

Financial management behaviour in supporting the sustainability of MSMEs in the Sarbagita region Bali

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Abstract

Purpose: This study aims to analyse the role of FMB in supporting the sustainability of MSMEs. This analysis is essential because financial management among MSMEs in Bali remains suboptimal, with challenges in separating personal and business finances.

Methodology/approach: Denpasar, Badung, Gianyar, and Tabanan Regency (Sarbagita) were chosen as research locations based on previous observations. The adoption of FinTech and the measurement of FinSat in achieving financial performance (FP) have been under-researched. This research was conducted quantitatively to analyse the FP of MSMEs in achieving business sustainability.

Results/findings: DFL has a positive and significant influence on FMB, and FinTech has a positive and significant impact on FinSat. However, FinSat positively and significantly influences FP. FinSat mediates the relationship between FinTech and FP, but FMB does not mediate the relationship between DFL and FP.

Conclusions: The implementation of Fintech helps owners achieve FinSat, thereby meeting MSME performance targets. Individuals must have DFL to mitigate the risks associated with Fintech

Limitations: The research location, which is limited to only four regencies/cities in Bali, presents a limitation, making the results not generalizable to all MSMEs. Additionally, the financial management aspect of this study does not include the financial conditions of previous periods.

Contribution: The research findings contribute to the development of personal financial management science and are utilized in MSME mentoring to optimize their business sustainability.

Keywords: *Financial Management Behaviour, Financial Performance, Financial Satisfaction, Financial Technology, MSME*

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1. Introduction

Bali Province has tremendous potential not only in terms of tourism, customs, and culture but also in the skills of its people in processing crops for the economic cycle. The processing is carried out directly by Micro, Small and Medium Enterprises (MSMEs), which also play a role in Indonesia's economic growth (Surya et al., 2021). MSMEs in Bali Province in 2023 reached 442,848 units, which increased Regional Original Revenue (PAD) (diskopukm.baliprov.go.id, 2023). This number has improved from 2022, when it reached 450,712 units, which is predicted to have further impact on the COVID-19 pandemic.

The extraordinary pandemic became a major problem in Bali because it caused a high number of bankruptcies of MSMEs, especially those engaged in the tourism sector. The social restrictions set by the Indonesian government also limit their financial performance, so after Covid-19 a strategy is needed to restore the role of MSMEs. The Covid-19 pandemic is a reflection for all parties that businesses that can adapt to changing situations and technological advances have relatively stable performance compared to businesses that are not adaptive to the crisis (Ramdhaningrum, Armintasari, Aidha, & Ningrum, 2020). Bali's MSMEs, predominantly led by women, serve as a vital source of family economic livelihood. Therefore, empowering female entrepreneurs needs to be enhanced to strengthen the creative business ecosystem (Mbowa, Businge, Ssemaluulu, & Eton, 2023).

The Provincial Government has been working to increase its involvement in strengthening the business viability of MSMEs. This aims to create MSMEs that are more resilient and adaptive to change, especially in fundamental strengthening and technology adoption (Kwuta, Khuzaini, & Triyonowati, 2023). Bali Province is a creative area for producing innovative products because of its diverse culture and natural resources. However, based on observations of some MSMEs, the main obstacle is that collaboration in utilizing technology to support business productivity is still not optimal, and MSMEs still lack information related to financial structure (Kapesa, Nyagadza, Mugano, & Cheza, 2023). Information technology capabilities are a booster for business performance, driving growth, including profits and customer satisfaction, increasing operational efficiency, quality of technical standards, labor productivity, and business resilience (Afdal, Siwi, & Kurniawati, 2021). Financial performance reflects the achievement of MSME success from its ability to run a business and outperform competitors (Afdal et al., 2021; Susanti, Mulyanti, & Wati, 2023).

The adoption of digital technology is a business innovation that helps realize business sustainability, one of which is financial technology. MSMEs can utilize financial technology to meet their funding or capital needs, non-cash transactions, and investment alternatives as passive income (E & Swarupa, 2022; Kusumawardhani, Ningrum, & Rinofah, 2023; Mangawing, Sulianto, Sari, Jafri, & Ramadhan, 2023). In line with these technological developments, digital financial literacy is an important component in strengthening MSMEs (Mulyono, 2023). Digital financial literacy includes understanding and applying digital technology to manage business finances, including banking applications, e-commerce platforms, e-money, and digital payment tools (Mangawing et al., 2023; Rahadjeng & Fiandari, 2022). Several researchers Alamsyah and Islami (2023); Dissanayake, Iddagoda, Rukshan, and Deshika (2023) found that digital financial literacy has a positive and significant effect on the financial performance of MSMEs. Other findings Mangawing et al. (2023) state that digital financial literacy has no effect on financial performance because financial performance is related to the level of revenue, profit, and operational cost efficiency.

