



FINANCIAL LITERACY CAN OVERCOME BARRIERS TO MSME FINANCING: EVIDENCE FROM INDONESIA

I Made Suidarma^{1✉}, Komang Sri Widiyanti¹, Masno², Desak Made Sukarnasih¹,
Aura Armanid¹, I Dewa Nyoman Marsudiana¹

¹Universitas Pendidikan Nasional, Denpasar, Indonesia

²Universitas Pamulang, Tangerang Selatan, Indonesia

✉suidarma@undiknas.ac.id

<https://doi.org/10.46367/jas.v8i2.2050>

Received: Aug 08, 2024 Revised: Oct 11, 2024 Accepted: Oct 21, 2024 Published: Dec 20, 2024

ABSTRACT

This study aims to analyze the influence of financial literacy, debt management literacy, budgeting literacy, banking service literacy, and bookkeeping literacy on financing constraints for Micro, Small, and Medium Enterprises (MSMEs). The research population comprises 16,574 MSMEs in Badung Regency, Bali, Indonesia. This study uses primary data from questionnaires distributed via social media using Google Forms to respondents according to the criteria. The data collection technique used a questionnaire consisting of respondents' identities and six points related to financial literacy, measured by a 5-point Likert scale. Sampling used random sampling; the number of samples was measured using the Yamane formula approach to obtain a sample of 391 MSMEs. The data analysis method uses SEM-PLS, with the help of the SmartPLS tool, to test external models, internal models, and hypotheses. The study results revealed that financial literacy, debt management literacy, budgeting literacy, banking service literacy and bookkeeping literacy positively influence financial constraints in MSMEs. A better understanding of debt management and bookkeeping also reduces financial constraints. This research expands the financial management theory by integrating five dimensions of financial literacy in one comprehensive model, which helps MSMEs improve financial literacy and reduce barriers to access to financing for sustainable business growth.

Keywords: financial literacy, debt management, budgeting, banking services, bookkeeping.

INTRODUCTION

Financial literacy has a significant role in overcoming financing barriers often faced by MSMEs (Bui et al. 2021). A comprehensive financial understanding can help overcome these financing barriers (Błach 2020; Saarinen and Aarikka-Stenroos 2023). Concrete steps in financial management, such as financial literacy, debt management, utilization of banking services, bookkeeping efficiency, and good budgeting practices, can support the effective management of financial resources (Teplova et al. 2020). Therefore, MSMEs have a more significant opportunity to obtain the necessary financing to develop and expand their business growth (Saarinen and Aarikka-Stenroos 2023). Sound financial management provides practical solutions and opens up more economic opportunities for MSMEs (Widjanarko et al. 2022).

Financial literacy can help business owners manage their finances more efficiently, reducing financing constraints. Culebro-Martínez, Moreno-García, and Hernández-Mejía (2024) discuss the importance of financial literacy in facing financing barriers. Medina-Vidal, Buenestado-Fernández, and Molina-Espinosa



(2023) added that a better understanding of finance provides an effective solution in business financial management. Beureukat and Setyawati (2023) show that financial literacy only provides limited benefits in overcoming financing constraints. This creates inconsistency in the research results on the influence of financial literacy on financing.

Elliyana, Widyastuti, and Buchdadi (2024) observe that debt management literacy provides benefits in facilitating access to financing and increasing credibility in financial institutions' eyes. Improving debt literacy allows business owners to manage debt better. Jumady et al. (2024) stated that debt management literacy has yet to overcome financing constraints, creating uncertainty regarding its influence effectively. Budgeting literacy helps plan more efficiently (Shafiee, Zhang, and Rasmussen 2023). Good budgeting helps MSMEs manage financial risk and support sustainable growth. Rehman and Mia (2024) stated that while budgeting literacy is beneficial, it has yet to overcome financing constraints substantially. Kanta and Arifin (2022) emphasized that banking service literacy increases accessibility to various financial products, which can help overcome financing constraints. Loke and Hageman (2013) stated that banking literacy has yet to overcome financing constraints significantly. Loke and Hageman (2013) show that bookkeeping literacy provides better visibility in business financial management, increasing business credibility in the eyes of lenders. Ngeek (2016) said that bookkeeping literacy has yet to impact the overcoming of financing constraints significantly.

The impact of financial literacy, debt management literacy, budget literacy, banking service literacy, and bookkeeping literacy on MSME financing constraints still needs to be fully understood. Previous studies have shown a relationship between each literacy factor and financing constraints, but no study has combined these factors in a single model. It is novel and provides an opportunity to develop a comprehensive model that integrates five dimensions of financial literacy to analyze its impact on financing constraints faced in Badung Regency. Most previous studies have emphasized the impact of financial literacy and debt management. In contrast, the role of budget literacy, banking services, and bookkeeping has yet to be researched, creating gaps in previous studies. Therefore, this study aims to fill this gap by analyzing the comprehensive influence of the five dimensions of financial literacy on MSME financing constraints and broadening the perspective by investigating the overall impact of reducing barriers faced by MSMEs.

LITERATURE REVIEW

Resource-Based View (RBV)

RBV is an approach in strategic management that focuses on a company's internal resources as the main factor in achieving competitive advantage (Wernerfelt 1984). This theory states that a company's competitive advantage can be achieved by having or developing resources that are unique, rare, difficult to imitate, and irreplaceable by other resources. Thus, companies with resources that meet these criteria can outperform competitors and maintain that advantage long-term. RBV is the basis for analyzing how an organization's internal resources can



support or hinder efforts to achieve the company's strategic goals and is one of the theories often used in modern strategic management (Barney 1991).

Theory of Planned Behavior (TPB)

TPB is a social psychology theory that explains how a person's attitudes, subjective norms, and perceived behavioral control can influence their intentions and behaviors. This theory was introduced by Ajzen (1985) as an extension of the theory of reasoned action (TRA). TPB explains the influence of attitudes, subjective norms, and perceived behavioral control on an individual's intention to act. These three factors influence a person's intentions, becoming the main predictor of actual behavior (Ajzen 1991).

MSME Financing Constraints

MSME financing constraints are obstacles in obtaining capital from formal financial institutions, such as guarantee requirements, documentation, high interest rates, and lack of access to information (Tambunan et al. 2022). Financing constraints are the main problem that hinders the growth of MSMEs in developing countries, including Indonesia. MSMEs often need help accessing formal financing due to a lack of collateral, poor credit history, and strict administrative requirements (Beck 2007). Low financial literacy also worsens their ability to prepare financial statements, which makes the credit application process difficult. As a result, MSMEs are more likely to rely on internal or informal financing, which is usually more expensive and unstable. Therefore, the role of the government and financial institutions is vital in creating inclusive policies to overcome these obstacles (Setyawati, Sudarmiati, and Wardana 2023).

Financial Literacy

Finance is essential in reducing financing constraints faced by micro, small, and medium enterprises (Obuya 2017; Akhtar and Liu 2018). Entrepreneurs tend to take advantage of financial services, and financial education has been shown to have a positive relationship with using these services (Ansar, Klapper, and Singer 2023). This is especially important given the low level of financial literacy among small business owners and the need to improve the socio-economic conditions of companies (Anoos, Ferrater-Gimena, and Etcuban 2020). Limited access to financial markets and alternative sources of capital make MSMEs highly vulnerable to the impact of inappropriate financial decision-making (Weerasekara and Bhanugopan 2023). Managers with financial knowledge and an understanding of financial data tend to use financial statements more often than those who do not have such an understanding (Akhtar and Liu 2018). Additionally, financial literacy can provide entrepreneurs with information about the financial resources needed to fund their ventures, leading to better financial decision-making, more effective identification of funding sources, and more strategic business investments (Alshebami and Al Marri 2022).

