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The Mediating Role of Risk Management in the Relationship between Financial Management, Financial Inclusion, and SME Performance in the Digital Era

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Abstrak
Penelitian ini bertujuan untuk menganalisis peran mediasi manajemen risiko dalam hubungan antara manajemen keuangan, inklusi keuangan, dan kinerja Usaha Mikro, Kecil, dan Menengah (UMKM) di era digital. Penelitian ini menggunakan data dari 96 UMKM sektor kuliner di Kota Makassar, Indonesia, yang dianalisis dengan metode Partial Least Squares Structural Equation Modeling (PLS-SEM). Hasil penelitian menunjukkan bahwa manajemen keuangan (β = 0,138; p = 0,102) dan inklusi keuangan (β = 0,105; p = 0,355) tidak berpengaruh langsung secara signifikan terhadap kinerja UMKM. Sebaliknya, manajemen risiko berpengaruh positif dan signifikan terhadap kinerja UMKM (β = 0,599; t = 5,430; p < 0,001), serta memediasi secara signifikan hubungan antara manajemen keuangan dan kinerja UMKM (β = 0,137; p = 0,041) maupun hubungan antara inklusi keuangan dan kinerja UMKM (β = 0,314; p < 0,001). Temuan ini menunjukkan bahwa sumber daya keuangan saja belum cukup untuk meningkatkan kinerja organisasi apabila tidak didukung oleh kapabilitas manajemen risiko yang efektif. Secara teoretis, penelitian ini memperluas perspektif Resource-Based View (RBV) dengan menunjukkan bahwa manajemen risiko berperan sebagai kapabilitas strategis yang mentransformasikan manajemen keuangan dan inklusi keuangan menjadi keunggulan yang mampu meningkatkan kinerja UMKM. Secara praktis, hasil penelitian ini memberikan implikasi bagi pelaku UMKM dan pembuat kebijakan dalam merancang strategi penguatan ketahanan usaha dan daya saing UMKM di era digital.

Kata kunci: Manajemen Risiko; Manajemen Keuangan; Inklusi Keuangan; Kinerja UMKM; Makassar.

Abstract
This study investigates the mediating role of risk management in the relationship between financial management, financial inclusion, and the performance of Small and Medium Enterprises (SMEs) in the digital era. Using data collected from 96 culinary SMEs in Makassar City, Indonesia, this study employs Partial Least Squares Structural Equation Modeling (PLS-SEM) to examine the proposed relationships. The findings reveal that financial management (β = 0.138, p = 0.102) and financial inclusion (β = 0.105, p = 0.355) do not have significant direct effects on SME performance. In contrast, risk management exerts a significant positive effect on SME performance (β = 0.599, t = 5.430, p < 0.001) and significantly mediates the relationships between financial management and SME performance (β = 0.137, p = 0.041), as well as financial inclusion and SME performance (β = 0.314, p < 0.001). These findings demonstrate that financial resources alone are insufficient to improve organizational performance unless they are supported by effective risk management capabilities. This study extends the

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Resource-Based View (RBV) by demonstrating that risk management functions as a strategic organizational capability that transforms financial management and financial inclusion into superior SME performance. The findings also provide practical implications for SME owners and policymakers seeking to strengthen business resilience and competitiveness in the digital era.

Keywords: *Risk Management, Financial Management, Financial Inclusion, SME Performance, Makassar.*

