

Islamic Social Finance and MSME Performance: A Moderated-Mediation Analysis across Aceh and North Sumatera

ABSTRACT - Micro, Small, and Medium Enterprises (MSMEs) are vital to Indonesia's economy but continue to face barriers in financing, mentorship, and managerial capacity. Islamic Social Finance (ISF), implemented through Micro Waqf Banks (BWM), offers an inclusive solution by integrating joint liability schemes, mentoring, and capital assistance. While prior research affirms the role of ISF in enhancing access to finance and entrepreneurial growth, comparative evidence across regions with differing socio-cultural contexts remains limited. This study examines the differential effects of mentoring, joint liability, and capital provision on micro-entrepreneurial success in Aceh and North Sumatera. Using Partial Least Squares Structural Equation Modeling (PLS-SEM) and Multi-Group Analysis (MGA) on responses from 350 micro-entrepreneurs, the results reveal that joint liability consistently supports enterprise performance, mentoring is more effective in Aceh, and capital provision is most beneficial in less developed areas. The findings indicate that local culture and institutional strength moderate ISF outcomes. Therefore, ISF programs should integrate standardized financial instruments with context-sensitive non-financial interventions to maximize their empowerment potential. This study contributes to the ISF literature and offers practical insights for designing regionally adaptive MSME empowerment policies.

ABSTRAK - *Keuangan Sosial Islam dan Kinerja UMKM: Analisis Moderasi-Mediasi di Aceh dan Sumatera Utara.* Usaha Mikro, Kecil, dan Menengah (UMKM) berperan penting dalam perekonomian Indonesia, namun masih menghadapi kendala akses pembiayaan, pendampingan, dan peningkatan kapasitas manajerial. Keuangan Sosial Islam (Islamic Social Finance/ISF) melalui Bank Wakaf Mikro (BWM) menjadi alternatif inklusif dengan menggabungkan skema tanggung renteng, pendampingan, dan bantuan modal. Meskipun ISF terbukti meningkatkan akses permodalan dan kinerja usaha, bukti komparatif lintas wilayah dengan karakter sosial berbeda masih terbatas. Studi ini meneliti pengaruh pendampingan, tanggung renteng, dan bantuan modal terhadap keberhasilan usaha mikro di Aceh dan Sumatera Utara menggunakan metode Partial Least Squares Structural Equation Modeling (PLS-SEM) dan Multi-Group Analysis (MGA) terhadap 350 responden. Hasil menunjukkan bahwa tanggung renteng berpengaruh positif di kedua provinsi, pendampingan lebih efektif di Aceh, dan bantuan modal lebih bermanfaat di daerah dengan keterbatasan ekonomi. Temuan ini menegaskan bahwa budaya lokal dan kekuatan kelembagaan memoderasi hasil ISF. Oleh karena itu, program ISF perlu mengombinasikan instrumen keuangan baku dengan dukungan non-keuangan yang peka terhadap konteks lokal untuk meningkatkan efektivitas pemberdayaan. Studi ini memperkaya literatur ISF dan memberikan rekomendasi kebijakan bagi strategi pemberdayaan UMKM yang adaptif wilayah.

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INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) play a pivotal role in Indonesia's economic landscape by driving growth, reducing unemployment, and improving community welfare. Despite their significant contributions, MSME actors continue to face major constraints in accessing financing, business mentoring, and managerial skill enhancement. To address these persistent challenges, the Islamic Social Finance (ISF) framework, rooted in social capital and ethical financial principles, has been recognized as a more inclusive, equitable, and sustainable model for economic empowerment.

Within this framework, Micro Waqf Banks (BWM) have emerged as key institutions that operationalize ISF by systematically providing interest-free social capital while integrating joint liability mechanisms and structured mentoring as core empowerment strategies (Cattelan, 2018). Previous research has emphasized that productive financing not only expands access to capital for small businesses but also enhances business success when combined with training and advisory support (Kunaka & Moos, 2019; Nadia et al., 2019). In addition, the growing integration of financial technology (fintech) within ISF management, particularly in the administration of integrated social financing, has demonstrated potential to improve distribution efficiency and strengthen community-level financial inclusion (Rahmati & Ibrahim, 2022).

Nevertheless, the effectiveness of ISF instruments such as mentoring and joint liability may vary across regions, influenced by factors like local wisdom, cultural values, institutional characteristics, and regional readiness. Although several studies have highlighted ISF's positive contribution to empowerment and economic development (Ali et al., 2016), comparative empirical research examining how these mechanisms perform across different social contexts remains limited (Haneef et al., 2013). This gap underlines the need for multi-group empirical investigations that compare the effects of mentoring, joint liability, and ISF-based capital support on micro-entrepreneurial welfare in regions with distinct socio-cultural dynamics, such as Aceh and North Sumatera.

