




## The right literacy on the right performance: Does Islamic financial literacy affect business performance through Islamic financial inclusion?


 **Esy Nur Aisyah<sup>1+</sup>**

<sup>1</sup>Management Science, Universitas Negeri Malang, Indonesia.

 **Heri Pratikto<sup>2</sup>**


<sup>1</sup>Faculty of Economics, UIN Maulana Malik Ibrahim Malang, Indonesia.

<sup>2</sup>Email: [esy.nur.2104139@students.um.ac.id](mailto:esy.nur.2104139@students.um.ac.id)

 **Cipto Wardoyo<sup>3</sup>**

<sup>2,3,4</sup>Faculty of Economics, Universitas Negeri Malang, Indonesia.

<sup>3</sup>Email: [heri.pratikto.fe@um.ac.id](mailto:heri.pratikto.fe@um.ac.id)

 **Nurika Restuningdiah<sup>4</sup>**

<sup>4</sup>Email: [cipto.wardoyo.fe@um.ac.id](mailto:cipto.wardoyo.fe@um.ac.id)

<sup>4</sup>Email: [nurika.restuningdiah.fe@um.ac.id](mailto:nurika.restuningdiah.fe@um.ac.id)



(+ Corresponding author)

### ABSTRACT

#### Article History

Received: 18 January 2024

Revised: 20 March 2024

Accepted: 8 April 2024

Published: 27 May 2024

#### Keywords

Business performance  
Food and beverage sector  
Halal industry  
Islamic financial inclusion  
Islamic financial literacy  
MSME Malang Raya.

#### JEL Classification:

D23; D83; P43.

This study examines how Islamic financial literacy and Islamic financial access contribute to the performance of Halal MSMEs using knowledge-based theory. Micro, small, and medium-sized halal businesses (MSMEs) have an important role in the economy and the rapid growth of the world halal industry. The success of halal MSMEs depends on a number of factors, including the availability of Islamic funding and the financial literacy of Islamic finance. This study adopted a hierarchical regression model to examine quantitative data from a sample of 209 halal MSMEs' owners and managers in Malang Raya, Indonesia. The findings demonstrate that a high level of Islamic financial literacy can encourage Islamic financial inclusion, while inclusive Islamic financial institutions have a significant impact on MSMEs' performance. In promoting inclusive Islamic finance, this study contributes by describing how Islamic financial inclusion affects the performance of Halal MSMEs and the level of society's knowledge on Islamic finance. Implications: Once MSMEs have a strong understanding of the Islamic finance principles, they are more likely to use these resources to increase access to Islamic finance; thereby leading to business growth and expansion. For this study, the halal industry within the food and beverage sector is a noteworthy production sector.

**Contribution/Originality:** This study contributes to the knowledge-based theory that MSMEs can use intangible assets like Islamic financial inclusion (through availability) and Islamic financial literacy (through Islamic financial attitudes) to succeed. This study suggests further research on the success of Halal MSMEs from a religious perspective.

## 1. INTRODUCTION

In developed and developing nations, micro, small, and medium-sized companies (MSMEs) play a critical and indispensable role in economic growth and development. Globally, people acknowledge MSMEs as catalysts for development and progress (Obi, 2015; Sari & Kusumawati, 2022; Suhaili & Sugiharsono, 2019). Even Mukhtar (2013) and Ebitu, Glory, and Alfred (2016) claim that micro, small, and medium-sized businesses have been widely acknowledged as the driving force behind the world's top economies, rather than big corporations.

The halal industry, which is expanding annually, presents opportunities for Indonesia (Siswoyo, 2021). Development plans are underway as Indonesia embraces the growing halal sector as a trend. According to the 2020 State of Global Islamic Report, the halal industry serves approximately 1.95 billion Muslims globally, with a

potential growth of 5.2% per year and a total consumer spending of USD 2.2 billion. We expect the halal industry to grow by 6.2% from 2018 to 2024.

The country's halal market is rapidly expanding, particularly in the MSME sector, and consumer demand for halal products is driving this growth. Furthermore, there is a considerable chance of establishing a halal industrial region due to the increasing demand for halal products in the food, beverage, and cosmetic industries. Halal SMEs ensure that their product follows the halal standard, from upstream to downstream. Halal provisions guide the product processing in this industry, from raw materials to packaging or presentation (Pratikto, Agustina, Diantoro, Churiyah, & Yusof, 2021). Thus, this halal MSME provides legal certainty to consumers that its products follow the halal provisions stipulated in Islamic law (Handayati, 2021). Additionally, Pratikto, Agustina, and Mutiara (2023) predict that halal certification will be the key factor for the growth of the Indonesian MSMEs. The halal certification of MSME products also offers a competitive advantage in the international market. Given that the majority of the Indonesia's population is Muslim, the global economy can benefit from halal certification.

MSMEs are one of the cornerstones of the Indonesian economy, according to data regarding their contribution. However, MSMEs still face various classic problems, including the problem of low financial literacy and the inability to obtain financing, raw materials, skills, and information. Addressing these issues is crucial to increasing the competitiveness of MSMEs (Battisti, Deakins, & Perry, 2013). Besides, the occurrence of the pandemic also impacts the sustainability of MSMEs, as it decreases their purchasing power, production, distribution, and capital constraints (Yeganeh, 2021). In relation to the negative response to halal labeling, research has reported that the halal label alone has little effect on consumers' opinions of the goods. Even Muslim consumers, who have high faith-based purchasing habits, do not seem to trust food labeled as halal that is manufactured in nations other than those with Islamic customs (Maison, Marchlewska, Syarifah, & Zein, 2018).

The high profitability of MSMEs is a critical element in attracting investors. A study reported that the profitability of Sharia-compliant companies is higher than that of non-sharia-compliant companies (Biancone & Radwan, 2014). Furthermore, Alhabashi (2015) reports that Islamic financial instruments are more suitable than commercial ones. Meanwhile, the integration of zakat, charity, waqf, and card Hassan also helps the MSME sector. These findings expand our knowledge of the role of Islamic financial institutions in supporting SMEs' development. Further, the Islamic Financial Institutions (FFIs) which operate under Islamic principles, provide funding to these businesses. As SMEs expand, they require more capital, which increases their need for external financing, even though they have a significant amount of internal funds (Abdullah, Manan, & Khadijah, 2011).