Another factor that affects the financial performance is the adoption of financial technology. Innovation in financial transactions using financial technology benefits not only MSMEs but also consumers, as it eliminates the worry of a lack of money when shopping (Alamsyah & Islami, 2023). In addition to the benefits of receiving consumer payments, MSMEs can also fulfil their funding needs through financial technology by applying for credit through banking and funding provider applications. This reduces the gap for MSMEs that find it difficult to obtain funds. Crowdfunding services collect funds for MSMEs and encourage financed businesses to improve their financial performance due to the investment returns that must be given to investors. Previous research Ananda, Faried, Syaula, and Malay (2023) shows that financial technology is highly beneficial in improving business financial performance because it facilitates transactions that are not limited by space or time. The findings Alkhawaldeh et al. (2023); Nguyen (2022) support the theory that when businesses use Fintech to support cashless transaction services, it speeds up the transaction process and opens up opportunities for faster financial performance improvement. Other results prove that the use of FinTech by MSMEs does not significantly impact FP Sumani and Prasetya (2022) due to low knowledge in using FinTech.

A lack of adaptability among MSMEs may contribute to the emergence of financial behaviors that are not fully optimal. Business failure often occurs due to errors in financial management (Mukarromah & Jubaedah, 2020). However, in Bali, there is still do not separate business and personal finances. This

financial management behavior makes it difficult for many MSME owners to know the amount of their profits. The results of research Mukarromah and Jubaedah (2020) state that financial management has a real impact on the financial performance of MSMEs because better management of income and expenses will make it easier for businesses to achieve profits (Kwuta et al., 2023). In contrast, the findings Purwidiанти, Tubastuvi, Darmawan, and Rahmawati (2022) state that financial management behavior has no impact on business financial performance.

Currently, the rapid process of digitization in the business world forces individuals to adjust their financial behavior so that their businesses can survive and be sustainable (Afdal et al., 2021). Digital and financial literacies are now a unity that helps FMB to be more focused, thus impacting their ability to make the right financial decisions (Abdallah, Tfaily, & Harraf, 2025; Kwuta et al., 2023). Financial strategies must consider risks that often occur, such as the risk of losing money, business savings being used at the wrong time, or inappropriate cash flow management (Iswari, 2022). The DFL will be useful in mitigating these financial risks, as MSME owners will receive more digital and financial information through digital finance. The long-term impact will be seen in the ability of MSMEs to fulfil the elements of business sustainability, namely improved financial performance (Mangawing et al., 2023; Susanti et al., 2023). The findings Purwidiанти et al. (2022) did not prove that DFL affects FP through FMB.

The adoption of technology in business financial services is an innovation that also significantly increases Financial Satisfaction (Alkhawaldeh et al., 2023), as financial decision-making can be carried out more precisely by utilizing various information obtained from the application of Fintech. However, Rahadjeng and Fiandari (2022) found that the features of fintech are difficult for many people to understand, leading to a lack of financial satisfaction not being achieved. On the positive side, fintech convenience helps individuals reduce stress due to efficiency Nguyen (2022) in evaluating their current financial condition through applications.

Financial satisfaction (FinSat) refers to the overall component of achieving life satisfaction and well-being that is felt by individuals (Nugraha, Pratama, & Kustiawan, 2020). Nugraha et al. (2020) state that the FinSat of MSME owners can be created when income is above target and financial understanding is not only limited to concepts but also practised (Alkhawaldeh et al., 2023), so FinSat supports the achievement of increasingly better FP. Many MSMEs in Indonesia are still not implementing the right financial management concepts because they consider business and personal finances to be unity (Geriadi, Sawitri, Wijaya, & Putri, 2023; Sawitri, Sudiyanі, Putri, Putri, & Geriadi, 2022). This condition makes it difficult for MSME owners to achieve financial satisfaction because their financial expectations are not met. The role of Fintech which can drive the effectiveness and efficiency of MSME finances, makes financial satisfaction easier to achieve and provides support for achieving financial performance (Nurchayati, Ariyanti, & Marianingsih, 2024).

This research was conducted because MSME owners in Bali who have not adopted financial technology are not optimal. Digital transformation that is not properly utilized will make MSME owners not have good financial management behavior, and it is difficult to achieve financial satisfaction in their business. This condition is reflected in the difficulty of MSME owners in separating personal financial management from their businesses. If not managed properly, the impact will increasingly be seen in the financial performance of MSMEs, which is difficult to improve. Therefore, this study focuses on finding alternatives for MSMEs in the future to have good financial performance so that they can realize business sustainability according to the expectations of MSME owners.

