



The Role of Financial Inclusion in Mediating the Influence of Digital Payment and Financial Literacy on the Performance of Msmes in Denpasar City

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Abstract

This study uses an associative quantitative approach to analyze the role of financial inclusion in mediating the influence of digital payment and financial literacy on the performance of MSMEs in Denpasar City. The population in this study 8.327 MSMEs units in Denpasar City in 2022 that have digitized. Based on the purposive sampling method with sample determination using the Slovin formula, as many as 100 samples were used in this study. Data were collected using a survey method with questionnaires as a research instrument. The data analysis used in this study is SEM-PLS. The results of the study show that; 1) digital payments have a positive and significant effect on financial inclusion, 2) financial literacy has a positive and significant effect on financial inclusion, 3) digital payments have a positive and significant effect on MSMEs performance, 4) financial literacy has a positive and significant effect on MSMEs performance, 5) financial inclusion has a positive but insignificant effect on MSMEs performance, 6) financial inclusion is not able to mediate the influence of digital payments on MSMEs performance, and 7) financial inclusion is not able to mediate the influence of financial literacy on the performance of MSMEs in Denpasar City.

Keywords: Digital Payment, Financial Literacy, Financial Inclusion, MSME Performance

1. Introduction

MSMEs are an important sector in the national economy because they are able to survive during crises, such as those that occurred in 1997-1998, and have a large contribution to the absorption of labor, reaching 65 to 114 million people. Its rapid development in various regions, including in the province of Bali, shows the strategic role of MSMEs in encouraging micro and macroeconomic growth. Optimal performance of MSMEs is indispensable to ensure business sustainability, because it reflects achievements in financial, production, distribution, and marketing aspects. In Bali, the role of MSMEs is increasingly prominent with an increase in the number of business units by 6.4% in 2022, bringing the total number of MSMEs to 440,609 units. This shows that MSMEs are the main drivers of the regional economy and need to get attention in their development.

Table 1: Development of MSMEs in Bali Province in 2020-2022

MSME Classification	Number of MSMEs in Bali Province		
	2020	2021	2022
Trade	111.292	215.028	222.114
Agriculture	142.936	106.113	113.199
Non Agricultural	50.556	56.514	63.600
Miscellaneous Services	22.569	34.610	41.696
Total	327.353	412.265	440.609

Source: Bali Provincial Cooperatives and MSMEs Office (2024)

Based on Table 1.1, it can be seen that there was an increase in the number of MSMEs in Bali Province during 2020-2022. The increase in the number of MSMEs in Bali Province is expected to support the community's economy. Denpasar City is one of the regions in Bali Province that has experienced an increase in the number of MSMEs as presented in Table 2 below.

Table 2: Development of MSMEs in Denpasar City in 2020-2022

Business Classification	2020	2021	2022
Trade	11.126	10.506	13.238
Agricultural Industry	17.078	15.798	12.735
Non-Agricultural Industries	1.413	1.022	2.494
Miscellaneous Services	2.606	2.223	4.009
Total	32.223	29.549	32.476

Source: Denpasar City Cooperatives and MSMEs Office (2024)

The city of Denpasar as the capital of Bali Province has its own attraction for every group of people whereas the center of the economic sector movement in Bali Province, the existence of MSMEs is important in an effort to move the wheels of the community's economy in Denpasar City. Based on Table 1.2, it can be seen that the development of the number of MSMEs in Denpasar City during 2020-2022 fluctuates. In 2020, the number of MSMEs in Denpasar reached 32,223 units, where this number decreased in 2021 where the number of MSMEs in 2021 was 29,549 units. In 2022, the number of MSMEs in Denpasar City has increased, where the number of MSMEs in Denpasar City reached 32,476 units. The fluctuation in the number of MSMEs in Denpasar City indicates that there are several MSMEs that cannot maintain the survival of their businesses. The suboptimal performance of MSMEs causes MSME actors to be unable to maintain business survival and unable to win increasingly competitive business.

Some of the obstacles faced by MSME actors in running businesses and developing businesses, one of which is inadequate human resources (HR), difficulty in obtaining capital, raw material problems, production, and market competition, marketing costs, and increasing use of imported goods (Kusumadewi, 2017). The performance achievements of Denpasar City MSMEs are related to the target and realization of the entrepreneurship ratio which is a benchmark for the development of MSMEs in Denpasar City. Based on data from the Denpasar City Cooperatives and MSMEs Office in 2022, it can be seen that the performance target can be seen from the increase in entrepreneurship from resilient and independent MSME actors with the indicator used is an increase in the entrepreneurship ratio in the MSME sector. The target entrepreneurship ratio in 2022 is 9.56 percent with the realization in 2022 of 9.99 percent and performance achievement of 104 percent.