Micro and small businesses often face external financial constraints (Hussain, Salia, & Karim, 2018). Over the past half century, research on micro and small businesses has focused on the reasons behind and effects of financial limitations. The problems discussed are typically on the supply side of financial institutions with information asymmetry leading to reliance on collateral to mitigate default risk. However, the primary issue of access to Islamic finance has ignored the significance of Islamic financial literacy. Low levels of Islamic financial literacy (Hussain et al., 2018) can hinder the ability of MSME owners and managers to understand and justify external financial requirements. Financial literacy is one of the human capital attribute that influences financial behavior. Improving Islamic financial literacy is essential for the development of Islamic financial products because it aids people in making better financial decisions.

This study serves as an innovative endeavor to transform Islamic financial inclusion. The primary goal of this study is to create and implement Islamic financial literacy, thereby facilitating business performance through Islamic financial inclusion. This study also aims to have significant impact on the advancement of the Sustainable Development Goals (SDGs). In the end, this contribution aims to facilitate a worldwide shift towards sustainable and robust businesses.

In this context, there are fundamental inquiries regarding enhancing halal MSMEs' financial performance. The study utilizes a knowledge-based theory approach, bolstering the notion that effective knowledge management can

enhance performance. With a greater understanding of Islamic financial products, MSMEs will feel more secure and may find easier means to obtain financing or other financial services from Sharia financial institutions. Besides, halal MSMEs can align their performance with Sharia ideals by integrating Islamic finance into their operational strategy. Funding that complies with Islamic values can improve business performance and competitiveness, while also encouraging the creation of innovative goods and services. As a result, this study utilizes knowledge-based theory as the primary theory and creates this model.

## 2. CONCEPTUAL FRAMEWORK AND HYPOTHESES

### 2.1. Islamic Financial Inclusion and Business Performance

The objective of Islamic banking development is to facilitate businesses acquisition of capital. Companies anticipate increased opportunities for expansion and growth through increased access to capital (Marzban & Shekra, 2015). Over the past few decades, numerous countries and the World Bank have advocated for financial inclusion to ensure that people and micro, small, and medium enterprises (MSMEs) from low-income backgrounds can access formal financial institutions. The term "financial inclusion" describes the presence of a variety of financial institutions, goods, and services that meet the requirements and resources of the community and eventually improve people's welfare (Ozili, 2021).

Three variables, namely obstacles, utilization, and access, can quantify financial inclusion. The accessibility dimension concerns a location's capacity to provide financial services, organizations, and amenities such as automated teller machines. On the other hand, the utilization dimension focuses on the possession of savings accounts as well as participation in savings and financing activities. The barrier dimension includes the distance between a financial service facility and a person's domicile, the level of people's trust in financial institutions, administrative hassles, and associated costs (Sarma, 2016). Additionally, the Indonesian Financial Services Authority introduces a fourth dimension of quality (OJK, 2017). Therefore, Islamic financial inclusion can help those who have access to Islamic financial institutions, such as Islamic banking, Islamic rural banks, or Islamic microfinance institutions.

There are a number of internal and external influencing elements for a company's success that are essential for wise managerial decisions. Making the right decisions is crucial for positively impacting company performance, as evidenced by the growth in assets and profits. Additionally, non-financial indicators such as expansion, customer base, and internal conditions provide insights into the performance of a business (Kaplan & Norton, 1996). Lebas (1995) and other experts asserts that we can evaluate a company's success from both an input and an output perspective. Furthermore, the marketing efforts undertaken by a company also contribute to its overall performance.

MSMEs have relatively close interactions with Islamic financial institutions, thereby, studies have proven that Islamic banking can stimulate Indonesian MSMEs (Purnamasari & Darmawan, 2017). These institutions help MSMEs meet their financial needs, which is critical for their expansion and success. As such, more investment will be required, leading to an increase in external financing. However, it is important to note that internal funds still play a significant role in providing capital for MSMEs (Abdullah et al., 2011). Accordingly, Islamic financial institutions have arisen, providing substitute services predicated on the concepts of risk-sharing, asset-based financing, and moral behavior. The objectives of these organizations are to support general growth and financial inclusion. To facilitate MSMEs' access to alternative funding sources, it is crucial to address several issues, such as legislative and regulatory frameworks, the establishment of a robust financial infrastructure, market and industry considerations, awareness campaigns, and the training of a skilled workforce (Ali, Busera, & Yesuf, 2020). Savitri, Maulana, Perwita, and Saptana (2021) suggest that access to Islamic finance affects the performance of MSMEs, significantly increasing profitability (Aisyah & Umami, 2022). Additionally, Nugraha, Wardoyo, and Wahyono (2020) affirm that financial inclusion variations lead to company performance within business actor classes.

Furthermore, the degree of financial inclusion directly correlates with the performance of each business actor. Following the aforementioned theoretical studies and empirical results, the following hypothesis is formulated:

*H: Islamic financial inclusion has a positive effect on SME performance.*

## *2.2. Islamic Financial Literacy and Islamic Financial Inclusion*

A solid understanding of financial literacy holds great significance for individuals, as it can positively influence their lives. Similarly, entrepreneurs must possess a strong understanding of financial literacy. Business owners can effectively build and nurture their companies if they have the information and abilities to plan and manage their finances, as well as obtain funding from various sources (Abubakar, 2015). Further, individuals with a solid financial literacy foundation tend to exhibit strong financial management abilities, continuously update their knowledge of financial products, and demonstrate proficiency in managing debt (Lusardi & Tufano, 2015; Van Rooij, Lusardi, & Alessie, 2011). The Indonesian Financial Services Authority (OJK) defines financial literacy as a combination of beliefs, skills, and knowledge that influence behaviours and attitudes, ultimately leading to better decision-making and debt management. OJK (2017) further emphasizes that improved behavior is essential for achieving financial prosperity. The development of Islamic finance in Indonesia encompasses various industries, such as insurance, Islamic capital markets, Islamic banking, Islamic microfinance, Islamic banking in rural areas, Islamic microfinance, Islamic banking, and Islamic financing. The goal of this project is to provide Indonesian Muslims who reject the idea of usury present in traditional lending with a variety of funding options. OJK (2021) has established a roadmap to guide the progress of Islamic banking from 2020 to 2025 that focuses on three key areas: increasing licensing, regulation, and monitoring; promoting cooperation within the Islamic economic environment; and highlighting the uniqueness of Islamic banking. This roadmap, which aligns with the broader Indonesian banking development plan, symbolizes a deliberate effort by the Indonesian Financial Services Authority to align the course of Indonesia's Islamic economic expansion, especially in the areas of Islamic banking and financial services. Based on the aforementioned empirical evidence, the following hypotheses are formulated:

