect on the dependency relationship between normative pressure and the behavior of Islamic finance adoption by MSMEs ($\beta = 0.045; p > 0.05$). When each interacting variable (normative pressure and HSA) did not show a significant effect on the criterion variable (MSME behavior), it increased the chance that the interaction of the two would give insignificant results. It has also been stated that the relationship between the normative mechanism and adoption behavior by MSMEs is fundamentally non-existent. As a result, HSA, which is not a good predictor in the case of this study, in the end, also could not intervene the relationship between isomorphic pressure and adoption behaviors. However, several studies on the moderating role of self-awareness also yielded less than expected results. In a study on emotional intelligence in which self-awareness is the first component, Wang and Zhang (2020) showed that emotional intelligence did not impact the relationship between social support and unhealthy internet use behavior. Also, Awaluddin et al. (2019) and Zaini and Musyarofah (2020) could not prove the moderating effect of emotional intelligence on the relationship between knowledge, experience, and professional ethics on the ability to detect financial fraud. Although the study was not related to adoption behavior, it was relevant enough to confirm the results of this study.

This study also verified that GCG had a significant positive effect on the behavior of Islamic finance adoption by SMEs ($\beta = 0.272; p < 0.001$). In this case, MSMEs were more intensive in recording each of their financial transactions (sales records, cash in, cash out), evaluating their performance (cash-based monthly income statements), having written policies, paying attention to workers' rights, and having business licenses and Tax ID (NPWP), which have been proven to have a greater tendency to adopt Islamic finance. It could be related to access to financial institutions that require formal financial records and compliance with various regulations to obtain business financing. This finding aligns with Omri et al. (2014), showing that good corporate governance could encourage MSME managers to be more innovative. Jaswadi et al. (2015) also stated that MSMEs with better governance would have easier access to banking and investment. Likewise, Abor and
Adjasi (2007) concluded that GCG could reduce financing constraints from financial institutions and simultaneously overcome the managerial incompetence of MSMEs. In addition, Kistanti et al. (2019) stated that MSMEs' difficulty accessing financial institutions was triggered by their low ability to make standard financial records.

Also, GCG had a significant and positive effect on MSMEs' dependency relationship between coercive pressure and Islamic finance adoption behavior ($\beta = 0.176; p < 0.01$). When the owner-managers of Muslim MSMEs were compelled to comply with the sharia provisions of their religion, received an invitation from the community or religious authorities to use halal products, including Islamic financial products, or when MSMEs received socialization of Islamic finance from government agencies, they would respond with a tendency to adopt Islamic finance. Then, the response rate became even more significant when the MSME implemented GCG better. Corsi and Prencipe (2018) also proved the moderating effect of the corporate governance structure on the relationship between innovation tendencies and the internationalization of MSMEs, while Le and Nguyen (2022) concluded that MSMEs implementing GCG could reduce the negative impact of the COVID-19 pandemic on MSME business continuity. Besides, the research results of Ou et al. (2015) confirmed that corporate governance significantly moderated the relationship between social capital to build networks and competitive advantage. Research by Srinivasan et al. (2018) could also show the moderating role of corporate governance in relationships involving determinants related to external environmental pressures like coercive pressures.

This study also concludes that GCG had a significant positive effect on the dependency relationship between mimetic pressure and the behavior of MSMEs to adopt Islamic finance ($\beta = 0.201; p < 0.01$). For MSMEs facing uncertainty, imitating other parties to adopt Islamic finance positively contributed to improving the national Islamic finance portfolio. However, adoption behavior driven by this mimetic pressure would be more positive when the MSME also applied good governance to its organization. When MSMEs were also accustomed to good financial records, carried out evaluations of their performance, applied written policies, and complied with applicable laws and regulations, the imitation process would further encourage the realization of Islamic finance adoption. However, it is difficult to explain the direct relationship between the role of GCG and the adoption of Islamic finance. It was because the effect of GCG led to the adoption of finance in general, not specifically Islamic finance. Several previous studies have supported that corporate governance positively influenced the dependency relationship between aspects related to uncertainty and various criterion. Corporate governance has been shown to play a moderating role in dependency relations involving determinants of environmental uncertainty (Aprisma & Sudaryati, 2020), economic policy uncertainty (Sarwar & Hassan, 2021), macroeconomic uncertainty (Chow et al., 2018), and acquisition transactions in sectors with complexity and uncertainty (Thraya et al., 2019).

Further, the researchers conclude that GCG did not significantly affect the dependency relationship between normative pressure and Islamic finance adoption behavior by MSMEs ($\beta = -0.061; p > 0.05$). It has been stated that the relationship between normative mechanisms and the behavior of Islamic finance adoption by MSMEs is fundamentally
non-existent. Therefore, the presence of GCG, which actually had a positive role in adoption behavior, could not ultimately intervene in the relationship between normative mechanisms and adoption behavior. In the study of Islamic banking, GCG could not moderate the relationship between the market share of Islamic banks and earnings distribution management practices (Shahzadi et al., 2021) and between the health of Islamic banks and their profitability (Laeli & Yulianto, 2016). In studies related to professionalization, GCG could not moderate the relationship between banking resources and internet-based financial reporting (Lihniash et al., 2020) and between managerial expertise and opportunistic behavior (Herawaty & Solihah, 2019). Of course, these previous studies cannot be compared directly to the findings of this study. However, at least, it can support the suitability of studies on the moderating role of corporate governance in finance, Islamic banking, and predictors related to aspects of professionalization.

Conclusion

This study successfully constructed and validated a model to predict the behavior of Islamic finance adoption by MSMEs using the isomorphism theory framework. The predictive ability of this research model was 60.5%. Theoretically, the resulting model can be an alternative, even a substitute for the previous approach to investigate the behavior of Islamic finance adoption by MSMEs. As an organization, its behavior should not be investigated using individual cognitive theory as done by all previous studies. As stated by DiMaggio and Powell through their institutional theory, MSMEs have made changes to financial practices in the form of adopting Islamic finance. In principle, this adoption is not based on the need to increase productivity or other rational considerations but rather on an isomorphic process driven by the imposition of norms and persuasion from influential organizations or community groups. It imitates the practices of other MSMEs without having to make them more efficient.

According to the results of this study, Islamic finance has not yet become the norm for industrial societies, including MSMEs, so there is no standard for them to strive for. Therefore, the normative mechanism in MSMEs was not enough of a reason as an antecedent to adopting Islamic finance. This study introduces a new construct called halal self-awareness (HSA), representing how much a person's level of self-awareness of halal products and concepts is. This construct can be used and further developed to investigate individual characteristics of halal products or concepts.

Overall, this study succeeded in closing the research gap in investigating the determinants of Islamic finance adoption from the demand side using an organizational perspective, so the results of this study have contributed to the formation of a body of knowledge in the domain of MSME behavior studies and Islamic finance. However, this research model has only been applied to specific cases. Therefore, more studies are needed for its application in various classes of organizations (micro, small, medium, and large), various types of halal products (finance, food, and others), and various management concepts and halal...
businesses (reporting, governance, supply chain, production, certification, and others). Thus, confirming the theory built on these cases will produce a more robust model.

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