



Analysis of The Relationship Between Financial Literacy and Financial Capability with Green Financial Practices as A Mediating Variable in Manufacturing Sector MSMEs in South Sulawesi Province

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Abstract. This study examines the simultaneous impact of digital wallet usage and financial literacy on the financial management behavior of students in the Management Study Program at the Faculty of Economics and Business, Maros Muslim University. Using a quantitative approach, data were collected from 150 students through questionnaires assessing financial literacy, digital wallet usage, and financial management. The results from the F-test revealed that both digital wallets and financial literacy significantly influence students' financial management, with a significance value of 0.001 and an F-count of 7.070, exceeding the critical value of 2.71. The findings suggest that while digital wallets provide convenience in managing transactions, they may also promote consumptive behaviors if not used responsibly. Financial literacy acts as a crucial factor in ensuring that students can make informed financial decisions, plan budgets, manage debts, and control impulsive spending. Students with higher financial literacy are better equipped to handle financial challenges and use digital tools like digital wallets to enhance their financial management. The study aligns with previous research by emphasizing the importance of integrating financial literacy education with the use of digital financial tools to ensure improved financial outcomes. Furthermore, the study highlights the need for educational programs that promote both financial literacy and responsible digital wallet use to foster better financial habits among students.

Keywords: Digital Wallets, Financial Literacy, Student Behavior, Financial Technology, MSMEs.

1. Introduction

Micro, Small, and Medium Enterprises (MSMEs) have an important role in the economies of many countries, including Indonesia. The contribution of MSMEs to Gross Domestic Product (GDP), job creation, and poverty reduction make it a vital sector that needs to be supported and strengthened. However, amid increasingly complex global challenges, such as economic fluctuations, policy changes, and environmental sustainability demands, MSMEs face difficulties maintaining business continuity [1], [2], [3]. Therefore, managing finances effectively is crucial for the sustainability and competitiveness of MSMEs.

Financial literacy is one of the main factors that can support the financial sustainability of MSMEs. Financial literacy refers to understanding basic financial

concepts such as financial planning, investment management, and risk control. For MSME actors, financial literacy helps them understand the company's financial flow and make strategic decisions that can increase profitability and business growth. A lack of financial literacy can lead to inappropriate business decisions, threatening business continuity.

However, financial literacy is one of many factors in determining the financial success of a business. The broader concept, namely financial capability, also plays an important role. Financial capability includes the ability of an individual or organization to make the right financial decisions based on their knowledge and implement those decisions effectively. Thus, financial capability emphasizes the practical application aspect of financial literacy in daily life situations. MSMEs that have good financial capabilities will be better prepared to face financial challenges, be able to manage cash flow and be more careful when taking investment risks [4].

On the other hand, amid increasing awareness of climate change and environmental sustainability, MSMEs are also beginning to be faced with the demand to adopt more sustainable business practices in operations and finance. Green Financial Practices, which include financial management with due regard to environmental impacts, are one of the relevant approaches in this context. These practices include energy efficiency, environmentally friendly technologies, and better waste management. In the financial context, Green Financial Practices encourage companies to invest in initiatives that support long-term sustainability, which are not only beneficial from an environmental perspective but can also provide economic benefits in the long term [5], [6].

The adoption of Green Financial Practices has the potential to be a mediating variable that strengthens the influence of financial literacy on the financial ability of MSMEs. Adequate financial literacy can encourage awareness and implementation of sustainable financial practices, which in turn can improve operational efficiency and reduce costs, thereby increasing the financial capability of MSMEs [6]. In addition, Green Financial Practices can also help MSMEs attract investors and customers who are increasingly concerned about sustainability issues, thereby expanding business opportunities, and increasing competitiveness in the global market.

Therefore, this study aims to investigate the relationship between Financial Literacy and Financial Capability in MSMEs by examining the role of Green Financial Practices as a mediating variable. This study is important considering the strategic role of MSMEs in the economy and the need to integrate a sustainable financial approach into business management strategies [7]. By understanding this relationship, appropriate policy recommendations can be obtained to improve the financial literacy and financial capabilities of MSMEs and encourage wider adoption of Green Financial Practices among small and medium business actors.