*H: Islamic financial literacy has a positive effect on the Islamic financial inclusion.*

## **3. METHODS**

### *3.1. Sample and Data Collection Instruments*

This study adopted the owner or manager of Halal MSMEs in the food and beverage industry in Malang Raya (Malang Regency, Malang City, Batu City), Indonesia, as the primary analytical unit. This region was selected because its main economic activity centralizes around the processing industry sector, which has high potential in exports, tourism, MSME development, creative economic development, Islamic economic and financial development, as well as increasing hexahelix collaboration (public, commercial, creative, and intellectual communities; media; investors). In order to adapt to the new realities of global development, companies in this sector are creating initiatives that focus on the halal industry and seek to promote economic, social, and environmental sustainability. Based on earlier studies and the conceptual framework shown in Figure 1, this study used a questionnaire as a data collection instrument. Besides, the model of Abbas, Triani, Rayyani, and Muchran (2023) which consists of income growth, Islamic financial inclusion, and Islamic financial literacy, was also used as it offers a broad theoretical framework for analyzing the function of Islamic financial literacy as a foundation for financial decision-making at the corporate level. Nonetheless, this research considers the production, marketing, and human resources components of corporate performance in addition to the financial one.

In addition, a three-dimensional IFL scale developed by Antara, Musa, and Hassan (2016) consisting of understanding, being aware of, and having an attitude regarding Islamic finances, was used to determine the respondents' degree of Islamic financial literacy. Additionally, we also employed the four dimensions of Islamic financial inclusion proposed by Khamis, Isa, and Yusuff (2021) which include accessibility, availability, usage, and

quality. To evaluate the business performance of SMEs, various factors were also considered, such as product quality, innovation, human resource management, customer satisfaction, and financial aspects, as indicated by earlier research (Fitriati, Purwana, & Buchdadi, 2020; Mukson, Hamidah, & Prabuwo, 2021). As Gopang, Nebhwani, Khatri, and Marri (2017) identified, the six dimensions of SME performance encompass reputation, productivity, efficiency, profitability, employee satisfaction, and prompt order delivery. We applied a five-point Likert scale to score each indicator of the variable, with one representing "strongly disagree" and five representing "strongly agree."

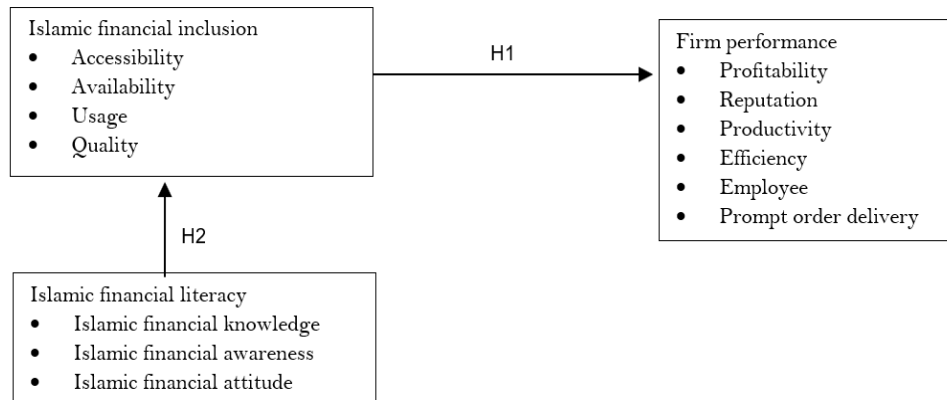


Figure 1. Model analysis.

### 3.2. Data analysis

The study used Cronbach's alpha ( $\alpha$ ) to measure the internal consistency among the measuring scale items. A higher number indicates greater consistency. The range of values for Cronbach alpha is 0 to 1, with a recommended value above 0.70. The findings suggest that the research variables' constructs have an alpha value greater than 0.7, demonstrating their appropriate reliability. Additionally, the composite reliabilities (CRs) exceeded the acceptable criterion of 0.7. Meanwhile, each variable construct's average variance extracted (AVE) was greater than 0.50, indicating fair values (Hair, Sarstedt, Hopkins, & Kuppelwieser, 2014). The good internal consistency of all research dimensions, with Cronbach's alpha values exceeding 0.70. we evaluated variable collinearity using the variance inflation factor (VIF) and tolerance. The findings fell between the suggested upper and lower bounds (Hair et al., 2014). We felt confident enough to use the hierarchical regression model since we determined all scales to be validly differentiated and convergent. When the analysis's independent variables are related in a hierarchical fashion, it is possible to examine the variables' impacts gradually, beginning with the variables at the top of the hierarchy and moving down to the variables at the bottom (Richardson, Hamra, MacLehose, Cole, & Chu, 2015).

## 4. RESULTS

### 4.1. Sample Characteristics

The study used purposive sampling to select MSMEs registered with the district or city government to test the research hypothesis. The sample criteria are owners or managers of halal MSMEs who have had financial transactions in Islamic financial institutions, both banks and non-banks. Based on data from the SME Association under the regency or city government, 209 SMEs were in the greater Malang area, Indonesia. In fact, 105 of them are from Malang Regency, 74 from Malang City, and 30 from Batu City. As illustrated by data in Table 1, most respondents (79 percent) were women. The average age of respondents was 41, and most education levels were in senior high school (53.1 percent). On average, the company is eight years old, with seven employees.

Table 1. Sample characteristics.

Classification		Frequency	Percentage
Gender	Male	45	21.5%
	Female	164	78.5%
Total		209	100%
Educational level	Middle school/Equivalent	39	18.7%
	High school/Equivalent	111	53.1
	Diploma	15	7.2%
	Undergraduate	38	18.2%
	Postgraduate	6	2.9%
Total		209	100%
Halal certification	2019	37	17.7%
	2020	46	22%
	2021	69	33%
	2022	57	27.3%
Total		209	100%
Islamic financial institution access	Islamic bank	38	18.2
	BPRS	43	20.6
	BMT	70	33.5
	Islamic cooperative	59	27.8
Total		209	100%
Average age (Years)		41,44	-
Average firm age (Years)		8,13	-
Average employee		7.14	-

#### 4.2. Validity and Reliability Variables

Table 2 displays the variables' validity and reliability. Examining the loading factor value, ideally greater than 0.70, determines validity. Aside from the loading factor value, we also used the discriminant validity value commonly known as the Average Variance Extracted (AVE). The AVE score of 0.60 suggests its significance. The analysis results indicate loading factor scores greater than 0.70 for each variable indicator. IFL3 has the most considerable loading estimate value (0.867), whereas IFL1 has the lowest (0.725). These results imply that the study's variables accurately reflect the constructed variables. Similarly, the corporate performance variable has a maximum value of 0.910, and the discriminant validity value is over 0.60.

