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Islamic Finance, Green Innovation and Fintech: A Triple Boost for MSME Financial Growth

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ABSTRACT
Indonesia has a large number of MSMEs but does not have good financial performance, thus hindering its development. This research is concered with the analysis of the determinants of MSME financial performance through Islamic financial literacy and inclusion, green innovation with financial technology as a moderator. The research was carried out in Demak Regency through a quantitative approach. The populace is aimed at Food and Beverage MSMEs in Demak district. The data source was obtained through primary data with questionnaire instruments. To obtain a representative sample, samples will be taken using purposive sampling techniques so that 100 respondents are obtained. The findings through PLS's Structural Equation Modelling (SEM) explained that Islamic financial literacy and green innovation have a significant contribution to improving positive financial result in MSMEs. Islamic financial inclusion has a positive influence on the performance of MSMEs but is not significant. Fintech cannot strengthen Islamic financial literacy and inclusion in financial performance. The use of financial technology can strengthen the influence of green innovation on the financial performance of MSMEs. These findings contribute enhancing MSMEs' financial performance involving sharia finance factors and the ability to innovate.

Keywords: Islamic Financial Literacy, Islamic Financial Inclusion, Green Innovation, Financial Technology

INTRODUCTION

Micro, small and medium enterprises (MSMEs) play an important and significant role in a country's economic development and support economic growth. According to (DJPB Ministry of Finance, 2023). Due to their significant contribution to the GDP, MSMEs play a crucial and strategic role in the structure of the Indonesian economy (61.1%), labor absorption (97.1%), and exports (14.4%). MSMEs are considered very important for economic development contributors, especially in terms of providing jobs and generating income and employment opportunities for many households. MSMEs can encourage regional economic growth and contribute to improving community welfare(Scarlet Witch et al., 2024).

MSMEs have strategic potential in the regional economy that will contribute to improving people's welfare. MSMEs in Indonesia are experiencing quite good growth in terms of quantity. The relatively easy establishment caused its development to easily reach various regions, including in Demak district. The number of MSME business actors in Demak Regency continues to increase. Based on data from Dinas Koperasi dan UMKM, in 2021 the number of MSME actors in Demak district was 31,886 units, consisting of 27,623 units of micro businesses, 3,861 units of small businesses, and 402 units of medium enterprises. The number of workers involved reached 88,536 people, total MSME assets of Rp. 5.4 billion and total turnover of MSMEs reached Rp. 9.4 billion. In 2022, the number of MSMEs in Demak district increased to 33,402 units, the number of micro businesses 28,489 units, the number of small businesses 4,511 units, the number of fixed medium enterprises 402 units, the number of workers 90,379 people, and the number of MSME assets of Rp. 4.4 billion.

The increasing number of business actors is not balanced by a significant increase in business because there are still many MSMEs that have poor performance. Initial surveys conducted by researchers show that many business actors still experience difficulties in managing their business finances, such as difficulty distinguishing personal and business

finances. In addition, MSME actors do not have the competence to do good financial recording and bookkeeping, making it difficult for them to know business conditions and developments. This circumstance also influences the restricted access MSMEs have to financial institutions. (Yandip, 2024). Data from the 2019-2025 Sharia Inclusion and Financial literacy National Survey (SNLIK) Exhibits a positive trend in the Islamic financial sector's literacy and inclusion index.

Table 1. Sharia Financial Literacy and National Sharia Financial Inclusion Index 2019-2025

Year	Islamic Financial Literacy (%)	Sharia Financial Inclusion (%)
2019	8,93	9,10
2022	9,14	12,12
2024	39,11	12,88
2025	43,42	13,41

Source: OJK (2025)

Table 1 Islamic financial literacy and inclusion has experienced annual growth although the amount is not significant. As opposed to the conventional financial literacy and inclusion index, It continues to fall short of that figure. Even though The vast majority of people in Indonesia are Muslims, however the truth is that and use of financial instruments based on sharia principles Is relatively low when as opposed to traditional finance.

Islamic financial literacy contributes to enhancing a business's financial performanceEconomic agents with strong financial literacy are better equipped to navigate economic challenges, access advanced financing options, and implement effective strategies in adapting to market dynamics. Improving financial literacy is positively correlated with improved financial performance. which helps MSMEs survive in the long term and develop in a better direction(Santoso et al., 2023). Despite an increase in Islamic financial literacy within Indonesia, there are still obstacles to the low understanding of MSME actors in financial management so that it can affect the sustainability of their business. MSME actors' inadequate financial literacy in Demak Regency can have an impact on the lack of understanding of the importance of separating personal and business finances as well as structured financial records, which can have an impact on their business financial instability. Putri et al., (2022) stating that the financial iteration is beneficial in terms of financial performance of young entrepreneurs.

Inclusion is closely related to financial literacy, where if MSME actors have good financial literacy, it will make it easier for them to use financial facilities and access. Financial inclusion will enable MSMEs to expand their business and, reduce operational costs. MSME actors still experience obstacles in the lack of access to formal financial services such as financing, insurance and other financial services and services. MSME actors have limited access to formal financial institutions because they do not have adequate requirements to obtain funding, so they rely on expensive and high-risk informal funding sources(Widadi & São Paulo, 2024). Emphasized Arafah et al., (2023) that Inclusion in finance may affect the financial performance of MSMEs, especially when MSMEs can access easier capital and other financial services. The findings corroborate this conclusion. of a previous survey conducted on 21 MSME actors in several areas in Demak district, which shows that the level of financial inclusion is still relatively low or not yet fully realized even though some business actors understand fintech, but not all of them take advantage of the services provided by the platform (Astohar et al., 2022).