1. INTRODUCTION

In recent years, the development of digital technology has created great opportunities for the Small and Medium Enterprises (SMEs) sector to expand market reach, increase operational efficiency, and improve access to financial services (Golda et al., 2024; J. B. Halik & Halik, 2024). However, the main challenges faced by SMEs in this digital era are increasing uncertainty and risk, both from a financial and operational perspective. Effective financial management and good financial inclusion are essential to help SMEs overcome these challenges and improve financial performance. Many SME owners have not realized the importance of risk management in daily business operations. Many SMEs only focus on marketing or production aspects without thinking about long-term risks that can disrupt business sustainability. This can make them less prepared to face unexpected risks such as economic changes or market crises (Yakob et al., 2019). In Indonesia, SMEs play an important role in the national economy, contributing more than 60% to GDP (Gross Domestic Product) in 2024 and absorbing a very large workforce (J. B. Halik et al., 2026; HALIK et al., 2023). This shows the great contribution of SMEs to the Indonesian economy. However, many SMEs encounter problems in accessing formal financial services and lack adequate financial literacy. This has a negative impact on the financial management and financial stability of SMEs themselves. This is where the importance of the role of risk management as an effort to maintain financial stability and sustainability of SME businesses in an environment full of uncertainty (Dvorsky et al., 2021). The empirical fact that the author found in the field is that most SMEs rely on personal funding or informal loans. This makes financial management more vulnerable to risks such as income fluctuations or urgent needs. Without access to formal financial services or knowledge of financial risk management, SMEs can have difficulty managing cash flow or facing difficult financial situations.

Good financial management is the main foundation for every business, including SMEs, to survive and grow in the long term. However, many SMEs have difficulty in managing cash flow, arranging financing, and making strategic financial decisions (Meenakshi & Ranjan, 2024). The challenges in financial management are increasingly complex in the digital era due to the risks of the digital world, rapid changes in government policies, and dependence on technology (Dafri & Al-Qaruty, 2023). In the digital era, financial inclusion has become an important focus because it provides opportunities for SMEs to gain wider access to financial products and services. Financial inclusion includes access to loans, digital payment services, and insurance that can support SMEs in developing their businesses (Damane & Ho, 2024). Although financial inclusion has increased due to massive technological developments, many SMEs are still outside the reach of formal financial services.

Risk management plays an important role in helping SMEs to identify, analyze, and manage risks that can affect financial and operational stability (Ferreira de Araújo Lima et al., 2020). In the context of this study, risk management is expected to be a mediator between financial management and financial inclusion to improve the financial performance of SMEs. With effective risk management, SMEs can reduce risks related to finance, technology, and operations, which ultimately improves their performance (Virglerova et al., 2022).

Although previous studies have demonstrated that financial management and financial inclusion contribute to SME performance, the empirical findings remain inconclusive. Several studies report significant positive effects, whereas others find weak or statistically insignificant relationships, suggesting that financial resources alone may not automatically translate into superior organizational performance. More importantly, prior studies have predominantly examined these relationships as direct effects while paying limited attention to the organizational mechanisms through which financial resources are transformed into business outcomes. Addressing this gap, the present study proposes risk management as a mediating capability grounded in the Resource-Based View (RBV). From the RBV perspective, valuable resources generate competitive advantage only when firms possess the organizational capabilities required to effectively deploy and integrate them. Therefore, this study argues that risk management functions as the strategic capability that enables financial management and financial inclusion to improve SME performance in the digital era.

Despite the generally accepted positive role of financial management and financial inclusion, empirical findings remain inconsistent. Several studies report that financial management significantly improves SME performance, whereas other studies find that its influence is weak or statistically insignificant because SME performance is also shaped by managerial capability, technological adoption, and external environmental conditions. Similar inconsistencies are also reported for financial inclusion, suggesting that access to financial services alone does not necessarily improve organizational performance without complementary organizational capabilities.

This study aims to understand in depth and comprehensively how risk management can act as a "connector" between financial management and financial inclusion, which together affect the performance of SMEs in the digital era. It is hoped that the results of this study will help in formulating precisely how the best risk management strategy is for SMEs, as well as adding insight into the field of research related to how financial management and access to financial services affect SME performance.

In this study, the digital era is not conceptualized as an independent construct but rather as the contextual environment in which culinary SMEs operate. The rapid adoption of digital technologies, online payment systems, digital marketplaces, and technology-driven business processes has substantially increased business uncertainty and operational complexity. Consequently, the digital era provides the contextual background that strengthens the relevance of financial management, financial inclusion, and particularly risk management in supporting SME performance.

