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SHAPING ENTREPRENEURIAL PERFORMANCE IN SMALL BUSINESS SECTORS: DOES ISLAMIC FINANCIAL INSTITUTIONS' SUPPORT MATTER?

RIZALDI YUSFIARTO*
Faculty of Islamic Economics and Business, Universitas Islam Negeri Sunan Kalijaga
Yogyakarta, Indonesia
rizaldi.yusfiarto@uin-suka.ac.id

ISLAM ABDELJAWAD
Faculty of Business and Communication, An-Najah National University
Nablus, Palestine
islamjawad@najah.edu

LAILATIS SYARIFAH and ROMZIE ROSMAN
Institute of Islamic Banking and Finance, International Islamic University Malaysia
Kuala Lumpur, Malaysia
lailasyarif82@gmail.com
romzie@iium.edu.my

AHMAD FEBRIYANTO and MUHAMMAD HANIF IBRAHIM
Faculty of Islamic Economics and Business, Universitas Islam Negeri Sunan Kalijaga,
Yogyakarta, Indonesia
ebriyantoahmad88@gmail.com
uhammadhanifibrahim47@gmail.com

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This study explores the role of Islamic financial institutions' (IFIs) support in the entrepreneurial success of Muslim-owned micro, small and medium-sized enterprises (MSMEs). It also integrates the constructs of Islamic financial literacy, management control systems and the alleviation of financial constraints as key components of business internalization. The study involved 265 Muslim MSME owners, who were analyzed using partial least squares structural equation modeling (PLS-SEM). The empirical results reveal that IFIs play a significant role in enhancing entrepreneurial performance by enabling MSME actors to access both tangible and intangible resources critical to business success. Furthermore, the findings emphasize that IFIs act not only as capital providers but also as entrepreneurial support organizations, facilitating strategic guidance to support economic transformation through a more integrated approach grounded in Islamic values.

*Corresponding author.

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1. Introduction

Amid the current global uncertainty, micro, small and medium enterprises (MSMEs) play a crucial role as the backbone of economic development in Muslim-majority countries (Azam and Abdullah, 2024; Rajah and Woeffray, 2022). The MSME sector in most Middle Eastern countries, the Malay region, sub-Saharan Africa and the Indian subcontinent contributes significantly in terms of employment and economic output. In particular, young firms serve as a significant source of job creation, poverty reduction and innovation, helping to boost productivity and economic diversification (Stepanyan *et al.*, 2019; Younis *et al.*, 2022). Data shows that the contribution of MSMEs to GDP in Arab countries ranges from 4 to 40 percent, reflecting the potential for a more prominent role of MSMEs in some countries and highlighting their significant contributions. Additionally, it is estimated that MSMEs account for over 80 percent of total businesses in the MENA region and around 97 percent in the Arab world, with enterprise density (per 1.000 people) being primarily composed of micro-enterprises (Stepanyan *et al.*, 2019).

In Indonesia itself, as one of the largest Muslim-majority countries in the world, the role of the MSME sector has proven resilient under various conditions (Utama *et al.*, 2023). Currently, data shows there are 62 million SMEs (small and medium enterprises), meaning one unit represents every five people in Indonesia and of that number, 98.75 percent are micro-enterprises (Rajah and Woeffray, 2022). From another perspective, this condition could potentially become a serious problem, as this sector does not always provide long-term security and is prone to high volatility (Tirta and Sarli, 2024). The primary mitigation strategy often advocated in recent years is digital transformation for business owners in this sector. However, this is not always the solution for micro-enterprises; they frequently lack the managerial or operational capacity to be productive, even with digital assistance (Tirta and Sarli, 2024). This aligns with a study by McKinsey Global Institute, which emphasizes a microscopic approach to the unique characteristics of each business owner. This means that approaches beyond conventional policies focusing on MSMEs are needed, such as promoting relevant management, access and assistance for MSME actors (White and Madgavkar, 2024).

It is widely agreed that Islamic financial institutions are crucial in supporting Muslim entrepreneurship development, particularly in the MSME sector (Huda, 2012). A key mechanism of this industry is that its system is equity-based, which aligns with the characteristics of small businesses, as entrepreneurs can share in both profits and losses. This risk-sharing model is a fundamental support for entrepreneurship development, especially for small business owners relying on equity financing (Thaker *et al.*, 2020). Moreover, one of the unique aspects of Islamic financial institutions is the profit-and-loss scheme, where assets and liabilities are integrated into the agreement. Through this arrangement, Islamic financial institutions can provide long-term capital schemes for startup projects or businesses with measurable return characteristics (Abbas and Arizah, 2019; Susamto, 2024; Thaker *et al*., 2020). Thus, the Islamic financial industry holds significant potential to support grassroots economic development sectors such as micro and small businesses, given its fundamental criteria that emphasize creating a positive effect on society, particularly within Muslim communities (Thaker *et al*., 2020).

In the context of Islamic entrepreneurship, financial literacy grounded in Islamic principles is paramount, as the economic decisions made by Muslim entrepreneurs are influenced not only by rational-economic considerations but also by religious beliefs and spiritual values (Masrizal *et al*., 2025). This aligns with the literature on Islamic entrepreneurship and studies on the relationship between religion and entrepreneurship (Gümüsay, 2020; Smith *et al*., 2023), which suggest that faith can shape how individuals interpret risk, set business objectives and even select strategic business partners. Therefore, Islamic financial literacy is not merely technical knowledge of Islamic-compliant financial products but also reflects the integration of religious values into the economic decision-making process.

The study by Al-Awlaqi and Aamer (2023) also reveals that Islamic financial literacy is a key driver in financial management, underscoring that religious considerations significantly shape entrepreneurs' financial behavior. Furthermore, research by Alharbi, Yahya and Kassim (2022) highlights the importance of religious dimensions within financial literacy, demonstrating that financial attitudes, financial awareness and Islamic religiosity are critical factors in enhancing MSME performance. These findings reinforce the argument that Islamic values such as the prohibition of riba, fairness in transactions and social responsibility actively shape the worldview and decision-making processes of Muslim entrepreneurs. Additionally, a more recent study by Masrizal *et al*. (2025) emphasizes that challenges to financial literacy within Islamic business communities are not solely technical but also theological in nature: Limited understanding of Islamic financial principles can lead to inconsistencies in business practices and hinder access to appropriate Islamic-compliant financing.