Based on data from the Denpasar City Cooperatives and MSMEs Office in 2022, it can also be known that the development of Bali's culture-based economy with the indicator "Percentage of MSMEs Towards Digital" the target for 2022 is 22.25 percent with a realization of 25.64 percent in the very good category. The purpose of MSME digitalization is as an effort to change the way MSME sector management works in general to digital MSME sector management so that it can support the improvement of MSME performance. In an effort to improve the performance of MSMEs, there are various factors that affect such as the quality of human resources, marketing strategies, the use of

technology, financial literacy, and financial inclusion. This research focuses on the influence of digital payments, financial literacy, and financial inclusion on the performance of MSMEs using the Resource-Based View (RBV) approach. RBV theory emphasizes that competitive advantage comes from internal resources that are valuable, scarce, difficult to replicate, and irreplaceable. In this context, digital payments and financial literacy are considered knowledge- and technology-based resources that can improve transaction efficiency, financial management, and market access. However, the effectiveness of both relies heavily on financial inclusion as a capability that bridges access to formal financial services, such as banking and financing. With good financial inclusion, MSMEs can maximize the benefits of digital payments and financial literacy strategically, so that they can increase competitiveness and performance in a sustainable manner.

One of the problems regarding the performance of MSMEs in Denpasar City is related to problems regarding the use of non-cash payments or through digital payments. Pram (2016) defines digital payment as a payment method that has internet facilities as an intermediary facility. Nielsen (2016) [28] stated that digital payments are transaction activities carried out on mobile so that transactions can be carried out on only one type of device. Digital payment can be interpreted as a payment method through electronic media by utilizing the internet as a transaction support network. The rapid development of technology can affect all aspects of life in society, including economic aspects. People in the current digital era are required to be able to utilize technology in the business world so that it is hoped that with the current technological advancements it can advance the community's economy. MSME actors in the business world are required to implement technological developments through the digitization of MSMEs so that they can help to create more optimal performance. The digitalization of MSMEs is currently shown by the tendency of MSMEs to use digital payments in their businesses.

The use of digital services by MSME actors in Denpasar City is currently starting to increase, where many MSME actors have used digital technology services such as *mobile banking*, QRIS, ATM, Dana, OVO, GoPay, and ShoppePay and collaborate with e-commerce Grab and Gojek in expanding business marketing (Kustina & Aji, 2023) [20]. Based on the results of a study by the Demographic Institute of FEB University of Indonesia quoted from www.balipost.com in 2022, it was revealed that Gojek was able to increase the GDP of Denpasar City by up to 12 percent and the turnover of MSMEs in Denpasar City who use GoPay services increased by 18 percent. The results of research conducted by the Centre for Strategic and International Studies (CSIS) quoted on the www.tribunnews.com website in 2021 stated that MSMEs in Denpasar City that joined Grab were proven to increase revenue by up to 35 percent. The increase in MSME income through the use of digital payments indicates that the use of digitalization technology by MSME actors in Denpasar City can support the improvement of MSME performance. However, there are still many MSME actors in Denpasar City who in fact still do not take advantage of digital payments in businesses that are run optimally.

Research conducted by Kwabena *et al.*, (2019) [21] found that using digital payments can improve the performance of a business. The improvement in business performance through the use of digital payments is shown through an increase in

sales after implementing digital payments. The use of *digital payment* services by business actors can increase transactions with customers because it is considered easier and more effective and able to increase sales revenue obtained (Lestari *et al.*, 2020) ^[24]. In line with these results, research conducted by Lenniawati & Anastasia (2020); Lestari *et al.*, (2020); Bhattara *et al.*, (2023) and Rizkiyah *et al.*, (2021) ^[23, 24, 37] also found that the implementation of non-cash payments through digital payments can improve business performance. The application of digital payment as a non-cash payment method provides convenience for users so that it tends to increase transactions that occur in business actors so that it will have an impact on improving business performance.