2. Literature review

2.1. The Influence of Digital Financial Literacy on Financial Performance

Conceptually, digital financial literacy is relevant for understanding online systems used to store and manage money through online banking and payment systems (Kusumawardhani et al., 2023). Digital financial literacy (DFL) is a synthesis of financial literacy and digital platforms (Bulger, Mayer, & Metzger, 2014). Individuals are encouraged to have an equal understanding of financial and digital literacy, as this is essential for utilizing digital finance, particularly in business activities.

The DFL enhances MSMEs' readiness to adopt technology in financial management by equipping them with knowledge of various potential risks and mitigation strategies (Putri, Putri, Dewi, Salilama, & Premana, 2024). Therefore, the better MSME owners understand and utilize technology, the greater the long-term impact on their financial performance (Dissanayake et al., 2023; Mangawing et al., 2023; Putri et al., 2024). This positive impact is evident in digital-based financial management, which creates efficiency and effectiveness (Kusumawardhani et al., 2023).

In other words, MSME owners must possess strong financial literacy to support business management and understand how to apply financial technology appropriately. Based on this explanation, the following hypothesis is proposed:

H₁: DFL has a positive and significant effect on FP

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2.2. The Influence of Financial Technology on Financial Performance

Financial technology refers to the application of technology-based financial services Amri, Ramdani, Warsihna, and Tae (2022) provided by banking and financial institutions to enhance the convenience of financial transactions. Financial technology innovations benefit not only MSMEs but also consumers by eliminating concerns about cash shortages while shopping Alamsyah and Islami (2023), particularly through mobile banking applications, QR codes (QRIS), and e-wallets.

However, a challenge arises for merchants or MSME owners, who must carefully verify received payments through digital access (Irman, Budiyanto, & Suwitho, 2023). Another Financial Technology (fintech) service that business owners can utilize is credit applications for business capital fulfillment, reducing the financial gap for MSMEs that struggle to access funding. Crowdfunding services, which collect funds for MSMEs, also drive businesses to improve their financial performance because of the obligation to provide returns to investors. The implementation of financial technology also helps MSME owners separate business funds from family funds, which is a major factor contributing to business performance failure, especially during crises (Kapesa et al., 2023).

Previous research Ananda et al. (2023) indicates that fintech significantly enhances business financial performance (FP) by facilitating transactions that are not constrained by space and time. The findings of Alkhawaldeh et al. (2023); Nguyen (2022) support the prevailing theory that businesses utilizing Fintech for cashless transactions can accelerate transaction processes and create faster opportunities for improving financial performance.

Based on this explanation, the following hypothesis is proposed:

H₂: Fintech has a positive and significant effect on FP.

2.3. The Influence of Digital Financial Literacy on Financial Management Behavior

Digital Financial Literacy (DFL) reflects an individual's level of proficiency and skill in utilizing digital financial services (Zaimovic et al., 2024). The integration of digital literacy and financial literacy plays a crucial role in guiding Financial Management Behavior (FMB), leading to more structured and informed financial decision-making (Abdallah et al., 2025; Kwuta et al., 2023). FMB refers to an individual's ability to plan, acquire, and wisely manage financial resources to meet obligations and maintain financial stability (Amri et al., 2022).

Financial strategies must consider various risks, such as the potential loss of money, misuse of business savings at inappropriate times, and cash flow mismanagement (Iswari, 2022). DFL is essential for mitigating these financial risks, as MSME owners gain greater access to digital financial information, enabling them to make informed financial decisions. Additionally, easy access to digital financial

knowledge enhances financial management stability by helping business owners avoid illegal online loan scams.

With higher DFL, MSME owners become more capable of searching, processing, and applying digital financial information, fostering a heightened awareness of responsible financial management (Fitriyah, Hermawan, & Sudarsono, 2023). This awareness minimizes financial risks and contributes to the long-term sustainability of MSMEs through improved financial performance (Mangawing et al., 2023; Susanti et al., 2023). Based on this explanation, the following hypothesis is proposed:

H3: DFL has a positive and significant effect on FMB.

2.4. The Influence of Financial Technology on Financial Satisfaction

Financial technology (Fintech) has emerged as an innovation in the financial sector, providing users with various conveniences in accessing and managing their funds (Nguyen, 2022). One of the key benefits of fintech is its ability to enhance the efficiency and effectiveness of financial transactions. The availability of fintech with diverse features allows MSMEs to exercise better control over their financial decisions, facilitating easier access to financial information (Nguyen, 2022).

