

SUSTAINABILITY OF WOMEN'S MSMES: FINANCIAL LITERACY, FINANCIAL INCLUSION, AND FINTECH

KEBERLANJUTAN UMKM PEREMPUAN: LITERASI KEUANGAN, INKLUSI KEUANGAN, DAN FINTECH

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ABSTRACT

This study aims to examine the influence of financial literacy and financial technology (Fintech) on financial inclusion and its implications for the sustainability of MSMEs managed by women. The research population included women MSME entrepreneurs in South Sulawesi Province, with a sample of 100 respondents selected using purposive sampling based on two criteria, namely (1) women MSME entrepreneurs and (2) type of business. Data analysis was conducted using the Structural Equation Modeling Partial Least Squares (SEM-PLS) approach. The results of the study indicate that financial literacy and financial inclusion have a positive effect on the sustainability of women's MSMEs. Conversely, fintech does not have a significant effect on business sustainability. In addition, financial literacy has been proven to affect financial inclusion. The novelty of this study is that it integrates the variables of financial literacy and fintech in the context of the sustainability of women's MSMEs with various business type variables and uses the SEM-PLS method, which is considered the most appropriate for analyzing the causal relationship between variables. The implications of the research results emphasize the importance of improving financial literacy through comprehensive education and training programs and an inclusive approach to broaden understanding of fintech use, strengthening managerial capacity and financial management skills. Adequate knowledge-based capacity is a key factor in supporting resilience and the sustainability of women's MSMEs in the future.

Keywords: Financial Literacy, Inclusion, Fintech, Sustainability; Women.

ABSTRAK

Penelitian ini bertujuan untuk mengkaji pengaruh literasi keuangan dan teknologi keuangan (Fintech) terhadap inklusi keuangan serta implikasinya terhadap keberlanjutan UMKM yang dikelola oleh perempuan. Populasi penelitian meliputi pelaku UMKM perempuan di Provinsi Sulawesi Selatan, dengan jumlah sampel sebanyak 100 responden yang dipilih menggunakan teknik purposive sampling berdasarkan dua kriteria, yaitu (1) pelaku UMKM perempuan dan (2) jenis usaha. Analisis data dilakukan menggunakan pendekatan Structural Equation Modeling Partial Least Squares (SEM-PLS). Hasil penelitian menunjukkan bahwa literasi keuangan dan inklusi keuangan berpengaruh positif terhadap keberlanjutan UMKM perempuan. Sebaliknya, fintech tidak memiliki pengaruh yang signifikan terhadap keberlanjutan usaha. Selain itu, literasi keuangan terbukti berpengaruh terhadap inklusi keuangan. Kebaruan penelitian ini terletak pada integrasi variabel literasi keuangan dan fintech dalam konteks keberlanjutan UMKM perempuan dengan mempertimbangkan variasi jenis usaha serta penggunaan metode SEM-PLS yang dinilai paling tepat untuk menganalisis hubungan kausal antar variabel. Implikasi hasil penelitian menekankan pentingnya peningkatan literasi keuangan melalui program edukasi dan pelatihan yang komprehensif serta pendekatan inklusif untuk memperluas pemahaman penggunaan fintech, sekaligus memperkuat kapasitas manajerial dan keterampilan pengelolaan keuangan. Kapasitas berbasis pengetahuan yang memadai menjadi faktor kunci dalam mendukung ketahanan dan keberlanjutan UMKM perempuan di masa depan.

Kata kunci: Literasi Keuangan, Inklusi Keuangan, Fintech, Keberlanjutan, Perempuan

1. INTRODUCTION

Bank credit facilities are an important source of capital for MSME players who are vital to the economy, but their use has not been optimal because the growth rate has not exceeded 20% (Bank, 2021).

The rapid growth of women-managed MSMEs globally shows their great potential in driving the economy (Debnath et al., 2020). However, the main challenge they face is limited access to capital. The number of people who are not served by banks (unbankable), structural poverty, low MSME financing, high micro interest rates, weak business management, and limited financial service channels are the main obstacles. Therefore, the implementation of financial inclusion—ensuring that everyone has access to safe, efficient, and affordable formal financial services (Bank, 2021)—is an important solution to support the sustainability of MSMEs, especially those run by women, and to drive Indonesia's economic growth (Maulana et al., 2022; Yanti, 2019).