The results of a different study conducted by Sinambela & Rohani (2017) ^[44] found that the existence of digitalization in the payment system does not have a significant influence on the performance achievements of business actors. The application of digitalization in the payment system through non-cash payments does not bring a significant increase in performance if customer satisfaction in the transactions made is not achieved. This approach indicates that if the products offered by business actors to customers are not in accordance with customer needs and desires, then customers have no interest in making purchases which can ultimately reduce business performance as a result of decreasing the number of customer transactions.

Another factor besides *digital payment* that can determine business performance, according to Hilmawati & Kusumaningtias (2021) ^[15], is financial literacy. Financial literacy is a person's awareness and knowledge of basic financial concepts, including knowledge of financial instruments (Gunawan *et al.*, 2019) ^[12]. A business actor must have the ability to make his main decisions related to finances. The better the financial literacy has, the more likely it is to bring an improvement in the performance of a business (Ye & Kulathunga, 2021) ^[54]. Research conducted by Ye & Kulathunga (2021) ^[54] states that financial literacy has a strong positive relationship with business performance. Financial literacy owned by business actors can support business actors in making the right business decisions so as to bring businesses to achieve performance improvement. In line with this, research conducted by Drexler *et al.*, (2014) ^[9]; Ratnawati (2016) ^[36]; Aribawa (2016) ^[3]; Idawati & Pratama (2020) ^[17]; Hererra *et al.*, (2023); Siddik *et al.*, (2023); and Hossain *et al.*, (2023) also prove that financial literacy has a positive and significant effect on business performance. Companies that have good financial literacy will be able to strategically identify and respond to changes in the business, economic and financial climate so that the decisions taken will create innovative and well-directed solutions for improving business performance and sustainability. In contrast to research conducted by Jumady *et al.*, (2022) which found that financial literacy has a negative influence on company performance. Business actors who have skills and understanding of financial decisions that are not appropriate will eventually lead to a decrease in the work achievements produced in the business being run.

Maharani & Cipta (2022) stated that financial inclusion can also be one of the important factors that affect business performance. Financial inclusion is a comprehensive activity that aims to eliminate all forms of barriers both in the form of prices and non-prices to people's access to using or utilizing financial services (Yanti, 2019) ^[23]. Based on OJK regulation No. 76/POJK.07/2017, financial inclusion is the availability

of financial access to financial services to improve people's welfare. Hilmawati & Kusumaningtias (2021) ^[15] stated that the difficulty of accessing financial services, both conventional and digital, occurs due to the non-fulfillment of financing application requirements, so financial inclusion is needed to overcome these problems (Yanti, 2019) ^[23]. The existence of financial inclusion can provide easier access to business actors in obtaining funding sources which will later lead to improved business performance. Research conducted by Sanistasya *et al.*, (2019) ^[39]; Yanti (2019) ^[23]; Ratnawati & Yuana (2022); Fomum & Opperman (2023); and Lee *et al.*, (2019) ^[22] found that the results of bringing financial inclusion have a positive influence on business performance. When financial inclusion is getting higher, it means that many business actors can take advantage of financial service products provided by conventional and digital financial institutions. Through the use of these financial services products, business actors can carry out business operations optimally so that the resulting business performance will increase.

The results of a different study were found by Puspitasari & Astrini (2021) ^[35], it was found that there was no influence of financial inclusion on business performance. Puspita & Astrini (2021) ^[35] stated that currently there is financial technology (*fintech*) that replaces the work system of traditional financial institutions where the adaptability of *fintech* will affect the development of company strategies. The adaptation process to *fintech* is urgently needed to eliminate financial inclusion obstacles so that financial inclusion no longer hinders business performance (Marginingsih, 2019). Adaptation to *fintech* in daily life individuals have a broad mindset so that they can take advantage of existing opportunities to improve their business performance. If the mindset of business people is still limited to short-term business development and only limited to traditional financial access, it will be difficult to develop a business so that in this case financial inclusion no longer has a significant influence.

Creating optimal business performance can be achieved through the use of financial technology such as digital payments and increasing financial literacy in supporting better financial management and strategic decision-making in a business. Based on the previous description, problems related to digital payments, financial literacy, and financial inclusion in Denpasar City MSMEs and the inconsistency of previous research results have led researchers to conduct a re-study using financial inclusion as a mediation variable. The theory of financial intermediation discusses one of the functions of financial services institutions, especially banks, which are the dominant supporters in a country's economy (Widodo, 2022) ^[50].