This study aims to analyze the influence of financial literacy on financial capability with green financial practices as a mediating variable in MSMEs oriented towards the green economy. The focus of the study is to identify whether financial literacy plays a role in improving the financial capabilities of MSMEs through green finance practices.

2. Literature Review

2.1 Financial Literacy and Financial Capability

The theory of financial literacy states that financial literacy is the ability of individuals to understand and use information related to basic financial concepts such as budget planning, risk management, debt management, and investment. Good financial literacy improves the ability of business actors to make the right decisions related to the company's financial management. According to the proposed theory of financial capability, financial capability includes knowledge and the practical ability to apply that knowledge in managing financial resources wisely [8], [9], [10]. Based on this theory, MSME actors with better financial literacy will be better able to manage cash, optimize capital allocation, and make better investment decisions, thereby increasing their financial capabilities.

H₁: Financial Literacy has a positive and significant effect on Financial Capability in MSMEs in the manufacturing sector in South Sulawesi Province.

2.2 Financial Literacy and Green Financial Practices

Green Financial Practices refers to applying sustainability principles in corporate financial management, such as energy efficiency, waste management, and investment in environmentally friendly technologies [11]. MSME actors who have a strong understanding of financial literacy are more likely to adopt green practices because they can evaluate the long-term impact of green investments on their business financial performance. According to the theory of sustainability in business, companies that integrate environmental sustainability in their business models will enjoy financial benefits in the long term through reduced costs and improved reputation. MSME actors with high financial literacy tend to be better able to evaluate the potential savings offered by Green Financial Practices, such as energy efficiency and waste reduction. They are also more aware of the long-term benefits of sustainability in increasing company profitability and reducing environmental risks.

H₂: Financial Literacy has a positive and significant effect on the implementation of Green Financial Practices in MSMEs in the manufacturing sector in South Sulawesi Province.

2.3 Green Financial Practices and Financial Capability

The Resource-Based View (RBV) theory put forward by Barney (2001) states that the resources owned by companies, including efficient and environmentally friendly practices, can provide a sustainable competitive advantage [12]. When MSMEs implement Green Financial Practices, such as energy efficiency and good waste management, they can lower operational costs, reduce negative impacts on the environment, and strengthen the company's financial structure. In addition, the adoption of green practices can improve relationships with customers and investors, who are increasingly concerned about sustainability [13]. The implementation of Green Financial Practices allows MSMEs to reduce production costs and improve operational efficiency, which directly strengthens their financial capabilities. MSMEs

that invest in green technology can reduce their dependence on expensive resources and improve their ability to manage their long-term finances.

H₃: Green Financial Practices have a positive and significant effect on Financial Capability in MSMEs in the manufacturing sector in South Sulawesi Province.

2.4 Green Financial Practices as a Mediation Variable

According to the mediation theory of Baron & Kenny (1986), mediation occurs when an independent variable influences a dependent variable through a mediation variable [14]. In this context, Green Financial Practices mediates the relationship between Financial Literacy and Financial Capability. High financial literacy not only improves the ability of MSME actors to manage their finances directly, but also encourages them to implement green financial practices, which ultimately contributes to improving financial capabilities. In other words, good financial literacy provides MSME actors with a deeper understanding of the economic benefits of implementing sustainability practices, such as energy efficiency and waste reduction. The implementation of Green Financial Practices then plays a role in improving the company's financial capabilities so that a partial mediation effect is created.

H₄: Green Financial Practices partially mediates the relationship between Financial Literacy and Financial Capability in MSMEs in the manufacturing sector in South Sulawesi Province.

2.5 The Effect of MSME Operational Duration on The Relationship Between Financial Literacy and Financial Capability

Based on the theory of organisational experience and learning [15], organisations that have been in operation for longer tend to have better capabilities in managing resources because they have more knowledge and experience to deal with financial and environmental challenges. MSMEs operating in the manufacturing sector for a long time will be better able to leverage their financial literacy to improve their financial capabilities because they have developed more mature risk management strategies and integrated sustainability in their business operations.

H₅: The influence of financial literacy on financial capability is stronger in MSMEs in the manufacturing sector that have been operating longer in South Sulawesi province.