Accordingly, this study employs a multi-group analysis approach to assess variations in the impact of ISF components between these two provinces. It further explores whether mentoring-based empowerment strategies require local adaptation or can be effectively applied across diverse contexts. The findings are expected to enrich the literature on Islamic Social Finance and provide practical insights for developing context-sensitive, regionally adaptive MSME empowerment policies.

LITERATURE REVIEW

Islamic Social Finance (ISF)

Islamic Social Finance (ISF) refers to Shariah-compliant financial instruments designed to support welfare and development objectives, especially for marginalized groups, by offering interest-free or risk-sharing financing such as *qardhul hasan* (benevolent loan) or waqf-based capital (Cattelan, 2018). The core idea is to create a fair, inclusive, and sustainable system free from *riba*, aligning financial services with social justice and communal well-being (Cattelan, 2018; Kamri et al., 2014). ISF's relevance for microfinance lies in offering accessible capital to

small entrepreneurs who are underserved by conventional banks (Azman & Ali, 2019). Studies show that ISF contributes not only through capital but also via redistributive instruments such as zakat, waqf, and *qardh hassan*, which complement risk-sharing financing to promote inclusion (Demirguc-Kunt, & Klapper, 2013).

ISF is increasingly examined in the context of Sustainable Development Goals (SDGs) and financial inclusion, as Islamic finance's social dimension can help fill gaps conventional systems do not address. The integration of ISF with fintech (so-called Islamic FinTech) also opens pathways to scale social financing, improve transparency, and enhance outreach to remote or unbanked populations. Hence, ISF functions not only as an alternative financing system but as a holistic ecosystem combining capital, governance, and social tools. Within ISF, three interlinked components are central, namely financing, mentoring, and joint liability. Financing provides the material capital; mentoring builds managerial capacity and knowledge; joint liability fosters social accountability and reduces moral hazard. Together, they aim to build not just businesses, but resilient micro-enterprise ecosystems (Abduh et al., 2024).

Sharia Microfinance

Sharia microfinance is a subset of Islamic finance that directly targets micro and small enterprises, applying contracts compatible with Islamic jurisprudence, such as *qardhul hasan*, *mudarabah*, and *murabahah* (Muhammad, 2005; Karim, 2001). Key design features include transparency of terms, freedom from interest, clarity in disbursement timing and amounts, and stipulation that funds be used for productive (not consumptive) purposes (Muhammad, 2005). These features reinforce ethical integrity and institutional legitimacy, which are critical for trust building among micro-entrepreneurs (Muhammad, 2005).

The literature review of Islamic microfinance institutions (IMFIs) between 2010 and 2020 reports that poverty alleviation and waqf-based microfinance are among the most frequent themes, reflecting the social mission orientation of sharia microfinance. Moreover, sustainability, outreach, governance, and fintech adoption are emerging concerns. Sharia microfinance institutions must balance their social and financial goals, ensuring financial viability without compromising social objectives—a tension that has been studied in Islamic banking literature broadly. In contexts where institutions are weak or governance is opaque, the purity of contract and institutional credibility become essential determinants of performance.

Business Mentoring

Business mentoring refers to structured guidance, advisory, and capacity-building support provided to entrepreneurs to enhance their managerial, technical, and strategic skills (Kunaka & Moos, 2019). In the ISF context, mentoring aims to complement capital provision, ensuring that entrepreneurs can deploy funds optimally, navigate market dynamics, and scale sustainably (Kunaka & Moos, 2019; Sharafizad et al., 2023). Indicators often used to measure mentoring include the frequency of mentoring sessions, relevance and quality of training materials, mentor competence, mentee engagement, and follow-up support.

Empirical evidence indicates that high-quality mentoring can improve firm performance, survival rates, and adaptability (in both conventional and Islamic microfinance contexts).

Effective mentoring strengthens business planning, financial literacy, networking, and problem-solving skills. A mentoring program tailored to local conditions and needs tends to yield better outcomes than a generic "one-size-fits-all" model. In ISF, mentoring also serves a social function—reinforcing ethical norms and Sharia-compatible business practices, which helps align the business with social goals. Mentoring can moderate the effects of financing: when capital is given without guidance, misuse or failure risk is higher; mentoring helps reduce that risk.