The use of financial inclusion as a mediation variable in this study is because the use of digital payments requires formal financial services so that they can be used optimally by MSMEs (Herdiyanti *et al.*, 2024). Financial inclusion ensures that MSMEs have access to formal financial services, which allows MSME actors to make maximum use of digital payment technology (Al-Amudi *et al.*, 2024). In addition, financial literacy helps MSMEs understand the importance of using formal financial services to support business activities, such as opening a bank account, accessing credit, or using digital payments. Financial inclusion is a tangible result of good financial literacy, where business owners not only understand but also utilize formal financial services (Banan

& Zaki, 2024). The use of financial inclusion as a mediation variable is expected to determine the relationship between digital payments and financial literacy of MSME actors in Denpasar City so that it can increase financial inclusion in MSME actors in Denpasar City. This increase in financial inclusion can later help MSME actors in Denpasar City in optimizing performance. Based on this description, the researcher conducted a study with the topic "The Role of Financial Inclusion in Mediating the Influence of Digital Payment and Financial Literacy on the Performance of MSMEs in Denpasar City".

2. Literature Review

Resource-Based View (RBV) Theory

The concept of a company's resource-based view (RBV) was developed from the economic and strategy literature in the 1950s. In RBV theory, it is said that a company's competitive advantage comes from the company's resources as well as the ability of the company to compete in the market. A company is a collection of resources or resources where resources are something valuable and scarce (Penrose, 1959). Barney (1991) states that the development of a company requires and utilizes resources as much as possible with effective and efficient performance to gain benefits for the company.

Digital Payment

According to Teoh *et al.*, (2013) ^[48] digital payments are payment models that make it easier and offer convenience to its users in making payment transactions. According to Lantang *et al.*, (2024) digital payments are payment systems that are carried out through electronic devices using information technology, such as computers, smartphones, or the internet, without the need for cash or other physical instruments. Referring to research conducted by Yuanita (2019); Afriani & Yanti (2023); and Lantang *et al.*, (2024) as for the digital payment indicators, namely 1) perceived ease of use, 2) perceived ease of use, 3) perceived usefulness, 4) perceived credibility, 5) trust, and 6) benefits and advantages

Financial Literacy

Financial literacy is a person's awareness and knowledge of basic financial concepts including knowledge of financial instruments and applying them to business and life such as managing finances about financial management, savings and loans, insurance and investment. The higher the level of financial literacy of a person will be seen in financial behavior and wisdom in managing finances effectively (Gunawan *et al.*, 2019) ^[12]. Mengacu pada penelitian yang dilakukan oleh Yakob *et al.*, (2021) ^[52]; Nicolini & Cude (2022); dan Ernawati *et al.*, (2024), adapun indikator literasi keuangan, yaitu 1) financial management, 2) savings literacy, 3) debt literacy, 4) investment literacy, dan 5) insurance literacy

Financial Inclusion

Financial Inclusion is a comprehensive activity that aims to eliminate all forms of barriers both in the form of prices and non-prices to public access to use or utilize financial services

(Yanti, 2019). Financial inclusion is also defined as the proportion of individuals and companies who use financial products and services by the process of promoting affordable, timely and adequate access to a range of regulated financial products and services and expanding their use by all segments of society through the application of existing approaches including financial awareness and education with a view to promoting financial well-being as well as economic and social inclusion (Pulungan & Nduru, 2019) ^[33]. Referring to research conducted by Zins & Weill (2016); Susilowati & Leonnard (2019) ^[46]; Yanti (2023), the indicators of financial inclusion are 1) account ownership at formal financial institutions, 2) saving at formal financial institutions, and 3) borrowing from formal financial institutions

MSME Performance

Zulfikar (2018) ^[55] stated that business performance is a general term used in part or all of the actions or activities of an organization in a period with a reference to a number of standards such as past costs projected on the basis of efficiency, management accountability and the like. There are several indicators used to measure business performance according to research conducted by Mokodompit *et al.*, (2019); Latifa *et al.*, (2020); and Septiani & Wuryani (2021), namely 1) the growth of profits in nominal money which is increasing, 2) the number of consumers who buy products is increasing, 3) the number of product sales is increasing, and 4) the number of company assets is increasing.

2. Method

This research was conducted on Micro, Small, and Medium Enterprises (MSMEs) in Denpasar City in 2022. This research is an associative quantitative research using quantitative data with primary data sources. The data collection method used is a field survey with a Likert scale questionnaire of 1-5 as a research instrument. The data analysis used was descriptive statistical analysis and PLS SEM.