3. Methodology

This study involved a population of 150 MSME owners from the manufacturing and service sectors in South Sulawesi, with a sample randomly selected from MSMEs that had implemented environmentally friendly policies. Data was gathered using questionnaires that assessed financial literacy, financial capabilities, and the adoption of green finance practices, measured on a 5-point Likert scale. To analyze the relationships between these variables, the research employed a mediation analysis model, using the Structural Equation Modeling (SEM) technique to evaluate both the

direct and indirect effects of financial literacy and capabilities on green finance practices.

4. Results

Respondent Description

Gender The gender composition in this study shows that 58% of respondents are male and 42% are female. This distribution shows that although men still dominate the manufacturing sector, the contribution of women in business in this sector is increasingly significant. This can reflect the growing trend of women's participation in sectors that were previously dominated by men, especially in the context of MSMEs.

In terms of age, most respondents are in the productive age group, namely 31-40 years (45%) and 41-50 years (30%), while 20% are 21-30 years old, and only 5% are over 50 years old. This distribution indicates that the manufacturing sector is filled by business actors who are at the peak of productivity, with long work experience and a deep understanding of business operations. This age group often already has more complex financial responsibilities, both in terms of business scale and family needs, which affects the ability to manage business finances.

In terms of education level, the majority of respondents (60%) had their last education at the high school level, while 25% had a bachelor's degree (S1) and the other 15% had a diploma education (D3). This diverse level of education shows that most MSME actors in the manufacturing sector still rely on practical experience in running their businesses, with limited access to formal education related to more in-depth finance. Higher education is generally associated with a better understanding of financial management, investment, as well as business innovations such as the adoption of green technologies.

Business experience based on business experience, most respondents (40%) have been running their business for more than 10 years, followed by 35% who have been operating for between 5 to 10 years, and 25% who have business experience between 3 to 5 years. This long experience shows that the majority of respondents have deep insights related to the dynamics of the manufacturing sector, both in terms of operations and financial management. This long business experience should be a factor that strengthens financial capabilities, especially in the face of fluctuating economic challenges.

Monthly turnover based on monthly turnover, 50% of respondents reported a turnover below IDR 50 million per month, 35% between IDR 50 million to IDR 100 million, and another 15% had a turnover above IDR 100 million per month. This significant variation indicates a wide difference in business scale among respondents. Businesses with lower turnover tend to focus on local production with small volumes, while MSMEs with higher turnover may already be involved in larger supply chains or have export markets.

The level of financial literacy based on the survey results, 65% of respondents have a basic understanding of financial literacy, such as financial records, cash management,

and short-term budget planning. However, only 35% understand more complex aspects of finance, such as investing, risk management, and financial diversification. This gap shows that many manufacturing MSMEs still need further training to improve MSME financial literacy, especially to access greater financial opportunities and mitigate business risks. Low financial literacy can be an obstacle to strategic decision-making, such as technology adoption or business development.

Financial capability In terms of financial capability, 60% of respondents showed good ability in managing daily cash flow and short-term budget planning. However, only 30% of respondents are able to do long-term financial planning, including investment management or retirement planning. This short-term limited financial capability has the potential to make MSMEs vulnerable to economic fluctuations or financial crises, because MSMEs are less prepared to face market changes or unexpected external conditions.

Adoption of green financial practices Only 25% of respondents have adopted green financial practices in MSME business operations, such as investment in environmentally friendly technology, better waste management, or reduction in energy use. Most respondents (75%) still focus on the aspect of financial benefits without considering environmental impacts. This low adoption of green finance practices demonstrates the need for further socialization and training on the importance of environmental sustainability in manufacturing operations, especially in light of global trends that increasingly emphasize the importance of sustainable business. Integrating green practices will not only support business continuity from an environmental perspective, but also improve cost efficiency and long-term competitiveness.

Validity and Reliability Tests

Table 1. Construct Validity Test with CFA (Confirmatory Factor Analysis)

Construction	Item	Factor Loading
Financial Literacy	Basic knowledge of finance	0.75
	Financial management	0.78
	Understanding financial products	0.81
	Personal financial planning	0.73
Green Financial Practices	Energy efficiency	0.70
	Waste management	0.65
	Use of natural resources	0.72
	Access to green funding	0.68
Financial Capability	Cash management	0.80

Construction	Item	Factor Loading
Financial Literacy	Basic knowledge of finance	0.75
	Financial management	0.78
	Investment ability	0.85
	Budget allocation decision	0.83
	Long-term planning	0.78

Note: All loading factors above the cut-off value of 0.5, indicate that each item measured is valid in measuring its own construct.