Fintech (Financial Technology) has emerged as a fundamental information technology-based platform in efforts to improve and expand financial inclusion (Makina, 2019). This innovation, which combines financial services and technology, has proven to be capable of boosting financial inclusion (Fitriani, 2018; P. B. Sari & Dwilita, 2018) while also having a positive impact on the sustainability of MSMEs (M. Kusuma et al., 2022). Fintech is now seen as a major driver of inclusion, with mobile financial services having the greatest potential to attract people who do not have access to formal banking services. Its main role for MSMEs is to facilitate access to funding, especially for business actors who are considered non-bankable (Shofawati, 2019). Thus, fintech expands the reach of financial services, improves financial literacy, and enables more efficient SME financial management (Hamid et al., 2024). Given the failure of banking institutions to provide adequate loans, the rapid development of fintech in Indonesia has become an effective funding alternative for SMEs (Octavini & Puspitasari, 2023). However, despite its great potential, the implementation of fintech also brings challenges. Not all MSMEs are able to adopt this technology effectively due to risk factors that hinder business continuity (Rahardjo et al., 2019).

An entrepreneur must have financial understanding and skills to be able to manage their business funds effectively. Good introduction to and access to financial institutions has been proven to have a direct impact on the speed of their business development. (Bakhtiar et al., 2022). Since knowledge is the key to accessing and managing resources effectively, the adoption of financial literacy (Aribawa, 2016) is an essential strategic approach that directly supports the improvement of MSME performance and sustainability (Ardila et al., 2021). Financial literacy enables business actors to manage important aspects of business, such as budgeting, planning savings, and understanding basic finance, all of which aim to support the achievement of financial goals (Anggraeni, 2015). To optimize the number of existing MSMEs and support their sustainability, providing financial skills is a necessary guideline. (Akhiar et al., 2021). (Akhiar et al., 2021). In addition, exploring financial literacy, especially among women entrepreneurs, is very important in order to encourage the growth of their businesses.

Research on the impact of modern financial services on MSMEs is still fragmented and contradictory. Nurohman et al. (2021) concluded that fintech and financial inclusion work together positively to support the sustainability of MSMEs. However, this view is challenged by the findings of Maulana et al. (2022), who state that MSME players reject financial services, making fintech irrelevant, and even suggest that financial inclusion actually hinders business sustainability. Conflicting findings also arise regarding the specific role of financial inclusion, with Kusuma et al. (2022) and Sari et al. (2022) found no effect. In addition, the role of financial literacy is also questioned, with Budyastuti (2021) finding no effect, contrary to the emphasis given by Maulana et al. (2022).

Previous studies examining the impact of financial literacy, financial inclusion, and fintech on the sustainability of women's MSMEs are still limited, often focusing on specific

types of MSMEs and relying on SPSS data analysis. This study aims to fill this gap by using a more diverse sample of women-owned MSMEs and utilizing the SEM PLS (Partial Least Squares) method, which is more appropriate for testing complex causal models, especially with relatively small sample sizes..

2. LITERATURE REVIEW

Financial literacy is the knowledge, skills, and confidence that enable individuals (MSME owners) to make effective and informed financial decisions in the context of their daily lives. Key dimensions: Basic financial knowledge (such as savings, credit, investment), the ability to manage budgets and cash flow, and the ability to choose the right financial products and services. Relevance for Women SMEs: High financial literacy enables women entrepreneurs to separate personal and business finances, manage risk, and make better investment or financing decisions. Improving the financial literacy of the community is a crucial foundation for achieving broader and more equitable financial inclusion, as highlighted by (Patel et al., 2021). Individual understanding and skills in managing finances not only facilitate access to adequate formal financial products and services (Bakhtiar et al., 2022), but also play a central role in promoting inclusive economic growth and achieving sustainable prosperity. More than just access, adequate financial education empowers individuals to make wise and responsible financial decisions, enabling them to choose and utilize financial instruments that best suit their needs and life goals. This understanding is reinforced by a number of studies that highlight the important role of financial literacy as a key driver. to make appropriate product choices. Essentially, financial literacy plays an important role in facilitating financial inclusion, supporting inclusive growth, and ensuring sustainable prosperity (Hasan & Lu, 2023), which is consistent with research (I. N. P. Kusuma, 2020) which concluded that an increase in financial literacy understanding will result in more positive financial behavior and attitudes, which in turn increase individuals' use, utilization, and understanding of financial products and services.