Debt Management Literacy

Debt management literacy refers to MSMEs' understanding and skills in managing debt effectively (Tarus and Tarus 2023). Ability to understand, plan, and manage debt wisely to minimize financial risks. With this literacy, business



actors can determine when and how to take debt and ensure debt payments follow financial capabilities (Irdiana, Lukiana, and Kasim 2024). MSMEs often face significant challenges related to financing, which hinders their ability to thrive (Abe et al. 2015). However, research shows that improving the financial literacy of MSME owners and managers, especially in debt management, can help reduce these barriers (Singh 2016; Anoo, Ferrater-Gimena, and Etcuban 2020). Entrepreneurs utilize financial services, including debt financing, to support their business's growth and sustainability (Rathakrishnan and Parthasarathy 2018; Behera et al. 2020). Good debt management skills can help MSME owners overcome the complexities of obtaining and repaying loans, improving their financial performance (Beck and Demircuc-Kunt 2006). Financial literacy programs explicitly designed for MSME owners have the potential to encourage financial inclusion and improve their decision-making skills (Bancoro 2023). By better understanding financial concepts and strategies, MSME owners can make wiser debt financing decisions, allowing them to manage financial resources more effectively and better deal with market challenges (Han and Benson 2010).

Budgeting Literacy

Budget literacy refers to the understanding and skills MSMEs possess in managing the budget effectively, including planning, allocating, and monitoring expenditures and revenues (Hasan, Le, and Hoque 2021). In the context of MSMEs, budget literacy is critical because it can affect the ability of entrepreneurs to access financing and manage capital. The low level of budget literacy among MSME actors is one of the main factors that hinder access to formal financing sources, such as banks and other financial institutions (Fikri and Nahda 2023). MSMEs with good budget literacy can prepare financing proposals and meet loan requirements, reducing financing constraints often faced (Anggreni and Muchran 2023). By increasing budget literacy, MSMEs can be more effective in managing finances and increasing access to capital, which ultimately helps reduce financing constraints that are often an obstacle to business growth (Herdiyanti, Yuniarti, and Apriyanto 2024).

Banking Service Literacy

Banking service literacy refers to the understanding, knowledge, and skills of MSME actors related to banking institutions' products, services, and mechanisms. This includes understanding banking products and services such as savings, loans, transfers, or other services offered by banks (Charfeddine, Umlai, and El-Masri 2024). For MSMEs, banking service literacy is critical because the need for knowledge of business actors about these services often constrains access to formal financing from banking institutions. The lack of banking service literacy is one of the leading causes of MSMEs' low access to banking credit because many MSME actors need help understanding credit procedures and requirements (Rahayu and Rahmawati 2022). Good banking literacy can help MSMEs understand and choose financing products that suit their needs to increase access to capital and reduce financing constraints that have been the main challenge in business development (Tambunan et al. 2022). Therefore, increasing banking



service literacy is urgently needed to help MSMEs optimize access to formal financing.

Bookkeeping Literacy

Bookkeeping literacy is a skill MSME actors possess related to recording financial transactions, managing basic financial statements, and using financial information for better decision-making in business management. Low bookkeeping literacy is often an obstacle to obtaining financing from formal financial institutions. Many MSMEs need adequate financial records, which causes difficulties in meeting credit requirements, such as the presentation of financial statements requested by banks or investors (Husain and Sahara 2023). Good bookkeeping literacy can help MSMEs prepare credible financial statements, increase transparency, and significantly reduce financing constraints because clear and structured financial statements make it easier for MSMEs to gain the trust of financial institutions and access loans or capital (Rahmi, Andria, and Salmah 2023).

Hypothesis Development

The relationship between the RBV and the TPB shows that financial literacy is a strategic resource supporting MSMEs' competitive advantage. RBV considers financial literacy and management vital in overcoming financing constraints and improving business performance. Meanwhile, the SDGs emphasized that financial literacy affects the attitudes of MSME owners and financial behavior, making it easier to manage finances and make decisions related to financing. Improving financial literacy allows MSMEs to manage debt and bookkeeping better and access formal credit more quickly. This supports the RBV theory that good internal resource management results in a competitive advantage. Improving financial literacy is also in line with the SDGs because it helps MSME owners develop a positive attitude and better behavioral control towards financial management, making it easier to access financing and increasing business success. The increase in financial literacy significantly affects the ability of MSMEs to manage debt and access formal credit (Bancoro 2023). Good financial literacy improves the ability of MSME owners to make the right financial decisions, improve debt management practices, and facilitate access to various sources of financing, such as banks, cooperatives, and other financial institutions (Herrera, Warokka, and Aqmar 2023). Financial literacy has a positive influence on reducing MSME financing constraints because higher literacy increases the likelihood of MSMEs obtaining credit and ensuring financial sustainability (Nareswari, Nurmasari, and Putranti 2023).

H1: Financial literacy has a positive effect on MSME financing constraints.

The relationship between the RBV and the debt management theory in the context of MSMEs lies in how financial literacy and debt management function as strategic resources that increase competitive advantage and business performance. RBV emphasized that good financial literacy allows MSMEs to manage debt, budgeting, and banking services effectively, thereby overcoming financing constraints. Meanwhile, debt management theory shows that knowledge in managing debt and understanding factors such as inflation and interest rates positively impact the growth of MSME asset value and their overall performance.



Debt management literacy positively impacts MSME financing constraints by showing that good debt management is directly related to the growth of MSME asset value. The study reveals that MSMEs that know debt management, including the impact of inflation and interest rates, show significant differences in asset value compared to those who do not have such an understanding (Charfeddine, Umlai, and El-Masri 2024). Debt management literacy positively reduces MSME financing constraints because a better understanding of debt management contributes to improving the performance and growth of MSMEs (Millaningtyas et al. 2024).

H2: Debt management literacy has a positive impact on MSME financing constraints.

The relationship between the RBV and budgeting skills in the context of MSMEs lies in how financial literacy and budgeting function as strategic resources. RBV stated that effective management of resources provides a competitive advantage and improves the business performance of MSMEs. Meanwhile, improving budgeting skills positively affects the growth of MSMEs by increasing asset value, sales, capital management, and profitability. Good budgeting allows MSMEs to plan and manage resources more efficiently. The connection between these two theories lies in how budgeting literacy as part of strategic resources (RBV) can improve the ability of MSMEs to manage finances and budgeting, which directly impacts business growth and performance. Improving the budgeting skills of MSME owners positively impacts the growth of asset value, sales, capital management, and profitability of MSMEs (Nugraha et al. 2023). Good budgeting literacy allows MSMEs to plan and manage finances more effectively, which improves business performance (Edwy et al. 2023). Budgeting literacy reduces MSME financing constraints by improving the efficiency of financial management and supporting business growth (Charfeddine, Umlai, and El-Masri 2024).

H3: Budgeting literacy has a positive impact on MSME financing constraints.

Banking service literacy, which involves understanding bank products and services, contributes positively to the growth of MSME asset value by improving budgeting, recording, and planning capabilities. This aligns with the RBV theory by showing that good banking service literacy helps MSMEs manage resources more efficiently, overcome financing constraints, and encourage business growth (Herdiyanti, Yuniarti, and Apriyanto 2024). The results of the study show that banking service literacy has a positive effect on MSME financing constraints. Although MSMEs still face challenges in accessing banking services, the findings show that increasing banking service literacy can increase the growth of MSME asset value. As many as 20 out of 31 MSMEs with assets above 500,000 IDR acknowledged the benefits of various banking services (Chironga et al. 2012). Banking service literacy helps MSMEs in budgeting, tax preparation, organized record-keeping, and monitoring of business targets, which ultimately supports business growth (Gunawan, Jufrizen, and Pulungan 2023). Banking service literacy can reduce the constraints of MSME financing by increasing the efficiency of financial management and access to banking services (Tambunan et al. 2022).

H4: Banking service literacy has a positive effect on MSME financing constraints.



RBV and bookkeeping literacy are interrelated in the context of MSMEs. RBV said that financial literacy, debt management, budgeting, banking services, and bookkeeping are strategic resources that provide a competitive advantage. Bookkeeping literacy improves transparency, credit reputation, and efficient financial management, reducing financing constraints and supporting the growth of MSME asset value. Bookkeeping literacy has a positive impact on MSME financing constraints. Improving basic bookkeeping skills contributes to the growth of MSME asset value by improving business transparency and credit reputation (Husain and Sahara 2023). Bookkeeping literacy also facilitates accurate budgeting, proper tax preparation, and organized record-keeping, thus allowing MSMEs to achieve business targets and manage finances more efficiently. Thus, good bookkeeping literacy can reduce MSME financing constraints and encourage business growth (Maris et al. 2022).

H5: Bookkeeping literacy has a positive impact on MSME financing constraints.