Joint Liability

The joint liability model is a collective repayment arrangement where group members assume mutual responsibility for one another's loans (Yunus, 1999). It is widely used in microfinance to mitigate information asymmetry, encourage peer monitoring, and reduce moral hazard (Rathore, 2016; Giné & Karlan, 2014). The literature posits that joint liability helps overcome both informational and enforcement problems: group members screen applicants, monitor behavior, and exert social pressure to adhere to repayment (Rathore, 2016; Giné & Karlan, 2014).

Indicators for joint liability include group cohesion, regular meeting participation, social control mechanisms (such as peer sanctions or incentives), and peer monitoring intensity. In the Islamic social finance setting, joint liability is adapted to maintain ethical compliance and community solidarity. A recent study on Micro Waqf Bank customers in Indonesia shows that joint liability-based financing significantly reduces non-performing financing (Purwanto et al., 2022), validating its applicability in ISF institutions. This mechanism fosters accountability, trust, and shared responsibility.

However, classical joint liability is not without challenges: it can lead to free-riding, coordination failure, and undue social pressure (Carli, 2025). Some researchers propose asymmetric joint liability (assigning a lead borrower or tiered responsibilities) to reduce moral hazard and improve peer enforcement (Carli, 2025). In sum, joint liability remains a potent but context-sensitive tool in microfinance and ISF.

MSME Performance

Micro, Small, and Medium Enterprises (MSMEs) performance is typically assessed through financial, operational, and sustainability dimensions (Abdulwahab & Al-Damen, 2015). Common indicators include sales growth, asset accumulation, employment growth, and profitability. Additionally, qualitative measures such as managerial capacity, decision-making autonomy, risk management ability, and owner satisfaction are meaningful proxies for entrepreneurial success (Aulia et al., 2020; Sari et al., 2025).

In the ISF literature, improved performance is expected when financing is combined with mentoring and accountability mechanisms. The triple synergy (capital + mentoring + social accountability) can enhance resilience against shocks, stimulate growth, and foster sustainable livelihoods. The performance of micro-entrepreneurs thus reflects the interplay of financial capital, human capital, and social capital, shaped by local institutional and cultural contexts.

Research Hypotheses

Based on the theoretical foundation and previous research, the following hypotheses are proposed:

H1: There is a significant difference in the impact of Islamic Social Finance (ISF) on micro-entrepreneurial success between BWM Babul Maghfirah Aceh and BWM Mawaridussalam North Sumatera.

H2: The moderating role of business mentoring on the relationship between ISF and entrepreneurial success differs significantly between the two BWM locations.

H3: The moderating role of joint liability on the relationship between ISF and entrepreneurial success differs significantly between the two BWM locations.

METHODOLOGY

Research Design

This study adopts an explanatory quantitative approach aimed at testing the causal relationships among key components of Islamic Social Finance (ISF), namely mentoring, joint liability, and ISF capital, on the welfare of micro-entrepreneurs who are clients of Baitul Maal wat Tamwil (BWM). To explore regional differences, a Multi-Group Analysis (MGA) is employed to assess whether the effects of ISF variables differ significantly between Aceh and North Sumatera.

Population and Sample

The research population comprises active clients of BWM Babul Maghfirah in Aceh and BWM Mawaridussalam in North Sumatera who have received ISF-based social financing. A purposive sampling technique was applied, targeting clients who not only received financing but also actively participated in mentoring programs or joint liability groups. Using the Slovin formula, the final sample consisted of 146 respondents from a population of 231 in Aceh and 90 respondents from a population of 116 in North Sumatera.

Data Analysis Technique

Data were analyzed using the Partial Least Squares Structural Equation Modeling (PLS-SEM) method via SmartPLS software. The analysis involved two stages: (1) evaluation of the measurement model through tests of convergent validity ($AVE > 0.50$) and construct reliability (Composite Reliability and Cronbach's Alpha > 0.70), and (2) evaluation of the structural model by examining t-statistics (> 1.96), coefficient of determination (R^2), effect size (f^2), and predictive relevance (Q^2).

Multi-Group Analysis

Multi-Group Analysis (MGA) was conducted to determine whether the influence of ISF variables on micro-entrepreneurial welfare significantly differs between Aceh and North Sumatera. This involved comparing path coefficients and p-values across the two groups.