Table 2. Uji AVE (Average Variance Extracted) dan CR (Composite Reliability)

Construction	AVE	CR (Composite Reliability)	Cronbach's Alpha
Financial Literacy	0.65	0.88	0.83
Green Financial Practices	0.59	0.81	0.79
Financial Capability	0.67	0.87	0.85

1. **An AVE** > of 0.5 indicates good construct validity.

2. **A CR** of > 0.7 indicates good internal consistency reliability.

3. **Cronbach's Alpha** > 0.7 indicates that all constructs are reliable and consistent.

Table 3. Descriptive Data of Respondents and Average Variable Scores

Construction	Item	Average Score (1-5)	Standard Deviation
Financial Literacy	Basic knowledge of finance	4.0	0.58
	Financial management	3.8	0.65
	Understanding financial products	3.9	0.63
	Personal financial planning	3.7	0.70
Green Financial Practices	Energy efficiency	3.6	0.68
	Waste management	3.5	0.72
	Use of natural resources	3.7	0.67

	Access to green funding	3.8	0.69
Financial Capability	Cash management	4.1	0.55
	Investment ability	4.0	0.60
	Budget allocation decision	3.9	0.65
	Long-term planning	4.0	0.58

Note: The average score shows how respondents rate MSMEs' abilities in financial literacy, green financial practices, and financial capabilities. A relatively low standard deviation indicates that the data is well distributed and consistent.

Table 4. Mediation Test Results

Relationship	Regression Coefficient (β)	p-value	Information
Financial literacy → financial capability	0.47	< 0.01	Signifikan
Financial literacy → green financial practices	0.32	< 0.05	Signifikan
Green financial practices → financial capability	0.29	< 0.05	Signifikan
Mediasi (indirect effect)	0.15	< 0.05	Partial mediation occurs

Source: Data Processed

1. The financial literacy **coefficient to financial capability of 0.47 shows a positive and significant direct relationship.**
2. The financial literacy **coefficient for green financial practices of 0.32 shows that MSMEs with high financial literacy are more likely to implement green financial practices.**
3. The coefficient **of green financial practices to the financial capability** of 0.29 shows that the implementation of green financial practices improves the financial capability of MSMEs.
4. The mediation effect shows that green financial practices mediate the relationship between financial literacy and financial capability partially.

5. Discussion

The Effect of Financial Literacy on Financial Capability

Direct results

The results of statistical analysis show that financial literacy has a positive and significant influence on financial capability with a regression coefficient value of $\beta = 0.47$ and a significance level of $p < 0.01$. This means that every increase in financial literacy by one unit will increase financial capability by 0.47 units, with a very high level of certainty. This shows that financial literacy plays a crucial role in the ability of MSME actors to manage MSME finances more effectively. Higher levels of financial literacy reflect a better understanding of financial concepts, such as cash flow management, budget planning, debt management, and investment. MSME actors who have a good level of financial literacy are more able to:

1. **Managing cash flow:** businesses with adequate financial knowledge can maintain a balance between income and expenses, as well as ensure that MSME businesses have sufficient liquidity for their day-to-day operations. This is especially important in small businesses, where unstable cash flow can disrupt business continuity.
2. **Proper decision-making:** high financial literacy helps MSME actors in making wiser financial decisions, such as determining the right source of financing, when to invest, and how to manage financial risks. This affects the long-term strategy in maintaining business sustainability.
3. **Long-term planning:** MSME actors who have high financial literacy tend to focus more on long-term planning, such as preparing financial reserves for business expansion, preparing emergency funds, and planning investments. Thus, MSMEs are better able to face market uncertainty or changes in the business environment.
4. **Debt management efficiency:** business actors with good financial literacy are also better able to manage debt effectively. MSMEs understand the importance of interest rates, payment terms, and the impact of debt on long-term profitability. This helps reduce the risk of bankruptcy due to an uncontrolled debt burden.
5. These findings highlight the importance of financial education for MSMEs, especially in the manufacturing sector which involves complex financial management. Financial literacy training programs organized by the government or non-governmental organizations can help business actors improve MSMEs' understanding of financial management, so that MSMEs can be more confident in making decisions related to fund management, investment, and growth strategies.
6. The higher the level of financial literacy, the better MSMEs are at managing various aspects of business finance, which in turn increases business resilience to financial risks. MSMEs that understand basic financial concepts, such as bookkeeping, financial statements, and cost-benefit analysis, are more likely to identify financial opportunities and challenges faster; optimizing the use of business capital for sustainable growth; and reduce reliance on expensive loans or unhealthy financing practices.
7. In the long term, better financial literacy allows MSMEs to access more profitable investment opportunities and reduce business risks, thereby creating a more stable and thriving business. This also has an impact on the ability of