METHODS

The study employed a quantitative research design, collecting data through structured surveys administered to a sample of MSMEs. The data collected includes a measure of financial literacy, debt management literacy, budgeting literacy, banking services literacy, bookkeeping literacy, and MSME financing constraints. The research was conducted in Badung Regency, Bali, Indonesia, on MSMEs who need access to or use financing or capital for their businesses. This research is conducted because MSMEs in the Badung Regency area usually last up to three years, and the cause of the loss is capital or financing problems. The research population consists of 16,574 MSMEs in Badung Regency. Sampling used random sampling; the number of samples was measured using the Yamane (1968) formula approach to obtain a sample of 391 MSMEs. Respondents were given a questionnaire with primary data based on predetermined criteria. Respondents will receive this survey directly on social media using Google Forms. The research variables consist of financial literacy, debt management literacy, budgeting literacy, banking services literacy, and bookkeeping literacy as independent variables, and MSME financing constraints as dependent variables, while the indicators of each variable can be seen in Table 1.

Table 1 Operational Variables

Variables	Indicators	Statements	Scale
Financial Literacy (X1)	Basic financial knowledge	I have a strong understanding of the difference between revenue and cost.	Likert
	Savings and credit	I understand the difference between secured loans and unsecured loans (unsecured). I set my financial budget to manage debt and payments credit.	
	Insurance	I believe that insurance can protect my MSMEs from financial risks which is unexpected.	
	Investment	I have a good understanding of the concept of investment. I believe that investment can help our MSMEs grow and develop.	



Debt Management Literacy (X2)	Knowledge about loans and other credit offers	Loan funds to support the development of MSMEs.	Likert
		My business uses credit according to the actual purpose when applying for credit.	
	Knowledge about loan payments and default effects	The credit repayment period given to my business has an appropriate. The credit repayment period depends on the Credit amount.	
Budgeting Literacy (X3)	Setting financial goals	I have a long-term financial goal (more than 5 years) that I want to I achieved.	Likert
	Prepare a short and long-term budget	I have a plan to invest or save regularly to achieve my goals long-term.	
	Prepare a short and long-term budget	I consider factors such as inflation and rate of return when planning a long-term budget. I have set clear categories of expenses in the monthly budget, such as food, transportation, bills, and others.	
	Compare budget with actual performance	I routinely evaluate my actual income and compare it to the income I have budgeted.	
Banking Service Literacy (X4)	Access to banking products such as loans, accounts savings	I can easily get a loan from a formal financial institution for my business.	Likert
	Financial products used	I consume financial products.	
	Use of the bank's website	I often use bank websites to access information about financing. I can easily find the information or features I need on the bank's website. I can distinguish between the various banking products and services offered through the bank's website.	
Bookkeeping Literacy (X5)	Ability to prepare financial statements	I can evaluate financial performance by analyzing financial statements.	Likert
	Ease of managing cash books	I know how to match cash book records with bank accounts or card statements credit.	
	Ease of filing tax returns	I can easily access information about the application procedure tax return.	
MSME Financing Constraints (Y)	Offers of capital assistance from banks and financial institutions	I have a good understanding of what is meant by people's business credit. I have applied for KUR to support my MSME business.	Likert
	Apply for capital assistance to a bank or financial institution	I have applied for capital assistance to support my business. I know that capital assistance is a source of funds provided by various parties, such as the government or non-governmental organizations, to support business growth.	
	Do not have difficulties in obtaining capital assistance	I feel that the approval of the capital assistance was done quickly and efficiently. The process of obtaining capital assistance feels transparent and easy to Understand.	



The data source uses primary data with a data collection method via a questionnaire. The questionnaire is divided into two sections: the first asks for the identity of the respondents, and the second is about bookkeeping, banking services, financial literacy, debt management, budgeting, and funding for MSMEs. With the aid of SmartPLS software, the data analysis method utilized is the Structural Equation Model Partial Least Square (SEM-PLS). SEM analysis techniques are used in the study to understand the relationship between variables.

RESULTS AND DISCUSSIONS

Respondent Demographics

Respondent demographics include information about the respondents' identity, such as gender, age range, education level, duration of MSME activities, MSME sector, monthly sales turnover, and sub-district. The data on the respondents' demographics can be seen in Table 2.

Table 2 Respondent Demographics

Description		Frequency	Percentage
Gender	Man	202	51.66
	Women	189	48.34
Age	15–24 years	184	47.06
	25–34 years	125	31.97
	35–44 years	65	16.62
	45–55 years	14	3.58
	≥ 55 years	3	0.77
Education Level	High School	176	45.01
	Diploma	47	12.02
	Bachelor	168	42.97
	Postgraduate	0	0.00
Field MSMEs	Culinary	177	45.27
	Fashion	98	25.06
	Trade	93	23.79
	Other	23	5.88
Duration of MSME Activities	≤ 2 years	125	31.97
	2–5 years	145	37.08
	6–10 years	79	20.20
	11–20 years	22	5.63
	≥ 20 years	20	5.12
Monthly Sales Turnover	≤ 5 million	135	34.53
	5–20 million	142	36.32
	20–40 million	42	10.74
	40–75 million	26	6.65
	≥ 75 million	46	11.76
Sub-District	Abiansemal	98	25.06
	Kuta Utara	91	23.27
	Kuta Selatan	76	19.44
	Mengwi	90	23.02
	Petang	36	9.21

Source: primary data (processed, 2024)



Table 2 provides an overview of gender among MSME employers, highlighting gender diversity. Of the 391 respondents, there was a good balance, with 51.66% being male entrepreneurs and 48.34% women. This statistic reflects the discourse of gender inclusion in the MSME industry. This data shows empowerment and equality, illustrating the interaction of gender identity in entrepreneurship. In addition, Table 2 also examines in depth the demographic aspects of MSME entrepreneurs, including age diversity. Survey findings show that Generation Z and millennials dominate businesses, where 15-24 years old are 47.06% of respondents, 25-34 years old are 31.97% of respondents, 35-44 years old are 16.62%, and the rest are over 35 years old. This provides a clear picture of age dynamics in the MSME sector; this distribution shows variations in entrepreneurial spirit in various phases of life.

The more in-depth aspect of education affects the narrative of MSME entrepreneurs, making knowledge the foundation of entrepreneurship. The level of education among the survey group varied, with 42.97% having a diploma education and 45.1% having the equivalent of high school. In the context of this education, some outliers reflect intellectual excellence, where 12.02% of respondents have postgraduate and diploma qualifications. This illustrates the diversity of education and emphasizes the complexity of mastering entrepreneurial knowledge.

The MSME landscape reveals a tapestry of commercial interests. The poll revealed several types of companies, with trade and fashion ranking 23.79% and 25.06%, respectively. Culinary leads with 45.27%, showcasing entrepreneurial diversity. Despite this eclectic mix (other fields) whispering their presence at 5.88%, each thread adds to the rich MSME entrepreneurial tapestry and embraces innovation and initiative. Tenure also signifies resilience in the entrepreneurial path. Around 31.79% of respondents have been entrepreneurs for less than two years, while 37.08% have been entrepreneurs for two to five years. However, 20.20% represent experienced entrepreneurs who have weathered the storm for over five years. This temporal distribution tells the story of resilience and durability in the turbulent MSME entrepreneurship landscape.

In addition, fiscal indicators of MSMEs are used to assess economic vitality and growth. The survey showed that 36.32% of respondents had a monthly sales turnover of between 5 million and 20 million, which reflects modest prosperity. Meanwhile, 34.53% of the production was produced with less than 5 million turnovers. Amid this fiscal condition, 11.76% of the population achieved higher prosperity, with a monthly turnover exceeding 75 million. These fiscal records show that MSME entrepreneurship is spurred by economic enthusiasm. Statistical analysis also depicts the distribution of identities in the data, revealing regional concentrations and variations. Statistically, Abianseml and Mengwi dominated with a contribution of 25.06%, followed by North Kuta, which contributed 23.27%. In contrast, South Kuta and Petang contributed 19.44% and 5.67% to spatial identity, respectively, reflecting the spread of these statistics.