2. LITERATURE REVIEW

2.1 Grand Theory: Resource Based View (RBV)

The *Resource-Based View (RBV)* theory is an economic perspective rooted in the functionalist paradigm, emphasizing social stability, order, integration, and the fulfilment of economic and empirical needs within an organization or business (Barney, 1991; Wernerfelt, 1995). This paradigm tends to adopt an objective approach in analysing phenomena. However, since the 20th century, scholars such as Weber, Simmel, and G.H. Mead have shifted away from strict objectivism towards a more subjective interpretive paradigm. Over time, RBV has evolved into the *Resource-Based Theory* and *Growth Firms* concept, which focuses on achieving *sustainable competitive advantage*.

A key contribution of RBV in business studies is its emphasis on how firms can gain and maintain a competitive edge over time. This advantage enables companies to generate *economic rent* or above-average returns by leveraging unique and hard-to-imitate resources (Agus Zainul Arifin, 2020).

In the context of this study, RBV is relevant as it positions risk management as a strategic resource that helps Small and Medium Enterprises (SMEs) identify, analyze, and mitigate risks that may impact their financial performance. By implementing effective risk management, SMEs can enhance their financial management capabilities and access to financial services, ultimately improving overall business performance (Brustbauer, 2014). Additionally, RBV highlights the importance of innovation and adaptability, which are crucial for SMEs to remain competitive in the digital era. Therefore, this relationship suggests that risk management is not only an essential aspect of financial management but also a key element in fostering competitive advantage and optimizing SME performance.

2.2 Financial Management and SMEs performance

Financial management is the act of planning, organizing, controlling, and supervising the financial resources of organizations and individuals (Grozdanovska et al., 2017). Effective financial control is the primary goal of financial management. This is done to ensure that finances are managed in a manner that will help achieve goals and improve economic well-being. To achieve broader goals, financial management includes various actions related to the acquisition, financing, and management of assets. In this context, financial management is not only managing cash flow and making investments, but also involves strategic planning to ensure that the company will remain financially stable in the long term. Financial management seeks to maximize profits, reduce risks, and improve operational efficiency by optimizing financial resources (Ma'ruf Idris, 2024). In addition, the achievement of the company's overall goals and vision can be assisted by smarter decision making through good financial management.

From the Resource-Based View (RBV), financial management represents an internal organizational resource because it enables firms to efficiently allocate, monitor, and control financial assets. Well-developed financial management systems enhance the firm's ability to utilize financial resources strategically, thereby creating value that is difficult for competitors to imitate.

The relationship between financial management and the performance of Small and Medium Enterprises (SMEs) has been the focus of various recent studies. Several studies show that effective financial planning and management plays a significant role in improving the economic performance of SMEs. Research by Al-shami et al. (2024) highlights that digital technology-based financial planning has a significant influence on the economic performance of MSMEs. The results of the study show that financial management and digital financial literacy play an important role in accessing financial inclusion to improve the performance of small batik businesses.

In addition, Suriani et al. (2024) found that SMEs that implement structured and periodic financial planning have better performance compared to SMEs that do not. Financial planning has been shown to play a significant role in increasing financial stability, operational efficiency, and the ability to face market challenges. The results of the study indicate that the optimization of financial management performance and the effectiveness and efficiency of the utilization of business capital impact increasing the productivity of SMEs. Otoo (2024) also emphasized the importance of effective financial management in increasing the profitability of SMEs. This study shows that good financial management, including systematic financial records and mature budget planning, has a significant effect on increasing the profitability of SMEs. Furthermore, research by Meenakshi and Ranjan (2024) revealed that good financial management contributes to reducing business risks. Efficient financial management helps SMEs manage investments in technological innovation, thereby increasing operational efficiency and competitiveness. Overall, recent literature suggests that effective financial management plays a crucial role in improving the performance and profitability of SMEs.