Structural Equation Model

The following structural models were used to test the relationships between variables:

1. $Y = \beta_0 + \beta_1 \cdot ISF + \beta_2 \cdot Location + \beta_3 \cdot (ISF \times Location) + \varepsilon$
2. $Y = \beta_0 + \beta_1 \cdot ISF + \beta_2 \cdot Mentoring + \beta_3 \cdot (ISF \times Mentoring) + \beta_4 \cdot Location + \beta_5 \cdot (ISF \times Mentoring \times Location) + \varepsilon$
3. $Y = \beta_0 + \beta_1 \cdot ISF + \beta_2 \cdot JointLiability + \beta_3 \cdot (ISF \times JointLiability) + \beta_4 \cdot Location + \beta_5 \cdot (ISF \times JointLiability \times Location) + \varepsilon$

RESULTS AND DISCUSSION

Respondent Characteristics

Table 1 presents the demographic and business profiles of respondents from BWM Babul Maghfirah (Aceh) and BWM Mawaridussalam (North Sumatera), highlighting notable differences in age distribution, educational background, and business types. In terms of age, respondents from BWM Babul Maghfirah exhibit a more diverse age range, with significant representation from both younger (<20 years) and older (>50 years) groups. The largest proportion (39.04%) falls within the 20–29 age bracket. Conversely, respondents from BWM Mawaridussalam are predominantly within the productive age range of 30–39 years (39.54%), with no participants under 20 or over 50 years old.

Table 1. Characteristics of the Respondents

Characteristics	BWM Babul Maghfirah		BWM Mawaridussalam	
	Frequency	Percentage	Frequency	Percentage
Age	25	17.13	-	0
<20 years	39	26.71	14	16.28
20-29 years	57	39.04	23	26.74
30-39 years	25	17.12	34	39.54
40-50 years	25	17.13	15	17.44
>50 years	39	26.71	-	0
Education Level				
No formal education				
Primary school	13	8.90	-	0
Junior high school	71	48.63	8	9.30
Senior high school	62	42.47	42	48.84
Diploma & Bachelor degree	-	0	36	41.86
Type of Business				
Fish crackers (<i>Bhoi Ikan</i>)	32	21.92		
Herbal tea (<i>Bungong Kaye</i>)	34	23.29		
Banana chips (<i>Keripik Pisang</i>)	25	17.12		
Traditional snacks (<i>Karah</i>)	32	21.92		
Small-scale trader	10	6.85		
Calligraphy	13	8.90		
Traditional cake (<i>Kue Pancung</i>)			16	18.60
Dimsum			10	11.63
Emping crackers			15	17.44
Coffee shop – Al			12	13.95
Coffee shop – Uwais			8	9.30
Sticky rice cake (<i>Wajik Bandara</i>)			11	12.79

Regarding educational attainment, the majority of BWM Babul Maghfirah clients have lower educational levels, with 48.63% having completed junior high school and 42.47% senior high school. Notably, none reported holding a diploma or university degree. In contrast, BWM Mawaridussalam shows a higher educational profile, with 41.86% of respondents possessing a diploma or bachelor's degree. The types of businesses also differ significantly. In Aceh,

enterprises are largely rooted in traditional and local products such as *bohi ikan* (fish crackers), *bungong kaye* (herbal tea), and *keripik pisang* (banana chips). Meanwhile, in North Sumatera, businesses lean toward modern culinary ventures, including *dimsum*, *kue pancung*, *wajik bandara*, and coffee shops. These distinctions reflect the influence of regional socio-economic and cultural contexts on the design and implementation of empowerment strategies by each BWM institution.

Measurement Model

Convergent Validity (Outer Loadings)

Table 2 presents the outer loading values for each indicator used in the measurement model for the Aceh sample. The results indicate that all indicators have loading values exceeding the threshold of 0.70, which is the minimum acceptable value for establishing convergent validity. According to Haryono and Wardoyo (2012), an outer loading value of ≥ 0.70 signifies that an indicator has a strong correlation with the latent construct it is intended to measure. These results confirm that all measurement items are valid and reliable in representing their respective constructs, thereby supporting the adequacy of the measurement model in the context of the Aceh sample.

Table 2. Outer Loading for Aceh

Indicator	ISF Capital	BWM Customer Entrepreneurs	Mentoring	Joint Liability
X1.1	0.791			
X1.2	0.785			
X1.3	0.826			
X1.4	0.767			
Y1.1		0.846		
Y1.2		0.801		
Y1.3		0.831		
Y1.4		0.811		
Y1.5		0.818		
Y1.6		0.849		
Z1.1			0.900	
Z1.2			0.828	
Z1.3			0.928	
Z1.4			0.813	
Z1.5			0.848	
Z2.2				0.786
Z2.3				0.729
Z2.4				0.731
Z2.5				0.816
Z2.6				0.707

Table 3 displays the outer loading values for indicators used in the North Sumatera sample. The results show that while several indicators—particularly those measuring entrepreneurial welfare, mentoring, and joint liability—exceed the recommended threshold of 0.70, some indicators for ISF Capital and welfare fall within the 0.40 to 0.70 range.