Green innovation helps business actors to produce environmentally friendly products. The implementation of green innovation will be capable of enhancing company performance. because of the various potentials it has so that it allows MSMEs to operate more efficiently. Green innovation is also predicted to help improve financial performance so that it will accelerate national economic development. However, the implementation of green

innovation by MSMEs has several challenges such as limited capital, low technical understanding and resistance to change among other MSME (Maghfuriyah et al., 2024;Nareswari & Winarsih, 2024).

The existence of *Financial Technology (Fintech)* has a great influence on people's lives. The combination of effectiveness and technology has a positive impact on society at large. The use of (OJK, 2023) *fintech* has great potential to improve financial performance. However, there are a number of challenges in its implementation, especially related to adaptation to new technologies that are not necessarily acceptable and applied by MSMEs. Some MSMEs face obstacles in understanding how to use *fintech* applications optimally which has the potential to limit the profits that can be obtained from digital transactions and financing through *fintech platforms*. On the other hand, financial inclusion strengthened by *fintech* can help expand MSMEs' formal financial services are available. In places like Demak Regency, where access to traditional banking is still limited (Astohar et al., 2022).*Fintech* can be an important solution in providing more accessible financial services. In addition, with *fintech*, MSMEs have easier access to alternative financing peer-to-peer lending, for instance, which has been proven to help strengthen business capital and business liquidity.

LITERATURE REVIEW

Resource-Based View Theory (RBV Theory)

The Resource Based View (RBV) theory was first proposed by Birger Wernrrfelt in 1984 and originatated by Jay Barney in 1991. RBV theory is a management framework that helps identify the strategic assets that a business might employ to gain a long-term competitive edge. RBV Emphasizes managerial focus on the business's internal resources in an attempt to find resources, skills, and talents that might provide them a competitive edge. According to Barney, resources must be valuable, rare, unique, and non-substitutable (VRIN) in order to have the ability to provide a sustained competitive advantage. Barney (1991)company resources can be both tangible and intangible resources. Having internal resources is essential to gaining a sustained competitive edge. and providing a deep understanding of the strategic role of the company's internal assets. By utilizing strategic resources, RBV implementation enables businesses to gain a competitive edge and achieve superior performance in a certain amount of time. The concept of Capability Lifecycle (CLC) dynamically supports RBV theory by explaining the diversity of enterprise resources, the evolution of capabilities, and a future-oriented approach. Green innovation, Islamic financial inclusion, and Islamic financial literacy are internal resource capital which is an intangible asset for MSMEs that can improve their financial performance.

Financial Performance

Syafi'i et al., (2021)defines financial performance as the ability of MSMEs to manage and control all resources, both in the form of capital resources and human resources to generate profits. Referring to Law No. 20 of 2008, MSMEs fall into three primary categories: (1) micro, individual companies with an annual revenue of Rp 300 million and a maximum net value of Rp 50 million, (2) small, stand-alone businesses that are not subsidiaries of other companies with a net worth between Rp. 50 million to Rp. 500 million and turnover of Rp. 300 million to Rp. 2.5 million, (3) medium, including independent business entities, not part of other companies, with assets of Rp. 2.5 billion to Rp. 50 billion excluding land and buildings where the business is located.

Sharia Financial Literacy

The capacity to comprehend and be aware of financial principles and hazards is known as Islamic financial literacy, skills regarding finance, knowledge and understanding used with the aim of improving the financial welfare of the community (Faridho., 2020).

Sharia Financial Inclusion

The concept of financial inclusion encompasses all societal levels, including low-income groups and business actors, as having access, ability, and opportunity to use formal financial services in an easy, affordable, and quality manner(Yunus et al., 2022).

Green Innovation

Green innovation not only helps companies reduce their environmental impact, but can also improve financial performance through operational efficiency, reduced energy costs, and increased competitiveness and reputation in the eyes of investors and consumers who are increasingly concerned about sustainability (Intari & Khusnah, 2023).

Financial Technology

Financial technology refers to modern relationships and Internet-related technology and financial services sector business operations, such as money lending and other banking transactions. Fintech has a diverse business plan that takes into account innovation, speed, and security in the financial services industry (Fajar & Larasati, 2021.)

Conceptual Framework

The Influence of Sharia Financial Literacy on Financial Performance

The RBV theoretical approach emphasizes the achievement of optimal performance influenced by people's capacity to efficiently manage resources both tangible and intangible. An intangible asset is knowledge about Islamic finance. Personal familiarity with and comprehension of ideas, products, financial management and the ability to analyze financial information will facilitate the right financial decision-making in order to enhance MSMEs' financial performance, which in turn can promote long-term company viability (Candraningsih et al., 2023). Research Paulo, (2024); Lubis & Nurhayati, (2024); Aini & Astuti; (2023);Putri & Hwihanus, (2023) concluded that financial literacy contributes to improving their business performance because it can encourage MSME actors to be more careful in carrying out their operational activities so as to contribute to better business performance. Good financial literacy will help with business decision-making. With the right financial decisions, the business will grow more. H1: Islamic financial literacy affects financial performance

The Influence of Sharia Financial Inclusion on Financial Performance

The RBV theory explains that competitive advantage is supported by the existence of intangible internal resources as well as financial inclusion. Intangible assets provide strategic value for the company. The company's capacity to provide wide access to financial services, including finance, insurance, and digital payment systems, will help businesses expand and thrive. Limited working capital can be overcome with financial inclusion, productive financing so that business actors can expand their business through increasing business capacity. Candraningsih et al., (2023(; Princess & Hwihanus, (2023); and Squirt et al., (2021) claims that financial performance may be enhanced by financial inclusion. H2: Islamic financial inclusion affects financial performance