3. Results

Hypothesis testing will be conducted using SEM based on PLS (Partial Least Squares). This method is suitable for analyzing complex relationships between variables without strict assumptions about data distribution. This analysis includes an external model assessed through convergent validity, discriminant validity, and composite reliability and cronbach alpha. The model in R-Square (R^2), Q-Square Predictive Relevance (Q^2), Goodness of Fit (GoF). Furthermore, hypothesis testing and mediation role testing are carried out.

Path analysis and hypothesis testing

The path coefficient value (t-value) is used to test the significance of a construct or latent variable through the estimation of the path coefficient value (t-value) obtained by the bootstrapping procedure with a value considered significant if the p value < 0,05. The test results are presented in Table 3 dan Table 4.

Table 3: Direct Effect: The Role of Financial Inclusion in Mediating the Influence of Digital Payment and Financial Literacy on The Performance of MSMEs in Denpasar City

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ((O/STDEV))	P Values
Digital Payment (X1) -> Financial Inclusion (Z)	0,267	0,274	0,099	2,688	0,007
Financial Literacy (X2) -> Financial Inclusion (Z)	0,601	0,591	0,091	6,614	0,000
Digital Payment (X1) -> MSME Performance (Y)	0,192	0,186	0,079	2,426	0,016
Financial Literacy (X2) -> MSME Performance (Y)	0,622	0,638	0,093	6,684	0,000
Financial Inclusion (Z) -> MSME Performance (Y)	0,138	0,127	0,080	1,720	0,086

Source: Processed data (2025)

Based on the results of the bootstrapping analysis presented in Table 3, the results of hypothesis testing in this study can be described, which are as follows.

- The coefficient value of the digital payment influence path on financial inclusion obtained is positive value of 0.267 with $p\text{-values} = 0.007 < 0.05$ so that H1 is accepted. This shows that digital payments have a positive and significant effect on the financial inclusion of MSME actors in Denpasar City.
- The value of the coefficient of the influence of financial literacy on financial inclusion obtained was a positive value of 0.602 with $p\text{-values} = 0.000 < 0.05$ so that H2 was accepted. This shows that financial literacy has a positive and significant effect on the financial inclusion of MSME actors in Denpasar City.
- The value of the coefficient of the digital payment influence path on the performance of MSMEs obtained

was 0.192 with $p\text{-values} = 0.016 < 0.05$ so that H3 was accepted. This shows that digital payments have a positive and significant effect on the performance of MSMEs in Denpasar City.

- The value of the coefficient of the influence of financial literacy on the performance of MSMEs obtained was a positive value of 0.622 with $p\text{-values} = 0.000 < 0.05$ so that H4 was accepted. This shows that financial literacy has a positive and significant effect on the performance of MSMEs in Denpasar City.
- The value of the coefficient of the influence of financial inclusion on the performance of MSMEs obtained was 0.138 with $p\text{-values} = 0.086 > 0.05$ so that H5 was rejected. This shows that financial inclusion has a positive effect on the performance of MSMEs in Denpasar City.

Table 4: Indirect Effect: The Role of Financial Inclusion In Mediating The Influence of Digital Payment and Financial Literacy on The Performance of MSMEs in Denpasar City

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ((O/STDEV))	P Values
Digital Payment (X1) -> Financial Inclusion (Z) -> MSME Performance (Y)	0,037	0,034	0,025	1,461	0,145
Financial Literacy (X2) -> Financial Inclusion (Z) -> MSME Performance (Y)	0,083	0,076	0,051	1,615	0,107