Motivated by the issues outlined, this study aims to examine the role of IFIs from the perspective of Muslim entrepreneurs, with a particular focus on the MSME sector. It also elaborates on the concept of financial literacy and internal managerial aspects, specifically operational and financial constraints, as additional key proxies. This approach refers to previous perspectives that emphasize the need for strategies that go beyond conventional policy frameworks in supporting the development of this sector (Rajah and Woeffray, 2022; White and Madgavkar, 2024). In line with this, financial constraints remain a persistent challenge faced by MSMEs in accessing formal financing. This reflects entrepreneurs' limited ability to secure adequate resources because of asymmetric information, weak collateral or complex administrative requirements (Beck, 2007; García-Pérez-de-Lema *et al*., 2021). Therefore, efforts to alleviate financial constraints are of critical importance, particularly in empowering MSMEs through Islamic value-based approaches. Within this framework, IFIs are positioned as key actors in the broader ecosystem of entrepreneurial support organizations, capable of strengthening the entrepreneurial capacity of MSMEs through tangible efforts to overcome financial barriers, and improve financial literacy and management among business actors (Lou *et al*., 2024).

Finally, this study contributes significantly to the literature on Muslim entrepreneurship and Islamic finance, particularly within the MSME context. First, unlike prior studies that primarily focus on financing access, the conceptual model proposed in this research highlights the multifaceted role of IFIs, positioning them not only as financial providers but also as entrepreneurial support organizations that deliver managerial guidance and financial literacy support. Second, this study integrates Islamic financial literacy, management control systems and financial constraints into a unified analytical framework to more comprehensively explain the determinants of entrepreneurial performance among Muslim MSMEs. Third, the positioning of IFIs as a central antecedent within this model remains underexplored in previous literature, especially in research incorporating value-based and context-specific perspectives rooted in Islamic principles. Accordingly, this study advances the current literature by offering a nuanced understanding of how institutionally grounded, Shariah-compliant support can enhance entrepreneurial capacity at the grassroots level and contribute to broader community-based economic development.

2. Literature Review

2.1. *Theoretical framework*

The literature on entrepreneurial support organizations (ESOs) encompasses analyses of various organizations that perform similar functions in supporting entrepreneurial processes (Bergman and McMullen, 2022). Organizations collectively referred to as ESOs aim to support entrepreneurs and their ventures by connecting them to valuable resources and networks, and creating space for the development of capabilities and processes (Bergman, 2021). This framework has evolved and been widely applied through numerous support programs that continue experimenting with different forms and levels of intervention (Galbraith *et al*., 2021). ESOs are considered instrumental in shaping communities of practice that enable contextual learning, where participants can cultivate an entrepreneurial mindset that supports their future growth (Jones *et al*., 2021). Additionally, ESOs strengthen entrepreneurial competencies such as managing uncertainty, problem-solving, teamwork and effective decision-making (Williams Middleton and Donnellon, 2014).

Furthermore, ESOs are responsible for delivering practical, experience-based learning programs focused on creating and developing ventures that contribute to job creation and local economic growth (Cohen *et al*., 2019). These efforts are typically facilitated through access to external experts, and enhancing networks within relevant business and industrial ecosystems (Clayton *et al*., 2018). All such entities can be understood as part of a pluriform ESO phenomenon, where each organization plays a complementary role. In this context, various forms of support provided by Islamic financial institutions can also be positioned as part of this phenomenon, particularly in shaping the entrepreneurial performance of Muslim communities. Therefore, all initiatives that perform similar functions within the entrepreneurial ecosystem are collectively referred to as ESOs within the conceptual framework of this study.

2.2. *Muslim entrepreneurs*

Muslim entrepreneurs are associated with two fundamental concepts: Islam and entrepreneurship. Islam is a religion that requires its followers to acknowledge that the only God worthy of worship is Allah and that Muhammad is His messenger (Gümüsay, 2015; Y Hassan, 2022). Meanwhile, entrepreneurship in conventional economics refers to economic activities aimed at generating profit (Kayed and Hassan, 2010). Based on these descriptions, a Muslim entrepreneur is defined as an individual's ability, motivation and implementation to pursue opportunities, particularly in economic transactions, guided by principles and values rooted in Islamic teachings (Gümüsay, 2015; Hassan, 2022; Ratten *et al*., 2017).

The primary teaching of Islam regarding entrepreneurship is that engaging in entrepreneurship is considered a form of worship (Hassan and Hippler, 2014). Therefore, a Muslim entrepreneur is not permitted to seek personal profit alone but must also adhere to the guidelines established by Allah in conducting their business activities. Among these guidelines is the responsibility of a Muslim entrepreneur to meet their own needs, those of their family and the vulnerable. They must also share and contribute to society and promote entrepreneurial opportunities within the Islamic economic system. Muslim entrepreneurs are additionally responsible for environmental stewardship (Adi and Adawiyah, 2018; Yaacob and Azmi, 2012).

Moreover, Muslim entrepreneurs must uphold Islamic values derived from the characteristics of the Prophet Muhammad, namely Siddiq, Amanah, Tabligh and Fathonah. Siddiq means honesty and integrity, where Muslim entrepreneurs consistently speak and act truthfully. Amanah refers to being trustworthy and responsible, preventing Muslim entrepreneurs from engaging in actions that could harm others. Tabligh, in a business context, pertains to effective and sufficient communication with stakeholders. Fathonah signifies possessing reliable expertise, which in contemporary practice translates into an innovative and strategic approach to business (Hassan, 2022; Ratten *et al*., 2017). Table 1 outlines the differences between activities in Islamic entrepreneurship and general entrepreneurship.

Table 1. Differences between Islamic Entrepreneurship and General Entrepreneurship

Aspects	Islamic Entrepreneurship	General Entrepreneurship
Motive	Motivated by societal needs and the desire to fulfil religious obligations	Often motivated by individual utility (wealth maximization)
Framework	Engaged in productive ventures that involve the creation of tangible goods and services	Frequently secular (Non-religious Framework) in nature.
Financing	Financing through profit-sharing without interest	Financing through debt and equity is utilized
Risk-Management	Speculation and excessive risk-taking are prohibited	Speculation and excessive risk-taking are permitted
Philosophy	Islamic Compliances	Market Mechanism

Source: Adapted from Hassan and Hippler (2014)

2.3. *Islamic financial institutions' philosophy*

Similar to conventional financial institutions, Islamic financial institutions (IFIs) are entities established to facilitate the flow of funds from surplus-saving units to deficit-saving units (Obaidullah, 2005). However, compared to conventional institutions, IFIs are fundamentally distinct because they are guided by Islamic principles, which direct and underpin all their activities (El-Gamal, 2010). Based on these core values, IFIs are required to carry out their activities by the overarching objectives of Islamic law, which aim to achieve human well-being and avoid harm (Laldin and Furqani, 2013). To align with the *Maqasid Al-Shariah*, several core values are set for IFIs: (1) fair risk-sharing; (2) materialism (the real economy); (3) the avoidance of exploitation; and (4) the prohibition of activities deemed unlawful (El-Hawary *et al*., 2007), such as engaging in activities involving riba, gharar and maysir (Tatiana *et al*., 2015).