Financial inclusion is the availability and accessibility of relevant, affordable, and sustainable formal financial products and services for all segments of society, including women MSME entrepreneurs. • Key aspects: Access (ease of reaching services), Use (frequency and variety of products used), and Quality (consumer protection and product suitability). Relevance for Women MSME Entrepreneurs: Financial inclusion addresses structural barriers such as collateral requirements or geographical distance, enabling women to obtain capital, make payments, and manage business risks. Financial inclusion in Indonesia, defined by the OJK as efforts to remove barriers to access financial services for the public, plays a crucial role in supporting the sustainability of Micro, Small, and Medium Enterprises (MSMEs). Access to financial services, including essential capital assistance, enables MSMEs to maintain their continuity and develop their businesses sustainably. In addition, financial technology (fintech) products facilitate transactions and open up additional digital financing channels, which significantly help MSMEs overcome Operational and financial challenges. This increase in financial inclusion, which includes expanding reach, developing products, and improving service quality, has been shown to have a positive impact on the sustainability of MSMEs, as supported by various studies. Easy access to financial institution products and services is crucial for MSME players, as it is a major driver for the smooth running of various business activities, from facilitating daily transactions to obtaining the financing needed for development. Therefore, financial inclusion plays a vital role as a determining factor in the success of MSMEs, which has been proven to significantly improve their operational performance and accelerate their growth, both financially and non-financially. The availability of access to financial services, particularly credit facilities for Micro, Small, and Medium Enterprises (MSMEs), plays a crucial role in spurring MSME growth. The provision of this financing directly contributes to market share expansion, an increase in the number of jobs, a surge in sales volume, and profit accumulation, which ultimately strengthens the overall performance of MSMEs, as stated by

Ratnawati (2020). Furthermore, strengthening financial inclusion is a fundamental basis that is essential to ensure the sustainability and resilience of MSMEs in the longer term (Nurohman et al., 2021).

Financial Technology (Fintech) Fintech refers to technological innovations in financial services, including digital payments, peer-to-peer (P2P) lending, financial management, and insurance. Types: Digital payments, financial aggregators, and digital financing (e.g., P2P lending). Relevance for Women MSMEs: Fintech acts as an enabler that offers faster, more efficient, and more inclusive solutions. It can expand access to unsecured capital without complicated procedures and facilitate transactions and financial record-keeping. Based on its definition and role, it can be concluded that Fintech or financial technology is the innovative use of digital technology, as stated by Arner et al. (2020) and Aaron et al. (2017), to provide and mediate financial services. According to Fitriani (2018), the integration of the financial and technology sectors plays a crucial role in increasing financial inclusion, which will ultimately facilitate access to various financial products for small and medium-sized enterprises (SMEs) (Nurohman et al., 2021). In addition, financial inclusion driven by Fintech is also believed to be an important bridge in reducing income inequality, as highlighted by Demir et al. (2022). Financial technology (Fintech) plays a crucial role in expanding access to financial services from various institutions, thereby having a positive and significant impact on increasing financial inclusion. According to Thomas & substantially improves performance and financial inclusion. The advantage of Fintech lies in offering convenience and simpler requirements compared to credit application procedures at conventional financial institutions. This condition greatly helps Small and Medium Enterprises (SMEs) that are often considered “unbankable” due to a lack of knowledge and adequate financial management, making it difficult for them to meet formal financing requirements. With its advantages in facilitating fund acquisition and financial transactions, Fintech also removes barriers to access financial services for the public, a finding reinforced by research by Bakhtiar et al. (2022) and in line with the views of Shofawati (2019).

Sustainability of Women's MSMEs The sustainability of Micro, Small, and Medium Enterprises (MSMEs) refers to the ability of a business to survive, grow, and innovate continuously in the long term. For Women's MSMEs, this sustainability is often associated not only with financial performance (profitability) but also with aspects of family welfare and the empowerment of women themselves. The sustainability of women's MSMEs is also very important given their significant role in the national economy. MSME sustainability refers to the capacity of micro, small, and medium enterprises to maintain stability and ensure their business development amid ever-changing market dynamics. The key to remaining relevant and competitive is to balance economic, social, and environmental aspects, which requires MSMEs to have environmental knowledge and implement policies that are adaptive to challenges, such as economic fluctuations and competition. In other words, the ability of MSMEs to sustain their businesses is measured by how effectively they adopt new things, ensure the welfare of their workers and customer satisfaction, and obtain a reasonable return on their capital investment (Sugita & Ekayani, 2022). Therefore, adequate understanding of finance is crucial because it equips entrepreneurs with the ability to make smart decisions in any situation (Hilmawati & Kusumaningtias, 2021), which in turn encourages greater involvement in the financial market. The importance of financial literacy lies in its capacity to bridge the information gap, which is a fundamental element for an efficient financial market. Proficient financial literacy enables MSME owners to make strategic financial decisions, which are crucial for the business's ability to continue operating, correct financial errors, and maintain its existence during times of crisis, ultimately promoting sustainability and future growth. Knowledge and skills in financial management serve as the foundation for dealing with the dynamics of economic fluctuations. Operationally, the implementation of an appropriate, clear, and accurate accounting system is an important instrument of financial literacy, because this system not only facilitates the monitoring and analysis of business progress, but also

provides essential data related to capital, in line with the findings of various studies that confirm the positive influence of financial literacy on the sustainability of MSMEs.