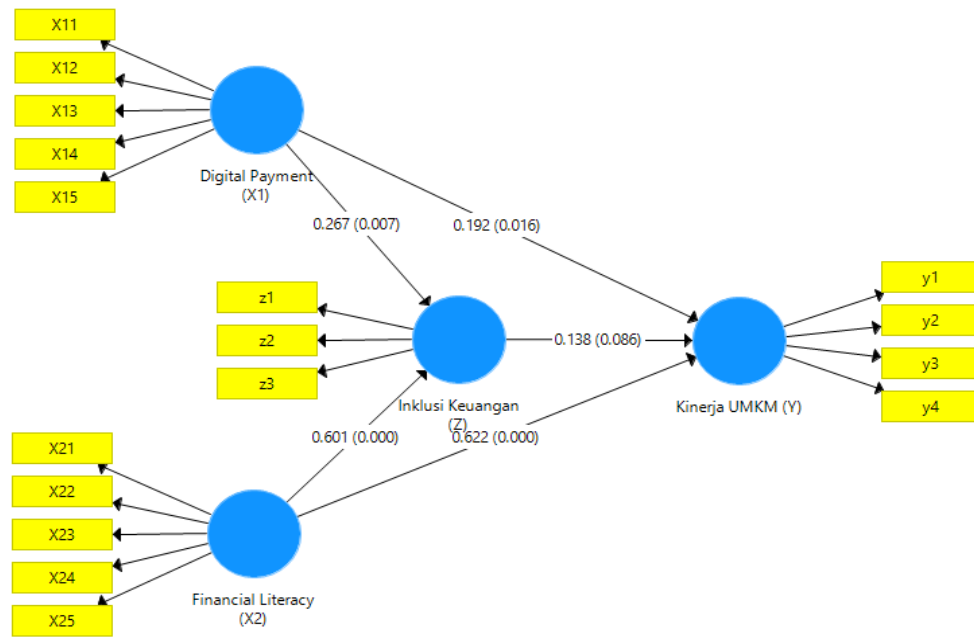
Source: Processed data (2025)

Based on the results of the bootstrapping analysis presented in Table 4, the results of the hypothesis testing in this study can be described, which are as follows.

- The coefficient value of the role of financial inclusion in mediating the influence of digital payments on the performance of MSMEs obtained has a positive value of 0.037 with $p\text{-values} = 0.145 > 0.05$ so that H6 is rejected. This shows that financial inclusion is not able to mediate the influence of digital payments on the performance of MSMEs in Denpasar City. This means that indirectly digital payments have a positive or insignificant effect on the performance of MSMEs in Denpasar City through

financial inclusion.

- The coefficient value of the role path of financial inclusion mediates the influence of financial literacy on the performance of MSMEs obtained with a positive value of 0.083 with $p\text{-values} = 0.107 > 0.05$ so that 7 is rejected. This shows that financial inclusion is not able to mediate the influence of financial literacy on the performance of MSMEs in Denpasar City. This means that indirectly financial literacy has a positive or insignificant effect on the performance of MSMEs in Denpasar City through financial inclusion.



Source: Processed Data, 2025

Fig 1: Analysis Results Model

4. Discussion

a) The Influence of Digital Payment on MSME Financial Inclusion in Denpasar City

This study found that digital payments have a positive and significant effect on the financial inclusion of MSME actors in Denpasar City. The higher the adoption rate of digital payments, the greater the access of MSMEs to formal financial services such as banking and credit facilities. Digital payments facilitate transactions, increase financial efficiency, and expand the participation of MSMEs in the formal financial ecosystem. In the perspective of the Resource-Based View (RBV), digital payments are considered a valuable, scarce, difficult to replicate, and irreplaceable strategic resource, because they are able to provide a competitive advantage through increased transaction efficiency and access to financial services. The results of the questionnaire show that the majority of MSME actors in Denpasar City have adopted a digital payment system because it is considered credible, safe, and provides real benefits in terms of ease of transactions. In addition, the financial inclusion of MSMEs also shows a positive trend seen from account ownership in formal financial institutions and the use of loan facilities for business development. These findings reinforce that the digitalization of payment systems is driving the growth and sustainability of small and medium-sized businesses. The results of this study are in line with the findings of Davico *et al.* (2021), Aisyah *et al.* (2022), Sriyono *et al.* (2023) [45], Zuasnábar *et al.* (2023), and Suardana *et al.* (2024), who stated that the wider the adoption and use of digital payments, the more access and participation of business actors in formal financial services will increase.

b) The Effect of Financial Literacy on MSME Financial Inclusion in Denpasar City

This study found that financial literacy has a positive and significant effect on the financial inclusion of MSME actors in Denpasar City. A good understanding of financial concepts encourages MSME actors to make better use of formal financial services, such as banking and loan facilities, in their

business development. In the perspective of the Resource-Based View (RBV), financial literacy is considered an intellectual resource that can improve the ability of MSMEs to manage finances, access financing, and make wise and sustainable financial decisions. The results of the questionnaire distribution show that the majority of MSME actors have a good level of financial understanding, including in terms of business financial management, the importance of savings, and investment planning. This has an impact on the optimal use of formal financial services and involvement in a more structured financial system. Thus, financial literacy is a major factor in encouraging financial inclusion and business sustainability. These findings are in line with the results of research from Liska *et al.* (2023), Indriyani (2024), Widodo (2022) [50], Hutabarat (2018), Shen *et al.* (2018), Purba (2020), Safrianti *et al.* (2022), and Bire *et al.* (2019) which also prove that financial literacy has a significant positive influence on the financial inclusion of business actors.