IFIs also limit their investments to halal (permissible) activities (Boukhatem and Ben Moussa, 2018). Investments and transactions related to prohibited activities, such as alcohol, narcotics, pornography, and other harmful practices, are strictly forbidden (Delle Foglie and Keshminder, 2022). Islamic law also establishes principles of transparency and fairness (Amin *et al*., 2014), brotherhood and unity (Aziz and Mohamad, 2016), and requires fair distribution of risk and profit (Tatiana *et al*., 2015). IFIs, based on their operational orientation, can be classified into two broad categories: profit-oriented organizations and non-profit organizations. Despite their differing operational orientations, both profit-oriented and non-profit IFIs must work in synergy to achieve wider objectives of human well-being (Tahiri Jouti, 2019).

Therefore, IFIs, in all their forms, must play a role in social welfare, including supporting grassroots economic products such as MSMEs, with specific missions such as: (1) providing credit to those involved in poverty alleviation (agriculture, small-scale production and service activities); (2) not only offering credit facilities but also providing managerial, marketing, technical and administrative guidance to borrowers; (3) not requiring collateral for small business loans but linking them to character-based lending or future loan promises; and (4) requiring savings from borrowers, where if loan repayment is not made, the mandatory savings will be forfeited (Antonio, 2011). Table 2 outlines several detailed distinctions between Islamic financial institutions and their conventional counterparts.

3. Hypothesis Development

3.1. *Islamic financial institution support to alleviate financial constraint*

In line with the principles of *Maqasid Al-Shari'ah*, Islamic financial institutions are not merely financial intermediaries but also function as ESOs that contribute to socio-economic development and community well-being (Sairally, 2013). Within the ESOs framework, these institutions play a crucial role in facilitating access to financial resources while enhancing entrepreneurial capabilities both through profit-and-loss sharing instruments (Gheeraert, 2014; Leon and Weill, 2018) and managerial mentoring (Anwar and

Table 2. Differences Between Islamic and Conventional Financial Institutions

Aspects	Islamic Financial Institutions	Conventional Financial Institutions
Principle	The absence of interest-based (riba) transactions, with a focus on profit and loss sharing	Based on the interest transaction
Operational	Business transactions that are halal (legal and permitted according to Islamic rules) and profitable	Profitable transactions, where halal considerations are not a significant factor
Structure Organizations	Under the supervision of the authorized national regulator, the National Sharia Council and the Sharia Supervisory Board	Only under the supervision of the authorized national regulator
Relationship	The relationship with its clients is defined as that of partners, investors, traders, buyers and sellers	The relationship is often defined as that of creditor and debtor
Evaluation of the Project	Because Islamic banks share both profit and loss, they pay greater attention to developing expertise in project assessment and evaluation	Because income is derived from advances, little attention is given to developing expertise in project assessment and evaluation. Risks are transferable at a price and sometimes incrementally
Contract Structure	It promotes risk-sharing between the investor and the user of funds/the entrepreneur	The investor or lender is guaranteed a predetermined rate of return

Source: Adapted from Lin *et al*. (2016)

Haque, 1991; Usman and Tasmin, 2016). The ESO's perspective emphasizes that entrepreneurial support extends beyond capital provision, encompassing the creation of learning ecosystems, network facilitation and targeted interventions aligned with entrepreneurs' needs. This is particularly relevant for Muslim MSMEs, which often face significant challenges such as limited capital access, high business risks and weak managerial capacity (Huda, 2012). Therefore, Islamic financial institutions are conceptualized as integral components of a pluriform and complementary entrepreneurial support system in this theoretical framework. Thus, the hypothesis is proposed as follows:

H1: Islamic financial institution support has a significant positive effect on alleviating MSMEs' financial constraints.

3.2. *Islamic financial institution support on Islamic financial literacy*

Formal financial institutions, as entities, also possess resources in the form of information, knowledge and theoretical concepts related to economics and their application in financial products (Bonga and Mlambo, 2016). Within the ESO's framework, financial institutions act not merely as providers of capital but also as facilitators of experiential learning by expanding access to financial literacy. Information is disseminated through their agents or service units tasked with delivering financial education to the broader public (Askari, 2009; Bonga and Mlambo, 2016). In line with the ESO's function of building entrepreneurial capabilities, such financial literacy significantly enhances public understanding of various financial products and services available (Kaiser and Menkhoff, 2017). For MSME actors, financial literacy mediated by ESOs is crucial in supporting more rational and efficient business decision-making, thereby contributing to optimal managerial performance (Alharbi, Yahya and Ramadani, 2022; Bhatnagar *et al.*, 2024). Thus, the hypothesis is proposed as follows:

H2: Islamic financial institution support has a significant positive effect on MSMEs' Islamic financial literacy.

3.3. *Islamic financial institution support on management control system*

The non-financial implications of Islamic financial institutions are also evidenced in their involvement in enhancing managerial skills and the mentoring processes provided to business operators (Bakhtiari *et al.*, 2020; Sairally, 2013). This process of strengthening managerial skills aligns with efforts to improve MSME operators' understanding of external financing, and influence their organizational behavior, by the crucial role ESOs play in providing the guidance and support necessary for entrepreneurs to grow (Duréndez *et al.*, 2023). Conversely, the support from these institutions, which also function as part of the ESO's ecosystem, has facilitated an increased understanding of risk management and other aspects of entrepreneurial performance among MSME operators, demonstrating the strategic role of ESOs in improving entrepreneurial performance (Cruciani *et al.*, 2022; Sulistianingsih and Santi, 2023). Therefore, it can be assumed that the enhanced mentoring processes conducted by Islamic financial institutions, as part of the ESOs, can significantly affect the implementation of effective management control systems among MSME operators. Thus, the following hypothesis is proposed:

H3: Islamic financial institution support has a significant positive effect on MSMEs' management control systems.

3.4. *Islamic financial literacy to alleviate financial constraint*

Islamic financial literacy refers to knowledge and practices related to Islamic financial concepts, such as payment methods, insurance, investments and Islamic contracts (Antara *et al.*, 2016; Osman *et al.*, 2024). This literacy level reflects an individual's awareness, attitude, knowledge and behavior regarding Islamic finance (Dinc *et al.*, 2021; Yusfiarto, Nugraha, *et al.*, 2022). Consequently, these aspects affect each individual's financial behavior and managerial financial processes (Ali *et al.*, 2020). Previous studies indicate that MSME operators with good financial literacy are more likely to have a higher risk tolerance and are encouraged to use external funds (Masdupi *et al.*, 2024). Empirical findings by Ye and Kulathunga (2019) also clarify that this effectively increases risk tolerance in developing countries, ultimately expanding MSMEs' use of external funds. Similar results are shown by Duréndez *et al*. (2023), where increased literacy can address financial issues MSMEs face. Thus, the hypothesis is proposed as follows:

H4: Islamic financial literacy has a significant positive effect on alleviating MSMEs' financial constraints.