The Influence of Green Innovation on Financial Performance

The RBV theory explains that the internal resources and capabilities owned by the company are the key to sustainable competitive advantage so that they must be valuable and not easily imitated by competitors. One of the implementations of green innovation is Sustainable green innovation where the company will develop products, processes, and marketing to create uniqueness and improve business performance. Explaining that an effective Green Innovation Strategy will encourage good financial performance. Companies can carry out operational efficiency by utilizing environmentally friendly resources and energy to reduce production costs, optimize sales and market share so as to generate higher profits. Green innovation has a positive influence on the financial performance of businesses (Puspita, 2024; Rezende et al., 2020); Mariawati et al., 2024). H3: Green innovation affects financial performance

The Effect of Sharia Financial Literacy on Financial Performance with Financial Technology as Moderation

Based on RBV theory, Good performance will show the company's ability to effectively manage assets through tangible or intangible assets. Financial technology is one of the intangible assets where a person can make good use of financial technology, it will make it easier for individuals to learn and understand financial literacy so that it will affect their financial performance. Financial technology can increase access to education, provide diverse and innovative products so as to encourage company profitability (Bakhtiar et al., 2022; Segura et al., 2020).

The Effect of Sharia Financial Inclusion on Financial Performance with Financial Technology as Moderation

The RBV view of theory explains that intangible resources such as knowledge, skills and access to technology have a strategic role in dealing with economic growth based on information and knowledge. The existence of financial technology will accelerate sustainable economic development and support financial inclusion that benefits society. Rapidly developing Technology provides wide access for business actors in accessing the services and services of Islamic financial institutions which can ultimately improve the financial performance of MSMEs (Wardani & Darmawan, 2020; Ashifa & Dermawati, 2024) H5: Islamic financial inclusion affects financial performance with financial technology moderation

The Influence of Green Innovation on Financial Performance with Financial Technology as Moderation

The existence of internal resources in intangible assets in RBV theory is a very crucial factor. Green innovation refers to product development, a process that minimizes its impact on the environment and promotes sustainability. Financial technology can make it easier for companies to identify, analyze and utilize environmental data so that it allows business actors to understand the effectiveness of environmentally friendly initiatives, know the resources that need to be optimized. In this regard, financial technology has an important role in strengthening the implementation of green innovation for the company's financial performance (Segura et al., 2020; Puspita, 2024; Abbas et al., 2024). H6: Green innovation affects financial performance with financial technology moderation The conceptual framework model below can illustrate the above explanation.

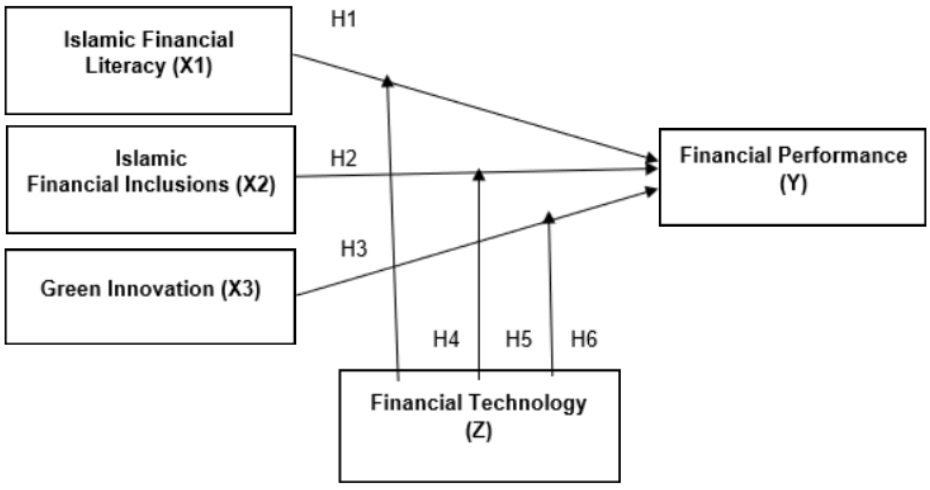

Figure 1. Research Conceptual Framework
Source: compiled author (2025)

METHODS

This research uses a quantitative approach model obtained from primary data sources through questionnaires. This research focuses on explaining the extent to which Islamic financial literacy and inclusion and green innovation drive financial performance moderated by the use of financial technology. The research population is Micro, Small, and Medium Enterprises in the food and beverage subsectors in Demak Regency with a total of 5,086 units based on data obtained from the Demak Regency Trade, Cooperatives and SMEs Office in 2024. The research sample will be calculated using the Slovin formula with the following calculations. Where: n= number of samples; N= population size = 5,086; e= margin error = 10% = 0.1. So, the number of samples was obtained as much as 99.98 or 100 respondents

$$n = \frac{N}{1+N\,(e)^2} \qquad \text{(i)}$$

To obtain a research sample of 100 respondents, the researcher will use a purposive sampling technique which aims to obtain a samples based on certain criteria that are tailored to the needs in this study (Sugiyono, 2015). The criteria specifically set out in the study were: 1) SMEs who have participated in financial management training or workshops held by the Demak Regency Cooperatives and SMEs Office/other agencies; 2) Have an account with a Sharia Bank; 3) Have *digital banking* (m-banking, QRIS, DANA, OVO, Gopay, Shopeepay, and so on). This research instrument uses a questionnaire with a Likert scale of 1-5. Next, the researcher will conduct an analysis using *Structure Equation Modelling* (SEM) PLS. The research tool used is SmartPLS version 4.0 to conduct *external* and *inner model tests*. The *outer model test* was carried out with convergent validity test, discriminant validity, *composite reliability* test while the *inner model test* was carried out with R-Square (determination), F-Square test and hypothesis test.