According to the Resource-Based View, financial management constitutes a strategic organizational resource because it enables firms to allocate and utilize financial assets efficiently. Firms with superior financial management capabilities are expected to deploy their financial resources more effectively, thereby improving organizational performance. This theoretical argument is supported by previous empirical studies demonstrating positive relationships between financial management and SME performance.

Based on this, the author proposes the first hypothesis that he wants to test in this study as follows:

H1: It is suspected that Financial Management has a positive and significant influence on SME Performance

2.3 Financial Inclusion and SME Performance

The concept of financial inclusion refers to efforts aimed at ensuring that all individuals, especially those from disadvantaged backgrounds, have access to high-quality financial services, including savings, credit, insurance, and payment solutions (Yoshino & Morgan, 2016). By enabling broader participation in the financial system, financial inclusion seeks to enhance economic well-being, reduce poverty, and promote economic growth (Kumar & Jie, 2023). Additionally, financial inclusion addresses disparities in access to financial services, which often hinder the development of individuals and businesses. A financially inclusive system ensures that countries provide effective access to a variety of financial products and services, including savings, credit, payments, insurance, remittances, and investments, catering to diverse market segments, particularly underserved communities (Morgan et al., 2018).

Financial inclusion expands SMEs' access to valuable external financial resources, including credit, digital payment systems, and financial services. However, access to these resources alone does not automatically improve firm performance unless SMEs possess the organizational capability required to utilize them effectively.

The relationship between financial inclusion and the performance of Small and Medium Enterprises (SMEs) has been the subject of extensive research. Access to formal financial services—such as banking, credit, and insurance—is widely regarded as a key factor driving SME growth and performance. A study by Cahyawati et al. (2023) found that financial inclusion positively and significantly influences MSME performance. Furthermore, the study revealed that financial literacy acts as a partial mediator in this relationship, indicating that a strong understanding of financial principles amplifies the positive impact of financial inclusion on SME performance. Similarly, research by Suárez Mayorga et al. (2024) highlights that financial inclusion significantly contributes to SME growth by facilitating access to financial services that enhance profitability and business expansion.

Additionally, a study conducted by Anthanasius Fomum and Opperman (2023) in Eswatini found that both formal and informal financial inclusion led to increased annual turnover and profitability for micro-enterprises, particularly at the 50th and 75th percentiles. These findings underscore the importance of financial inclusion in fostering business success by enabling SMEs to secure capital, invest in expansion, and manage financial risks more effectively.

Based on these insights from prior studies, the following hypothesis is proposed:

H2: Financial Inclusion is hypothesized to have a significant and positive impact on SME Performance.

2.4 Risk Management and Performance of SMEs

Risk management refers to the process by which organizations systematically identify, assess, and mitigate risks that could hinder their objectives (Monazzam & Crawford, 2024). It plays a crucial role in enabling organizations to take calculated risks while minimizing potential negative impacts (Gunawan, 2024). By implementing appropriate strategies, risk management helps reduce the likelihood of severe disruptions and fosters a proactive approach to handling uncertainties across all levels of an organization.

Within the RBV framework, risk management represents an organizational capability rather than a tangible resource. It enables firms to integrate, coordinate, and deploy financial resources efficiently under conditions of uncertainty. Therefore, risk management becomes the mechanism through which valuable financial resources are transformed into sustainable competitive advantage.

For Small and Medium Enterprises (SMEs), risk management is particularly vital, as these businesses often have limited resources and are more susceptible to market fluctuations, operational challenges, and economic instability. Proper risk management allows SMEs to identify financial, operational, legal, and reputational threats, enabling them to take necessary preventive measures (Yakob et al., 2019). Strengthening SME resilience through effective risk management enhances their ability to navigate uncertainties and maintain competitiveness in a dynamic business environment (Ferreira de Araújo Lima et al., 2020).