3.5. *Islamic financial literacy on management control system*

Furthermore, the implications of the knowledge, understanding and practice of financial management are also evident in the managerial improvement of MSME operators (Bayrakdaroğlu and Şan, 2014). Financial literacy is critical for MSME operators in shaping managerial preferences, particularly regarding appropriate financing strategies in a more granular context (Koropp *et al*., 2013). An entrepreneur determines their financial products and procedures based on the financial understanding and knowledge they possess (Cole *et al*., 2011). They tend to exhibit high confidence in managing their businesses effectively and efficiently (Basha *et al*., 2023). Entrepreneurs with a strong financial literacy background are more likely to make business decisions considering long-term managerial processes (Eniola and Entebang, 2017; Lusardi and Mitchell, 2014; Masdupi *et al*., 2024). Therefore, within the Islamic context, Islamic financial literacy becomes a crucial proxy for the financial decision-making of business operators (Eniola and Entebang, 2017; Yakob *et al*., 2021). Hence, the following hypothesis is proposed:

H5: Islamic financial literacy has a significant positive effect on MSMEs' management control systems.

3.6. *Islamic financial literacy on entrepreneurial performance*

Entrepreneurial performance within a business entity also correlates with the knowledge and understanding of financial management. Enhanced financial understanding among business owners can improve a business entity's competitive advantage through sound financial decisions, asset management, investment strategies and innovation creation (Das and Teng, 2000; Duréndez *et al*., 2023). According to Chepngetich (2016), financial literacy related to borrowing and budgeting among MSME operators in developing countries plays a significant role in their business performance. Their knowledge of loans and fund management can influence MSME operators' behavior toward utilizing external funds (Chepngetich, 2016; Djankov *et al*., 2007). Moreover, the findings clarify that Islamic financial literacy equips MSMEs with the tools to manage their immediate financial needs in line with Islamic values and empowers them to invest and grow sustainably (Nik Azman *et al*., 2023). Hence, the following hypothesis is proposed:

H6: Islamic financial literacy has a significant positive effect on MSMEs' entrepreneurial performance.

3.7. *Alleviate financial constraint on entrepreneurial performance*

Limitations in financial management and planning are among the most commonly discussed issues in the context of MSME performance (García-Pérez-de-Lema *et al.*, 2021; Molina-García *et al.*, 2023). Financial constraints in MSMEs often stem from information asymmetry business owners face regarding access to external funding sources. This asymmetry limits their ability to make informed financial decisions, creating additional obstacles to growth and sustainability (Beck, 2007). To address these challenges, Lou *et al.* (2024) emphasize that a well-functioning financial environment can serve as a solution to alleviate financial constraints on MSMEs and enhance their performance. Financial constraints are also considered a factor that negatively affects entrepreneurial performance in MSMEs (Okpara, 2011). This implication further underscores that reducing financial barriers can be a key solution for MSMEs to improve entrepreneurial performance, particularly through enhancing their knowledge and competitive advantage (Chiappini *et al.*, 2022; Ruiz-Palomo *et al.*, 2022). Therefore, the following hypothesis is proposed:

H7: Alleviating financial constraints has a significant positive effect on MSMEs' entrepreneurial performance.

3.8. *Management control system on entrepreneurial performance*

A management control system plays a critical role in determining the effectiveness of an organization in meeting its goals by providing a structured framework for financial and operational decision-making (Duréndez *et al.*, 2023). This proxy involves the linearity of financial planning, cost accounting and decision-making, all based on business objectivity and relevance (Ruiz-Palomo *et al.*, 2019). The ability of MSMEs to implement these practices can have significant implications for improving their performance (Duréndez *et al.*, 2016). The achievement of organizational performance is often realized through formal processes routinely carried out (Pešalj *et al.*, 2018). For instance, management control processes such as budgeting can enhance the performance level of SMEs (Broccardo *et al.*, 2017). Moreover, this process is linked to the efficiency of material and production cost management, which is determined through the management control system (Henri and Journeault, 2010). Based on these insights, the following hypothesis is proposed:

H8: Management control systems have a significant positive effect on MSMEs' entrepreneurial performance.

3.9. *Islamic financial literacy as a mediator*

Islamic financial literacy is mentioned as playing a role as a mediating proxy (Abbas *et al.*, 2022). This mechanism is supported by previous studies, which have shown that, in the context of small businesses, the implications of financial literacy have led to improved entrepreneurial performance (Nik Azman *et al.*, 2023). From another viewpoint, Bonga and Mlambo (2016) clarify that support from Islamic financial institutions can take the form of information and knowledge related to Islamic finance that can be provided to users. It can be deduced that the resources provided by Islamic financial institutions can improve entrepreneurial performance by enhancing the financial knowledge and skills of MSME owners.

Moreover, the implications of support from formal financial institutions can also encourage the implementation of effective internal control systems within business entities (Cruciani *et al.*, 2022; Duréndez *et al.*, 2023; Sulistianingsih and Santi, 2023). By understanding Islamic financial principles, MSME owners can make more informed financial decisions, leading to better control over resources and improved risk management (Eniola and Entebang, 2015; Lusardi and Mitchell, 2014). Based on this, it is proposed that Islamic financial literacy can serve as a mechanism that enables MSMEs to utilize better the resources and services provided by Islamic financial institutions, subsequently enhancing their internal control systems.

Therefore, the hypotheses are formulated as follows:

H9: Islamic financial literacy positively mediates the relationship between support from Islamic financial institutions and alleviating MSMEs' financial constraints.

H10: Islamic financial literacy positively mediates the relationship between support from Islamic financial institutions and MSMEs' management control systems.

3.10. *Alleviate financial constraint as a mediator*

As an institutional proxy, formal financial institutions are responsible for ensuring financial inclusion by providing financial services to business actors with limited access to the formal financial sector (Kooli, 2021). This role is supported by transferring knowledge, information, and understanding of Islamic financial products and services (Duréndez *et al.*, 2023; Mujiatun *et al.*, 2023). Also, Okpara (2011) and Molina-García *et al.* (2023) emphasize that limited financial resources pose a significant problem for SME performance, showing a negative trend. Specifically, in the context of alleviating financial constraints as a mediator, findings by García-Pérez-de-Lema *et al.* (2021) highlight financial literacy as a provider of the necessary knowledge for effective financial management, which can catalyze enabling MSMEs to overcome financial constraints, thereby maximizing their innovation potential. Hence, the following hypothesis is proposed:

H11: Alleviating financial constraints positively mediates the relationship between support from Islamic financial institutions and MSMEs' management control systems.