Testing of Measurement Models (Outer Models) and Structural Models (Inner Models)

The analysis model in this study adopts the Partial Least Square (PLS) approach which is a multivariate statistical technique that compares independent and dependent variables in a double way. PLS analysis consists of an external measurement model or model and a structural model or inner model. Hypothesis tests with PLS include: Measurement Model or Outer Model. This measurement model is carried out with the following tests: 1) Convergent validity test. The condition in this convergent validity test is that if the outer loading value is more than 0.7 then the convergent validity is met. 2) Discriminating validity test. In the discriminant validity test, the average is used *variant extracted* (AVE) i.e. if the AVE value is > 0.5, it shows good discriminant validity (Wednesday, 2023). In addition to seeing AVE can be seen on *Cross Loading* where if > 0.7 then it is considered good. 3) Reliability Test. The reliability test was measured by *composite reliability* and Cronbach alpha. A construct is declared reliable if the *composite reliability* value is above 0.7, while for Cronbach alpha is 0.6.

Structural Model or Inner Model. The R-Square test is used to measure the change of an independent variable with a bound variable. If the value is 0.75 then it is said to be strong, 0.50 is considered moderate and 0.25 is considered weak, while if it is less than 0.19 it has no effect (Ghozali, 2021). If the F-square test results show a value of 0.02, it is said to have a small effect, 0.15 medium, and 0.35 shows a large value. Hypothesis test is a formal statement that presents the expected relationship between independent variables and dependent variables. If the confidence level is 95% with alfa (α) = 5% = 0.05, and the T-statistical value is ≥ 1.96, then an alternative hypothesis is acceptable.

RESULTS

Table 2 shows 100 respondents, 64% ran a food and beverage business. 60% of MSME actors have been running a business for 1-5 years. The most respondents come from Demak sub-district with a maximum monthly business turnover of 5-10 million rupiah.

Table 2. Respondent Characteristics

	Description	Number of Respondents	Percentage (%)
1	**Type of Business**		
	Food	29	29
	Drink	7	7
	Food and Beverage	64	64
	Total	**100**	**100**
2	**Long Term of Effort**		
	1-5 years	60	60
	6-10 years	24	24
	> 10 years	16	16
	Total	**100**	**100**
3	**Domicile**		
	Bonang District	14	14
	Demak District	31	31
	Dempet District	4	4
	Gajah District	5	5
	Guntur District	5	5
	Karanganyar District	6	6
	Karangawen District	3	3
	Karangtengah District	2	2
	Kebonagung District	2	2
	Mijen District	6	6
	Mranggen District	4	4
	Sayung District	4	4
	Wedung District	5	5
	Wonosalam District	7	7
	Total	**100**	**100**
4	**Monthly Turnover**		
	< 5 million	37	37
	5-10 million	47	47
	11-50 million	13	13
	> 50 million	3	3
	Total	**100**	**100**

Source: primary data processed (2025)

Evaluation of Measurement Model Results (Outer Model)

The evaluation of the measurement (outer) This model was carried out several tests, namely convergent validity testing, discriminant validity, and reliability.

Convergent Validity Test

An indicator is considered reliable if it has a value of more than > 0.7. Indicators with values below 0.7 are considered inadequate and removed in the model, and then the loading factor is re-estimated. Table 1 shows that there are two indicators of latent variables with convergent validity values < 0.7 and 0.6 but these indicators can still be maintained, because the overall construct value is still convergently valid. Indicators with < values of 0.7 and 0.6 should not be removed considering their contribution to AVE, CR, and their theoretical importance.

Discriminating Validity Test

The validity of the discriminator is determined to ensure uniqueness in the research. The method to look at the validity of the discriminator is to look *at the cross loading*, the loading factor score is more than 0.70 on each variable or has a score higher than the latent variable measured.