The relationship between risk management and SME performance has been a focal point in recent research. Studies indicate that inadequate risk management practices, often due to limited financial literacy among SME owners, can negatively impact business performance and profitability. Research by Buganová et al. (2023) highlights that poor risk identification, assessment, and monitoring contribute to decreased SME competitiveness. Furthermore, Aoun (2024) confirms that businesses implementing robust risk management frameworks experience improved financial stability and long-term sustainability, as they are better equipped to adapt to changing market conditions and capitalize on growth opportunities.

Moreover, Erdiaw-Kwasie et al. (2023) emphasize that modern-day crises introduce new risks that may not be adequately addressed by conventional regulatory frameworks. Therefore, SMEs must adopt a proactive and adaptive approach to risk management to remain resilient in an evolving economic landscape.

Based on these insights, the following hypothesis is proposed:

H3: Risk Management is hypothesized to have a significant impact on SME Performance.

2.5 The Relationship Between Financial Management and Risk Management

The relationship between financial management and risk management is crucial for ensuring business stability and long-term growth. Effective financial management not only involves managing assets and liabilities but also identifying and mitigating risks that could negatively impact a company's financial and overall performance (Megeid, 2024). A study conducted by Abdi and Cheluget (2018) examined the link between risk management practices and the performance of Islamic financial institutions in Kenya. The findings revealed that risk identification, risk assessment, monitoring, evaluation, and mitigation strategies positively and significantly influence business performance. This highlights the importance of integrating financial management with risk management to enhance firm performance and overall value.

Furthermore, financial risk management aims to protect an organization's financial assets and minimize potential losses caused by various uncertainties (Dwi, 2023). This underscores the necessity of embedding risk management strategies into financial decision-making processes to maintain financial stability. Additionally, Glette-Iversen, Flage and Aven (2023) emphasize that risk management and budget planning are interconnected concepts. Forecasting future financial risks is a key aspect of both financial management and risk mitigation, making their integration essential in strategic corporate decision-making.

Overall, recent literature suggests that the integration of financial management and risk management is critical in improving business performance and sustainability. By identifying, analysing, and controlling financial risks, companies can reduce potential losses and ensure steady growth.

Based on these findings, the following hypothesis is proposed:

H4: Financial Management is hypothesized to have a significant and positive influence on Risk Management

2.6 The Relationship between Financial Inclusion and Risk Management

The relationship between financial inclusion and risk management has gained increasing attention in recent research. Financial inclusion refers to broad access to formal financial services, which plays a vital role in helping individuals and businesses manage financial risks effectively. It ensures that people and enterprises can access financial products such as savings, credit, insurance, and money transfer services at an affordable cost, thereby enhancing their economic and social well-being (Mishra et al., 2024).

A study by Mishra *et al.* (2024) found that financial inclusion can have both positive and negative effects on financial system stability. On the positive side, it diversifies banking assets and expands the savings base, which strengthens financial stability. However, a downside exists when financial institutions lower credit standards to accommodate unbanked populations, increasing banks' exposure to credit and reputational risks. Additionally, Kass-Hanna, Lyons and Liu (2022) highlight that access to formal financial services enhances resilience against economic shocks, allowing businesses to engage in better financial planning and risk management.

Furthermore, Madan (2020) emphasizes that financial inclusion significantly supports Small and Medium Enterprises (SMEs) by improving their operational efficiency and enabling them to manage risks more effectively. Access to digital banking services and financial products helps SMEs optimize cash flow management, reduce transaction risks, and secure financial protection through insurance coverage.

Based on these insights, the following hypothesis is proposed:

H5: Financial Inclusion is hypothesized to have a significant impact on Risk Management.

2.7 The mediating role of Risk Management

The relationship between financial management, financial inclusion, and SME performance has been widely examined in previous studies. However, the specific role of risk management as a mediating variable in this relationship has received less attention. Nevertheless, several studies indicate the critical importance of risk management in this context.