Table 2. Factor loadings, Cronbach's alpha ( $\alpha$ ), composite reliabilities (CRs), and average variance extracted (AVE).

Variable constructs	Factor loading	Cornbach's alpha	Composite reliability	AVE
Islamic financial literacy (IFL)		0.717	0.830	0.621
Islamic financial knowledge	0.725			
Islamic financial awareness	0.766			
Islamic financial attitude	0.867			
Islamic financial inclusion (IFI)		0.805	0.871	0.629
Accessibility	0.818			
Availability	0.837			
Usage	0.767			
Quality	0.747			
Firm performance (FP)		0.910	0.930	0.690
Profitability	0.866			
Productivity	0.829			
Efficiency	0.775			
Reputation	0.821			
Employee satisfaction	0.837			
Prompt order delivery	0.853			

Table 3. Correlation matrix.

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
Islamic financial knowledge	1												
Islamic financial awareness	0.543**	1											
Islamic financial attitude	0.407**	0.425**	1										
Accessibility	0.241**	0.292**	0.527**	1									
Availability	0.169*	0.188**	0.416**	0.620**	1								
Usage	0.234**	0.291**	0.431**	0.452**	0.485**	1							
Quality	0.140*	0.204**	0.234**	0.433**	0.517**	0.536**	1						
Profitability	0.241**	0.162*	0.331**	0.282**	0.432**	0.312**	0.339**	1					
Productivity	0.242**	0.185**	0.355**	0.357**	0.378**	0.286**	0.360**	0.665**	1				
Efficiency	0.327**	0.341**	0.347**	0.355**	0.395**	0.297**	0.260**	0.546**	0.558**	1			
Reputation	0.228**	0.215**	0.359**	0.322**	0.353**	0.219**	0.283**	0.594**	0.660**	0.583**	1		
Employee satisfaction	0.259**	0.313**	0.336**	0.344**	0.307**	0.201**	0.298**	0.628**	0.590**	0.540**	0.770**	1	
Prompt order delivery	0.198**	0.236**	0.338**	0.329**	0.350**	0.239**	0.288**	0.620**	0.616**	0.607**	0.740**	0.688**	1

Note: \*\*P < 0.01 \*P < 0.05.

#### 4.3. Correlations between Study Variables

Table 3 shows a positive relationship between Islamic financial inclusion and firm success, suggesting their positive correlation.

#### 4.4. Hierarchical Regressions

The first model of our four-block hierarchical regression measured the contribution of the control variable block to explaining the variance in SME performance. The results revealed that none of the variables were significant ( $R^2 = 0.005$ ,  $p > 0.001$ ), indicating that firm size and age do not explain the phenomenon of SME performance. Additionally, the regression results in Table 4 also reveal that the Variance Inflation Factors are all less than or equal to 2 (Hair et al., 2014).

The inclusion of the Islamic financial literacy variable as a control variable is the first explanation for the MSME performance phenomenon. This is evidenced by the adjusted  $R^2$  turning positive (adjusted  $R^2 = 0.152$ ,  $p < 0.001$ ). The significant variance in MSME performance is firmly explained by the Islamic financial inclusion variable, as seen by the F statistic. The corrected  $R^2$  rises to 0.178 ( $p < 0.001$ ), indicating that the Islamic financial inclusion variable only marginally advances our comprehension of MSME performance. The second and third models' significant changes in F statistics indicate an increase in the model's predictive ability. Besides, a correlation value of  $R = 0.472$  ( $p < 0.001$ ) was obtained, suggesting that all variables in the fourth model demonstrated a relatively strong linear association between the independent variables and the model-estimated values. Notably, the corrected  $R^2$  increased to 0.223 ( $p < 0.001$ ) with the addition of individual variables. Given the considerable difference in F statistics between the third and fourth models, our hierarchical regression illustrates the extent to which MSME performance variances can be explained by knowledge-based theory (Grant, 1996). Furthermore, the study's findings illuminate owner-managers function in enhancing performance by emphasizing the relevance of elements, such as availability, accessibility, and an Islamic financial mindset, in motivating MSMEs to improve performance.

Similar to Adelekan (2021) case study, the findings indicate that Islamic finance significantly boosts MSME competitiveness. Islamic finance, which operates without interest rates, can practically reduce its operating costs while permitting more innovative pricing techniques and cost-effective, customer-focused products. Moreover, MSMEs should take advantage of Islamic finance's opportunity to adopt eco-friendly business practice. As reported by Nikmah, Sudarmiatin, Hermawan, and Soetjipto (2020) MSMEs can enhance their role as the economy's engine by adopting strategies such as continuous learning and easy access to finance. Therefore, in order to facilitate the acceptance of bank funding and allow MSMEs to compete with larger businesses, it is necessary to implement special regulations and make government-organized training available to raise standards of knowledge and awareness.

Table 4. Results of hierarchical regressions.

Variables	Model 1	Model 2	Model 3	Model 4
Control variable				
Size	-0.004	0.001	0.000	0.001
Age	0.014	0.007	0.005	0.003
Islamic financial literacy				
Islamic financial knowledge	-	0.097	-	0.102
Islamic financial awareness	-	0.040	-	0.022
Islamic financial attitude	-	0.292***	-	0.172**
Islamic financial inclusion				
Accessibility	-	-	0.170**	0.081
Availability	-	-	0.182**	0.167**
Usage	-	-	0.043	-0.019
Quality	-	-	0.052	0.072



Variables	Model 1	Model 2	Model 3	Model 4
Intercept	3.917***	2.144***	2.128***	1.497***
R	0.068	0.390	0.422	0.472
R <sup>2</sup>	0.005	0.152	0.178	0.223
Adjusted R <sup>2</sup>	-0.005	0.132	0.153	0.188
Adjusted R <sup>2</sup> variation	-	0.020	0.025	0.035
F	0.473	7.302***	7.282***	6.337***

Note: \*\*\*P < 0.001, \*\*P < 0.05.