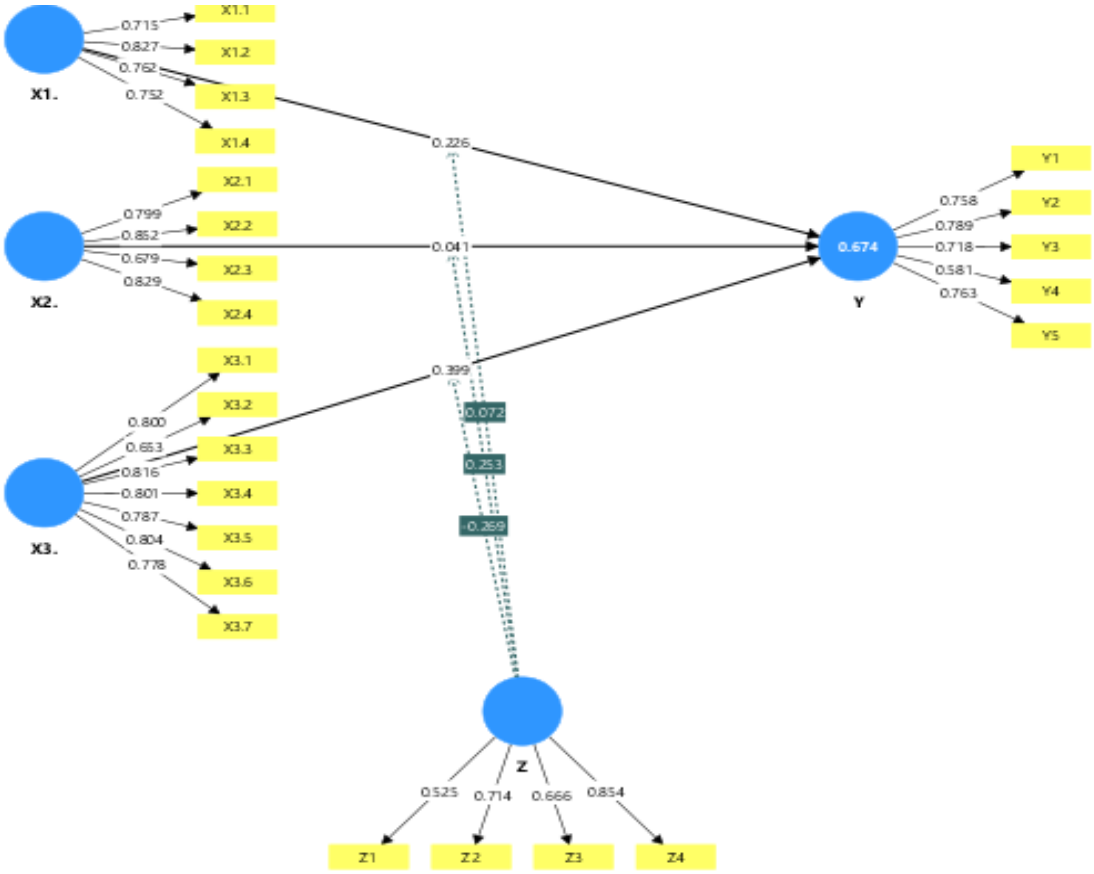

Figure 2. Outer Loading Images
Source: Smart PLS Output (2025)

Discriminant validity testing determines the extent to which constructs based on empirical standards are completely different from each other. This is evidenced by the measurement value of each indicator construct whose value is greater than the value of other indicators, which can be seen from a loading factor of more than 0.70. To look at the discriminant validity test, it is to look at the *cross-loading* of more than 0.70 on each variable. This can be proven by a value greater than the indicator value and seen from the loading factor that > 0.70 so that the indicator can be said to be valid. The evaluation of the validity of the

discriminator was carried out by looking at Fornell Lacker. This evaluation is carried out to ensure that the theory has been statistically tested. The criterion set out in Fornell Lacker is if the root of AVE is greater between variables so that discriminant validity can be met.

Reliability Test

The reliability test is measured by *composite reliability* and Cronbcach's alpha, the construct is declared reliable if the *composite reliability values* are above 0.70 and 0.60 for Cronbach's alpha. Based on Table 4, ability values in the X1 construct were 0.772 and 0.849, X2 0.803 and 0.870, X3 0.891 and 0.915, Y 0.773 and 0.846, Z 0.675 and 0.789. All constructions have an alpha and Cronbach composite reliability values of > 0.60 and 0.70 so they can be considered consistently good and declared reliable.

Table 2. Discriminant Validity

	X1.	X2.	X3.	Y	Z
X1.1	0.715	0.511	0.420	0.524	0.393
X1.2	0.827	0.651	0.442	0.562	0.501
X1.3	0.762	0.633	0.400	0.343	0.449
X1.4	0.752	0.607	0.399	0.322	0.466
X2.1	0.686	0.799	0.563	0.525	0.549
X2.2	0.685	0.852	0.551	0.527	0.608
X2.3	0.438	0.679	0.298	0.347	0.377
X2.4	0.624	0.829	0.575	0.573	0.450
X3.1	0.410	0.475	0.800	0.492	0.428
X3.2	0.528	0.584	0.653	0.519	0.568
X3.3	0.461	0.527	0.816	0.556	0.504
X3.4	0.509	0.663	0.801	0.643	0.477
X3.5	0.328	0.370	0.787	0.493	0.443
X3.6	0.389	0.440	0.804	0.555	0.472
X3.7	0.331	0.413	0.778	0.538	0.478
Y1	0.412	0.470	0.575	0.758	0.528
Y2	0.488	0.520	0.552	0.789	0.534
Y3	0.423	0.477	0.454	0.718	0.486
Y4	0.324	0.392	0.416	0.581	0.322
Y5	0.524	0.440	0.536	0.763	0.571
Z1	0.341	0.236	0.193	0.206	0.525
Z2	0.483	0.429	0.414	0.392	0.714
Z3	0.429	0.605	0.470	0.539	0.666
Z4	0.422	0.425	0.541	0.621	0.854
Z x X1.	-0.305	-0.184	-0.066	-0.038	-0.147
Z x X2.	-0.234	-0.229	-0.129	-0.050	-0.147
Z x X3.	-0.068	-0.105	0.016	-0.150	-0.055

Source: Smart PLS output (2025)

Table 3. Results of Discriminant Validity Test with Fornell Lacker Parameters

Variable	X1.	X2.	X3.	Y	Z
X1.	0,765				
X2.	0,779	0,793			
X3.	0,547	0,645	0,779		
Y	0,605	0,634	0,702	0,726	
Z	0,59	0,632	0,619	0,683	0,7

Source: Smart PLS Output (2025)

Table 4. Reliability Test Results

	Cronbach's Alpha	Composite reliability (rho_a)	Composite reliability (rho_c)
X1.	0.772	0.789	0.849
X2.	0.803	0.824	0.870
X3.	0.891	0.894	0.915
Y	0.773	0.787	0.846
Z	0.675	0.705	0.789

Source: Smart PLS Output (2025)

Evaluation of Structural Models (Inner Model)

R-square Test

Overall, all exogenous constructions consisting of Islamic financial literacy, Islamic financial inclusion and green innovation had an effect on the financial performance of MSMEs with a score of 0.674 or 67.4% while the remaining 32.6% were influenced by other variables outside this study. The R-square of 0.674 percent is in the strong category. In table 6, the value of X1 on Y has a moderate influence with a score of F-square value of 0.053. The value of X2 with a weak influence on Y is 0.002. The influence of X3 on Y is strong with a score of 0.243. Z moderates X1 to Y with a weak influence of 0.006. Z moderated X2 on Y with a moderate influence of 0.043 and Z moderated how X3 had a moderate influence on Y with a score of 0.134.