Validity and Reliability Test

If an indicator has convergent validity, then it is considered to represent one latent variable. Findings from convergent validity testing can be seen from the correlation between item scores and concepts for each indicator. Table 3 shows



that the output results meet the convergence validity criteria because the loading factor is more than 0.70. This indicator can reflect the financial literacy variable, where the financial literacy variable indicator X1.5 has the highest outer loading value of 0.918 compared to other indicators. In addition, the indicator can also show the variable of debt management literacy because the X2.2 indicator has the largest external burden value of 0.893. For budgeting literacy, the X3.5 indicator recorded the highest outer loadings value of 0.903. Regarding banking services literacy, the X4.1 indicator has the largest outer loading value of 0.815. Finally, the X5.2 indicator, which represents bookkeeping literacy, shows the highest outer loadings value of 0.901 compared to other indicators. Given that the Y1.4 indicator of the financing constraints variable has the highest external burden value of 0.911 compared to other indicators, it can be understood that the indicator can represent the financing constraints variable.

Table 3 Validity and Reliability Test Results

Variables	Statement	Loading Factor	AVE	Cronbach's Alpha	Composite Reliability
Financial Literacy	X1.1	0.833	0.672	0.903	0.920
	X1.2	0.807			
	X1.3	0.751			
	X1.4	0.789			
	X1.5	0.918			
	X1.6	0.813			
Debt Management Literacy	X2.1	0.885	0.723	0.871	0.874
	X2.2	0.893			
	X2.3	0.850			
	X2.4	0.767			
Budgeting Literacy	X3.1	0.759	0.651	0.865	0.865
	X3.2	0.807			
	X3.3	0.757			
	X3.4	0.801			
	X3.5	0.903			
Banking Service Literacy	X4.1	0.815	0.552	0.796	0.803
	X4.2	0.705			
	X4.3	0.703			
	X4.4	0.758			
	X4.5	0.754			
Bookkeeping Literacy	X5.1	0.802	0.683	0.766	0.773
	X5.2	0.901			
	X5.3	0.771			
MSME Financing Constraints	Y1.1	0.776	0.676	0.903	0.908
	Y1.2	0.806			
	Y1.3	0.747			
	Y1.4	0.902			
	Y1.5	0.778			
	Y1.6	0.911			

Source: primary data (processed, 2024)



Table 3 presents the AVE values for variable constructs, including bookkeeping, budgeting, debt management, banking services, financial literacy, and financing constraints. The model is considered valid when the AVE value for each variable exceeds 0.50. This is reinforced (Yakob et al. 2021; Irikefe and Opusunju 2021), who said the model could be good if the AVE value is more significant than 0.5.

The reliability test is designed to assess the extent to which the measuring instrument is consistent in measuring a concept, to what extent respondents provide consistent answers to each item in the research instrument, or to what extent the measuring instrument can consistently assess a concept. Table 3 shows that all variables related to financial literacy, debt management, budgeting, banking services, bookkeeping literacy, and financing constraints show composite reliability and a Cronbach alpha value greater than 0.70. Thus, these variables have a high degree of dependence and reliability.

Hypothesis Test

The structural model, also called the inner model, describes the quality and correlation between latent variables (construction). The extent of the influence between variables can be seen in the statistical t-statistics and parameter coefficient obtained through the bootstrapping method. This study used two tails with a t-value of 1.96 (at a significance level of 5%) (Rodríguez-Entrena, Schuberth, and Gelhard 2018). This study's bootstrapping (hypothesis) test results show the path coefficient values in Table 4.

Table 4 Hypothesis Test Results

Hypothesis	Original Sample	T-Statistics	P-Values
H1: X1 → Y	0.184	6.486	0.000
H2: X2 → Y	0.331	6.203	0.000
H3: X3 → Y	0.106	2.446	0.007
H4: X4 → Y	0.216	3.839	0.000
H5: X5 → Y	0.222	3.847	0.000
Adjusted R-Square			0.916

Source: primary data (processed, 2024)

Table 4 shows that hypothesis (H1) has a p-value of $0.000 < 0.05$, with a t-statistic of $6.486 > 1.96$ and a coefficient of 0.184. This indicates that financial literacy positively and significantly affects the MSME financing constraints, so H1 is accepted. Hypothesis (H2) shows a p-value of $0.000 < 0.05$, a t-statistic of $6.203 > 1.96$, and a coefficient of 0.331, which means that debt management has a positive and significant effect on the MSME financing constraints, so H2 is accepted. Hypothesis (H3) shows a p-value of $0.007 < 0.05$, a t-statistic of $2.446 > 1.96$, and a coefficient of 0.106, which shows that budgeting literacy has a positive and significant effect on MSME financing constraints, so H3 is accepted. Hypothesis (H4) shows a p-value of $0.000 < 0.05$, a t-statistic of $3.839 > 1.96$, and a coefficient of 0.216, which shows that banking service literacy has a positive and significant effect on MSME financing constraints, so H4 is accepted. Meanwhile, the hypothesis (H5) has a p-value of $0.000 < 0.05$, a t-statistic of $3.847 > 1.96$, and a coefficient of 0.222, which indicates that the bookkeeping



literacy (X5) has a positive and significant effect on the financing constraints of MSMEs, so H5 is accepted.

The first thing seen in this structural model is the R-squared value in each endogenous (dependent) variable of a study (Chicco, Warrens, and Jurman 2021). A model with Adjusted R-squared values of 0.25, 0.50, and 0.75 can be classified as weak, moderate, or firm (Hair et al. 2021). The endogenous variable in this study, namely the funding constraints of MSME companies, has an adjusted R-squared value of 0.916, as shown in Table 4. This indicates that MSME financing constraints can be influenced by financial literacy, debt management literacy, budgeting literacy, banking service literacy, and bookkeeping literacy, up to 91,6% of these endogenous variables.

The Effect of Financial Literacy on MSME Financing Constraints

This study shows that financial literacy positively affects MSME financing constraints. This means that the higher the financial literacy of MSME actors, the more obstacles they can overcome in financing (Cahyawati, Nantunga, and Tumewang 2023). Financial literacy provides an excellent understanding to MSME actors about financial products, financial planning, and how to obtain capital effectively. This knowledge makes it possible to choose the appropriate financing solution, understand the risks, and better plan the use of funds, thereby minimizing barriers to financing (Susan 2020). According to the Resource-Based View theory, financial literacy is a valuable resource that provides a competitive advantage for MSMEs by helping them manage capital and overcome financing barriers more effectively. Meanwhile, the Theory of Planned Behavior shows that financial literacy increases the control of behavior perceived by MSMEs so that they are more confident in making financial decisions and choosing the right financing solutions, ultimately reducing financing constraints. The implications of the research results are significant for the government, financial institutions, and stakeholders in supporting MSMEs. One of the policies that can be taken is to improve financial literacy education programs for MSME actors, especially in financial management and access to financing. This study's findings align with a study by Balami (2022), which showed a positive and robust correlation between loan payments and financial literacy. In addition, research conducted by Widyastuti, Ferdinand, and Hermanto (2023) revealed that increasing financial literacy among MSMEs can significantly impact loan availability and overall business success. This is known as improving access to and performance of formal credit through financial literacy and credit requirements for MSMEs (Pedraza 2021).

The Effect of Debt Management Literacy on MSME Financing Constraints

The results of the study show that debt management literacy has a positive effect on MSME financing constraints. This indicates that the better the debt management literacy of MSMEs, the more financing constraints can be overcome. MSME owners who understand how to manage debt will have better access to financing sources, as they can effectively plan and manage debt obligations. This increases their credibility in financial institutions' eyes and makes it possible to make more strategic decisions when using funds (Bancoro 2023). A good understanding of various loan options provides strength for MSMEs to make the



right financing decisions (Alafifi, Hamdan, and Al-Sartawi 2019). Prudent debt management improves the ability of MSMEs to face financial challenges and build trust in financial institutions. This literacy supports better debt decision-making, making debt a tool for growth rather than a burden (Ogheneogaga Irikefe et al. 2021). However, with sufficient support, this literacy may effectively overcome financial difficulties. Therefore, to create an environment that supports the development of efficient debt management literacy in dealing with financing problems, cooperation between the government, financial institutions, and MSMEs is needed (Farliana et al. 2023). Resource-Based View states the importance of unique internal resources as a source of competitive advantage. Debt management literacy is an asset for MSMEs, helping them manage debt well and increasing access to financing and credibility in financial institutions. This understanding allows MSMEs to use debt for business growth and sustainability. The results of this study are consistent with the findings of Kumari, Sharma, and Adnan (2024), which show that debt management literacy has a positive impact on the growth of MSME asset value. Research by Herrera, Warokka, and Aqmar (2023) also found that MSME performance is positively influenced by debt management literacy, with moderation and mediation seen in the analysis. In line with the research of Rahadjeng et al. (2023), debt management literacy contributes positively to the growth of MSMEs, while financial literacy, self-efficacy, and financial attitudes all play a role in improving MSME performance.