#### 4.5. Complementary Analyses

Table 5 displays the findings of the complementary analysis on the correlation between the variables in the firm performance dimension. According to the findings, the variables studied explain only a tiny portion of the variance in MSME Reputation ( $R^2 = 0.211$ ,  $p < 0.001$ ). However, this value is the highest compared to the values of Productivity ( $R^2 = 0.197$ ,  $p < 0.001$ ), Efficiency ( $R^2 = 0.186$ ,  $p < 0.001$ ), Profitability ( $R^2 = 0.155$ ,  $p < 0.001$ ), Employee Satisfaction ( $R^2 = 0.153$ ,  $p < 0.001$ ), and Prompt Order Delivery ( $R^2 = 0.154$ ,  $p < 0.001$ ). The finding indicates that availability is an influential variable in MSME Reputation. Availability and Accessibility variables are two individual variables that influence business performance in the five dimensions of company performance.

Table 5. Complimentary results of the dimensions of firm performance.

Variables	Profitability	Productivity	Efficiency	Reputation	Employee satisfaction	Prompt order delivery
Control variable						
Size	-0.003	-0.002	-0.004	0.000	-0.005	-0.003
Age	0.004	0.007	0.008	0.010	0.011	0.007
Islamic financial inclusion						
Accessibility	-0.027	0.166*	0.145*	0.170*	0.254**	0.168*
Availability	0.345***	0.170*	0.227***	0.210**	0.102	0.192**
Usage	0.090	0.034	0.095	-0.004	-0.044	0.017
Quality	0.113	0.171**	0.013	0.111	0.166**	0.109
Intercept	1.764***	1.673***	2.104***	1.867***	1.810***	1.872***
R	0.459	0.444	0.431	0.394	0.391	0.393
R <sup>2</sup>	0.211	0.197	0.186	0.155	0.153	0.154
Adjusted R <sup>2</sup>	0.187	0.174	0.162	0.130	0.128	0.129
F	8.997***	8.281**	7.691***	6.199***	6.081***	6.148***

Note: \*\*\*P < 0.001, \*\*P < 0.05, \*P < 0.1.

The findings of the supplementary study of the correlation between the dimension variables of Islamic financial inclusion are shown in Table 6.

Table 6. Complimentary results of the Islamic financial inclusion dimensions.

Variables	Accessibility	Availability	Usage	Quality
Control variable				
Size	-0.006	-0.003	-0.001	0.007
Age	0.014	0.020	-0.005	-0.012
Islamic financial literacy				
Islamic financial knowledge	-0.007	-0.016	0.022	-0.008
Islamic financial awareness	0.082	0.006	0.145	0.174
Islamic financial attitude	0.486***	0.434***	0.384***	0.221**
Intercept	1.711***	2.228***	1.940***	2.405***
R	0.536	0.428	0.449	0.267
R <sup>2</sup>	0.288	0.183	0.202	0.071
Adjusted R <sup>2</sup>	0.270	0.163	0.182	0.048
F	16.385***	9.123***	10.273***	3.117**

Note: \*\*\*P < 0.001, \*\*P < 0.05.

The findings indicate that only a minor fraction of the variance in MSME accessibility to Islamic financial institutions can be explained by the variables being investigated in this research ( $R^2 = 0.288$ ,  $p < 0.001$ ). In contrast, the availability ( $R^2 = 0.183$ ,  $p < 0.001$ ), utilization ( $R^2 = 0.202$ ,  $p < 0.001$ ), and quality ( $R^2 = 0.071$ ,  $p < 0.001$ ) values obtain lower scores. Therefore, the Islamic financial mindset influences accessibility for MSMEs. Furthermore, among the four aspects of Islamic financial inclusion, the Islamic financial mindset becomes the only independent variable that influences MSME inclusivity.

## 5. DISCUSSION

### 5.1. The Effect of Islamic Financial Inclusion on MSME Performance

The relationship between Islamic financial inclusion and small and medium enterprises (MSMEs) performance can be examined through various theoretical perspectives, such as the "Financial Inclusion-Entrepreneurship-Performance" framework (Ajide, 2020). This framework considers financial inclusion's impact on entrepreneurship and MSME performance. The term "financial inclusion" describes how most people may access and use financial services. In the Islamic context, financial inclusion refers to giving MSMEs access to financial services and products that respect Sharia law. It includes Islamic banking, Islamic microfinance, and other instruments that adhere to Islamic principles. Financial inclusion, particularly in Islamic finance, gives MSMEs the capital and resources to start and grow their businesses. Furthermore, ethical considerations, which emphasize fairness, risk sharing, and avoiding transactions involving interest (*riba*) and speculative activities (*gharar*), can drive entrepreneurship within an Islamic framework (Mebroui & Mosbah, 2020).

Islamic finance offers various Islamic financing instruments, such as *Mudarabah* (profit sharing), *Musharakah* (partnership), and *Ijarah* (lease), which SMEs can use for their financial needs (Elasrag, 2016). These financial products can help create a more accessible and equitable financial system while still adhering to Islamic teachings. Small and medium-sized enterprises (SMEs), a vital engine of economic growth, can responsibly create jobs and reduce poverty through Islamic financial inclusion. Meanwhile, ethical considerations in Islamic finance can encourage MSMEs to operate sustainably and responsibly, given the social impact of their activities.

Additionally, various factors such as profitability, productivity, efficiency, reputation, employee satisfaction, and speed of delivery can measure MSME performance. The analysis results indicate that Islamic financial inclusion positively influences these performance indicators, as MSMEs benefit from ethical and inclusive financial practices. Future researchers can evaluate the effects of Islamic financial inclusion on MSMEs from a wider perspective by taking into account the economic, social, and ethical aspects using this approach. In addition, empirical studies and case analyses can provide insights into the specific mechanisms by which Islamic financial inclusion affects MSME performance in different regions and sectors. Regarding the hypothesis, the results confirm that Islamic financial inclusion positively affects the performance of MSMEs. Halal MSMEs with access to financing from Islamic financial institutions have higher profitability than those who do not have access. (Hypothesis 1). The evidence is consistent with previous studies (Abdinur & Ondes, 2022; Alharbi, Yahya, & Ramadani, 2022; Angeles, Calara, & de Guzman, 2019; Kijkasiwat, Shahid, Hassan, & Hunjra, 2022; Maulana, Savitri, & Perwita, 2021; Sanni, Oke, & Alayande, 2020; Trianto, Barus, Sabiu, & Annisa, 2021).