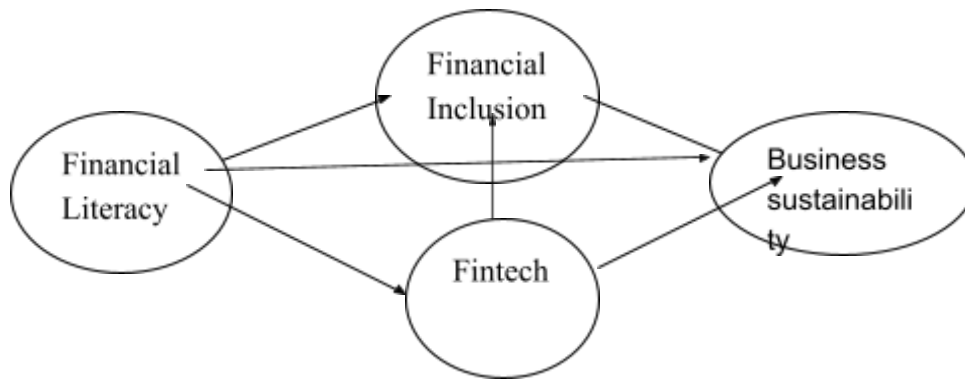


Figure 1. Research Conceptual Framework

The following are the hypotheses in this study:

- H1: Financial Literacy Affects Financial Inclusion
- H2: Financial Inclusion Affects Business Sustainability
- H3: Financial Literacy Affects Fintech
- H4: Fintech Affects Financial Inclusion
- H5: Fintech Affects Business Sustainability
- H6: Financial Literacy Affects Business Sustainability

3. METHODS

This study adopts a quantitative descriptive design that is in line with its objectives. To achieve this, an explanatory survey method was applied, whereby primary data was collected from a field population sample using a questionnaire as the main instrument. Primary data plays an essential role as a measuring instrument. As a complement, secondary data serves to enrich the findings. This secondary data is essential for comparing the results of this study with previous studies, as well as for gathering a theoretical framework and relevant contextual information. The sources include academic literature and online information from scientific publications (domestic and international journals), as well as data and reports related to MSMEs published by the South Sulawesi Provincial Cooperative and MSME Office. This research was conducted in South Sulawesi Province for one year. The research population included women who run micro, small, and medium enterprises (MSMEs) in the region. The research sample consisted of 100 women MSME entrepreneurs who were selected by considering the minimum sample size requirements for the SEM PLS method, which is between 30 and 100 respondents (Ghozali 2021). The SEM PLS method was chosen because it is capable of providing accurate model parameter estimates even with varying sample sizes (Zuhdi.et.al 2022). The sample was determined using purposive sampling, which is the selection of respondents based on certain criteria relevant to the study.

1. MSMEs owned by women
2. Grouping MSMEs based on business type into categories of culinary, fashion, creative economy, and agribusiness

This study chose Partial Least Squares (PLS)-based Structural Equation Modeling (SEM) to test complex hypotheses and causality models. PLS-SEM is particularly suitable due to the limited sample size, the complex nature of the model, and the use of new or developing measurement items in this context. The analysis was conducted in two steps: first, testing the measurement model (outer model) to verify the validity and reliability of the indicator

constructs; second, testing the structural model (inner model) through PLS-t tests to assess the causal relationships between variables.

4. RESULTS

Data analysis shows that most women MSME entrepreneurs are located in rural or remote areas, thus facing limited access to resources and infrastructure.