This financial decision-making control contributes to financial satisfaction (Finsat), as it enables business owners to achieve their expected income levels, savings targets, and planned business expenses (Adiputra, 2021). Finsat refers to an individual's ability to utilize their income to meet financial obligations without experiencing financial difficulties during a given period (Alkhawaldeh et al., 2023). This sense of fulfillment is associated with financial satisfaction, as the absence of financial burdens reduces stress and enhances the overall well-being.

One of the factors that contributes to financial satisfaction is the use of Fintech, particularly its automated payment features, which serve as reminders to fulfill financial obligations. This automation helps individuals manage their financial responsibilities efficiently and reduces financial stress in their daily lives (Nugraha et al., 2020). The ability to maintain financial stability through fintech reinforces the positive relationship between financial technology and financial satisfaction.

Based on this explanation, the following hypothesis is proposed:

H4: Fintech has a positive and significant effect on Finsat.

2.5. The Influence of Financial Management Behaviour on Financial Performance

Financial Management Behavior (FMB) refers to an individual's financial behavior, which is shaped by both internal and external influences. This behavior extends to financial decision-making in business operations as well. FMB encompasses three main activities: funding, asset management decisions, and investment (Fitriyah et al., 2023). According to Expectancy Theory, an individual's motivation to engage in a particular behavior is driven by the expectation that it will yield the desired outcomes (Kusumawardhani et al., 2023; Ronen & Livingstone, 1975). This implies that the stronger an individual's desire for sound financial management, the more structured their financial behavior will be. In a business context, disciplined financial management translates to improved financial performance.

A key aspect of effective FMB is the awareness and practice of separating personal and business finances, which enables MSME owners to achieve their financial targets more efficiently. Business efficiency will ultimately have an impact on improving the financial performance of creative enterprises (Divianto, Kamaludin, Santi, & Saiful, 2024). Mukarromah and Jubaedah (2020) demonstrated that FMB has a significant impact on the financial performance, as better income and expense management contributes to higher profitability (Kwuta et al., 2023). MSME financial performance can improve because disciplined financial management behavior helps business owners mitigate financial risks. Based on this explanation, the following hypothesis is proposed:

H5: FMB has a positive and significant impact on FP

2.6. The Influence of Financial Satisfaction on Financial Performance

Financial satisfaction reflects an individual's condition of feeling content with their financial situation (Rahadjeng & Fiandari, 2022), which leads to a higher motivation to work towards achieving business

targets (Nugraha et al., 2020). In the context of business activities, MSME owners' financial satisfaction can be measured by their ability to generate income, maintain business savings, and manage expenses through budgeting (Adiputra, 2021). Financial stability encourages MSMEs to be more proactive in improving efficiency and expanding their businesses.

This focus positions financial performance as the primary goal, with the expectation that financial decisions will be made more wisely in the future. Previous research Nugraha et al. (2020) suggests that MSME owners' financial satisfaction arises when their income exceeds targets and financial knowledge is not only conceptual but also applied in practice (Alkhawaldeh et al., 2023). Therefore, financial satisfaction (Finsat) contributes to better financial performance (FP).

In the long term, improved financial performance will be evident, as financial satisfaction supports MSME owners in innovating and taking risks, especially by adopting new technologies in their businesses. Based on this discussion, the following hypothesis is proposed:

H6: Finsat has a positive and significant effect on FP.

2.7 The Role of Financial Management Behavior in Mediating the influence of Digital Financial Literacy on Financial Performance

Individuals and organizations with a high level of adaptability to Digital Financial Literacy (DFL) tend to exhibit better Financial Management Behavior (FMB), which, in turn, positively impacts their financial performance (FP). The increasing utilization of financial technology in business activities, such as mobile banking, QRIS, and e-wallets, indicates that individuals who leverage these technologies generally have a strong understanding of DFL (Alamsyah & Islami, 2023).

A higher level of digital financial literacy leads to more effective and efficient financial management, as reflected in better financial decision-making and business sustainability. MSME owners with strong DFL are more proactive in seeking, processing, and applying financial information through digital access, which helps them manage their business finances prudently and avoid financial risks (Fitriyah et al., 2023).

Effective financial management involves not only expenditure control but also business investment planning (Mukarromah & Jubaedah, 2020). Business investments increase the value of MSMEs, expand market opportunities, and enhance their ability to meet market demand (Putri et al., 2024). In the long run, strong financial management behavior contributes to sustainable business growth and improved financial performance (Mangawing et al., 2023; Susanti et al., 2023). Based on this discussion, the following hypothesis is proposed:

H7: FMB mediates the relationship between DFL and FP.