Table 5. R-square Value Results Table

Variable	R-square	R-square adjusted
Y	0,674	0,649

Source: Smart PLS Output (2025)

Table 6. R-square Test Results

	X1.	X2.	X3.	Y
X1.				0,053
X2.				0,002
X3.				0,243
Z				0,141
Z X X1.				0,006
Z X X2.				0,043
Z X X3.				0,134

Source: Smart PLS Output (2025)

Path Coefficient Value

The hypothesis testing process is carried out by boothstrapping that has undergone a previous measurement stage. This boothstrapping aims to assess the direction of the variable relationship and its significance. Decision making is carried out by looking at the original sample, if it has a positive value, The direction of the relationship indicates positive values and vice versa. The p-value is if the p-value < 0.05, is considered to have a significant influence.

Table 7. Path Coefficient Test Results

	Original sample (O)	T statistics (|O/STDEV|)	P values	Result
X1. -> Y	0.226	2.090	0.037	Accepted
X2. -> Y	0.041	0.356	0.722	Rejected
X3. -> Y	0.399	3.905	0.000	Accepted
Z -> Y	0.301	3.006	0.003	
Z x X1. -> Y	0.072	0.686	0.493	Rejected
Z x X2. -> Y	0.253	1.883	0.060	Rejected
Z x X3. -> Y	-0.269	2.833	0.005	Accepted

Source: Smart PLS Output (2025)

Islamic financial literacy has an important beneficial impact on the financial performance of MSMEs. This is evidenced by the original sample value of 0.226 with a positive value, p-value of 0.037 < 0.05. Islamic financial inclusion has a positive or insignificant impact on financial performance. This is evidenced by a positive original sample value of 0.041, a p value of 0.722 < 0.05. Green innovation with a significant positive effect on financial performance. This is evidenced by the original sample value of 0.399 with a positive value, p value of 0.000 > 0.05. Financial technology has a positive but insignificant influence on financial performance with an original sample value of 0.072 with a positive value and a p value of 0.493 > 0.05 so that it does not moderate Islamic financial literacy on financial performance. Financial technology has a positive but insignificant influence on financial performance with an original sample value of 0.253 with a positive value and a p value of 0.060 > 0.05 so that it does not moderate the inclusion of Islamic finance on financial performance. Financial technology has a significant negative effect with an original sample value of 0.269 with a negative value and a p value of 0.005 > 0.05 so as to moderate the financial performance g of green innovation.

The Influence of Sharia Financial Literacy on Financial Performance

The X1 value in this study has an original sample value of 0.226 which has a positive value and a p-value of 0.037 < 0.05 concluding that Islamic financial literacy has a significant positive impact on MSMEs' financial performance in Demak district so that it receives H1 in the study. An essential component of financial literacy is financial management and performance in MSME finance because the higher the financial knowledge that MSMEs have, it will facilitate the ability of business actors to manage their finances. The success of an entrepreneur is greatly influenced by the capabilities he has because in the entrepreneurial process it will involve the main capital, Success is supported by social capital, financial capital, and human capital. (Putri et al., 2022). Financial capital provides an important role for business actors, including in recruiting human resources who will be involved in the business so that it can ensure that the financial aspect will be managed properly. The findings of this study are in accordance with the Shirley (2020); Akbar et al., (2021) Ristiana & Widyastuti, (2022).

The Influence of Sharia Financial Inclusion on Financial Performance

The X2 value in this study has a positive original sample value of 0.041 with a p value of 0.722 < 0.05 which confirms that Islamic financial inclusion has a positive but not significant

influence on the financial performance of MSMEs, so the results of the study reject H2. Existence, ease of access, use, quality of service and welfare are not enough to improve financial performance. Financial inclusion has not been successful enough to have a real impact on the financial performance of MSMEs which may also be interrelated with unequal literacy, limited financial utilization, and business actors' preference for conventional financial services. This shows that Islamic financial inclusion is not sufficiently in demand by the public, especially MSME actors as a medium that provides access and financial services. These findings of this research are accordance with the Kusuma et al., (2021); Putri et al., (2022); Geriatrics et al., (2023) and, Astohar et al., (2022).

The Influence of Green Innovation on Financial Performance

The X3 variable in the study showed a positive original sample value of 0.399 with a p-value of 0.000 so that green innovation has a significant positive influence on the financial performance of MSMEs in Demak Regency. These results support the hypothesis that has been made. Business actors who implement green innovation will encourage better financial performance. The green innovation strategy allows business actors to have knowledge and innovate products by using unique resources, using environmentally friendly, efficient energy so that it will improve their financial performance. Businesses may boost sales, expand their market share, lower manufacturing costs, and boost profitability by implementing energy efficiency. These results are consistent with a number of investigations carried out by Puspita, (2024); Maghfuriya et al., (2024); Novitasari & Agustia, (2021); and Rezende et al., (2020).