c) The Influence of Digital Payment on the Performance of MSMEs in Denpasar City

This study found that digital payments have a positive and significant effect on the performance of MSMEs in Denpasar City. The use of digital payment systems allows for faster, safer, and more efficient transactions, which supports improving business operations, accelerating capital turnover, and expanding market access. By reducing reliance on cash transactions and improving financial records, digital payments directly contribute to increasing MSME income and profitability. From the theoretical point of view of the Resource-Based View (RBV), digital payments are strategic resources that provide a competitive advantage because they are valuable, rare, difficult to replicate, and irreplaceable. The adoption of this technology allows MSMEs to improve internal efficiency and create sustainable added value, thereby encouraging business growth. The results of the questionnaire distribution show that the majority of MSME actors in Denpasar have adopted digital payments effectively, especially because of its security, service reliability, and

practical benefits felt in business activities. The optimal use of digital payments is reflected in asset growth and increased sales volume, which strengthens the performance and competitiveness of MSMEs in the midst of the development of the digital economy. These findings are supported by previous research from Kwabena *et al.* (2019) ^[21], Lestari *et al.* (2020) ^[24], Lenniawati & Anastasia (2020) ^[23], Suharyanto *et al.* (2023), Bhattara *et al.* (2023), and Rizkiyah *et al.* (2021), which concluded that digital payments as a non-cash method increase transactions and have a positive impact on the business performance of MSME actors.

d) The Influence of Financial Literacy on MSME Performance in Denpasar City

This study shows that financial literacy has a positive and significant effect on the performance of MSMEs in Denpasar City. A good understanding of finance helps business actors manage financial resources more effectively, including in terms of investment planning, debt management, and savings. In the perspective of the Resource-Based View (RBV) theory, financial literacy is seen as a valuable and difficult to imitate intellectual resource, which is able to provide a competitive advantage for MSMEs. The ability to optimize financial management allows business actors to improve operational efficiency, allocate capital wisely, and strengthen business resilience in the face of economic challenges. The results of the questionnaire strengthen these findings, showing that the majority of MSMEs in Denpasar City have a good financial understanding, especially related to loan interest rates, the importance of saving, and long-term financial planning. The trend of increasing assets and sales over the past five years is also an indication that financial literacy is driving sustainable business growth and strengthening competitiveness in the market. These findings are in line with research conducted by Ye & Kulathunga (2021) ^[54], Drexler *et al.* (2014) ^[9], Ratnawati (2016) ^[36], Aribawa (2016) ^[3], Baharuddin (2021), Lestari (2021), Idawati & Pratama (2020) ^[17], Herrera *et al.* (2023), Siddik *et al.* (2023), and Hossain *et al.* (2023) which concluded that financial literacy supports strategic and innovative decision-making in improving business performance and sustainability.

e) The Influence of Financial Inclusion on the Performance of MSMEs in Denpasar City

This study found that financial inclusion has a positive but insignificant effect on the performance of MSMEs in Denpasar City. Although access to formal financial services such as accounts and credit facilities has been possessed by most MSME actors, the impact on improving business performance is still limited. This is likely due to other factors that are more dominant, such as managerial ability, marketing strategy, and product competitiveness. In the perspective of RBV theory, financial inclusion is an external resource that cannot be a sustainable competitive advantage without the support of strong internal capabilities. The results of the questionnaire show that although financial access is available, the habit of saving and utilizing financial services strategically is not optimal. This limits the role of financial inclusion in driving financial efficiency and business profitability. Therefore, increasing the use of financial services, including more effective management of savings and investments, is important so that financial inclusion can have a significant impact on the performance of MSMEs.