The Effect of Budgeting Literacy on MSME Financing Constraints

The results of the study show that budgeting literacy has a positive effect on MSME financing constraints. This indicates that the better the budgeting literacy of MSMEs, the more financing constraints can be overcome. Comparing budgets with actual performance allows MSMEs to manage financial resources more efficiently and make better spending and income decisions. MSMEs that can demonstrate financial management skills through benchmarking tend to gain more trust from lenders or investors, thus opening up opportunities to obtain additional financing and improve business relationships (Gunasekaran 2003; Putri and Husna 2024). Budgeting literacy also supports the evaluation of financial projections, risks, and investment opportunities, which in turn helps to overcome financing constraints (Mu'izzuddin et al. 2017; Mavlutova et al. 2021). Improving budgeting skills positively impacts sales, capital management, and MSME profitability. With good literacy, MSMEs can choose financing that suits their needs and manage payments more effectively to avoid burdensome debts (Atmaja and Sinabutar 2022; Halim and Suhaimi 2023). According to Resource-Based View, budgeting literacy is a valuable internal resource for MSMEs, enabling better planning, evaluating finances, and making investment decisions. These skills increase profitability, attract investors, and help MSMEs overcome financing constraints and strengthen competitiveness. The results of this study are consistent with the findings of Farliana et al. (2023), which show that increasing the budgeting ability of MSME owners can have a positive impact on the growth of MSME asset value, in line with the influence of financial literacy on MSME expansion. However, this study differs from the study by Salim et al. (2022) on the factors influencing the expansion of MSMEs and their impact on income and unemployment in Malaysia and Indonesia, which shows that the growth rate of



MSMEs is not influenced by financial literacy. This is also supported by research by Rahadjeng et al. (2023), which examined MSME strategies and revealed that financial literacy, self-efficacy, and financial attitudes play a role in improving the performance of MSME companies in Indonesia.

The Effect of Banking Service Literacy on MSME Financing Constraints

The results of the study show that banking service literacy has a positive effect on MSME financing constraints. This indicates that increasing banking literacy among MSME actors can significantly reduce barriers to accessing financing. Banking services literacy includes understanding the various products and services offered by financial institutions, such as business loans, savings, and collateral (Hasan, Le, and Hoque 2021). MSMEs have a good understanding of navigating the credit application process more efficiently, meeting the necessary administrative requirements, and managing financing more appropriately (Nugraha et al. 2023). Thus, the higher the level of banking literacy, the lower the obstacles MSMEs face in obtaining financing, such as difficulties in fulfilling collateral or financial documentation required by banks (Tambunan et al. 2022). Resource-Based View states that competitive advantages are obtained through unique resources, and banking literacy is an asset for MSMEs. An understanding of banking products, such as loans and collateral, allows MSMEs to access financing efficiently and meet administrative requirements. Banking service literacy helps MSMEs access more diverse sources of funds and prepares them to manage funds properly. With adequate literacy, MSME actors become more aware of financial risks and can manage cash flow effectively, thereby increasing credibility in the eyes of financial institutions. As a result, banks and other financial institutions are more willing to provide loans to MSMEs that can manage financing well (Chaidir et al. 2023). Therefore, it is vital to have financial education programs that target MSME actors to reduce financing constraints and support the growth of the MSME sector in the future (Dwyanti 2024).

The Effect of Bookkeeping Literacy on MSME Financing Constraints

The results of the study show that bookkeeping literacy has a positive effect on MSME financing constraints. This indicates that the better the bookkeeping literacy of MSMEs, the more financing constraints can be overcome. Restrictions on MSME financing in Badung Regency can reduce or ease the level of bookkeeping literacy owned by MSME owners. MSMEs operating for between 2 and 5 years can better manage their cash books more efficiently. This suggests that understanding the importance of financial planning and budgeting can be improved through experience in overcoming financial and financing issues over a given period (Athia, Sudarmiati, and Agus Hermawan 2023). Businesses that survive for 2-5 years usually have better financial stability and viability, which opens up opportunities to improve budget literacy for business efficiency and growth (Yakob et al. 2021). Basic skills in bookkeeping can also improve business transparency and credit reputation, support accurate budgeting, tax preparation, organized record management, and achieving business targets, which in turn supports growth (Castilla-Polo and Gallardo-Vázquez 2016). Resource-Based View states that competitive advantage is gained through unique and challenging resources to replicate. Bookkeeping literacy is an essential resource for MSMEs,



helping in financial planning and budgeting. The results of this study are in line with the findings of Gbemigun and Agbaje (2022), which show a strong relationship between the development of small and medium enterprises (SMEs) in Ondo State and financial accounting literacy, especially in terms of asset value growth and bookkeeping knowledge. In addition, these results are consistent with Njoki (2024), who indicates that bookkeeping knowledge positively impacts the growth of MSMEs.

CONCLUSIONS

Financial literacy, debt management literacy, budgeting literacy, banking service literacy, and bookkeeping literacy positively influence reducing financing constraints for MSMEs. The higher the literacy level in these fields, the lower the financing barriers that MSMEs face. This research integrates the five dimensions of financial literacy into one comprehensive model, expanding understanding and significantly contributing to existing theories. In addition, this study confirms the relevance of the RBV and TPB theories, showing that financial literacy functions as a strategic resource that increases the competitive advantage of MSMEs. The study results show the need for financial literacy education and training programs for MSME owners, as well as the development of policies that support the accessibility of financing sources. Holistic assistance, including debt management, budgeting, and bookkeeping, will help MSMEs overcome financing constraints and support business growth. Theoretically, integrating the five dimensions of financial literacy in one comprehensive model can expand the understanding of the influence of literacy on MSME financing constraints and support the development of more holistic financial management theories. In practical terms, the results of this study guide the government and financial institutions in designing more effective financial literacy training programs to help MSMEs overcome financing barriers and encourage sustainable business growth. This research was only conducted in Badung Regency, Bali, so the results cannot be generalized to other regions in Indonesia that have different MSME characteristics and do not consider other external factors that can affect MSME financing constraints, such as macroeconomic conditions, government policies, or local culture that can affect financial management. The suggestion for the following research is to conduct research that integrates various determinants of MSME financial performance holistically, such as the influence of internal control loci and risk perception, to provide a more comprehensive insight into practical solutions in overcoming financing constraints that MSMEs face.

REFERENCES

- Abe, Masato, Michael Troilo, and Orgil Batsaikhan. 2015. "Financing Small and Medium Enterprises in Asia and the Pacific." *Journal of Entrepreneurship and Public Policy* 4 (1): 2–32. <https://doi.org/10.1108/JEPP-07-2012-0036>.
- Ajzen, Icek. 1985. "From Intentions to Actions: A Theory of Planned Behavior." In *Action Control*, 11–39. Berlin, Heidelberg: Springer Berlin Heidelberg.