The Effect of Sharia Financial Literacy on Financial Performance with Financial Technology as Moderation

Financial technology use has a positive but negligible impact, as evidenced by the variable of Islamic financial literacy's positive starting value of 0.072 and p-value of 0.493 > 0.05. These results conclude that financial technology is not able to strengthen the impact of financial literacy on enhancing MSMEs' financial performance so these results do not support H4 in the study. Theoretically, the use of financial technology should be able to optimize Islamic financial literacy to increase a company's financial performance via accessibility, more efficient transactions, and diversification of technology-based financial products. In fact, the use of financial technology by MSMEs is not optimal, both in terms of use intensity and frequency, the use of features and its relation to Islamic financial practices. Many MSME actors may already understand the basic principles of Islamic finance but have not used fintech as a tool in financial management, planning, so that it is not significant in improving the financial performance of MSMEs (Fazira et al., 2024). This condition may be motivated by the lack of understanding of technology and its use by business actors, the lack of digital infrastructure support, training and government incentives for the use of fintech (Sitompul et al., 2023). These findings have been verified by Raharjo et al., (2020) ; and Geriatrics et al., (2023) .

The Effect of Sharia Financial Inclusion on Financial Performance with Financial Technology as Moderation

Islamic financial inclusion as a variable showed an original sample value of 0.253 with a p-value of 0.060 > 0.05 so It was determined that financial technology use has a positive but not significant impact in strengthening financial inclusion on the financial performance of MSMEs, so this result rejects H5. Theoretically, the existence of financial technology should encourage better financial inclusion so that it will improve financial performance. However, there are several factors that cause why financial technology does not significantly strengthen these conditions, namely the level of adoption of business actors for fintech is still low, causing limited information, some MSME actors are more familiar with conventional financial services so they are more in demand. In addition, MSME actors who already have access to Islamic financial services have not made fintech the main preference in MSME operational activities. Fintech in Indonesia has also not developed and spread evenly in the regions so that it is not felt by all business actors. The lack of supporting infrastructure, the lack of maximum regulation and education of the authorities

also contribute to the existence of fintech, which does not make a significant contribution to financial inclusion. These findings is validated by research Suryono et al., (2020); R. et al., (2022); Fajar & Larasati, (2021); O'Neill & Khusnah, (2023).

The Influence of Green Innovation on Financial Performance with Financial Technology as Moderation

The green innovation variable has a negative original sample value of -0.269 with a p-value of less than 0.05, which is at 0.005 so that H6 in this study can be accepted because green innovation can moderate the impact of green innovation on the bottom line. Green innovation is the term used to describe product development processes that minimize negative environmental effects and promote sustainability. MSMEs that implement green innovation often get appreciation so as to increase their reputation, as well as reduce their operational costs. This circumstance will promote an improvement in a company's financial success. The appropriate use of fintech can be used by entrepreneurs in collecting, analyzing and utilizing environmental data so that it allows business actors to measure the effectiveness of environmental sustainability such as energy efficiency, and identify resources that need to be improved. These findings are in line with Liu et al., (2024); Segura et al., (2020); Puspita, (2024); and Abbas et al., (2024) conclude that the application of fintech demonstrates how financial performance will be enhanced by green innovation.

CONCLUSION

This research resulted in the finding that Islamic financial literacy will encourage the improvement of MSMEs' financial performance because good financial knowledge and understanding will create good financial management. Although theoretically, coverage through sharia financial inclusion should be able to boost institutional financial performance, in this study, sharia financial inclusion may still not be optimally used by business actors because business actors are more familiar with conventional institutional financial inclusion. Business actors have the capacity to create, process and market their products with environmentally friendly energy will be economically efficient so that they will improve their financial performance. Financial technology utilization can maximize Islamic financial literacy in improving the financial performance of a business through ease of access, more efficient transactions, and diversification of technology-based financial products. However, the reality is that the use of financial technology by MSMEs is not optimal both in terms of frequency and intensity of use, the use of features and its relation to Islamic finance practices. The existence of financial technology should be able to encourage better financial inclusion so that it will improve financial performance. However, there are several factors that cause why financial technology does not significantly strengthen this condition, namely the adoption rate of business actors for fintech is still low, which causes information to be stubborn. Some MSME actors are more familiar with conventional financial services. In addition, it may be that MSME actors who already have access to Islamic financial services have not made fintech the main preference in MSME operational activities. MSMEs that implement green innovation often get appreciation so as to increase their reputation, as well as reduce their operational costs. This condition will encourage an improvement in the financial performance of a business.

REFERENCES

Abad-Segura, E., González-Zamar, M. D., López-Meneses, E., & Vázquez-Cano, E. (2020). Financial Technology: Review of trends, approaches and management. *Mathematics*, *8*(6). https://doi.org/10.3390/math8060951

Abbas, S., Dastgeer, G., Nasreen, S., Kousar, S., Riaz, U., Arsh, S., & Imran, M. (2024). How Financial Inclusion and Green Innovation Promote Green Economic Growth in Developing Countries. *Sustainability (Switzerland)*, *16*(15). https://doi.org/10.3390/su16156430

Ade Heaven Nareswari, & Winarsih. (2024). Pengaruh literasi keuangan, sistem informasi akuntansi, adopsi it dan green innovation performance terhadap kinerja keuangan umkm di Jawa Tengah. *Jurnal Riset Ekonomi Dan Bisnis*, *17*(1), 51–66.