These findings are in line with the research of Hilmawati & Kusumaningtyas (2021) ^[15] and Anggriani *et al.* (2023) which also concluded that financial inclusion has not had a significant impact on the performance of MSMEs due to limitations in financial literacy and management.

f) The Role of Financial Inclusion in Mediating the Influence of Digital Payments on the Performance of MSMEs in Denpasar City

This study shows that financial inclusion is not able to mediate the influence of digital payments on the performance of MSMEs in Denpasar City. This means that the benefits of digital payments in improving business performance do not depend on the level of financial inclusion of MSME actors. Digital payment technology directly provides efficiency, ease of transactions, and expanded market access without having to go through increased access to formal financial services. Within the framework of RBV theory, digital payments are considered a strategic resource that provides a competitive advantage, while financial inclusion is not strong enough to be an intermediary factor. The results of the questionnaire show that the use of digital payments is quite good in terms of security and benefits, although the efficiency can still be improved. Meanwhile, financial inclusion is also underway, especially in terms of account ownership and access to credit, but saving habits are not optimal. The performance of MSMEs in general shows a positive trend, but increasing profits and the number of customers is still a challenge. These findings are consistent with the research of Papulasih *et al.* (2024) and Putri (2021) which concluded that financial inclusion is not an effective mediator between digital payments and business performance. On the contrary, financial literacy is considered a key factor that bridges the success of MSMEs in the digital business ecosystem.

g) The Role of Financial Inclusion in Mediating the Influence of Financial Literacy on the Performance of MSMEs in Denpasar City

This study found that financial inclusion is not able to mediate the influence of financial literacy on the performance of MSMEs in Denpasar City. This means that even though MSME actors have a good understanding of finance, access to formal financial services is not the main path that connects financial literacy with improving business performance. In the perspective of RBV theory, financial inclusion as an external resource only has a significant impact if it is used optimally. However, when financial literacy is strong enough, MSME actors can immediately improve performance through effective financial management, without having to rely on access to formal financial services. The results of the questionnaire support this finding: although MSME actors already understand financial concepts such as savings and investment, the use of formal financial services is still limited, especially in terms of saving habits. The performance of MSMEs does show growth in sales and assets, but challenges still exist in increasing profits and the number of customers. This shows that MSME actors rely more on business strategies and innovation than just access to formal finance. These findings are in line with Putri (2021) and Dewi (2022), who stated that financial inclusion is not always a significant intermediary factor in the relationship between financial literacy and business performance, as its effectiveness is highly dependent on utilization strategies carried out by business actors.

5. Conclusion

Based on the results of the research and discussion that has been described previously, it can be concluded as follows.

- Digital payments have a positive and significant effect on the financial inclusion of MSME actors in Denpasar City. This means that the higher the adoption of digital payments by MSME actors in Denpasar City, the greater the access of MSME actors to the available formal financial services.
- Financial literacy has a positive and significant effect on the financial inclusion of MSME actors in Denpasar City. This means that with a better understanding of financial concepts, MSME actors are more likely to make more optimal use of formal financial services.
- Digital payments have a positive and significant effect on the performance of MSMEs in Denpasar City. This means that the use of digital payments allows for faster, safer, and more efficient transactions, thereby improving business operations and expanding market access.
- Financial literacy has a positive and significant effect on the performance of MSMEs in Denpasar City. This means that with adequate knowledge of financial management, investment planning, and debt management and savings, MSMEs can make more strategic decisions in developing their businesses.
- Financial inclusion has a positive but insignificant effect on the performance of MSMEs in Denpasar City. This means that although access to formal financial services can help MSMEs in supporting business operations and development, their impact on performance improvement is still limited.
- Financial inclusion is not able to mediate the influence of digital payments on the performance of MSMEs in Denpasar City. This means that the benefits of digital payments to improve the performance of MSMEs in Denpasar City tend not to depend on financial inclusion.
- Financial inclusion is not able to mediate the influence of financial literacy on the performance of MSMEs in Denpasar City. This means that even though MSME actors have good financial knowledge, access to financial services is not the only factor that determines the improvement of business performance.

6. Suggestion

For MSMEs in Denpasar City, it is recommended to optimize the use of financial technology by exploring digital payment features through training or mentoring. MSMEs also need to understand the importance of insurance to deal with financial risks, and start implementing financial management disciplines such as saving regularly to maintain business stability. In addition, innovative marketing strategies through social media, loyalty programs, and product diversification need to be improved to expand the market and strengthen competitiveness. For the next researcher, it is recommended to add variables such as managerial capabilities to gain a more comprehensive understanding of the factors that affect the performance of MSMEs. These capabilities include the ability to make data-driven financial decisions. Further research is also recommended to expand the location of the study outside the city of Denpasar so that the results are more general and applicable in various regional contexts.

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