3.11. *Management control system as a mediator*

To accelerate progress, implementing a management control system (MCS) in SMEs can enhance entrepreneurial skills, enabling them to adapt to changing environments (Budiarto,

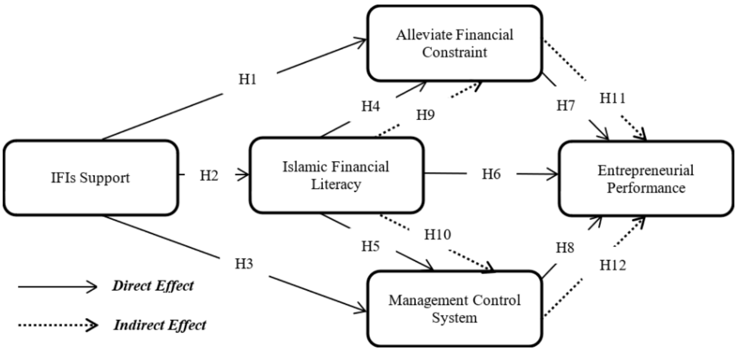

Figure 1. Conceptual Model

2014). MCS is crucial in ensuring that organizational activities remain aligned with strategic objectives (Mahmood *et al*., 2011). Additionally, Islamic financial literacy helps SME owners make decisions based on Islamic values, though financial literacy alone cannot guarantee optimal management performance (Demirgüç-Kunt *et al*., 2020). This is where MCS becomes essential, as a tool that translates Islamic financial literacy into tangible management practices, such as cost control, efficient resource allocation and strategic planning (Memba *et al*., 2012). It can be assumed that Islamic financial knowledge can be systematically integrated into SME operations with an effective MCS, ultimately improving their entrepreneurial performance.

Hence, the following hypothesis is proposed:

H12: Management control systems positively mediate the relationship between support from Islamic financial institutions and MSMEs' entrepreneurial performance.

4. Methodology

4.1. *Participants and procedure*

This study employs a survey approach utilizing self-administered questionnaires completed by respondents. Data collection was conducted through both face-to-face and online methods. The process relied on databases obtained from Islamic financial institutions and universities. To reduce the potential for social desirability bias, all participants were assured of the anonymity and confidentiality of their responses. Ensuring anonymity and privacy is a widely recommended strategy for minimizing socially desirable responses in self-reported data, particularly when the subject involves religious beliefs (Krumpal, 2013). Regarding the sampling method, this study applies purposive sampling with pre-established criteria aligned with the primary research objectives (Andrade, 2021). The requirements include: (1) business owners in the MSME sector, (2) Muslim individuals, (3) offering Halal products and (4) utilizing services provided by Islamic financial institutions. Respondents who did not meet these criteria were excluded from the final dataset.

4.2. *Measures*

All constructs in this study were measured using a 5-point Likert scale, with response options ranging from 1 (strongly disagree) to 5 (strongly agree). Respondents were instructed to indicate the extent to which they agreed with each statement based on their actual business experiences. The measurement items were adapted from validated instruments in prior studies and adjusted to suit the context of entrepreneurial performance in the MSME sector.

The construct Islamic financial institutions' support was measured using five items adapted from Utama *et al.* (2023), such as "IFIs offer post-disbursement support in the development of MSMEs." The construct Islamic financial literacy comprised five items adapted from Dinc *et al.* (2021), for example, "I have a good understanding of Islamic financial management." Management control systems consisted of four items adapted from Duréndez *et al.* (2023), including "We are able to manage the risk of debt maturity effectively." Alleviate financial constraints was measured using five items adapted from García-Pérez-de-Lema *et al.* (2021), such as "Access to external funding helps us avoid delays in business operations." Finally, entrepreneurial performance was assessed using four items adapted from Yusfiarto, Pambekti, *et al.* (2022), including "The business I operate has consistently experienced an increase in profit."

Prior to the field survey, the items for each construct were pre-tested with 20 Muslim MSME practitioners to ensure understanding, readability and clarity of the content. Following the pre-test, empirical research yielded 265 valid responses. The demographic details are as follows (see Table 3): based on business location, MSMEs operate in the

Table 3. Characteristics of the Sample

Demographic	Spectrum	Count	Percent
Business Scale	Micro	182	68.68%
	Small	52	19.62%
	Medium	31	11.70%
Business Domicile	Special Region of Yogyakarta	150	56.60%
	Central Java	115	43.40%
Business Age	< 1 year	45	16.98%
	1–3 years	108	40.75%
	4–5 years	46	17.36%
	>5 years	66	24.91%
Industry	Manufactures	14	5.28%
	Services	32	12.08%
	Agriculture	23	8.68%
	Retail	165	62.26%
	Others	31	11.70%

Special Region of Yogyakarta (56.60%) and Central Java (43.40%). Regarding business scale, the majority are micro enterprises (68.68%) and small enterprises (19.62%). Regarding IFIs partnerships, respondents who partnered with Islamic Microfinance accounted for 189 (71.32%) and those who partnered with Islamic Banks totaled 76 (26.68%).

4.3. *Screening data*

The collected data was first confirmed through a common method variance (CMV) test. This step was necessary because the data was collected from a single source at a single point in time, which could affect the validity of the findings (Rodríguez-Ardura and Meseguer-Artola, 2020). The single-factor Harman's test was employed to verify CMV. The results indicated that the maximum variance explained by a single factor was 43 percent and each factor contributed less than 50 percent to the covariance of the constructs. This statistical outcome verifies that the potential CMV in the data used can be marginally controlled (Rodríguez-Ardura and Meseguer-Artola, 2020).

4.4. *Sample adequacy ratio*

The following process was essential to ensure that the sample size used in the study was statistically adequate. The sample adequacy is crucial because it directly influences the reliability and validity of the model's estimates. In this study, the inverse square root method was employed by Kock and Hadaya (2018) to determine the minimum required sample size. By setting a general power level of 80 percent, significance at 5 percent and a path coefficient of 0.15, the minimum sample size required was 155 (Hair *et al.*, 2022). Therefore, the final sample size of 265 respondents exceeded this minimum requirement, further strengthening the robustness of the analysis.

4.5. *Data analysis*

The analytical method applied in this study is partial least squares structural equation modeling (PLS-SEM). This method has been commonly used in previous studies related to Islamic entrepreneurship and has proven validity (Khoirunnisa *et al.*, 2023; Pambekti *et al.*, 2022). The selection of this approach is based on the complexity of the research model and the study's aim to predict key outcomes and identify relevant antecedents (Hair *et al.*, 2022). The complexity refers to the research model that includes both direct and indirect paths (i.e., mediation effects). Hence, the use of this method aligns with the study's objectives and research model. In general, the configuration and interpretation used in the PLS-SEM approach adhere to the guidelines provided by (Hair *et al.*, 2022).