Aini, F. N., & Astuti, C. D. (2023). Pengaruh Inovasi Teknologi, Literasi Keuangan Terhadap Kinerja Keuangan Dengan Inklusi Keuangan Sebagai Variabel Intervening Kasus UMKM Di Jabodetabek. *EBID:Ekonomi Bisnis Digital*, *1*(2), 93–102. https://doi.org/10.37365/ebid.v1i2.181

Alias, N. E., Nor, N. M., & Hassan, R. (2016). The relationships between talent management practices, employee engagement, and employee retention in the information and technology (it) organizations in Selangor. In *Proceedings of the 1st AAGBS International Conference on Business Management 2014 (AiCoBM 2014)* (pp. 101-115). Springer, Singapore.

Amin, N. F., Garancang, S., & Abunawas, K. (2023). Konsep Umum Populasi Dan Sampel Dalam Penelitian. *JURNAL PILAR: Jurnal Kajian Islam Kontemporer*, *14*.

Arafah, S., Utama, U. P., Miko, J., Potensi, U., & Ria, U. (2023). Edukasi Peran Inklusi Keuangan Syariah Dalam Meningkatkan Stabilitas Ekonomi Masyarakat. *Jurnal Pengabdian Kepada Masyarakat*, *3*(2), 2023. https://ejournal.unhasy.ac.id/index.php/dinamis

Astohar, Andanarini Minar Savitri, D., Ristianawati, Y., Siswo Nugroho, P., Totalwin, S., & Industri, M. (2022). *Inklusi Keuangan pada Usaha Mikro Kecil dan Menengah (UMKM) di Kabupaten Demak*. *15*(2), 126.

Bakhtiar, F., Mulia, A., & Islam Negeri Alauddin Makassar, U. (2022). YUME: Journal of Management Pengaruh Literasi Keuangan Syariah, Terhadap Inklusi Keuangan Syariah Melalui Financial Technologi Syariah Sebagai Variabel Intervening. *YUME: Journal of Management*, *5*(2), 588–603. https://doi.org/10.37531/yume.vxix.3466

Barney, J. (1991). Firm Resource and Sustained Competitive Advantage. *Journal of Manajement*, *17*, 99–120.

Barney, J. (1997). *Gaining and Sustaining Competitive Advantage* (Reading). Addison-Wesley Publisihng Company.

Bhattacharyya, A., & Khan, M. (2023). Financial inclusion, corporate social responsibility and firm performance – analysis of interactive relationship. *Meditari Accountancy Research*, *31*(2), 417–440. https://doi.org/10.1108/MEDAR-12-2020-1121

BPS. (2024). *Industri makanan dan minuman 2024*.

Common, R. (2004). Administrative change in the Asia Pacific: Applying the political nexus triad. *International public management journal*, *7*(3), 347-364.

Common, R. (2017a). Public management and policy transfer in South-East Asia. In Mark Evans (Ed.), *Policy transfer in global perspective* (pp. 143-161). London: Routledge.

Common, R. (2017b). Beyond the Horizon: Policy Learning and Development. In Ahmed Shafiqul Huque & Habib Zafarullah (Ed.), *International Development Governance* (pp. 671-681). London: Routledge.

Duggan, V., Rahardja, S., & Varela, G. (2013). Service Sector Reform and Manufacturing Productivity: Evidence from Indonesia. *World Bank Policy Research Working Paper*, (6349).

Liu, M., Liu, L., & Feng, A. (2024). The Impact of Green Innovation on Corporate Performance: An Analysis Based on Substantive and Strategic Green Innovations. *Sustainability (Switzerland)* , *16*(6). https://doi.org/10.3390/su16062588

Mediaty, Diza Kurnianty Jamal, & Abdul Hamid Habbe. (2023). Green Innovation for Small-to Medium-Sized Enterprises (SMEs): Systematic Literature Review. *Indonesian Journal of Economic & Management Sciences*, *1*(6), 791–804. https://doi.org/10.55927/ijems.v1i6.7274

Putri, R. E., Goso, Hamid, R. S., & Ukkas, I. (2022b). Pengaruh Literasi Keuangan, Financial Technology dan Inklusi Keuangan terhadap Kinerja Keuangan Pengusaha Muda. *Owner*, *6*(2), 1664–1676. https://doi.org/10.33395/owner.v6i2.790

Putu A. (2012). *Metodologi Penelitian Bisnis*.

R., I. H., Majid, J., & Suhartono, S. (2022). Faktor-Faktor Yang Mempengaruhi Kinerja Perusahaan Dimoderasi Oleh Financial Technology. *JPS (Jurnal Perbankan Syariah)*, *3*(2), 142–159. https://doi.org/10.46367/jps.v3i2.785

Shevlin, R. (2020). PPP Loans: Who Got What and How Well Did the Loans Perform? *Forbes* (Jul 13, 2020). Available on https://www.forbes.com/sites/ronshevlin/2020/07/13/ppp-loans-who-got-what-and-how-well-did-the-loans-perform/#2cd7aa164fdb. Accessed Jul 15, 2020.

Simon, A. (2008). Essays on Analysts' Long-term Earnings Growth Forecasts. PhD Thesis, School of Business, The University of Queensland, Australia.

Suryono, R. R., Budi, I., & Purwandari, B. (2020). Challenges and trends of financial technology (Fintech): A systematic literature review. In *Information (Switzerland)* (Vol. 11, Issue 12, pp. 1–20). MDPI AG. https://doi.org/10.3390/info11120590

Tirdasari, N. L., & Dhewanto, W. (2012). Family business succession in Indonesia: A study of hospitality industry. *Procedia-Social and Behavioral Sciences*, *57*, 69-74.

Ward, K. (2012). *Strategic management accounting*. London and New York: Routledge.