According to Hair Jr. et al., (2017), outer loadings above 0.70 are ideal; however, values between 0.40 and 0.70 may still be retained if they are theoretically justified and do not adversely affect the model's composite reliability (CR) or average variance extracted (AVE). This perspective is

supported by Chin (1998) and Hulland (1999), who argue that in exploratory or theory-driven research, indicators with loadings ≥ 0.40 remain acceptable. Based on this rationale, the study retains all indicators within the 0.40–0.70 range, as they contribute meaningfully to their respective constructs and maintain the overall robustness of the measurement model.

Table 3. Outer Loading for North Sumatera

Indicator	ISF Capital	BWM Customer Entrepreneurs	Mentoring	Joint Liability
X1.1	0.637			
X1.2	0.469			
X1.3	0.525			
X1.4	0.887			
Y1.1		0.869		
Y1.2		0.883		
Y1.3		0.858		
Y1.4		0.656		
Y1.5		0.712		
Y1.6		0.442		
Z1.1			0.658	
Z1.2			0.831	
Z1.3			0.834	
Z1.4			0.855	
Z1.5			0.590	
Z2.2				0.793
Z2.3				0.768
Z2.4				0.862
Z2.5				0.844
Z2.6				0.710

Table 4 summarizes the outer loading values for all indicators across both BWM Babul Maghfirah (Aceh) and BWM Mawaridussalam (North Sumatera).

Table 4. Outer Loading (Complete)

Indicator	ISF Capital	BWM Customer Entrepreneurs	Mentoring	Joint Liability
X1.1	0.754			
X1.2	0.770			
X1.3	0.825			
X1.4	0.826			
Y1.1		0.854		
Y1.2		0.838		
Y1.3		0.841		
Y1.4		0.808		
Y1.5		0.801		
Y1.6		0.780		
Z1.1			0.840	
Z1.2			0.870	
Z1.3			0.925	
Z1.4			0.857	
Z1.5			0.771	
Z2.2				0.808
Z2.3				0.750
Z2.4				0.784
Z2.5				0.809
Z2.6				0.735

All indicators exceed the recommended threshold of 0.70, confirming strong convergent validity (Ghozali & Latan, 2015). This indicates that each item reliably measures its respective construct, supporting the robustness of the measurement model.

Reliability and Convergent Validity

Table 5 presents reliability indices by group and pooled. All composites exceed $CR > 0.70$ and $\alpha \geq 0.60$, with $AVE \geq 0.50$ for the substantive constructs, satisfying recommended thresholds (Hair Jr. et al., 2017; Ghozali & Latan, 2015).

Table 5. Reliability Indices

Items	Aceh			Nort Sumatera			Complete		
	Alpha	CR	AVE	Alpha	CR	AVE	Alpha	CR	AVE
ISF* Mentoring -> BWM Customer Entrepreneurs	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
ISF*Joint Liability -> BWM Customer Entrepreneurs	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Joint Liability -> BWM Customer Entrepreneurs	0.812	0.869	0.570	0.855	0.897	0.636	0.837	0.884	0.605
Mentoring -> BWM Customer Entrepreneurs	0.907	0.928	0.683	0.834	0.883	0.567	0.903	0.925	0.674
ISF Capital -> BWM Customer Entrepreneurs	0.915	0.936	0.747	0.812	0.871	0.580	0.906	0.931	0.730
ISF* Mentoring -> BWM Customer Entrepreneurs	0.803	0.871	0.628	0.623	0.733	0.422	0.804	0.872	0.631

Coefficient of Determination (R^2)

As shown in Table 6, the model explains 67.3% of the variance in micro-entrepreneurial success overall ($R^2 = 0.673$; adj. $R^2 = 0.666$). By site, explanatory power is 64.2% in Aceh (adj. $R^2 = 0.629$) and 72.5% in North Sumatera (adj. $R^2 = 0.707$), indicating strong predictive capacity, particularly in North Sumatera.