Research by Abdallah *et al.* (2024) found that financial literacy positively influences SME performance, with financial inclusion acting as a mediating variable. Although risk management was not explicitly discussed, the findings suggest that understanding and managing financial aspects, including risk, enhances business performance. Similarly, a study by Al-shami *et al.* (2024) examined the effects of financial inclusion and financial literacy on SME performance, demonstrating that both factors significantly influence SME growth, even though the mediating role of risk management was not directly analysed.

Additionally, Hasanudin and Panigfat (2023) discovered that financial literacy and financial inclusion significantly affect MSME capital structure decisions. While risk management was not directly considered as a moderator, the study implies that effective financial management supports SMEs in mitigating financial risks. A case study by Suci *et al.* (2024) on D'Sate MSMEs revealed that implementing risk management had a positive impact on business sustainability. By controlling existing risks, these businesses were able to minimize losses, enhance customer trust, and ultimately improve their market position.

Given the importance of risk management in strengthening financial decision-making and business stability, this study aims to explore its mediating role in the relationship between financial management, financial inclusion, and SME performance.

Based on this rationale, the following hypotheses are proposed:

H6: Risk Management is hypothesized to mediate the relationship between Financial Management and SME Performance in the Digital Era.

H7: Financial Inclusion is hypothesized to influence SME Performance through the mediating role of Risk Management.

Drawing from the explanation provided above, the researcher attempted to illustrate the research model as shown in **Figure 1**.

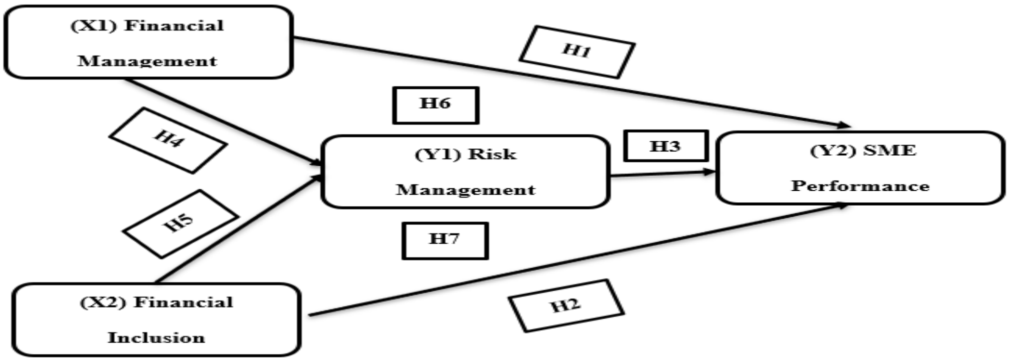

Figure 1. Research Model Framework
Source: Developed by the Author (2025)

3. RESEARCH METHOD

The primary goal of this research is to test the proposed hypotheses and provide insights into the identified issues and objectives. To achieve this, the study adopts a quantitative, exploratory, and causal research approach. The research was conducted in Makassar City, South Sulawesi Province, Indonesia, focusing on small and medium enterprises (SMEs) in the food industry that are registered on GoFood and GrabFood, online food delivery platforms. The study aims to examine the impact of financial management and financial inclusion on SME performance, as well as how their understanding of these financial aspects is influenced by the implementation of risk management. The research period spans from December 2024 until February 2025.

According to Sekaran and Bougie (2017), population determination can be classified into two categories: general population and purposive population. This study employed a purposive sampling approach by selecting SMEs in Makassar City that specifically operate in the culinary sector and utilize digital marketing tools to support their business activities. Data from the Makassar City Cooperatives and SMEs Service in 2019 recorded a total of 13,277 MSMEs, comprising 5,311 household businesses, 4,647 micro and small enterprises, and 3,319 medium-sized businesses (J. B. Halik et al., 2026). However, the exact number of SMEs operating exclusively in the culinary sector remains uncertain. Due to this limitation, the researchers applied the Lemeshow formula to determine the appropriate sample size. The use of the Lemeshow formula is crucial when the population size is unknown or considered infinite (Lemeshow et al., 1990).

$$n = \frac{z^2 \times P(1-P)}{d^2} \quad \text{...1}$$

To calculate the required sample size (n) for this study, the formula is applied with a 95% confidence level, a prevalence of 50% (P = 0.500), and a margin of error of 10% (d = 0.100) as outlined in **Equation 1**.