5. Results

5.1. *Measurement model assessment*

The initial test involved assessing the values of Cronbach's alpha (α) and composite reliability (CR). The results indicated that both α and CR were within the expected range of >0.70, confirming the internal consistency reliability of the measured constructs (Hair *et al.*, 2022). The subsequent tests focused on convergent and discriminant validity, evaluated through outer loadings and average variance extracted (AVE). Convergent validity was assessed by examining the outer loadings and AVE values, and discriminant validity was evaluated using the Fornell-Larcker criterion. The results revealed that all outer loading values exceeded 0.70 and AVE values were within the range of >0.50. These findings confirm the convergent validity among the reflective constructs. Regarding discriminant validity, all correlations between constructs were found to be below the square root of AVE values. Therefore, it can be concluded that all reflective constructs exhibit discriminant validity. Further details on the output of the measurement model are presented in Tables 4 to 7.

Table 4. Descriptive Statistics

Constructs	Code	Mean	Median	Min	Max	Standard Deviation
Alleviate Financial Constraint	AFC1	3.49	4.00	1.00	5.00	1.17
	AFC2	3.57	4.00	1.00	5.00	1.07
	AFC3	3.81	4.00	1.00	5.00	1.03
	AFC4	3.86	4.00	1.00	5.00	0.95
Entrepreneurial Performance	EPR1	4.26	4.00	2.00	5.00	0.70
	EPR2	4.24	4.00	1.00	5.00	0.69
	EPR3	4.12	4.00	2.00	5.00	0.81
	EPR4	4.04	4.00	1.00	5.00	0.83
Islamic Financial Literacy	IFL1	4.35	5.00	1.00	5.00	0.75
	IFL2	4.20	4.00	1.00	5.00	0.77
	IFL3	4.16	4.00	1.00	5.00	0.78
	IFL4	4.24	4.00	1.00	5.00	0.79
	IFL5	4.08	4.00	1.00	5.00	0.88
IFIs' Support	IFS1	3.53	4.00	1.00	5.00	1.05
	IFS2	3.54	4.00	1.00	5.00	1.05
	IFS3	3.96	4.00	1.00	5.00	0.83
	IFS4	3.78	4.00	1.00	5.00	0.92
	IFS5	3.80	4.00	1.00	5.00	0.98
Management Control Systems	MCS1	4.17	4.00	1.00	5.00	0.78
	MCS2	4.23	4.00	1.00	5.00	0.75
	MCS3	4.17	4.00	1.00	5.00	0.74
	MCS4	4.30	4.00	1.00	5.00	0.75

Table 5. Correlation Matrix Outcomes

Constructs	Alleviate Financial Constraint	Entrepreneurial Performance	Islamic Financial Literacy	IFIs' Support	Management Control Systems
Alleviate Financial Constraint	1.00	0.38	0.34	0.46	0.31
Entrepreneurial Performance	0.38	1.00	0.47	0.37	0.49
Islamic Financial Literacy	0.34	0.47	1.00	0.37	0.89
IFIs' Support	0.46	0.37	0.37	1.00	0.33
Management Control Systems	0.31	0.49	0.89	0.33	1.00

Table 6. Reliability and Validity Outcomes

Code	Indicators	Loadings	Outer VIF
Islamic Financial Institutions' Support (α=0.87, *CR*=0.91, *AVE*=0.67)			
IFS1	IFIs provide products and services that align with the needs of MSMEs	0.84***	2.42
IFS2	IFIs offer sufficient capital to support the growth of MSMEs	0.88***	2.91
IFS3	IFIs deliver the necessary knowledge for the financial management	0.64***	1.43
IFS4	The process of accessing finance from IFIs is uncomplicated	0.80***	2.01
IFS5	IFIs offer post-disbursement support in the development of MSMEs	0.89***	2.97
Islamic Financial Literacy (α=0.81, *CR*=0.86, *AVE*=0.57)			
IFL1	Society should collaborate in addressing overcoming difficulties	0.72***	1.52
IFL2	I am open to inviting others to become partners in my business	0.78***	1.84
IFL3	I have a good understanding of Islamic financial management	0.84***	1.98
IFL4	I utilize the business economic information in decision-making	0.70***	1.46
IFL5	I have knowledge of alternative Islamic financial sources, such as ZISWAFC	0.72***	1.51

Notes: *** is significant at 0.01 and ZISWAFC is Zakat, Infaq, Shadaqh, Waqf and Crowdfunding

Table 6 (continued).

Code	Indicators	Loadings	Outer VIF
Alleviate Financial Constraint (α=0.85, *CR*=0.90, *AVE*=0.70)			
AFC1	We are able to control the costs and commissions required in the business	0.86***	2.56
AFC2	We are able to meet the guarantees required in financial planning	0.88***	2.70
AFC3	We have a favorable financing interval with IFIs	0.78***	1.85
AFC4	We are able to manage the risk of debt maturity effectively	0.81***	1.92
Management Control Systems (α=0.84, *CR*=0.89, *AVE*=0.69)			
MCS1	We implement financial record-keeping effectively	0.86***	2.26
MCS2	We implement budget control effectively	0.85***	2.23
MCS3	We implement financial analysis effectively	0.88***	2.39
MCS4	We implement strategic planning effectively	0.72***	1.47

Table 6 (continued).

Code	Indicators	Loadings	Outer VIF
Entrepreneurial Performance (α=0.70, *CR*=0.81, *AVE*=0.52)			
EPR1	We can provide excellent service to our customers	0.70***	1.52
EPR2	The business I operate has consistently demonstrated production readiness	0.74***	1.56
EPR3	The business I operate has experienced favorable sales growth to date	0.70***	1.56
EPR4	The business I operate has consistently experienced an increase in profit	0.75***	1.59

Notes: *** is significant at 0.01 and ZISWAFC is Zakat, Infaq, Shadaqh, Waqf and Crowdfunding

Table 7. Discriminant Validity Outcomes

Constructs	1	2	3	4	5
Alleviate Financial Constraint	**0.83**				
Entrepreneurial Performance	0.38	**0.72**			
Islamic Financial Institutions' Support	0.46	0.37	**0.81**		
Islamic Financial Literacy	0.34	0.47	0.37	**0.75**	
Management Control System	0.31	0.49	0.33	0.89	**0.83**

Note: The bold values represent the square root of AVE

Table 8. Structural Model Outcomes

Constructs	SSO	SSE	Q^2	R^2
Alleviate Financial Constraint	1060	883.93	0.16	0.24
Islamic Financial Literacy	1325	1227.34	0.07	0.13
Management Control Systems	1060	485.67	0.54	0.79
Entrepreneurial Performance	1060	896.09	0.15	0.29
Islamic Financial Institutions' Support	1325	1325		

Notes: SSO is the Sum of Squared Observations and SSE is the Sum of Squared Prediction Errors