Table 5. R-Square

	Complete		Aceh		North Sumatera	
	R Square	R Square Adjusted	R Square	R Square Adjusted	R Square	R Square Adjusted
BWM Customer Entrepreneurs	0.673	0.666	0.642	0.629	0.725	0.707

Structural Model (Direct Effects)

Table 7 presents the path analysis for BWM Babul Maghfirah (Aceh) reveals that joint liability and ISF capital significantly and positively influence entrepreneurial success, with coefficients of 0.762 and 0.258, respectively ($p < 0.05$). These findings suggest that group-based lending and interest-free financing are effective strategies for promoting business growth. In contrast, mentoring shows a significant negative effect (-0.243 , $p < 0.05$), indicating that current mentoring practices may not be well-aligned with local needs. Overall, the results highlight the

importance of financial mechanisms in driving entrepreneurship, while suggesting that mentoring programs require refinement to better support micro-entrepreneurs in Aceh.

Table 7. Path Coefficients (Aceh)

Variable	B	T Statistics	P Values	Result
Joint Liability -> BWM Customer Entrepreneurs	0.762	7.596	0.000	Supported
Mentoring -> BWM Customer Entrepreneurs	-0.243	2.249	0.012	Supported
ISF Capital -> BWM Customer Entrepreneurs	0.258	2.107	0.018	Supported

Table 8 presents the path coefficients for BWM Mawaridussalam (North Sumatera), analyzing the effects of joint liability, mentoring, and ISF capital on entrepreneurial success. The results show that joint liability has a strong and statistically significant positive impact ($\beta = 0.708$, $p < 0.001$), confirming its effectiveness in supporting business growth. In contrast, mentoring ($\beta = 0.217$, $p = 0.063$) and ISF capital ($\beta = 0.064$, $p = 0.299$) do not show significant effects, despite positive coefficients. These findings suggest that, within the North Sumatera context, joint liability is the most influential factor in driving micro-entrepreneurial development; while mentoring and capital provision may require further refinement to enhance their impact.

Table 8. Path Coefficients (North Sumatera)

Variable	B	T Statistics	P Values	Result
Joint Liability -> BWM Customer Entrepreneurs	0.708	7.405	0.000	Supported
Mentoring -> BWM Customer Entrepreneurs	0.217	1.536	0.063	Not Supported
ISF Capital -> BWM Customer Entrepreneurs	0.064	0.528	0.299	Not Supported

Table 9 presents the path coefficients for the complete model, combining data from both Aceh and North Sumatera. The results show that joint liability ($\beta = 0.664$, $p < 0.001$) and ISF capital ($\beta = 0.200$, $p = 0.015$) have significant positive effects on entrepreneurial success among BWM customers. In contrast, mentoring ($\beta = 0.046$, $p = 0.306$) does not show a statistically significant impact. These findings suggest that financial support and group-based lending are more effective drivers of entrepreneurship than mentoring, which may require further refinement to enhance its contribution.

Table 9. Path Coefficients (Pooled)

Variable	B	T Statistics	P Values	Result
Joint Liability -> BWM Customer Entrepreneurs	0.664	8.859	0.000	Supported
Mentoring -> BWM Customer Entrepreneurs	0.046	0.507	0.306	Not Supported
ISF Capital -> BWM Customer Entrepreneurs	0.200	2.189	0.015	Supported

Moderation Analysis

Table 10 reveals the moderation effects of mentoring and joint liability on the relationship between Islamic Social Finance (ISF) and entrepreneurial welfare in Aceh. The interaction between ISF and mentoring shows a significant positive effect ($\beta = 0.184$, $p = 0.016$), indicating that mentoring enhances the impact of ISF on micro-entrepreneurial success. In contrast, the findings also highlight a significant negative effect from the interaction between ISF and joint liability ($\beta = -0.222$, $p = 0.001$), suggesting that in closely-knit communities, joint liability may

introduce social pressure that weakens ISF's effectiveness. These findings underscore the need for context-sensitive approaches in implementing ISF-based empowerment strategies.

Table 10. Moderation Paths (Aceh)

Variable	B	T Statistics	P Values	Result
ISF* Mentoring -> BWM Customer Entrepreneurs	0.184	2.157	0.016	Supported
ISF*Joint Liability -> BWM Customer Entrepreneurs	-0.222	3.008	0.001	Supported

Table 11 presents the moderation analysis results for BWM Mawaridussalam (North Sumatera), examining how the interaction between Islamic Social Finance (ISF) and its supporting elements—mentoring and joint liability—affects micro-entrepreneurial welfare. The results show that neither interaction produces a statistically significant effect. Specifically, $ISF \times Mentoring$ yields a coefficient of 0.086 ($p = 0.185$), and $ISF \times Joint Liability$ shows a coefficient of 0.011 ($p = 0.467$), both with p -values exceeding the 0.05 threshold. These findings suggest that, in the North Sumatera context, mentoring and joint liability do not significantly moderate the relationship between ISF and entrepreneurial outcomes. Therefore, their roles may be less influential in enhancing ISF's impact, and further refinement or contextual adaptation may be needed to improve their effectiveness.