Table 1. Respondent Characteristics

Characteristics	Explanation
Business Location	Regency Regency 24 City 3
Business Age	< 1 year; 16 1-5 year; 32 6-10 year; 35 >10 year; 19
Gender Respondent Age	Women <20 year; 7 21-30 year; 37 31-41 year; 39 42-50 year; 16 >50 year; 6
Background Education	SMP; 16 SMA; 59 S1; 26 S2; 4
Business Revenue	< Rp 300 million; 36 Rp 300 million s/d Rp 2,5 billion; 55 Rp 2,5 billion s/d Rp 50 billion 13
Employee	Does not have employees; 22 1-5 person; 58 6-10 person; 20 11-15 person; 6 >15 person; none

In summary, the MSME entrepreneurs studied were generally individuals of productive age (21-41 years) with adequate business experience (1-10 years), but the majority managed small to medium-sized businesses with limited resources and number of employees. The majority had a high school education, which may have influenced their adoption of technology and business management

Assessing the Outer Model or Measurement Model

In data analysis using smartPLS, there are four main criteria for evaluating the outer model, namely Convergent Validity, Average Variance Extracted (AVE), Discriminant Validity, and Composite of each indicator with the construct being measured.

Table 2. Outer Model

	Outer Loading	Cronbach Alpha	Composite Reliability	AVE
<i>Fintech</i>	Fc1→ 0.850 Fc2 →0.815	0.720	0.719	0.661

	Fc3 →0.745			
Financial Inclusion	IK1→0.795 IK2→0.801 IK3→0.835	0.719	0.842	0.638
Business Sustainability	KU1→0.910 KU2→0.830 KU3→0.760	0.793	0.877	0.707
Financial Literacy	LK1→0.760 LK2→0.840 LK3→0.750	0.717	0.841	0.641

Overall, the test results show that all indicators have factor loadings above 0.50 and Composite Reliability values above 0.60, confirming the instrument's good reliability. In addition, Average Variance Extracted (AVE) values of more than 0.50 for all variables, as well as AVE squares greater than the correlations between other latent variables, convincingly prove that the variables in this study have strong convergent and discriminant validity.

Table 3. Discriminant Validity

	Fintech	Financial Inclusion	Business Sustainability	Financial Literacy
Fintech	0.813			
Financial Inclusion	0.145	0.798		
Business Sustainability	0.266	0.830	0.840	
Financial Literacy	0.174	0.748	0.724	0.801

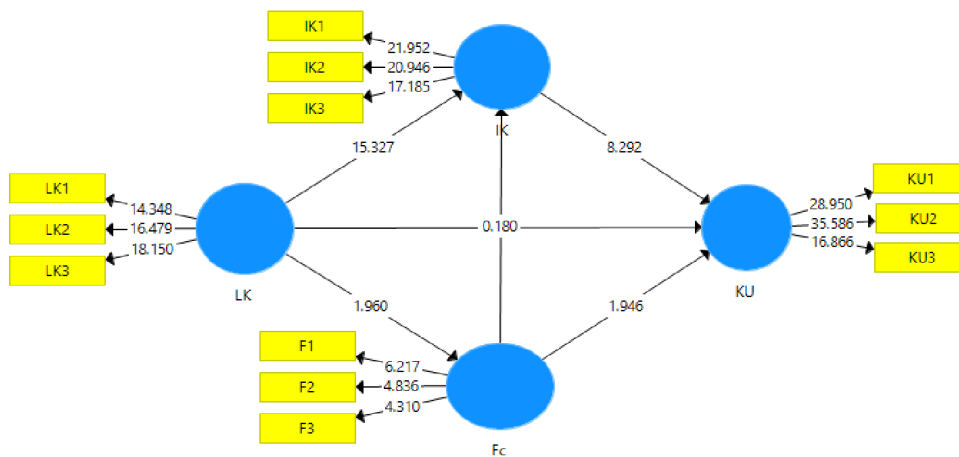


Figure 2. Outer Model

Assessing Structural Models (Inner Models)

Evaluating the structural model or inner model is an important step in understanding the relationships between constructs, focusing on measuring significance values and R-square. This model is assessed based on R-square for dependent constructs, as well as t-tests and the significance of structural path parameter coefficients to measure the strength of the

relationship. To verify the proposed hypotheses, the bootstrapping technique, a random resampling method, is applied to obtain t-statistics and p-values through Path Coefficients. Specifically, the research hypothesis is considered accepted if the calculated t-statistics are greater than t-statistics > t-table (1.96) and the resulting p-value is less than p-value < 0.05, then the hypothesis is accepted.