5.2. *Structural model assessment*

This phase begins with the assessment of the coefficient of determination (R^2), focusing on constructs that are influenced by other constructs. Examining the R^2 output values, the management control system construct exhibits the highest value at 0.79 (see Table 8). However, R^2 values have significant limitations, particularly in capturing predictive performance beyond the sample (Shmueli *et al.*, 2019). Therefore, the PLSpredict approach was employed, concentrating on entrepreneurial performance. The results indicate that the predictive value of Q^2 is greater than 0, while the majority of indicators for root mean squared error (RMSE) and mean absolute error (MAE) from the PLS-SEM model are lower compared to the linear naïve model (see Table 9). This concludes that the model in this study

Table 9. PLSpredict Outcomes

Entrepreneurial Performance	PLS Model		Linear Model		
	RMSE	MAE	RMSE	MAE	Q^2 predict
EPR1	0.68	0.58	0.68	0.57	0.06
EPR2	0.68	0.54	0.69	0.55	0.01
EPR3	0.79	0.60	0.79	0.61	0.09
EPR4	0.80	0.59	0.80	0.61	0.02

demonstrates good predictive power (Shmueli *et al.*, 2019). Furthermore, the predictive relevance Q^2 values for all variables exceed the minimum threshold of 0, indicating that the observed values have been well reconstructed. Thus, the model has predictive relevance.

5.3. *Hypothesis assessment*

This phase begins with assessing multicollinearity among variables through variance inflation factors (VIF). The VIF output indicates that the values range from 1.00 to 4.97, all below the threshold of 5 (Hair *et al.*, 2022). In hypothesis testing, the bootstrap method was employed to assess the bias-corrected confidence intervals (BCCI), with p-values for two-tailed significance (* p: 0.10, ** p: 0.05, *** p: 0.01, ns: not significant). The constructs analyzed include Islamic financial institutions' support (IFIs), Islamic financial literacy (IFL), management control systems (MCS), alleviate financial constraint (AFC) and entrepreneurial performance (EPR), evaluated through both direct and indirect effects via mediation analysis.

The results from the 5.000 resampling bootstrap indicate that IFIs provide substantial empirical evidence for enhancing AFC ($\beta=0.39$, $p<0.05$) and IFL ($\beta=0.37$, $p<0.05$). However, IFIs were found not to significantly affect MCS ($\beta=0.01$, $p>0.05$), suggesting that hypotheses H1 and H2 are supported, whereas H3 is rejected. Similarly, IFL significantly acts as an antecedent for AFC ($\beta=0.19$, $p<0.05$) and MCS ($\beta=0.89$, $p<0.05$). Nevertheless, the relationship between IFL and EPR was insignificant ($\beta=0.08$, $p>0.05$), indicating that hypotheses H4 and H5 are accepted, whereas H6 is rejected. Finally, the study confirms that both AFC ($\beta=0.24$, $p<0.05$) and MCS ($\beta=0.34$, $p<0.05$) significantly influence EPR, thus accepting hypotheses H7 and H8. Table 10 presents the detailed results of the direct relationship analysis.

In the mediation analysis, the study incorporates three primary models. Model 1 highlights that IFL partially mediates the relationship between IFIs and AFC, as both direct ($\beta=0.39$, $p<0.05$) and indirect effects ($\beta=0.07$, $p<0.05$) are significant. Model 2 shows that IFL fully mediates the relationship between IFIs and MCS, evidenced by the non-significant direct effect of IFIs on MCS ($\beta=0.01$, $p>0.05$) and the significant indirect effect through IFL ($\beta=0.32$, $p<0.05$). Similarly, Models 3 and 4 demonstrate that AFC ($\beta=0.04$,

Table 10. Direct Effect Outcomes

PLS-Path	VIF	β	t-values	BCCI 95%	Hypothesis
IFIs → AFC	1.15	0.39***	6.21	[0.25; 0.50]	Supported
IFIs → IFL	1.00	0.37***	5.96	[0.23; 0.48]	Supported
IFIs → MCS	1.15	0.01ns	0.17	[–0.04; 0.06]	Not Supported
IFL → AFC	1.15	0.19***	2.86	[0.05; 0.32]	Supported
IFL → MCS	1.15	0.89***	33.87	[0.82; 0.93]	Supported
IFL → EPR	4.97	0.08ns	0.61	[–0.15; 0.38]	Not Supported
AFC → EPR	1.13	0.24***	3.71	[0.11; 0.37]	Supported
MCS → EPR	4.86	0.34**	2.41	[0.02; 0.57]	Supported

* *p*: 0.10, ** *p*: 0.05, *** *p*: 0.01, ns: not significant

Table 11. Indirect Effect Outcomes

PLS-Path	β	t-values	BCCI	Conclusion
Model 1				
IFIs → AFC	0.39***	6.21	[0.25; 0.50]	Partial Mediation
IFIs→ IFL → AFC	0.07**	2.65	[0.02; 0.13]	
Model 2				
IFIs → MCS	0.00ns	0.17	[–0.04; 0.06]	Full Mediation
IFIs → IFL → MCS	0.32***	5.78	[0.01; 0.21]	
Model 3				
IFL → EPR	0.08ns	0.61	[–0.15; 0.38]	Full Mediation
IFL → AFC → EPR	0.04**	2.20	[0.01; 0.09]	
Model 4				
IFL → EPR	0.08ns	0.61	[–0.15; 0.38]	Full Mediation
IFL→ MCS → EPR	0.30**	2.45	[0.01; 0.50]	

* *p*: 0.10, ** *p*: 0.05, *** *p*: 0.01, ns: not significant

$p<0.05$) and MCS ($\beta=0.30$, $p<0.05$) fully mediate the relationship between IFL and EPR. Thus, hypotheses H9-H12 are accepted, as detailed in Table 11.

6. Discussion

This study aims to explore the entrepreneurial performance of MSMEs in Indonesia by considering proxies for management control systems, alleviating financial constraints, Islamic financial literacy and the role of Islamic financial institutions. The study also incorporates the primary proxy, which is the support from Islamic financial institutions as part of the ESOs ecosystem. Empirical findings suggest that support from Islamic financial institutions has the potential to enhance Islamic financial literacy and reduce financial constraints. The primary limitations faced by MSMEs, such as limited capital resources and internal capabilities, need to be addressed through continuous support from Islamic financial institutions, which function as an integral part of ESOs (Gheeraert, 2014; Kaiser and Menkhoff, 2017; Leon and Weill, 2018). These institutions are expected to surpass their conventional competitors by offering various instruments designed to achieve specific goals in supporting entrepreneurship and financial management programs beneficial to MSMEs, enabling Islamic financial institutions, as part of ESOs, to become a key catalyst in forming an effective Islamic financial supply chain for Muslim entrepreneurs.