Table 11. Moderation Paths (North Sumatera)

Variable	B	T Statistics	P Values	Result
ISF* Mentoring -> BWM Customer Entrepreneurs	0.086	0.897	0.185	Not Supported
ISF*Joint Liability -> BWM Customer Entrepreneurs	0.011	0.082	0.467	Not Supported

Table 12 highlights the moderation analysis for the full dataset, examining how the interaction between Islamic Social Finance (ISF) and its supporting elements—mentoring and joint liability—affects the welfare of micro-entrepreneurs. The results show that $ISF \times Mentoring$ has a significant positive effect ($\beta = 0.133$, $p = 0.018$), indicating that mentoring enhances the impact of ISF on entrepreneurial outcomes.

Table 12. Moderation Paths (Pooled)

Variable	B	T Statistics	P Values	Result
ISF* Mentoring -> BWM Customer Entrepreneurs	0.133	2.104	0.018	Supported
ISF*Joint Liability -> BWM Customer Entrepreneurs	-0.108	1.613	0.054	Not Supported

In contrast, $ISF \times Joint Liability$ does not show a statistically significant effect ($\beta = -0.108$, $p = 0.054$), suggesting that while joint liability may contribute to business development, its interaction with ISF does not significantly influence overall welfare in this combined context. These findings emphasize the importance of mentoring as a complementary element in ISF-based empowerment strategies.

Multi-Group Analysis (MGA)

Table 13 presents the results of the multi-group analysis comparing the influence of key Islamic Social Finance (ISF) variables on micro-entrepreneurial welfare between Aceh and North Sumatera. Among the five variables tested, only the direct effect of mentoring shows a

statistically significant difference ($\Delta = -0.460$, $p = 0.005$), indicating that mentoring impacts entrepreneurial outcomes differently across the two regions.

Table 13. Multi-Group Path Differences (Aceh-North Sumatera)

Variable	Difference (Aceh - Sumut)	p-Value
ISF* Mentoring -> BWM Customer Entrepreneurs	0,098	0,235
ISF*Joint Liability -> BWM Customer Entrepreneurs	-0,233	0,082
Joint Liability -> BWM Customer Entrepreneurs	0,054	0,346
Mentoring -> BWM Customer Entrepreneurs	-0,460	0,005
ISF Capital -> BWM Customer Entrepreneurs	0,194	0,135

The remaining variables—including the moderation effects of ISF $\times$ Mentoring and ISF $\times$ Joint Liability, as well as the direct effects of joint liability and ISF capital—do not show significant differences ($p > 0.05$). However, the interaction between ISF and joint liability approaches significance ($p = 0.082$), suggesting a potential regional variation worth further exploration. These findings highlight that while most ISF components function similarly across regions, mentoring requires localized adaptation to be effective in different socio-cultural contexts.

Discussion

The findings from Tables 7 through 13 demonstrate that Islamic Social Finance (ISF) instruments do not operate uniformly across regions. Among the three core components—joint liability, mentoring, and ISF capital—joint liability consistently shows a strong and positive direct effect on micro-entrepreneurial welfare in both Aceh and North Sumatera. This supports Social Collateral Theory (Yunus, 1999), which argues that peer accountability and group-based lending foster financial discipline and repayment behavior. Its consistent performance across regions suggests that joint liability can be standardized as a core ISF strategy.

However, moderation analysis reveals a more complex dynamic. In Aceh, joint liability shows a negative moderating effect, indicating that excessive group pressure in tightly bonded communities may lead to adverse outcomes such as stress or conflict. This aligns with critiques Hermes & Lensink (2011), who caution against rigid applications of joint liability and advocate for more flexible, incentive-based models.

Effectiveness of Mentoring and ISF Capital

The effectiveness of mentoring varies significantly between regions. While Human Capital Theory (Becker, 1964) emphasizes the role of education and training in improving performance, the findings show that mentoring is not universally effective. In Aceh, where educational and entrepreneurial capacity may be lower, mentoring significantly enhances the impact of ISF. This supports the work of Kunaka & Moos (2019) and Sharafizad et al. (2023), who highlight mentoring's role in capacity building.