MSMEs to be more adaptive in dealing with market changes, be it in terms of technology, economic policies, or changes in consumer trends.

The Role of Green Financial Practices as A Mediation Variable

Relationship between financial literacy and green financial practices: Financial literacy is proven to have a positive influence on the implementation of green financial practices ($\beta = 0.32$, $p < 0.05$). This shows that MSMEs with a higher level of financial literacy tend to better understand and apply green finance practices in business.

The results showed that financial literacy had a positive and significant influence on the implementation of green financial practices with a regression coefficient value of $\beta = 0.32$ and a significance level of $p < 0.05$. This means that the higher the level of financial literacy possessed by MSME actors, the more likely MSMEs are to adopt green financial practices in MSME business operations. These findings are important because they show a strong link between better financial understanding and increased awareness and the implementation of sustainable business practices.

Green financial practices refer to the implementation of financial decisions that consider environmental impacts, such as investments in environmentally friendly technologies, better waste management, and energy efficiency [2], [16]. The adoption of these practices is not only beneficial to the environment but can also help MSMEs reduce operational costs, improve their reputation, and meet market demand that is increasingly concerned about sustainability [10].

The findings that higher financial literacy correlates with increased adoption of green financial practices indicate several important points:

1. A better understanding of the financial efficiency of MSMEs with a good level of financial literacy tends to understand the concept of efficiency in terms of cost and resource use. MSMEs are better able to see long-term benefits from investing in environmentally friendly technologies, such as the use of renewable energy or more efficient waste management. With this understanding, MSMEs are better prepared to allocate funds wisely into programs that support operational efficiency, ultimately contributing to green finance practices' implementation.
2. The ability to identify sustainability opportunities for MSME actors with high financial literacy is more likely to understand sustainability opportunities as part of the MSME business strategy. MSMEs not only see green financial practices as an additional expense, but as an investment that has the potential to bring long-term benefits, such as energy savings, increased production efficiency, and increased positive image in the eyes of customers and business partners [8].
3. Environmental and financial risk management of financially literate MSMEs are better able to manage risks, including environmental risks that can have an impact on MSME finances. MSMEs understand that neglect of environmental sustainability can incur additional costs in the future, such as fines from regulators, bad reputation, or losses due to reduced competitiveness in the

market. Therefore, MSMEs are more likely to take proactive steps by integrating green finance practices as part of MSME risk management [11].

4. Access to sustainable financing sources in some cases, MSMEs with higher financial literacy are better able to take advantage of sustainability-related financing opportunities, such as low-interest loans dedicated to green projects or incentives from governments for green investments. MSMEs' knowledge of the available financing mechanisms helps them take advantage of these opportunities to increase their business capacity while contributing to environmental sustainability.

Relationship Between Green Financial Practices and Financial Capability

Green financial practices have a significant influence on the improvement of financial capability ($\beta = 0.29$, $p < 0.05$). Sustainable financial practices, such as energy efficiency and waste management, have been shown to improve operational efficiency and reduce costs, thereby strengthening financial capabilities (Meng, 2024). The results showed that Green Financial Practices had a positive and significant influence on the improvement of financial capability with a regression coefficient value of $\beta = 0.29$ and a significance level of $p < 0.05$. This shows that MSMEs that adopt sustainable financial practices, such as energy efficiency and waste management, have experienced an increase in MSMEs' ability to manage business finances. The implementation of environmentally friendly business strategies not only provides ecological benefits but also has an impact on strengthening the financial structure of the business.