### 5.2. The Effect of Islamic Financial Literacy on Islamic Financial Inclusion

Understanding of the Islamic financial system's principles closely correlates with the level of inclusion. To examine this correlation, Al-Awlaqi and Aamer (2023) propose a theoretical framework that considers the significance of knowledge, awareness, and understanding of Islamic economic principles in fostering inclusion. People need to have a basic understanding of the principles of Islamic finance, which include sustaining moral and Sharia-compliant financial activities and forbidding the payment of interest (*riba*). The field of Islamic finance encompasses various financial instruments, including *Sukuk*, *Mudarabah*, *Musharakah*, and *Ijarah*. Improve Islamic

financial literacy correlates with increased access to financial services and goods. As individuals improve their literacy, they are more inclined to actively seek out and use Islamic banking, *Takaful* (Islamic insurance), and other Islamic financial tools.

In addition, financial literacy improves risk management and financial planning, encouraging individuals to participate confidently within the framework of Islamic finance. Higher competency in Islamic financial literacy can lead to more socially responsible financial behavior in line with economic justice principles and equitable wealth distribution. Increased financial literacy may stimulate entrepreneurial activity within the confines of Islamic finance, thereby contributing to economic development. According to this theoretical paradigm, encouraging Islamic financial inclusion may depend heavily on raising Islamic financial literacy. People and companies with more influence are more inclined to support social and economic advancement as well as the expansion and sustainability of Islamic finance. Concerning the hypothesis, the findings support the concept that Islamic financial literacy enhances MSMEs' performance. Higher profitability has been observed in halal MSMEs that have access to financing from Islamic financial institutions (Hypothesis 2). These findings support earlier research reporting the beneficial impact of Islamic financial literacy on Islamic financial inclusion (Desiyanti & Kassim, 2020; Hussain et al., 2018; Kaur & Bansal, 2020; Maulana et al., 2021; Trianto et al., 2021; Ye & Kulathunga, 2019).

## 6. CONCLUSION

The success of micro, small, and medium-sized companies (MSMEs) is directly linked to their understanding and utilization of Islamic finance. MSMEs that have a good understanding of Islamic finance are more likely to utilize its resources, which promotes business growth and expansion. Furthermore, MSMEs with access to Islamic finance tend to have a better understanding of its products and services due to their firsthand experience. Promoting Islamic financial literacy and inclusion can benefit MSMEs by increasing their access to finance, improving their financial management, and enhancing their competitiveness. This study demonstrates that MSMEs with higher levels of Islamic financial knowledge and inclusion perform better financially than those with lower levels.

## 7. IMPLICATIONS

The understanding and availability of Islamic finance have a direct impact on the performance of micro, small, and medium-sized enterprises (MSMEs). When MSMEs have a good understanding of Islamic finance concepts, they are more likely to utilize these resources, leading to business growth and expansion. Conversely, MSMEs with access to Islamic finance also have a better ability to comprehend it because they have dealt with Islamic financial products and services directly. MSMEs can benefit significantly from improving their Islamic financial literacy and inclusion. This can lead to better financial management, increased competitiveness, and easier access to capital. Studies have shown that MSMEs that are more inclusive of Islamic finance and have higher levels of financial literacy perform better than those that have less of both.

## 8. LIMITATION AND FUTURE RESEARCH

The interdependence of the research variables suggests that further investigation is necessary to fully understand the limits of this study. It is important to note that the sampling method used to select study participants may have restricted the generalizability of the findings. Nevertheless, considering the specifics of the data collected from MSMEs, it was deemed appropriate for this investigation. Furthermore, the data was collected using a semi-structured questionnaire, but its construct validity requires reexamination. As the questionnaire data was provided by the owners and managers of these businesses, it is crucial to maintain objectivity and avoid subjective evaluations. It is important to note that firm performance, financial inclusion, and financial literacy levels

may fluctuate over time. Future research could employ longitudinal surveys to learn more about the connections and consequences between Islamic financial inclusion, Islamic financial literacy, and business performance.

**Funding:** This study received no specific financial support.

**Institutional Review Board Statement:** The Ethical Committee of the Universitas Negeri Malang, Indonesia has granted approval for this study (Ref. No. 15.2.30/UN32.14/PB).

**Transparency:** The authors state that the manuscript is honest, truthful, and transparent, that no key aspects of the investigation have been omitted, and that any differences from the study as planned have been clarified. This study followed all writing ethics.

**Data Availability Statement:** The corresponding author can provide the supporting data of this study upon a reasonable request.

**Competing Interests:** The authors declare that they have no competing interests.

**Authors' Contributions:** All authors contributed equally to the conception and design of the study. All authors have read and agreed to the published version of the manuscript.