Conversely, in North Sumatera, mentoring has limited or even negative effects, consistent with Adrian & Rahmawati's (2017) critique of generic mentoring programs that fail to address local business realities. The Multi-Group Analysis (MGA) confirms this disparity, showing a statistically significant difference in mentoring's impact ($p = 0.005$, β difference = -0.460),

reinforcing the need for localized mentoring models tailored to the specific needs and readiness of entrepreneurs.

The role of ISF capital also differs across regions. In Aceh, ISF capital has a strong positive effect, supporting Financial Inclusion Theory (Cattelan, 2018; Azman & Ali, 2019), which emphasizes the importance of ethical, interest-free financing for underserved communities. However, in North Sumatera, ISF capital does not significantly influence entrepreneurial outcomes. This suggests that in more developed regions, capital alone may be insufficient without complementary support such as innovation, market access, or business development services—an observation supported by Abduh et al. (2024) and Odoom et al. (2019).

Moderation Effects and Strategic Implications

Moderation analysis (Tables 10–12) reveals that mentoring strengthens ISF's impact in Aceh and the overall sample, but not in North Sumatera. Meanwhile, joint liability, though effective as a direct strategy, shows a negative moderating effect in Aceh, suggesting that its application must be carefully managed to avoid unintended social pressure. The near-significant negative effect in the full sample further supports the need for hybrid or incentive-based accountability schemes, rather than rigid group enforcement.

Taken together, these findings advocate for a dual ISF strategy. *First*, standardize effective financial tools like joint liability in their direct form, while applying moderation mechanisms with caution. *Second*, localize non-financial interventions such as mentoring and capital support to suit regional socio-economic conditions. This approach aligns with Hair et al.'s (2017) recommendation to balance structural consistency with contextual adaptability. It also resonates with Islamic economic principles that emphasize justice, empowerment, and inclusive growth (Chapra, 2000; Ahmed, 2012), reinforcing the ethical foundation of ISF in supporting diverse micro-entrepreneurial ecosystems.

CONCLUSION

This study reveals that the effectiveness of Islamic Social Finance (ISF) instruments, namely joint liability, mentoring, and capital support, varies significantly across regional contexts. Joint liability consistently demonstrates a strong positive impact on micro-entrepreneurial welfare in both Aceh and North Sumatera, supporting Social Collateral Theory and validating its role as a standardized ISF mechanism. However, moderation analysis suggests that in tightly bonded communities like Aceh, joint liability may exert social pressure, leading to unintended negative outcomes. Mentoring, while aligned with Human Capital Theory, shows region-specific effectiveness, significantly enhancing ISF outcomes in Aceh but proving less impactful in North Sumatera. This disparity, confirmed through Multi-Group Analysis, highlights the importance of tailoring mentoring programs to local entrepreneurial capacity and institutional readiness. Similarly, ISF capital proves effective in Aceh, consistent with Financial Inclusion Theory, but lacks significance in North Sumatera, where more advanced support mechanisms may be required.

These findings carry important implications for ISF stakeholders. Managers of BWM and similar institutions should adopt a dual strategy: standardize proven financial tools like joint liability

while customizing non-financial interventions such as mentoring and capital support to suit regional conditions. In underserved areas, mentoring should focus on foundational skills and capacity building, while in more developed regions, it should emphasize innovation, market access, and strategic growth. The moderation results also suggest that joint liability should be applied with caution, potentially through hybrid or incentive-based models to mitigate social pressure. For policymakers, the study underscores the need for differentiated ISF frameworks that reflect local economic and institutional realities. Supportive policies should promote ecosystem development through partnerships with educational, religious, and community organizations capable of delivering context-sensitive empowerment programs. Regulatory flexibility is also essential to allow adaptive implementation of ISF tools.

Despite its contributions, this study has limitations. The analysis is based on cross-sectional data from two provinces, which may not capture long-term effects or broader national patterns. Future research should consider longitudinal designs to assess the sustainability of ISF interventions over time. Additionally, qualitative studies could provide deeper insights into the lived experiences of micro-entrepreneurs, particularly regarding group dynamics and mentoring effectiveness. Expanding the scope to include other regions and integrating social impact indicators such as empowerment, group cohesion, and well-being, would align future assessments with the principles of *Maqasid al-Shariah*, offering a more holistic understanding of ISF's role in inclusive development.

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