As a result, the computed sample size is as follows:

$$n = \frac{(1{,}96)^z \times 0{,}5(1-0{,}5)}{(0{,}10)^2} = 96{,}04 \quad \text{...2}$$

So, in this study, researchers collected 96 respondents who were owners or managers of culinary SMEs in Makassar City. The study employed a non-probability sampling approach, specifically purposive sampling, to select respondents (Memon et al., 2025).

Although the sample size was initially determined using the Lemeshow formula, its adequacy for PLS-SEM was further evaluated following the recommendations of Hair et al. (2021). The proposed structural model contains a maximum of three structural paths directed toward a single endogenous construct. Therefore, the sample of 96 SMEs exceeds the minimum sample size recommended for PLS-SEM analysis and provides sufficient statistical power to estimate the proposed structural relationships. Furthermore, the sample size satisfies the statistical power recommendations for detecting medium effect sizes at a significance level of 5%.

The collected data from the questionnaire responses were then processed and analysed using Partial Least Squares (PLS) analysis. This method was chosen as it is well-suited for testing complex path models while effectively handling small sample sizes and high multicollinearity (Hair et al., 2021). Hypothesis testing was conducted using Smart-PLS version 4 software.

3.1 Measurement

All constructs utilized in this study were adapted from previous research. The first independent variable, namely financial management (X1), is measured using four indicators as adapted from previous research by Atmaja and Sinabutar (2022) and Suriani et al. (2024) namely management of funding sources (X1.1), management of financial reports (X1.2), cash management (X1.3) and budgeting (X1.4). Financial Inclusion (X2) is measured using four indicators as adapted from previous research by Anthanasius Fomum and Opperman (2023) and Mishra et al (2024) namely Availability of Access (X2.1), Financial institutions (X2.2), financial products and services according to needs (X2.3) and increasing community welfare (X2.4). Risk Management (Y1) is measured using four indicator items that we selected from the research Huang (2024) also Wiratama and NG (2021), namely financial risk (Y1.1), resource risk (Y1.2), product risk (Y1.3) and marketing risk (Y1.4) To assess the performance of culinary SMEs in Makassar City, this study employs four indicator items adapted from our previous research (J. Halik et al., 2021; HALIK et al., 2023; J. B. Halik et al., 2026; J. B. Halik & Halik, 2024). All measurement items in the questionnaire are evaluated using a 5-point Likert scale, ranging from "strongly disagree" (1) to "strongly agree" (5). A comprehensive overview of the measurement items utilized in this research is presented in **Table 1**.

Table 1. Measurement Item

Construct	Item Code	Items	References
Financial Management (X1)	X1.1	My business has fairly easy access to additional sources of funding if needed.	(Atmaja & Sinabutar, 2022; Suriani et al., 2024)
	X1.2	My business routinely prepares financial reports that include business income and expenses.	