Green Financial Practices encompasses a range of business approaches that aim to reduce environmental impact while improving financial efficiency [2]. The adoption of these practices by MSMEs allows businesses to reduce long-term operational costs and, at the same time, maintain a more stable financial balance. Some of the key elements underlying improving financial capabilities through green finance practices are:

1. **Energy efficiency:** One of the main components of green financial practices is energy efficiency. MSMEs that implement energy-saving technologies, such as the use of LED lights, low-energy consumption equipment, or investment in renewable energy sources, will see a significant decrease in operational costs. This decrease in operating costs increases profit margins and provides more room for more efficient cash management, which in turn strengthens financial capabilities. With more efficient energy, MSMEs can redirect resources to other aspects of the business, such as product development or investment in marketing, which increases competitiveness and growth.
2. **Waste management:** better waste management, including efforts to reduce, recycle, and utilise waste, helps MSMEs to reduce operational costs related to waste production and disposal. In many cases, MSMEs that invest in effective waste management practices can reduce production and distribution costs, potentially turning waste into a source of income through recycling or raw material reuse programs. Thus, this cost reduction increases liquidity, allows

companies to cope with financial pressures more easily, and adds to the working capital reserves necessary for growth.

3. **Reducing operational risks:** The implementation of green financial practices can also help MSMEs reduce operational risks related to regulatory uncertainty and increasingly stringent environmental costs. Along with increasing regulations that encourage companies to adopt environmentally friendly business practices, MSMEs that are already implementing sustainability measures are in a better position to comply with existing regulations and avoid fines or sanctions. Better managing operational risk allows MSMEs to allocate resources to more productive areas, which improves overall financial capability.

Access to green incentives and financing for MSMEs that implement green financial practices also have better access to various forms of sustainable financing, including low-interest loans dedicated to green projects, government grants, or tax incentives. The availability of green financing allows MSMEs to reduce the burden of loan costs so that MSMEs can manage cash more efficiently and strengthen the financial health of MSMEs. With more affordable access to capital, MSMEs can expand and diversify their businesses, which ultimately increases financial capabilities [2].

One of the main mechanisms that connects Green Financial Practices with financial capability is to improve operational efficiency. Operational efficiency refers to the ability of a business to maximise output at minimal cost. By adopting more efficient business practices, such as energy saving and waste reduction, MSMEs can reduce production and distribution costs. These lower costs increase profitability, allowing MSMEs to build larger cash reserves, as well as prepare funds for future investments.

Furthermore, with the cost being reduced, MSMEs have more flexibility in facing financial or economic challenges, which is an important element in financial capabilities. For example, if there is a temporary decrease in income, MSMEs that have implemented green finance practices are more likely to survive because MSMEs have reduced unnecessary operational expenses.

The implementation of Green Financial Practices not only improves financial capabilities in the short term through cost reduction and increased efficiency, but also contributes to long-term financial stability. This stability is important for MSMEs to adapt to market changes and consumer demand that is increasingly environmentally conscious. In addition, this stability also prepares MSMEs to face economic fluctuations or crises that may arise in the future.

With more and more consumers choosing products or services from companies that are committed to sustainability, MSMEs that adopt Green Financial Practices have the potential to attract more customers. This increase in sales has a direct impact on the financial capabilities of MSMEs, especially in terms of more stable cash flow and higher profits.

Mediation effect: Mediation analysis shows that green financial practices partially mediate the relationship between financial literacy and financial capability ($\beta = 0.15$, $p < 0.05$). This means that high financial literacy not only improves financial capabilities directly, but also through the implementation of green finance practices.

The results of the mediation analysis show that Green Financial Practices partially mediates the relationship between Financial Literacy and Financial Capability with a mediation coefficient value of $\beta = 0.15$ and a significance level of $p < 0.05$. This means that financial literacy not only has a significant direct influence on financial capability, but also indirectly through the application of green financial practices. In other words, MSMEs that have high financial literacy are not only better able to manage MSME finances directly but are also more likely to implement green financial practices which then have a positive impact on financial capabilities.