2.8 The Role of Financial Satisfaction in Mediating the influence of Financial Technology on Financial Performance

Financial Technology (Fintech) functions as an intermediary that connects Financial Satisfaction (FinSat) with Financial Performance (FP) by enhancing accessibility and efficiency in the management of financial transactions for individuals and organizations (Pandak & Nugroho, 2023; Putri et al., 2024). Fintech also enhances financial transparency by allowing real-time monitoring of both expenditures and revenues (Bulger et al., 2014). This real-time oversight enables optimized spending and facilitates more effective investment decisions by the fund managers.

When properly utilized, the benefits of Fintech contribute to an individual's Financial Satisfaction (Finsat), both at a personal level and as a business owner (Alkhawaldeh et al., 2023; Farida, Soesaty, & Aji, 2021). Fintech tools, such as digital banking features, help MSME owners separate personal and business finances, leading to better financial management (Alkhawaldeh et al., 2023). When finances are well managed through fintech and expectations are met, financial stress is significantly reduced. Higher financial satisfaction encourages more rational and strategic business decision-making, as satisfied MSME owners are more confident in expanding their businesses and pursuing innovation

(Adiputra, 2021). Ultimately, this process enhances business expansion and financial performance (Rahadjeng & Fiandari, 2022). Based on this discussion, the following hypothesis is proposed:
H8: Finsat mediates the relationship between Fintech and FP.

3. Research methodology

The research variables used in this study include financial performance as an endogenous variable, financial management behavior and financial satisfaction as mediating variables, and digital financial literacy and financial technology as exogenous variables. The research population was MSMEs in Bali Province, which then applied non-probability sampling methods and purposive sampling techniques to select research samples. The research data analysis technique is path analysis using SEM PLS with the help of WrapPLS7.0.

Each research variable was measured using indicators that were used as the basis for the research instrument. The operational definitions and research indicators used were as follows:.

Table 1. Operational Definition and Research Indicators

Variable	Operational Definition	Indicators
Financial Performance (Y)	Overall success rate of MSME owner in a specific period based on generated performance compared to various possibilities such as performance standards and planned targets (Mangawing et al., 2023)	1. MSME operational efficiency in order to stock and demand flow 2. Sales target attainment capability of MSMEs 3. Profit growth of MSMEs 4. Market expansion capability of MSMEs through digital platform (Mangawing et al., 2023)
Digital Financial Literacy (X1)	A Systematic Understanding of Financial Literacy and Digital Literacy for Utilizing Online Banking and Payment Systems (Bulger et al., 2014; Kusumawardhani et al., 2023)	1. Knowledge of digital financial product and services 2. Awareness of digital financial risks 3. Control over digital financial risks 4. Knowledge of consumer protection and compensation procedures (E & Swarupa, 2022)
Financial Technology (X2)	Technology-based financial services used to advance the financial sector for financial services change and progress (Alamsyah & Islami, 2023)	1. Digital payment services 2. Financial management services (Muzdalifa, Rahma, Novalia, & Rafsanjani, 2018)
Financial Management Behaviour (Z1)	The capability and skills of individuals or MSME owners to achieve a stable financial position and fulfill the liabilities (Amri et al., 2022)	1. Cash flow management 2. Consumption management 3. Credit management 4. Savings and investment (Amri et al., 2022)
Financial Satisfaction (Z2)	An individual's state with the current financial condition and seeks to evaluate it to get better results (Adiputra, 2021)	1. Total income received 2. Total savings 3. Monthly expenses (Adiputra, 2021)

Source: Summary of previous research, 2025

Sample size determination is a crucial aspect of research design, particularly in structural equation modelling (SEM). An adequate sample size is essential to ensure sufficient statistical power to detect the hypothesized relationship among the variables within the model. Various guidelines and recommendations exist for determining an appropriate sample size for SEM analysis. One commonly used approach is based on the number of indicators and latent variables

in a model. Hair, Black, Babin, and Anderson (2019) suggest a minimum sample size of five to ten times the total number of indicators and latent variables for factor analysis.

In this study, the model includes 17 indicators and five latent variables. The recommended formula = (Number of Indicators + Number of Latent Variables) × (5 to 10).

Minimum Sample Size = $(17 + 5) \times (5) = 110$

Maximum Sample Size = $(17 + 5) \times (10) = 220$

Based on the calculations, the minimum sample size for this research was 110, and the maximum sample size was 220. This suggests that the appropriate sample size for this study should fall within the range of 110 to 220 respondents from MSME owners.