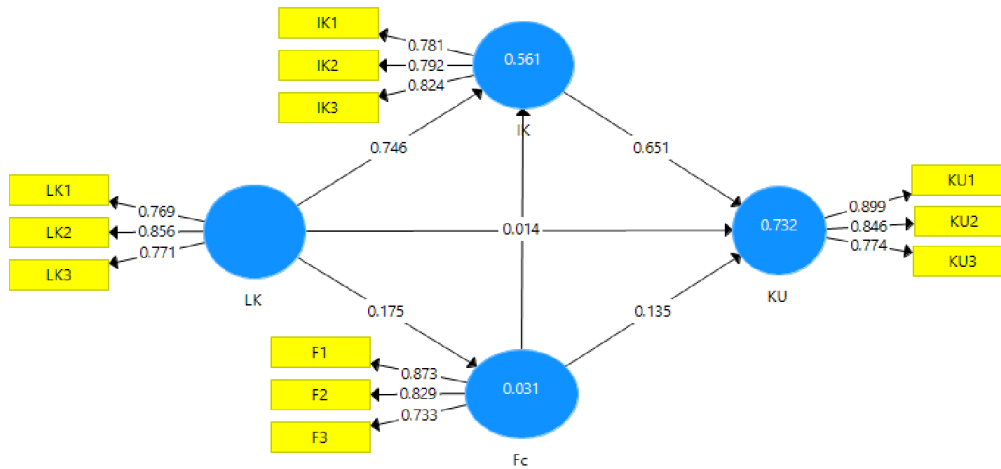


Figure 3. Inner Model

Coefficient of Determination (R2)

Structural models are tested to analyze the relationships between constructs in research, as well as to determine the significance of these relationships and the R-square value in the model. The R-square value serves as an indicator to evaluate the extent to which independent (exogenous) variables collectively influence the variability of dependent (endogenous) variables, the estimated value of which can be seen in the test results table.

Table 4. R-Square Values

	R Square	R Square Adjusted
<i>Fintech</i>	0.032	0.022
Financial Inclusion	0.561	0.552
Business Sustainability	0.731	0.723

The three R2 values presented, each for the variables of Fintech, Financial Inclusion, and MSME Sustainability, indicate the explanatory power of the regression model used. In detail, the model for Fintech shows that Financial Literacy only has an explanatory contribution of 3.2% to its variation, implying that external factors dominate the determination of Fintech. In contrast, the Financial Inclusion variable is significantly more explainable, with 56.1% of its variation influenced by a combination of the Financial Literacy and Fintech variables. The strongest model explanation is found in the MSME Sustainability variable, where 73.1% of its variation can be collectively attributed to Financial Literacy, Financial Inclusion, and Fintech, leaving the remainder to be explained by other variables outside the scope of the study

Hypothesis Testing

To accept or reject a hypothesis, hypothesis testing using the Bootstrapping method in SmartPLS 3.0 is required. The hypothesis is accepted if the significance level is less than 0.05 or if the t-value exceeds the critical value (Hair et al., 2014). At a significance level of 5%, the t-statistic value used is 1.96.

Table 5. Path Coefficient Test Results

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	Results
<i>Fintech</i> → Financial Inclusion	0.013	0.027	0.076	0.181	0.856	Rejected
<i>Fintech</i> → Business Sustainability	0.134	0.133	0.068	1.946	0.051	Rejected
Financial Inclusion → Business Sustainability	0.650	0.651	0.078	8.292	0.000	Accepted
Financial Literacy → <i>Fintech</i>	0.174	0.201	0.088	8257	0.051	Rejected
Literasi Keuangan → Inklusi Keuangan	0.745	0.748	0.048	15.326	0.000	Accepted
Financial Literacy → Business Sustainability	0.213	0.210	0.083	2.552	0.011	Accepted

5. DISCUSSION

5.1. Financial Literacy Affects Financial Inclusion

The results of the analysis in Table 5 indicate that financial literacy significantly affects financial inclusion, as confirmed by the t-value (15.326) which far exceeds the t-table (1.98) and the significance value (0.000) which is below the 0.05 threshold, thereby causing the rejection of H0 and acceptance of H1. This significant influence is evident from the positive relationship in which higher financial knowledge correlates with better financial attitudes and behaviors, strengthening the ability of individuals, including MSME owners, to understand and utilize financial products and services. Improving financial literacy is a crucial strategy for overcoming conventional MSME constraints such as human resources, ownership, financing, marketing, and management issues—and promoting high awareness of the importance of financial inclusion, especially among female MSME owners. Various studies show a strong consensus on the crucial role of financial literacy, especially for Micro, Small, and Medium Enterprises (MSMEs), in promoting financial inclusion. The importance of financial knowledge, as emphasized by Van Beest et al. (2009), enables MSMEs to better manage and account for their businesses, as well as facilitate the effective use of financial products. This view is supported by the findings of Bakhtiar et al. (2022), I. N. P. Kusuma (2020), and B. P. Sari et al. (2022), which affirm financial literacy as a vital element in advancing financial inclusion.