- https://doi.org/10.1007/978-3-642-69746-3_2.
- . 1991. “The Theory of Planned Behavior.” *Organizational Behavior and Human Decision Processes* 50 (2): 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T).
- Akhtar, Shamim, and Yanping Liu. 2018. “SME Managers and Financial Literacy; Does Financial Literacy Really Matter?” *Journal of Public Administration and Governance* 8 (3): 353–73. <https://doi.org/10.5296/jpag.v8i3.13539>.
- Alafifi, Ahmed, Allam Hamdan, and Abdalmuttaleb Al-Sartawi. 2019. “The Impact of Financial Literacy on Financial Operating Decision Makers in MSMEs.” In *The Proceedings of the 20th European Conference on Knowledge Management*, 1:1–9. ACPI. <https://doi.org/10.34190/KM.19.269>.
- Alshebami, Ali Saleh, and Salem Handhal Al Marri. 2022. “The Impact of Financial Literacy on Entrepreneurial Intention: The Mediating Role of Saving Behavior.” *Frontiers in Psychology* 13 (June): 1–10. <https://doi.org/10.3389/fpsyg.2022.911605>.
- Anggreni, Rezki, and Muchriana Muchran. 2023. “The Role of Financial Literacy, Digital Literacy, and the Influence of Efficacy in Improving the Performance of MSME Actors in Makassar City.” *International Journal of Economic Research and Financial Accounting (IJERFA)* 1 (4): 176–84. <https://doi.org/10.55227/ijerfa.v1i4.43>.
- Anoos, Jose Marie M, Judy Ann O Ferrater-Gimena, and Jonathan O Etcuban. 2020. “Financial Management of Micro, Small, and Medium Enterprises in Cebu, Philippines.” *International Journal of Small Business and Entrepreneurship Research* 8 (1): 53–76. <https://doi.org/10.37745/ejsber.vol8.no.1p53-76.2020>.
- Ansar, Saniya, Leora Klapper, and Dorothe Singer. 2023. “The Importance of Financial Education for the Effective Use of Formal Financial Services.” *Journal of Financial Literacy and Wellbeing* 1 (1): 28–46. <https://doi.org/10.1017/flw.2023.5>.
- Arovah, Novita Intan, and Kristiann C. Heesch. 2020. “Verification of the Reliability and Validity of the Short Form 36 Scale in Indonesian Middle-Aged and Older Adults.” *Journal of Preventive Medicine and Public Health* 53 (3): 180–88. <https://doi.org/10.3961/jpmp.19.324>.
- Athia, Ita, Sudarmiati Sudarmiati, and Agus Hermawan. 2023. “Management of CashFlow Practices in Micro Enterprises: Perspectives from Women-Owned SMEs.” *International Journal Of Humanities Education and Social Sciences (IJHES)* 2 (6): 2056–69. <https://doi.org/10.55227/ijhess.v2i6.489>.
- Atmaja, Ricky, and Romulo Sinabutar. 2022. “Analysis of the Application of Financial Management and Supporting Factors to Business Development Opportunities in MSMEs during the Covid-19 Pandemic.” *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)* 5 (1): 3786–3800. <https://birci-journal.com/index.php/birci/article/view/4063>.
- Balami, Dereje Girma. 2022. “An Analysis of Financial Literacy and Its Effect on Loan Repayment Performance of Members (The Case of Weltane Ambo

- Saccos Union) Of West Shoa Zone, Oromia Regional State, Ethiopia.” *Indiana Journal of Arts & Literature* 3 (10): 22–35. [https://indianapublications.com/articles/IJAL_3\(10\)_22-35_63c066eaa85274.92308486.pdf](https://indianapublications.com/articles/IJAL_3(10)_22-35_63c066eaa85274.92308486.pdf).
- Bancoro, Jaysone Christopher. 2023. “Financial Literacy of MSME Business Owners in the Municipality of San Jose, Negros Oriental, Philippines: A Basis for a State University’s Extension Program.” *International Journal of Asian Business and Management* 2 (3): 241–74. <https://doi.org/10.55927/ijabm.v2i3.4369>.
- Barney, Jay. 1991. “Firm Resources and Sustained Competitive Advantage.” *Journal of Management* 17 (1): 99–120. <https://doi.org/10.1177/014920639101700108>.
- Beck, Thorsten. 2007. “Financing Constraints of SMEs in Developing Countries: Evidence, Determinants and Solutions.” *Financing Innovation-Oriented Businesses to Promote Entrepreneurship*, 1–35. https://pure.uvt.nl/ws/portalfiles/portal/1107677/Financing_Constraints_of_SMEs.pdf.
- Beck, Thorsten, and Asli Demirguc-Kunt. 2006. “Small and Medium-Size Enterprises: Access to Finance as a Growth Constraint.” *Journal of Banking & Finance* 30 (11): 2931–43. <https://doi.org/10.1016/j.jbankfin.2006.05.009>.
- Behera, Minaketan, Sanghamitra Mishra, Niharika Mohapatra, and Alok Ranjan Behera. 2020. “COVID-19 Pandemic and Micro, Small and Medium Enterprises (MSMEs): Policy Response for Revival.” *SEDME (Small Enterprises Development, Management & Extension Journal): A Worldwide Window on MSME Studies* 47 (3): 213–28. <https://doi.org/10.1177/09708464211037485>.
- Beureukat, Beureukat, and Irma Setyawati. 2023. “The Effect of Financial Literacy on MSME Financial Management in Tanjungsari District, Sumedang Regency.” *Jurnal Ekonomi* 12 (1): 684–89. <https://ejournal.seaninstitute.or.id/index.php/Ekonomi/article/view/1264>.
- Błach, Joanna. 2020. “Barriers to Financial Innovation—Corporate Finance Perspective.” *Journal of Risk and Financial Management* 13 (11): 273. <https://doi.org/10.3390/jrfm13110273>.
- Bui, Anh Tuan, Thu Phuong Pham, Linh Chi Pham, and Thi Khanh Van Ta. 2021. “Legal and Financial Constraints and Firm Growth: Small and Medium Enterprises (SMEs) versus Large Enterprises.” *Heliyon* 7 (12): e08576. <https://doi.org/10.1016/j.heliyon.2021.e08576>.
- Cahyawati, Noor Endah, Kacahya Hanugrah Nantunga, and Yunice Karina Tumewang. 2023. “The Influence of Financial Technology & Literacy on MSMEs Sustainability with Financial Inclusion as a Mediating Variable.” *Journal of Contemporary Accounting* 5 (2): 71–82. <https://doi.org/10.20885/jca.vol5.iss2.art2>.
- Castilla-Polo, Francisca, and Dolores Gallardo-Vázquez. 2016. “The Main Topics of Research on Disclosures of Intangible Assets: A Critical Review.” *Accounting, Auditing & Accountability Journal* 29 (2): 323–56. <https://doi.org/10.1108/AAAJ-11-2014-1864>.
- Chaidir, Mohammad, Grace Yulianti, Seger Santoso, and Cahyati Kumandang.



2023. “Financial Management Proficiency For MSMEs.” In *Proceeding of The International Conference on Business and Economics*, 1:285–93. <https://doi.org/10.56444/icbeuntagsmg.v1i2.1460>.
- Charfeddine, Lanouar, Mohamed Ismail Umlai, and Mazen El-Masri. 2024. “Impact of Financial Literacy, Perceived Access to Finance, ICT Use, and Digitization on Credit Constraints: Evidence from Qatari MSME Importers.” *Financial Innovation* 10 (1): 15. <https://doi.org/10.1186/s40854-023-00557-4>.
- Chicco, Davide, Matthijs J. Warrens, and Giuseppe Jurman. 2021. “The Coefficient of Determination R-Squared Is More Informative than SMAPE, MAE, MAPE, MSE and RMSE in Regression Analysis Evaluation.” *PeerJ Computer Science* 7 (July): e623. <https://doi.org/10.7717/peerj-cs.623>.
- Chironga, Mutsa, Jacob Dahl, Tony Goland, Gary Pinshaw, and Marnus Sonnekus. 2012. “Micro-, Small and Medium-Sized Enterprises in Emerging Markets: How Banks Can Grasp a \$350 Billion Opportunity.” *Mckinsey*, 1–58.
- Culebro-Martínez, Román, Elena Moreno-García, and Sergio Hernández-Mejía. 2024. “Financial Literacy of Entrepreneurs and Companies’ Performance.” *Journal of Risk and Financial Management* 17 (2): 63. <https://doi.org/10.3390/jrfm17020063>.
- Dwyanti, Dwyanti. 2024. “The Importance of Financial Literacy in Financial Management in Micro, Small and Medium Enterprises (MSMEs).” *Journal of Applied Management and Business* 5 (1): 1–6. <https://doi.org/10.37802/jamb.v5i1.661>.
- Edwy, Ferby Mutia, Mohammad Iqbal Firdaus, Ivan Febia, Sendy Leonardi, and Zhafira Aulia Ramadhani. 2023. “Financial Management: The Implementation in MSMEs.” *International Journal of Multicultural and Multireligious Understanding* 10 (10): 273. <https://doi.org/10.18415/ijmmu.v10i10.5170>.
- Elliyana, Ela, Umi Widyastuti, and Agung Dharmawan Buchdadi. 2024. “Does Debt Management Literacy Affect Loan Repayment Of SMES?” *Educational Administration: Theory and Practice* 30 (4): 10241–51. <https://kuey.net/index.php/kuey/article/view/5912>.
- Farliana, Nina, Wijang Sakitri, Sri Utami, Ratieh Widhiastuti, and Wisudani Rahmaningtyas. 2023. “Financial Literacy on MSME Export Import Decisions and the Affecting Individual and Social Factors.” *Journal of Socioeconomics and Development* 6 (2): 138. <https://doi.org/10.31328/jsed.v6i2.4539>.
- Fikri, Anisa Salsabila Kemala, and Katiya Nahda. 2023. “The Effect of Financial Literacy on MSME Performance Through Financial Access and Financial Risk Attitude as a Mediation Variable.” *Jurnal Economic Resource* 6 (2): 238–47. <https://doi.org/10.57178/jer.v6i2.664>.
- Gbemigun, Catherine Omoleye, and Wale Henry Agbaje. 2022. “Financial Accounting Literacy and Growth of Small and Medium Scale Enterprises (SMEs) in Ondo State.” *Nigerian Academy of Management Journal* 17 (2): 105–14. <https://namj.tamn-ng.org/index.php/home/article/view/190>.
- Gunasekaran, A. 2003. “Benchmarking in Small and Medium Enterprises.”