## REFERENCES

- Abbas, A., Triani, N., Rayyani, W. O., & Muchran, M. (2023). Earnings growth, marketability and the role of Islamic financial literacy and inclusion in Indonesia. *Journal of Islamic Accounting and Business Research*, 14(7), 1088–1105. <https://doi.org/10.1108/JIABR-12-2021-0322>
- Abdinur, M. A., & Ondes, T. (2022). The impact of Islamic financing on the small medium enterprises (SME's) performance in Lasanod Somalia. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 12(1), 15-27. <https://doi.org/10.6007/ijarafms/v12-i1/11813>
- Abdullah, M. A., Manan, S. K. A., & Khadijah, S. (2011). Small and medium enterprises and their financing patterns: Evidence from Malaysia. *Journal of Economic Cooperation and Development*, 32(2), 1-18.
- Abubakar, H. A. (2015). Entrepreneurship development and financial literacy in Africa. *World Journal of Entrepreneurship, Management and Sustainable Development*, 11(4), 281-294. <https://doi.org/10.1108/wjemds-04-2015-0020>
- Adelekan, A. S. (2021). Islamic financing effects on small medium enterprises competitiveness. *Journal of Islamic Economic and Business Research*, 1(1), 100–113. <https://doi.org/10.18196/jiebr.v1i1.11753>
- Aisyah, E. N., & Umami, A. K. (2022). Financial factors contribution to SMEs' profitability. *Journal of Business & Banking*, 12(1), 19-33. <https://doi.org/10.14414/jbb.v12i1.2956>
- Ajide, F. M. (2020). Financial inclusion in Africa: Does it promote entrepreneurship? *Journal of Financial Economic Policy*, 12(4), 687–706. <https://doi.org/10.1108/JFEP-08-2019-0159>
- Al-Awlaqi, M. A., & Aamer, A. M. (2023). Islamic financial literacy and Islamic banks selection: An exploratory study using multiple correspondence analysis on banks' small business customers. *International Journal of Emerging Markets*, 18(12), 6285–6299. <https://doi.org/10.1108/IJOEM-09-2021-1354>
- Alhabashi, K. (2015). *Financing for small and medium enterprises: The role of Islamic financial institutions in Kuwait*. Doctoral Dissertation, University of Gloucestershire.
- Alharbi, R. K., Yahya, S., & Ramadani, V. (2022). Financial literacy, access to finance, SMEs performance and Islamic religiosity: Evidence from Saudi Arabia. *International Journal of Entrepreneurship and Small Business*, 46(2), 259–285. <https://doi.org/10.1504/IJESB.2022.124456>
- Ali, A. S., Busera, I., & Yesuf, A. J. (2020). The potential of Islamic financial institutions in promoting small and medium enterprises (SMEs) in Ethiopia. *Journal of Economics and Political Economy*, 7(3), 188-203. [https://doi.org/10.61093/fmir.7\(4\).88-104.2023](https://doi.org/10.61093/fmir.7(4).88-104.2023)
- Angeles, I. T., Calara, M. S. P., & de Guzman, A. B. (2019). The mediating effect of microfinancing on access to finance and growth of microenterprises: Evidence from the Philippines. *Journal of Global Entrepreneurship Research*, 9(1), 1-16. <https://doi.org/10.1186/s40497-019-0150-x>
- Antara, P. M., Musa, R., & Hassan, F. (2016). Bridging Islamic financial literacy and halal literacy: The way forward in halal ecosystem. *Procedia Economics and Finance*, 37, 196-202. [https://doi.org/10.1016/s2212-5671\(16\)30113-7](https://doi.org/10.1016/s2212-5671(16)30113-7)

- Battisti, M., Deakins, D., & Perry, M. (2013). The sustainability of small businesses in recessionary times: Evidence from the strategies of urban and rural small businesses in New Zealand. *International Journal of Entrepreneurial Behavior & Research*, 19(1), 72-96. <https://doi.org/10.1108/13552551311299260>
- Biancone, P. P., & Radwan, M. (2014). Sharia compliant "possibility for Italian SMEs. *European Journal of Islamic Finance*, 1-9. <http://dx.doi.org/10.13135/2421-2172/908>
- Desiyanti, R., & Kassim, A. A. M. (2020). Financial literacy on business performance: The moderating effect of religiosity among SMEs in Sumatera, Indonesia. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 10(2), 87-99. <https://doi.org/10.6007/ijarafms/v10-i2/7371>
- Ebitu, E. T., Glory, B., & Alfred, U. J. (2016). An appraisal of Nigeria's micro, small and medium enterprises (MSMEs): Growth, challenges and prospects. *British Journal of Marketing Studies*, 4(5), 21-36.
- Elasrag, H. (2016). *Islamic finance for SMES*. MPRA Paper No. 73913, University Library of Munich, Germany.
- Fitriati, T. K., Purwana, D., & Buchdadi, A. D. (2020). The role of innovation in improving small medium enterprise (SME) performance. *International Journal of Innovation, Creativity and Change*, 11(2), 232-250.
- Gopang, M. A., Nebhwani, M., Khatri, A., & Marri, H. B. (2017). An assessment of occupational health and safety measures and performance of SMEs: An empirical investigation. *Safety Science*, 93, 127-133. <https://doi.org/10.1016/j.ssci.2016.11.024>
- Grant, R. M. (1996). Toward a knowledge-based theory of the firm. *Strategic Management Journal*, 17(S2), 109-122. <https://doi.org/10.1002/smj.4250171110>
- Hair, J. J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European Business Review*, 26(2), 106-121. <https://doi.org/10.1108/eb-10-2013-0128>
- Handayati, P. (2021). Corporate sustainability MSMEs: Halalan Thayyiban industry in East Java Indonesia. *Journal of Economics, Finance and Management Studies*, 4(10), 2066-2070. <https://doi.org/10.47191/jefms/v4-i10-31>
- Hussain, J., Salia, S., & Karim, A. (2018). Is knowledge that powerful? Financial literacy and access to finance: An analysis of enterprises in the UK. *Journal of Small Business and Enterprise Development*, 25(6), 985-1003. <https://doi.org/10.1108/JSBED-01-2018-0021>
- Kaplan, R. S., & Norton, D. P. (1996). Linking the balanced scorecard to strategy. *California Management Review*, 39(1), 53-79.
- Kaur, H., & Bansal, P. (2020). Assessing the impact of financial literacy on firm sustainability: Mediating role of financial access and firm growth. *Small Enterprises Development, Management & Extension Journal*, 47(4), 299-313. <https://doi.org/10.1177/09708464211044226>
- Khamis, M. D. F., Isa, M. Y. B., & Yusuff, N. (2021). Constructing indicators for Islamic financial inclusion. *International Journal of Islamic Economics*, 3(02), 101-124. <https://doi.org/10.32332/ijie.v3i2.3720>
- Kijkasiwat, P., Shahid, A. U., Hassan, M. K., & Hunjra, A. I. (2022). Access to finance, social capital and the improvement of corporate performance: Evidence from Southeast Asia. *Managerial Finance*, 48(7), 1047-1068. <https://doi.org/10.1108/MF-10-2021-0519>
- Lebas, M. J. (1995). Performance measurement and performance management. *International Journal of Production Economics*, 41(1-3), 23-35.
- Lusardi, A., & Tufano, P. (2015). Debt literacy, financial experiences, and overindebtedness. *Journal of Pension Economics and Finance*, 14(4), 332-368. <https://doi.org/10.1017/S1474747215000232>
- Maison, D., Marchlewska, M., Syarifah, D., & Zein, R. A. (2018). Explicit versus implicit "halal" information: Influence of the halal label and the country-of-origin information on product perceptions in Indonesia. *Frontiers in Psychology*, 9, 342440. <https://doi.org/10.3389/fpsyg.2018.00382>
- Marzban, S., & Shekra. (2015). *World bank Islamic development bank policy report: Leveraging Islamic finance for small and medium enterprises (SMEs)*. Retrieved from <https://www.researchgate.net/publication/283854956>