This study also shows that the level of Islamic financial literacy among MSMEs is closely related to the management control system and alleviating financial constraints. MSMEs' understanding of Islamic finance products, services and contracts allows them to utilize external resources better (Mujiatun *et al.*, 2023). These findings clarify that their understanding of Islamic finance contributes to enhanced ability to access and manage funding from Islamic financial institutions. Additionally, this financial literacy affects the effectiveness of the internal control systems they implement. Consequently, crucial aspects of MSME management, such as economic efficiency and better decision-making, are influenced by the knowledge, understanding and skills of MSME actors about Islamic finance (Eniola and Entebang, 2017; Lusardi and Mitchell, 2014).

Empirical evidence in this study also highlights two key factors that serve as antecedents to entrepreneurial performance: Alleviating financial constraints and management control systems. The openness of MSMEs to external resources leads to increased business process efficiency and competitive advantage (Chiappini *et al.*, 2022; Ruiz-Palomo *et al.*, 2022). This means businesses with more resources are more likely to explore and exploit market opportunities. However, this process must be supported by implementing an effective management control system. Management control systems, including budgeting and evaluation processes, play a crucial role in business decision-making in MSMEs (Broccardo *et al.*, 2017; Duréndez *et al.*, 2023). Thus, the synergy between the availability of key resources and proper management practices can be a major driver of improved entrepreneurial performance.

Specifics on indirect effect, the findings from models analyzed using an indirect effect approach build upon the results of previous studies that exhibit similar tendencies (Demirgüç-Kunt *et al.*, 2020; García-Pérez-de-Lema *et al.*, 2021; Nik Azman *et al.*, 2023). This study validates its importance in the construct of Islamic financial literacy as a mediator. In other words, support from Islamic financial institutions in enhancing financial literacy has significant implications for reducing constraints in the financial supply chain for MSME actors. Additionally, complete mediation is observed in the relationship between support from Islamic financial institutions and the management control system. Although IFIs' support doesn't directly affect the management control system, this tendency can be explained by enhancing Islamic financial literacy among MSMEs. This underscores the importance of proper engagement between Islamic financial institutions and entrepreneurs in improving the financial literacy of MSMEs, which in turn strongly correlates with their internal control systems.

Furthermore, complete mediation is also found in the relationship between Islamic financial literacy and entrepreneurial performance, mediated by alleviating financial constraints. The financial literacy levels of MSME actors must be translated into decisions that help them avoid financial barriers before ultimately improving their business performance. Similar results are seen in the relationship between Islamic financial literacy and entrepreneurial performance, where implementing management control systems plays a crucial role in enhancing MSME performance. Therefore, Islamic financial literacy, which is fundamentally based on knowledge and understanding, cannot directly improve MSME business performance. Islamic financial literacy must be catalyzed through support implemented by the formal Islamic financial sector and the application of managerial practices before it can ultimately lead to improved entrepreneurial performance.

6.1. *Implications*

6.1.1. *Theoretical implications*

This study incorporates the role of IFIs into the conceptual model to broaden the exploration of entrepreneurial performance among Muslim-owned MSMEs. Accordingly, the findings offer significant theoretical contributions to the development of Islamic entrepreneurship literature, particularly by addressing a gap left by previous research that overlooked this construct. The results indicate that support from IFIs influences the level of Islamic financial literacy and helps alleviate financial constraints faced by these enterprises. This evidence underscores that the role of IFIs extends beyond financing functions, positioning them as catalysts for enhancing financial literacy. Furthermore, this study expands the understanding of ESOs within a religious financial context, highlighting the importance of IFI contributions not only in financial aspects but also in managerial skill development and the adoption of sound financial management practices. Therefore, this study enriches the theory of Islamic entrepreneurship by extending the ESOs framework to a faith-based context, offering a novel perspective on how religious institutions can play strategic roles in building a resilient and adaptive entrepreneurial ecosystem.

6.1.2. *Policymaker implications*

From a policymaker's perspective, the regulatory framework for MSME financing needs to be strengthened, particularly through inclusive banking schemes. Simplifying legal processes and regulations is crucial to ensure that MSMEs can more easily access IFIs, with Islamic-compliant financing options available through diverse schemes tailored to their needs. A well-structured regulatory framework will enhance the Islamic economic ecosystem, making it more inclusive, empowering and promoting sustainable economic growth. Moreover, the government must foster partnerships between IFIs, MSME actors and related institutions. Such intervention will accelerate the development of Islamic financial value chains, which can expedite the scaling up of businesses, especially for micro and small enterprises.

6.1.3. *Practical implications*

The appropriate implications for IFIs based on these findings encompass several essential aspects. First, IFIs must proactively provide sustainable Islamic financial literacy training programs for MSME actors. These programs should be designed to enhance understanding of financial management, risk management and financial practices that comply with Sharia principles, enabling MSMEs to manage their funds more effectively and avoid financial constraints. Additionally, IFIs can strengthen collaboration with Islamic social finance institutions such as BAZNAS and governments and NGOs to develop innovative funding schemes, such as productive zakat or productive waqf, that directly support small and micro enterprises. Second, IFIs should expand their services beyond mere capital provision to include business incubation and operational support. This incubation could take the form of post-financing mentoring programs involving relevant experts, allowing MSMEs to integrate their capabilities with sound managerial practices to enhance their efficiency and competitiveness. Furthermore, IFIs need to consider adjusting their financing products to be more relevant to the needs of MSMEs, particularly in the micro and small sectors, which tend to be more informal. Flexible and inclusive financing products, especially those offered by Islamic banking, can assist MSMEs in overcoming critical financing constraints that are essential for their scaling up.

6.2. *Limitations and further research*

This study has several limitations, particularly related to the absence of a control group that would allow for comparing the performance of MSMEs receiving services from Islamic financial institutions (IFIs) with those that do not. Furthermore, this study only measures the general effect of several services without considering the interdependence between the services provided. Therefore, future research should employ an experimental or quasi-experimental design that includes a control group. This approach would enable a clearer comparison of the effect of IFI services on MSME performance compared to a group that does not receive such services. Additionally, more complex analytical models could be used to identify interactions between IFI services and how they may either reinforce or diminish the effectiveness of one another.

7. Conclusion

The crucial role of Islamic financial institutions (IFIs) in supporting the economic advancement of Muslim communities globally has been widely recognized in various academic studies and discussions. This study strongly emphasizes the significant potential of IFIs as key drivers of financial supply chain success in grassroots economic development, such as MSMEs. IFIs serve as providers of capital or funding sources and as strategic partners that support economic transformation through a more integrated approach as part of the support provided by ESOs. The research findings suggest that relevant support from IFIs, such as a focus on effective financial management and its implementation and addressing emerging challenges, can enhance the internalization of sound financial practices. Additionally, this support must be integrated with strong managerial practices, enabling MSMEs to overcome financial constraints and become more adaptive and innovative in responding to market dynamics, thanks to the strategic role of IFIs as part of the broader ESOs ecosystem.

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