4. Results and discussion

4.1 Demographic Profile

The demographic profiles of the respondents are presented in Table 2. The number of MSME owners who became respondents in this study was 185, spread across the Sarbagita region. Based on the research data collection, it is known that women are the dominant gender who own MSMEs, namely, 109 people or 58.91 percent. Meanwhile, 76 MSMEs in the Sarbagita region are owned and managed by men. According to the results of observations of MSME ownership by women, it is driven by women's desire to have their own income but with flexible time so as not to interfere with household chores.

The respondent distribution was dominated by individuals aged 36-45 years (70 participants), followed by those aged 26-35 years (63 participants), 45-55 years (37 participants), and 18-25 years (15 participants). This shows that MSME owners are indeed at a productive age, and running a business is the right choice because they do not have to depend on other companies.

Table 2. Demographic Characteristics

Details		Frequency	Percentage (%)
Gender	Male	76	41.09
	Female	109	58.91
Age	18-25	15	8.11
	26-35	63	34.05
	36-45	70	37.84
	45-55	37	20.00
	Above 55	0	0
Location of MSME	Denpasar City	72	38.92
	Badung Regency	46	24.86
	Gianyar Regency	40	21.62
	Tabanan Regency	27	14.60
Length of business (year)	< 1	58	31.35
	1-5	89	48.11
	6-10	38	20.54
	Above 10	0	0

Source: author's field survey, 2024

The Sarbagita region is the regency/city in Bali Province that has the largest number of MSMEs, where Denpasar City occupies the first position in this study as the dominant region, with 72 MSME units. The reason is that MSMEs in Denpasar City are easier to reach, and the distribution of questionnaires is easier to do because they utilize Google Forms that are distributed through communication applications. In the second position are Badung Regency MSMEs with 46 units, where the MSMEs can be reached more easily online and offline, and the owners have good skills in operating the internet. There are 40 MSME units in Gianyar Regency and 27 MSME units located in Tabanan Regency. The difficulty of reaching MSMEs in these two regencies is the reason for the small number of respondents willing to complete the research questionnaire.

Based on the length of time the business has been running, 89 Sarbagita MSME units have been operating for 1-5 years. MSMEs in this age range are certainly included in the young category because they have a great opportunity to continue to grow. The contributing factor is that MSMEs have succeeded in demonstrating the value of their products and brand value so that consumers realize the existence of the product Kovanovienė, Romeika, and Baumung (2021) and consume it repeatedly. Although many MSMEs went bankrupt in 2023, based on the data from this study, 58 MSME units were less than one year old. This means that the entrepreneurial spirit exists in each individual, encouraging them to start a new business with new hopes for innovation. Finally, 38 Sarbagita MSMEs are 6-10 years old, proving that MSMEs can also be a business for a long-term period and are adaptive to macro changes that occur.

4.2 Discriminant Validity

The research hypothesis was formulated based on the applicable theory, which was then tested to determine whether the formulation was accepted or rejected. In the initial testing of indicators, it was found that several statements did not meet the validity and convergent test criteria; therefore, the loading factor <0.7 and $p\text{-values} > 0.05$ Hair et al. (2019) were removed from the test. After the removal of indicator measurements, better results were obtained and could be continued to the next stage.

Table 3. Output Combined Loading and Cross-Loading

	DFL	FINTECH	FMB	FINSAT	FP	SE	P value
X1.1	(0.974)					0.061	<0.001
X1.2	(0.979)					0.060	<0.001
X1.3	(0.845)					0.062	<0.001
X1.4	(0.891)					0.062	<0.001
X1.5	(0.943)					0.061	<0.001
X2.2		(0.979)				0.060	<0.001
X2.3		(0.973)				0.061	<0.001
X2.5		(0.798)				0.063	<0.001
X2.6		(0.985)				0.060	<0.001
M1.1			(0.786)			0.063	<0.001
M1.3			(0.942)			0.061	<0.001
M1.9			(0.877)			0.062	<0.001
M2.2				(0.967)		0.061	<0.001
M2.3				(0.967)		0.061	<0.001
Y.1					(0.749)	0.063	<0.001
Y.2					(0.848)	0.062	<0.001
Y.3					(0.822)	0.062	<0.001
Y.4					(0.750)	0.062	<0.001

Source: author's processing, 2024

The condition that must also be met is that the loading to other constructs (cross-loadings) is lower than that to the construct. It appears that the magnitude of indicator X1.1 has a greater loading to the DFL construct (0.974). Cross-loadings to the Fintech construct of 0.967 were lower than the DFL construct and applied to other constructs. Cross-loading can be used for discriminant validity requirements.