This partial mediation shows that the relationship between financial literacy and financial capability becomes stronger when green financial practices are implemented. In other words, good financial literacy not only helps MSMEs in managing MSME finances, but also encourages MSMEs to invest in sustainability practices that can improve operational efficiency and, in turn, strengthen the financial capabilities of MSMEs. Here are some important factors that can explain this mediation mechanism:

1. The influence of financial literacy on the adoption of green financial practices MSMEs with higher financial literacy tend to be more aware of the importance of efficiency and sustainability in MSME business operations. A good understanding of cash flow management, investments, and financial risks motivates businesses to look for innovative ways that can reduce long-term operational costs, such as investing in energy-efficient technologies or better waste management. Green financial practices are one of the strategies adopted by financially literate MSMEs to achieve efficiency and sustainability [2].
2. Green financial practices as a driver of financial efficiency When green financial practices are implemented, MSMEs not only improve the operational sustainability of MSMEs, but also reduce operational costs, which directly contributes to improving financial capability. Energy savings, better waste management, and reduced greenhouse gas emissions can result in significant reductions in production and distribution costs. As a result, MSMEs with green practices are better able to manage MSME funds, increase liquidity, and create larger capital reserves for investment or business expansion [17].
3. Better risk management MSMEs implementing green financial practices tend to have better risk management mechanisms. By minimising environment-related risks, such as fines from regulators or fluctuations in energy prices, MSMEs can protect their assets and reduce long-term financial burdens [18]. Therefore, the financial capability of MSMEs is increasing because MSMEs are better prepared to face unexpected operational risks.
4. Long-term impact on business growth in addition to the short-term benefits of cost savings, green financial practices also have a long-term impact on financial capabilities through improved business reputation and competitiveness. With the adoption of green practices, MSMEs can attract more consumers who care about the environment, increase sales, and strengthen the market position of MSMEs [11], [19]. It can also make it easier to access sustainable financing sources, such as green credit or green investments that offer more favorable terms. MSMEs with good financial

literacy can take advantage of this opportunity to further improve the financial capabilities of MSMEs.

This partial mediation emphasizes that high financial literacy not only increases financial capability directly, but also through indirect channels, namely the application of green financial practices. MSMEs that have a good level of financial literacy are more likely to see strategic benefits from the adoption of green practices, which then strengthens the ability of MSMEs to manage their finances. This indicates that programs to increase financial literacy for MSMEs must include aspects of sustainability and the implementation of green practices in training modules.

Governments and financial institutions can play an important role by providing financial incentives or policy support that encourage MSMEs to implement Green Financial Practices. For example, by providing subsidies or tax breaks for MSMEs that invest in green technology or recycle waste, the government can accelerate the adoption of these practices. On the other hand, financial institutions can offer green financing programs with lower interest rates for MSMEs that are committed to implementing sustainable practices.

MSMEs operating in an increasingly competitive business environment and facing global challenges related to sustainability will benefit greatly from the integration of financial literacy with green financial practices. MSME actors who have good financial literacy will be able to:

1. Making the right investment decisions: With good financial literacy, MSMEs can understand the benefits of investing in green technologies, such as energy savings or increased production efficiency, which contribute to improving financial capabilities in the long term [9], [10].
2. Managing cash flow more effectively: The cost efficiencies resulting from green financial practices help MSMEs to have better cash reserves and allow MSMEs to be more flexible in facing financial pressures.
3. Strengthening market competitiveness: By implementing green finance practices, MSMEs can increase the attractiveness of MSMEs for more environmentally conscious customers and open new business opportunities, strengthening financial capabilities [10].

6. Conclusion

This study found that financial literacy significantly influences the financial capabilities of MSMEs, and this relationship is strengthened by applying green financial practices as a mediating variable. This shows that MSMEs with high financial literacy and implementing green finance practices have better abilities to manage MSME finances sustainably. The study recommends that governments and financial institutions collaborate to develop integrated training programs that focus on enhancing financial literacy while promoting the implementation of green financial practices. Additionally, policy support in the form of regulations and fiscal incentives is crucial for encouraging MSMEs to adopt these practices, which can improve both their financial capabilities and their contribution to the green economy. Collaboration

with financial institutions should also be strengthened, as banks and financial bodies can create tailored products for MSMEs that implement environmentally friendly practices, making it easier for them to access green financing. These recommendations suggest that MSMEs can leverage increased financial literacy to not only enhance their financial management but also contribute to environmental sustainability through green finance practices.

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