- Maulana, A., Savitri, F. M., & Perwita, A. D. (2021). The effect of Sharia financial access and financial literacy to non-bankable MSME's growth. *Velocity: Journal of Sharia Finance and Banking*, 1(2), 68-78. <https://doi.org/10.28918/velocity.v1i2.4606>
- Mebroui, T., & Mosbah, A. (2020). Islamic entrepreneurship: Issues and debates. *International Journal of Management and Commerce Innovations*, 7(2), 461-468.
- Mukhtar, S. A. (2013). Small and medium enterprises in Nigeria: Problems and prospects. *International Journal of Management Research and Reviews*, 3(12), 3857.
- Mukson, M., Hamidah, H., & Prabuwo, A. S. (2021). Work environment and entrepreneurship orientation towards MSME performance through organizational commitment. *Management Science Letters*, 11, 871-878. <https://doi.org/10.5267/j.msl.2020.10.012>
- Nikmah, F., Sudarmiatin, W. C., Hermawan, A., & Soetjipto, B. E. (2020). The role of SMEs' market orientation in developing countries: A general investigation in four countries. *Innovative Marketing*, 16(4), 1-12. [https://doi.org/10.21511/im.16\(4\).2020.01](https://doi.org/10.21511/im.16(4).2020.01)
- Nugraha, M. F. C., Wardoyo, C., & Wahyono, H. (2020). Financial inclusion in home industry of bamboo handicrafts in the trenggalek district. *Dinamika Pendidikan*, 15(1), 13-25. <https://doi.org/10.15294/dp.v15i1.24031>
- Obi, J. (2015). The role of small-scale enterprises in the achievement of economic growth in Nigeria. *International Journal of Social Sciences and Humanities*, 3(1), 2141-1162.
- OJK. (2017). *Implementation of activities to increase financial inclusion in the financial services sector national strategy for inclusive finance*. Retrieved from <https://drive.google.com/file/d/1cv4l49kiLGlajX4zMY78jPdq9fIAMVpf/view>
- OJK. (2021). *Roadmap for sharia banking development 2020 – 2025*. Retrieved from <https://www.ojk.go.id/id/kanal/syariah/berita-dan-kegiatan/publikasi/Documents/Pages/Roadmap-Pengembangan-Perbankan-Syariah-Indonesia-2020-2025/Buku%20-%20Roadmap%20Pengembangan%20Perbankan%20Syariah%20Indonesia%202020-2025.pdf>
- Ozili, P. K. (2021). Financial inclusion research around the world: A review. *Forum for Social Economics*, 50(4), 457-479. <https://doi.org/10.1080/07360932.2020.1715238>
- Pratikto, H., Agustina, Y., Diantoro, M., Churiyah, M., & Yusof, F. M. (2021). The strategic role of the halal study center in supporting halal product assurance policy in halal development: Trends, opportunities and challenges. In (pp. 38-44): Routledge. <https://doi.org/10.1201/9781003189282-7>.
- Pratikto, H., Agustina, Y., & Mutiara, T. (2023). *Readiness and interest in halal certificatio: Evidence of the importance of self-declare* (Vol. 246): In Aebmr Atlantis Press International BV. <https://doi.org/10.2991/978-94-6463-188-3>.
- Purnamasari, F., & Darmawan, A. (2017). Islamic banking and empowerment of small medium enterprise. *Etikonomi*, 16(2), 221-230. <https://doi.org/10.15408/etk.v16i2.5355>
- Richardson, D. B., Hamra, G. B., MacLehose, R. F., Cole, S. R., & Chu, H. (2015). Hierarchical regression for analyses of multiple outcomes. *American Journal of Epidemiology*, 182(5), 459-467. <https://doi.org/10.1093/aje/kwv047>
- Sanni, M., Oke, L. A., & Alayande, I. T. (2020). Bank credit accessibility and performance of SMEs in Kwara State, Nigeria: A PLS-SEM analysis. *Copernican Journal of Finance & Accounting*, 9(2), 45-64. <https://doi.org/10.12775/cjfa.2020.007>
- Sari, N. T. P., & Kusumawati, A. (2022). Literature review: The efforts to strengthening of micro, small and medium-sized enterprises (MSME) in Indonesia. *Asian Journal of Management, Entrepreneurship and Social Science*, 2(01), 98-115.
- Sarma, M. (2016). Measuring financial inclusion for Asian economies in financial inclusion in Asia In (pp. 3-34). London: Springer.
- Savitri, F. M., Maulana, A. S., Perwita, A. D., & Saptana, S. (2021). The effect of Sharia financial access & financial literacy to non-bankable MSME's growth. *Velocity: Journal of Sharia Finance and Banking*, 1(2), 68-78. <https://doi.org/10.28918/velocity.v1i2.4606>

- Siswoyo, E. (2021). Strengthening halal industry in increasing competitiveness and economic opportunities in industrial revolution era 4.0. *Annual International Conference on Islamic Economics and Business*, 1, 67-74. <https://doi.org/10.18326/aicieb.v1i0.9>
- Suhaili, M., & Sugiharsono, S. (2019). Role of MSME in absorbing labor and contribution to GDP. *Economics Development Analysis Journal*, 8(3), 301-315. <https://doi.org/10.15294/edaj.v8i3.35229>
- Trianto, B., Barus, E. E., Sabiu, T. T., & Annisa, S. (2021). Relationship between Islamic financial literacy, Islamic financial inclusion and business performance: Evidence from culinary cluster of creative economy. *Jurnal Ekonomi dan Bisnis Islam*, 6(1), 19-38. <https://doi.org/10.24042/febi.v6i1.7946>
- Van Rooij, M., Lusardi, A., & Alessie, R. (2011). Financial literacy and stock market participation. *Journal of Financial Economics*, 101(2), 449-472. <https://doi.org/10.1016/j.jfineco.2011.03.006>
- Ye, J., & Kulathunga, K. M. M. C. B. (2019). How does financial literacy promote sustainability in SMEs? A developing country perspective. *Sustainability (Switzerland)*, 11(10), 1-21. <https://doi.org/10.3390/su11102990>
- Yeganeh, H. (2021). Emerging social and business trends associated with the Covid-19 pandemic. *Critical Perspectives on International Business*, 17(2), 188-209. <https://doi.org/10.1108/cpoib-05-2020-0066>

*Views and opinions expressed in this article are the views and opinions of the author(s), Journal of Social Economics Research shall not be responsible or answerable for any loss, damage or liability etc. caused in relation to/arising out of the use of the content.*