5.2. Financial Inclusion Affects Business Sustainability

Based on the calculation values in Table 5, which show a t-value of 8.292, which is greater than the critical value (assuming the t-table is 1.98, not $8.292 < 1.98$), and a significance value (0.000) that is much smaller than α (0.05), it can be concluded that H0 is rejected and H1

is accepted. This result clearly proves that financial inclusion has a positive and significant effect on the sustainability of women's MSMEs, emphasizing that accessibility to financial products is a fundamental factor essential to supporting operations and ensuring that MSMEs can survive in the long term. These findings are consistent with existing literature (Purniawati et al., 2024; Sari et al., 2022; Sugita & Ekayani, 2022; Kusuma et al., 2022; Nurohman et al., 2021), which also found a strong correlation between financial inclusion and business sustainability, even in line with the view that financial literacy and inclusion play an important role in improving the overall performance of MSMEs (Kaplan & Norton, 2005). Financial inclusion plays a vital role in promoting the sustainability and growth of MSMEs because access to essential financial services, especially financing, is very important; without adequate support from stakeholders to bridge access to financial institutions, MSMEs will find it difficult to obtain crucial financial products, which will have a direct impact on the continuity of their businesses (Yanti, 2019). This role is reinforced by the fact that financial inclusion can strengthen the connection between financial literacy and the quality of capital decision-making in MSMEs, guiding them towards better financial choices (Susilawati & Puryandani, 2020). Furthermore, financial inclusion has been proven to function as a significant moderating factor, intensifying the positive impact of financial literacy on MSME performance, thereby enabling micro businesses to optimize resource management and achieve comprehensive business performance improvements (Masitah et al., 2023)..

5.3. Financial Literacy Affects Fintech

The data presented in Table 5 shows that the P-value for financial literacy on fintech is 0.857 and the T-statistic value is 0.180. Since the P-value (0.857) is greater than 0.05 and the T-statistic (0.180) is less than 1.96, it can be concluded that financial literacy does not have a significant effect on the use of fintech, so the research hypothesis is rejected. This finding contradicts the results of a previous study by Kusuma (2020), which found that MSMEs were involved in using fintech applications such as GoPay and OVO to process payments. Despite efforts to improve financial inclusion, the impact on women-owned micro, small, and medium enterprises (MSMEs) is still limited due to their lack of awareness of financial technology (fintech). This lack of knowledge can lead to doubts and reluctance to utilize fintech, even though this technology offers ease and efficiency in accessing capital and financial services. In addition, efforts to improve women's financial literacy face significant challenges, especially in developing countries, where women's freedom is often hampered by social and cultural constraints, as noted by Baluja (2016). Although a study (Ram, 2023) shows that there is no significant difference in FinTech's ability to improve financial literacy or awareness, barriers to FinTech adoption by MSME players actually arise.

5.4. Fintech Influences Financial Inclusion

The statistical analysis results obtained, with a P value of 0.857 (well above the significance threshold of 0.05) and a T statistic of 0.180 (well below the critical value of 1.96), imply the rejection of the hypothesis that Fintech has an effect on financial inclusion, which contrasts with previous findings, such as the study by Nurohman et al. (2021), which indicates that fintech products are an important alternative for entrepreneurs in achieving financial inclusion, and the study by Muzdalifa et al. (2018), which states that the presence of fintech contributes significantly to financial inclusion. Although financial technology (fintech) has great potential to promote financial inclusion for MSMEs especially in terms of capital, digital payment services, and financial management—its implementation in the field often falls short of expectations or promises, resulting in a disparity between potential and realization that needs to be examined. This phenomenon highlights the significant gender disparity in the use of financial products, particularly Fintech, where women generally show lower usage rates, in line with global findings noting that only 21% of women in 28 countries use Fintech services

(Chen & Yuan, 2021). This gap is triggered by low financial literacy, especially among MSMEs, regarding crucial Fintech functions such as risk management, investment, and product understanding, so that its use is often limited to digital payment functions only and has not been maximized for other aspects of financial inclusion such as access to funding (Ram, 2023). Therefore, despite the increasing adoption of digital financial services, the full potential of Fintech in supporting optimal financial inclusion has not been achieved, as the lack of financial literacy among the public is a major obstacle that weakens its positive impact (Ratnawati, 2020; Fitriani, 2018).