The results of the data analysis show the coefficient of determination (R^2), which shows the amount of variance of exogenous variables in influencing endogenous variables. It is known that financial performance can be explained by 0.05 or 5 percent by DFL, FMB, Fintech, and Finsat, while the remaining 95 percent is explained by other factors not used in the study. Financial management behavior can be explained by 87 percent by DFL, while 13 percent is explained by other factors. Similarly, 85 percent of financial satisfaction can be explained by fintech, and 15 percent is explained by other factors not used in the study.

Table 4. Reliability dan AVE Result

	DFL	FinTech	FMB	FinSat	FP
Composite reliab.	0.968	0.966	0.903	0.966	0.871
Cronbach's alpha	0.959	0.951	0.838	0.930	0.802
Avg. var. extrac.	0.860	0.878	0.758	0.934	0.629
Q-squared			0.865	0.874	0.630

Source: author's processing, 2024

The AVE value shows a value > 0.5 , meaning that the variance of the indicator can be explained. Q-squared shows a measure of predictive relevance, which is considered good if the Q-square value is > 0 . In Table 4, the magnitude of the Q-squared value for FMB, FinSat, and FP is above zero, indicating that the research model used is suitable.

4.3 Hypothesis Testing Result

Financial performance is a benchmark that shows that a business has opportunities in the future and encourages the sensitivity of MSME owners in mitigating risks Permatasari and Kosasih (2022) of their business in financial aspects. Technological developments in financial services and transactions can accelerate financial performance because of the ease and speed of transactions that are not limited by space or time (Bulger et al., 2014). The use of technology must be balanced with the right digital and financial literacy for performance optimization (Mulyono, 2023; Rahadjeng & Fiandari, 2022). The results of this study were the opposite because DFL had no significant effect on FP, in line with (Mangawing et al., 2023). FP cannot be linked to DFL because the factors that support the increase or decrease in financial performance are the levels of revenue, profit, and operational cost efficiency. Although Sarbagita MSMEs adopt technology, the target market determines whether sales can occur.

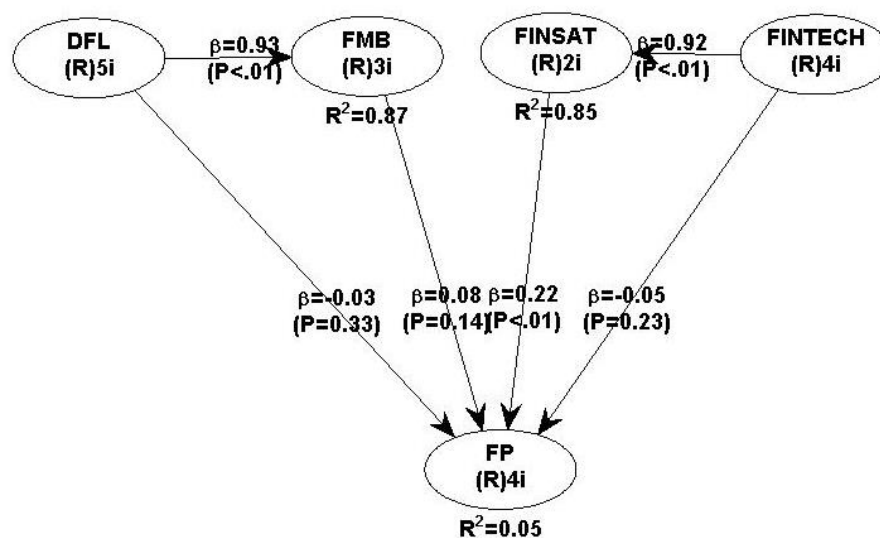


Figure 1. PLS SEM Result

DFL, as a provision of knowledge from technology implementation in MSMEs, was found to have a positive (0.93) and significant ($p < 0.01$) influence on FMB. This means that better knowledge of financial digitization will improve MSME owners' financial management behavior (Abdallah et al., 2025; Kwuta et al., 2023). FMB is described as a form of individual discipline in managing business finances; thus, when technological elements play a role in the formation of FMB, strategies for managing cash flow, consumption, credit, savings, and investment will be better (Iswari, 2022). When referring to the indicators used, DFL increases MSME owners' sensitivity to mitigating their financial risks (Adriani, 2021).