- Benchmarking: An International Journal* 10 (3).
<https://doi.org/10.1108/bij.2003.13110caa.001>.
- Gunawan, Ade, Jufrizen Jufrizen, and Delyana Rahmawany Pulungan. 2023. "Improving MSME Performance through Financial Literacy, Financial Technology, and Financial Inclusion." *International Journal of Applied Economics, Finance and Accounting* 15 (1): 39–52.
<https://doi.org/10.33094/ijaefa.v15i1.761>.
- Hair, Joseph F., G. Tomas M. Hult, Christian M. Ringle, Marko Sarstedt, Nicholas P. Danks, and Soumya Ray. 2021. *Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R*. Classroom Companion: Business. Cham: Springer International Publishing.
<https://doi.org/10.1007/978-3-030-80519-7>.
- Halim, Velicia Faustine, and Hasnul Suhaimi. 2023. "Budgeting and Cataloging Enhancement for Small and Medium-Sized Enterprises Towards Sustainable Development Goals." *Journal of Environmental Science and Sustainable Development* 6 (1): 132–48.
<https://doi.org/10.7454/jessd.v6i1.1157>.
- Han, Liang, and Alan Benson. 2010. "The Use and Usefulness of Financial Assistance to UK SMEs." *Environment and Planning C: Government and Policy* 28 (3): 552–66. <https://doi.org/10.1068/c0985b>.
- Hasan, Morshadul, Thi Le, and Ariful Hoque. 2021. "How Does Financial Literacy Impact on Inclusive Finance?" *Financial Innovation* 7 (1): 40.
<https://doi.org/10.1186/s40854-021-00259-9>.
- Herdiyanti, Indyah, Sari Yuniarti, and Gaguk Apriyanto. 2024. "The Triple Pillar Of MSMEs Development: Financial Literacy, Inclusion, And Financial Management." *Jurnal Manajemen* 28 (2): 387–409.
<https://doi.org/10.24912/jm.v28i2.1706>.
- Hererra, Juan Jose Duran, Ari Warokka, and Aina Zatil Aqmar. 2023. "Financial Literacy and MSME Performance: Mediation and Moderation Analysis." *Journal of Sustainable Economics* 1 (2): 65–76.
<https://doi.org/10.32734/jse.v1i2.14304>.
- Husain, Saddam, and Ira Sahara. 2023. "The Financial Literacy and Simple Bookkeeping Training for Micro, Small and Medium Enterprises in Mattirotasi Village." *Empowerment Society* 6 (1): 1–8.
<https://ejournal.itbwigalumajang.ac.id/index.php/eps/article/view/950>.
- Irdiana, Sukma, Ninik Lukiana, and Kasno T. Kasim. 2024. "Implications of Financial Literacy, Lifestyle, and Social Factors on Student Financial Behavior." *Assets: Jurnal Ilmiah Ilmu Akuntansi, Keuangan Dan Pajak* 8 (2): 111–17. <https://doi.org/10.30741/assets.v8i2.1320>.
- Irikefe, Pureheart Ogheneogaga, and Michael Isaac Opusunju. 2021. "Effect of Financial Literacy on the Growth of MSMEs." *International Journal of Research Publications* 90 (1): 384–92.
<https://doi.org/10.47119/IJRP1009011220212541>.
- Jumady, Edy, Syamsul Alam, Hasbiyadi Hasbiyadi, Yana Fajriah, and Yaisa Anggraini. 2024. "The Effect of Financial Planning on Consumer Debt Management: The Role of Financial Literacy, Self-Efficacy, and Financial Motivation." *Atestasi: Jurnal Ilmiah Akuntansi* 7 (1): 340–68.
<https://doi.org/10.57178/atestasi.v7i1.793>.



- Kanta, Made J. W., and Agus Zainul Arifin. 2022. "Financial Protection and Literacy to Financial Inclusion Usage Electronic Transaction." In *Proceedings of the 3rd Tarumanagara International Conference on the Applications of Social Sciences and Humanities (TICASH 2021)*, 655:745–49. <https://doi.org/10.2991/assehr.k.220404.117>.
- Kumari, Rashika, V. C. Sharma, and Mohd Adnan. 2024. "Financial Literacy of Microentrepreneurs and Its Effect on the Business Performance and Innovativeness: Empirical Evidence from India." *SEDME (Small Enterprises Development, Management & Extension Journal): A Worldwide Window on MSME Studies* 51 (2): 133–48. <https://doi.org/10.1177/09708464241233025>.
- Loke, Vernon, and Sally Anne Hageman. 2013. "Debt Literacy and Social Work." *Journal of Financial Therapy* 4 (1): 3. <https://doi.org/10.4148/jft.v4i1.1795>.
- Maris, Hakima, Ratih Kusumastuti, Muthmainah Mursidin, Hendra Railis, Dada Suhaida, and Yuliana Yuliana. 2022. "Improving Financial Literacy In MSMEs Through Bookkepping Training And Literacy Education." *International Journal of Engagement and Empowerment (IJE2)* 2 (1): 109–15. <https://doi.org/10.53067/ije2.v2i1.53>.
- Mavlutova, Inese, Andris Fomins, Aivars Spilbergs, Dzintra Atstaja, and Janis Brizga. 2021. "Opportunities to Increase Financial Well-Being by Investing in Environmental, Social and Governance with Respect to Improving Financial Literacy under COVID-19: The Case of Latvia." *Sustainability* 14 (1): 339. <https://doi.org/10.3390/su14010339>.
- Medina-Vidal, Adriana, Mariana Buenestado-Fernández, and José Martín Molina-Espinosa. 2023. "Financial Literacy as a Key to Entrepreneurship Education: A Multi-Case Study Exploring Diversity and Inclusion." *Social Sciences* 12 (11): 626. <https://doi.org/10.3390/socsci12110626>.
- Millaningtyas, Restu, Moh. Amin, Agus Hermawan, and Puji Handayati. 2024. "Digital Transformation of Financial Literacy and Inclusion as a Support for Convenience for MSMEs." *International Journal Of Humanities Education and Social Sciences (IJHESS)* 3 (5): 2327–34. <https://doi.org/10.55227/ijhess.v3i5.824>.
- Mu'izzuddin, Mu'izzuddin, Taufik Taufik, Reza Ghasarma, Leonita Putri, and Mohamad Adam. 2017. "Financial Literacy; Strategies and Concepts in Understanding the Financial Planning With Self-Efficacy Theory and Goal Setting Theory of Motivation Approach." *International Journal of Economics and Financial Issues* 7 (4): 182–88. <https://dergipark.org.tr/en/download/article-file/364559>.
- Nareswari, Ninditya, Nuraini Desty Nurmasari, and Latifah Putranti. 2023. "Financial Constraints of Micro, Small, and Medium-Sized Enterprises (MSMEs) in the Indonesia Creative Industries." *Journal of Economics, Business, & Accountancy Ventura* 25 (3): 312–21. <https://doi.org/10.14414/jebav.v25i3.3433>.
- Ngek, Neneh Brownhilder. 2016. "Performance Implications of Financial Capital Availability on the Financial Literacy – Performance Nexus in South Africa." *Investment Management and Financial Innovations* 13 (2): 354–62. [https://doi.org/10.21511/imfi.13\(2-2\).2016.10](https://doi.org/10.21511/imfi.13(2-2).2016.10).