5.5. Fintech Affects Business Sustainability

Fintech, with a calculated t-value of 1.946, which is smaller than the table t-value of 1.96, and a significance value (0.052) that is greater than 0.05, indicates that the Null Hypothesis (H0) is accepted and the Alternative Hypothesis (H1) is rejected. This means that Fintech does not have a significant effect on the sustainability of women's MSMEs, which leads to the rejection of the research hypothesis. This finding is consistent with previous studies by Budyastuti (2021) and Rahardjo et al. (2019), which concluded that the impact of fintech on the sustainability of MSMEs does not only depend on technological developments or the products offered by the application, but is also greatly influenced by consumer interest and level of understanding of the application's use. Often, a lack of understanding and a tendency for consumers to only utilize basic payment features are the reasons why the full potential of fintech to support business sustainability has not been achieved. optimally. This phenomenon shows that there are still many female MSME entrepreneurs in South Sulawesi who are not accustomed to using technology, exacerbated by skepticism about transaction security and information confidentiality amid rapid technological developments. This reality is in line with the findings of previous research (Maulana et al., 2022), which highlights that MSME players' unfamiliarity with technology triggers a lack of knowledge, which ultimately fosters reluctance to adopt fintech. In running their businesses, MSME players are not only looking for convenience, but also carefully considering crucial factors such as transaction security, data confidentiality, and operational costs. Uneven access to and literacy about fintech are major obstacles for MSMEs to utilize it optimally, in addition to lingering concerns about security and privacy risks. Therefore, an active role from the government and relevant institutions is needed to provide comprehensive support and education so that SMEs, particularly in the culinary sector, can integrate fintech into their business operations—a necessity also supported by research (Rahardjo et al., ...). 2019).

5.6. Financial Literacy Affects Business Sustainability

Based on the calculations in Table 5, with a t-value of 2.553 greater than 1.96 and a sig value of 0.11 greater than 0.05, H0 should be rejected and H1 accepted, indicating that financial literacy has a positive and significant effect on the sustainability of women's MSMEs, and therefore the hypothesis is accepted. This understanding confirms that a good level of financial literacy among MSME actors is a crucial factor in achieving sustainable business performance and continuity. This suggests that with adequate financial understanding, MSME owners are able to effectively implement financial management practices in their operations, although it is acknowledged that there are situations where some employees still need guidance or collaboration from Break Work to carry out financial recording tasks due to a lack of in-depth understanding of financial basics. Financial literacy has proven to be crucial, in line with the findings of Drexler et al. (2014), as it significantly influences complex financial decision-making and is an important determinant of business sustainability. For owners or managers, especially in the MSME sector, mastery of financial management is essential to ensure accurate financial decisions that are in line with company objectives. This ability not only increases effectiveness and efficiency in achieving business targets, but also equips

individuals with adequate fundamentals to manage their personal finances wisely. With adequate financial literacy, MSME owners and employees can proactively identify and respond to business conditions, such as when sales targets are not met. Continuous monitoring and evaluation of performance enable owners to make strategic management decisions to improve business performance. Rewarding productive employees who contribute to increased sales is a key step in maintaining their motivation and performance, as they feel valued. In conclusion, good financial literacy among MSME entrepreneurs significantly influences the quality of business and financial decisions, encourages positive development, increases business resilience to crises, and m.

6. CONCLUSION

Financial literacy has been proven to significantly influence financial inclusion and the sustainability of women's MSMEs, as increased financial knowledge encourages the use of financial products and services. However, the adoption and use of financial technology (fintech) services does not have a significant impact on financial inclusion or business sustainability due to the low level of knowledge and application of this technology by business actors. The integration of fintech into the operations of micro, small, and medium enterprises (MSMEs) owned by women still faces significant obstacles, underscoring the urgency of strengthening comprehensive financial literacy and adopting more inclusive strategies in introducing financial technology. A better understanding of fintech tools is crucial to empowering women-owned MSMEs in achieving sustainable business targets. Therefore, investing in training programs focused on improving managerial capacity and financial management capabilities—based on adequate technological knowledge—is a fundamental step toward making women-owned MSMEs more resilient, adaptive, and capable of sustainable growth in the future. The main implication of these findings indicates a gap in fintech knowledge and adoption among women-owned MSMEs, highlighting the need for efforts to improve digital literacy and financial inclusion. However, significant limitations exist.

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