The stability of the financial position of a business requires MSME owners to manage income and pay obligations (Amri et al., 2022), which can impact performance. In addition, the personal capabilities of MSME owners to manage the finance also provide opportunities for business growth not only in the short term but also in long term (Anoke, Onu, & Agagbo, 2022), with the impact reflected in improved business performance. This study found that FMB had no significant effect ($p = 0.14$) on financial performance, consistent with previous findings (Purwidiyanti et al., 2022). FMB is an art of managing finances; therefore, no matter how business money is managed, it will not impact either increasing or decreasing financial performance. Referring to the indicators used in FP, performance comes from the strategy set by the business in selling products to gain a competitive advantage (Mangawing et al., 2023; Susanti et al., 2023). Therefore, another factor that drives FP is the improvement of product marketing capabilities (Mukarromah & Jubaedah, 2020). The findings of this study also prove that FMB cannot act as a mediating variable for the effect of DFL on FP (Purwidiyanti et al., 2022).

Table 5. Path Coefficient Hypothesis Testing

Variable	Beta (β)	P-value	Empirical Remarks
H1: DFL \rightarrow FP	-0.03	0.33	Rejected
H2 : Fintech \rightarrow FP	-0.05	0.23	Rejected
H3 : DFL \rightarrow FMB	0.93	0.01	Confirmed
H4 : Fintech \rightarrow FinSat	0.92	0.01	Confirmed
H5 : FMB \rightarrow FP	0.08	0.14	Rejected
H6 : FinSat \rightarrow FP	0.22	0.01	Confirmed
H7 : DFL \rightarrow FMB \rightarrow FP	0.074	0.076	Rejected
H8 : Fintech \rightarrow FinSat \rightarrow FP	0.202	0.001	Confirmed

Source: author's processing from WarpPLS 7.0, 2024

In the second part, the application of Fintech has no significant effect on FP (p-value 0.23). In line with the results of previous research (Sumani & Prasetya, 2022), various things can cause Fintech to have no impact on FP, such as digital financial services that are not carried out optimally. MSME owners may already have accounts in digital financial services such as QRIS, but digital payment methods are not utilized in their business processes. For consumers, payments using Fintech will cause losses because MSMEs charge administrative costs incurred by consumers (Pandak & Nugroho, 2023).

Under other conditions, the existence of Fintech significantly increases Finsat (0.92) (p-value <0.01), meaning that the higher the Fintech, the more MSME satisfaction is achieved. Previous findings Alkhawaldeh et al. (2023); Nugraha et al. (2020) have shown that the existence of Fintech with various features that MSMEs can utilize increases control over their financial decisions, making it easier for business owners to obtain financial information (Nguyen, 2022). It is the control of these financial decisions that provides Finsat because it achieves expectations regarding the amount of income, the amount of savings, and monthly expenses that have been adjusted to the business budget plan (Adiputra, 2021).

MSME owners who know their financial targets in advance tend to have positive thoughts, emotions, and happiness, and their ability to formulate financial decisions also improves (Alkhawaldeh et al., 2023; Putri et al., 2024). This situation creates Finsat, which also has a positive (0.22) and significant (p-value < 0.01) effect on MSMEs' FP. This significant effect Alkhawaldeh et al. (2023) reflects that individuals who are also MSME owners have the awareness to evaluate their financial condition in the hope that the future period will be better (Adiputra, 2021). The perceived positivism in financial satisfaction has a broader impact, including on the health and well-being of MSME owners, and provides enthusiasm to improve their financial performance (Nurchayati et al., 2024). This study also supports that Finsat can mediate the effect of Fintech on the FP of MSMEs, with a total indirect value of 0.2024 and a p-value of 0.001. Financial satisfaction plays a complementary mediation role because both direct and indirect effects have the same direction and are significant (Sholihin & Ratmono, 2021)..

5. Conclusion

5.1 Conclusion

The conclusions from the results of this study are expected to serve as a reference for further research. The research findings include DFL, Fintech, and FMB, which have no significant effect on FP. This study also proves that DFL has a direct positive and significant effect on FMB. FinSat also has a positive and significant effect on FP, and Fintech has a positive and significant effect on FinSat. Multiple mediation testing found that FMB was unable to act as a mediator of DFL's influence on FP, while FinSat acted as a complementary mediator of Fintech's influence on FP.

5.2 Limitation

The research location, which is limited to only four regencies/cities in Bali, presents a limitation, making the results not generalizable to all MSMEs. Additionally, the financial management aspect of this study does not include the financial conditions of previous periods.

5.3 Suggestion

Based on the results of this study, to achieve the sustainability of Sarbagita MSMEs, owners are expected to start changing their financial management behavior by separating personal finances from business finances and increasing their digital and financial literacy. If MSME owners succeed in managing business finances wisely, this will foster financial satisfaction, provided that the adoption of financial technology is carried out appropriately. The most effective measurement of business sustainability can be seen from the improvement of MSME financial performance; therefore, it is appropriate if individual personal financial targets are met first.

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