- Njoki, David Muiruri. 2024. "Effect of Financial Literacy on The Growth of Micro and Small Enterprises in Kenya." *African Journal of Commercial Studies* 4 (1): 31–37. <https://doi.org/10.59413/ajocs/v4.i1.3>.
- Nugraha, Derry, Fazrian Thursina, Anjani Anjani, Putri Devina, Ade Irma, and Neli Deti. 2023. "Improving the Efficiency of MSME Financial Statements through Microsoft Excel-Based Applications." *West Science Social and Humanities Studies* 1 (01): 10–18. <https://wsj.westsciencepress.com/index.php/wsshs/article/view/110>.
- Obuya, David O. 2017. "Debt Financing Option and Financial Performance of Micro and Small Enterprises: A Critical Literature Review." *International Journal of Business and Management* 12 (3): 221. <https://doi.org/10.5539/ijbm.v12n3p221>.
- Pedraza, Jorge Morales. 2021. "The Micro, Small, and Medium-Sized Enterprises and Its Role in the Economic Development of a Country." *Business and Management Research* 10 (1): 33. <https://doi.org/10.5430/bmr.v10n1p33>.
- Putri, Arie Rachma, and Faizah Khotimatul Husna. 2024. "Financial Management Analysis of Culinary Micro, Small, and Medium Enterprises (MSMEs)." *Journal of Economics Research and Policy Studies* 4 (1): 68–78. <https://doi.org/10.53088/jerps.v4i1.858>.
- Rahadjeng, Erna Retno, Imam Mukhlis, Danardana Murwani, and Iva Khoiril Mala. 2023. "MSME Strategy the Impact of Financial Literacy, Self-Efficacy, and Financial Attitudes in Improving MSME Business Performance in Indonesia." *Journal of Finance and Business Digital* 2 (1): 65–80. <https://doi.org/10.55927/jfbd.v2i1.3465>.
- Rahayu, Caecilia Wahyu Estining, and Christina Heti Tri Rahmawati. 2022. "Financial Management Of Msme In Culinary Industry According To Demographics And Financial Literacy." *Journal of Management and Business Environment (JMBE)* 4 (1): 82–99. <https://doi.org/10.24167/jmbe.v4i1.4626>.
- Rahmi, Amelia, Fredi Andria, and Salmah Salmah. 2023. "Increasing Financial Literacy in RT RW Net Indonesia Cooperatives and Msmes Through Simple Bookkeeping." *International Journal of Research in Community Services* 4 (1): 23–28. <https://doi.org/10.46336/ijrcs.v4i1.381>.
- Rathakrishnan, Lakshmanan, and Sriraman Parthasarathy. 2018. "Access to Fiance for Micro and Small Metalware Enterprises at Thanjavur District, India." *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3141021>.
- Rehman, Khurram, and Md Aslam Mia. 2024. "Determinants of Financial Literacy: A Systematic Review and Future Research Directions." *Future Business Journal* 10 (1): 75. <https://doi.org/10.1186/s43093-024-00365-x>.
- Rodríguez-Entrena, Macario, Florian Schuberth, and Carsten Gelhard. 2018. "Assessing Statistical Differences between Parameters Estimates in Partial Least Squares Path Modeling." *Quality & Quantity* 52 (1): 57–69. <https://doi.org/10.1007/s11135-016-0400-8>.
- Rönkkö, Mikko, and Eunseong Cho. 2022. "An Updated Guideline for Assessing Discriminant Validity." *Organizational Research Methods* 25 (1): 6–14. <https://doi.org/10.1177/1094428120968614>.
- Saarinen, Arttu, and Leena Aarikka-Stenroos. 2023. "Financing-Related Drivers and Barriers for Circular Economy Business: Developing a Conceptual



- Model from a Field Study.” *Circular Economy and Sustainability* 3 (3): 1187–1211. <https://doi.org/10.1007/s43615-022-00222-5>.
- Salim, Mohammad Noor, Merlapa Eri, Shafinar Ismail, Nur Hayati Abd Rahman, Hussin Harniyati, Susilastuti Darwati, and Wahyu Murti. 2022. “Determinants of MSMEs Growth and Its Impact on Income and Unemployment: Cases of Indonesia and Malaysia.” *International Journal of Academic Research in Economics and Management Sciences* 11 (1): 183–197. <https://doi.org/10.6007/IJAREMS/v11-i1/12305>.
- Setyawati, Amelia, Sudarmiatin Sudarmiatin, and Ludi Wishnu Wardana. 2023. “Empowering MSMEs: The Impact Of Financial Literacy And Inclusion.” *International Journal of Economics and Management Research* 2 (3): 121–38. <https://doi.org/10.55606/ijemr.v2i3.132>.
- Shafiee, Sara, Linda L. Zhang, and Kourosh Marjani Rasmussen. 2023. “Improving Financial Literacy and Supporting Financial Decisions: Developing a Personalized Configurator.” *Journal of the Knowledge Economy*, no. 0123456789 (December). <https://doi.org/10.1007/s13132-023-01651-9>.
- Singh, Charan. 2016. “Finance for Micro, Small, and Medium-Sized Enterprises in India: Sources and Challenges.” *SSRN Electronic Journal*, no. 581. <https://doi.org/10.2139/ssrn.2833748>.
- Susan, Marcellia. 2020. “Financial Literacy and Growth of Micro, Small, and Medium Enterprises in West Java, Indonesia.” *International Symposia in Economic Theory and Econometrics* 27: 39–48. <https://doi.org/10.1108/S1571-038620200000027004>.
- Tambunan, Evi Christine, Kamaludin Enuh, Ubaidullah Ubaidullah, and Mariati Tamba. 2022. “Capital Access For Micro Small Medium Enterprises.” *Jurnal Ekonomi Dan Perbankan Syariah* 10 (2): 148–58. <https://doi.org/10.46899/jeps.v10i2.375>.
- Tarus, Thomas Kiptanui, and John Kipngetch Tarus. 2023. “Nexus Between Debt Management Literacy and Digital Loan Repayment Performance Among Selected SMEs in Kenya.” *Journal of Business Management and Economic Research* 2023 (1): 1–10. <https://doi.org/10.29226/TR1001.2023.321>.
- Teplova, Tamara, Tatiana Sokolova, Mariya Gubareva, Kristina Galenskaya, and Andrey Teplov. 2020. “Perception and Drivers of Financial Constraints for the Sustainable Development.” *Sustainability* 12 (17): 7217. <https://doi.org/10.3390/su12177217>.
- Weerasekara, Sumedha, and Ramudu Bhanugopan. 2023. “The Impact of Entrepreneurs’ Decision-Making Style on SMEs’ Financial Performance.” *Journal of Entrepreneurship in Emerging Economies* 15 (5): 861–84. <https://doi.org/10.1108/JEEE-03-2021-0099>.
- Wernerfelt, Birger. 1984. “A Resource-based View of the Firm.” *Strategic Management Journal* 5 (2): 171–80. <https://doi.org/10.1002/smj.4250050207>.
- Widjanarko, Wirawan, Wastam Wahyu Hidayat, Ery Teguh Prasetyo, Idel Eprianto, and Yulianah Yulianah. 2022. “The Effect of Financial Literacy on the Financial Management of MSMEs in Jatinangor District, Sumedang Regency.” *Enrichment: Journal of Management* 12 (5): 3359–64.



<https://www.enrichment.iocspublisher.org/index.php/enrichment/article/view/826>.

Widyastuti, Maria, Deograsias Yoseph Yustinianus Ferdinand, and Yustinus Budi Hermanto. 2023. "Strengthening Formal Credit Access and Performance through Financial Literacy and Credit Terms in Micro, Small and Medium Businesses." *Journal of Risk and Financial Management* 16 (1): 52. <https://doi.org/10.3390/jrfm16010052>.

Yakob, Sajiah, Rubayah Yakob, Hafizuddin Syah, and Roslida Zalila Ahmad Rusli. 2021. "Financial Literacy and Financial Performance of Small and Medium-Sized Enterprises." *The South East Asian Journal of Management* 15 (1): 72–96. <https://doi.org/10.21002/seam.v15i1.13117>.

Yamane, Taro. 1968. *Mathematics for Economists an Elementary Survey*. 2nd ed. New Jersey: Prentice-Hall.