	X1.3	My business has effective cash management to maintain a balance between income and expenses.	
	X1.4	I create a detailed budget to help manage business finances.	
Financial Inclusion (X2)	X2.1	I feel like I have fairly easy access to the financial services available.	(Anthanasius Fomum & Opperman, 2023; Mishra et al., 2024)
	X2.2	My business has good relationships with financial institutions to support financial needs.	
	X2.3	The financial products and services offered to me are in accordance with my business needs	
	X2.4	The existence of financial services also improves the welfare of the community around my business.	
Risk Management (Y1)	Y1.1	My business has the ability to manage financial risks, such as revenue fluctuations or liquidity issues.	(Huang, 2024; Wiratama & NG, 2021)
	Y1.2	I can ensure the availability of resources needed for smooth business operations.	
	Y1.3	I have implemented measures to mitigate risks related to the quality of products manufactured by the business.	
	Y1.4	I have an effective marketing strategy to deal with changing customer needs or preferences.	
SMEs Performance (Y2)	Y2.1	The sales of products offered by SMEs have shown consistent growth annually	(J. Halik et al., 2021; HALIK et al., 2023; J. B. Halik et al., 2026; J. B. Halik & Halik, 2024)
	Y2.2	The capital of the SME has grown since its establishment	
	Y2.3	The number of employees in my business has increased annually	
	Y2.4	The number of consumers purchasing SME products has steadily increased	

***Source**: Adapted from previous literature (2025)*

Questionnaire Development. The original measurement items were translated from English into Bahasa Indonesia using a forward translation procedure to ensure linguistic equivalence. The translated version was reviewed by two researchers with expertise in management and SME research. To ensure content validity, the questionnaire was evaluated by three experts in financial management and SME research. Minor revisions were made to improve wording clarity and contextual suitability.

4. RESULTS AND DISCUSSION

4.1 Participant Characteristics

This study involved 96 respondents who met specific criteria. The participants were owners or managers of SMEs operating in the culinary sector in Makassar City. The demographic distribution of respondents is as follows:

- **Gender Distribution:** A total of 58.3% (56 respondents) were female, while the remaining 41.7% (40 respondents) were male.
- **Business Duration:** Among the 96 sampled business units, 47.9% (46 businesses) had been operating for more than 10 years, 25% (24 businesses) for 6–10 years, 20.8% (20 businesses) for 1–5 years, and the remaining 6.25% (6 businesses) for less than 1 year.
- **Monthly Turnover:** Regarding revenue, 4.2% (4 businesses) had a small monthly turnover, 16.7% (16 businesses) had a medium turnover, and the majority—79.1% (76 businesses)—reported a high monthly turnover.
- **Total Assets:** In terms of asset classification, 6.25% (6 businesses) held small assets, 48.95% (47 businesses) had medium-level assets, and 44.79% (43 businesses) were classified as having large assets.

For a more detailed overview, respondent characteristics are summarized in **Table 2** below.

Table 2. Participant Characteristics (N = 96)

Variable	Frequency	Percentage
Gender		
Male	40	41.70
Female	56	58.30
Length of Business		
More than 10 years	46	47.92
Between 6 – 10 years	24	25.00
Between 1 - 5 years	20	20.83
Under 1 year	6	6.25
Amount turnover / month		
Small	4	4.17
Medium	16	16.67
Large	76	79.16
Total Assets owned		
Small	6	6.25
Medium	47	48.95
Large	43	44.80

Source: *Primary Data Processed (2025)*

Common Method Bias and Collinearity Assessment

Table 3. Collinearity Statistics (VIF)

Structural Relationship	VIF
Financial Inclusion → Risk Management	1.150
Financial Inclusion → SME Performance	1.617
Financial Management → Risk Management	1.150
Financial Management → SME Performance	1.239
Risk Management → SME Performance	1.703

Source: *Primary Data Processed (2025)*

Prior to evaluating the structural model, collinearity diagnostics were conducted to ensure that multicollinearity was not a concern. As presented in Table X, all Variance Inflation Factor (VIF) values ranged from 1.150 to 1.703, which are substantially below the conservative threshold of 3.3 and the commonly accepted threshold of 5.0 (Hair et al., 2021). These results indicate that multicollinearity among the predictor constructs is not problematic, suggesting that the structural model can be estimated without bias arising from excessive collinearity.

Furthermore, the low VIF values provide additional evidence that collinearity is not a serious concern in the proposed model. Nevertheless, common method bias was considered during the research design through the use of previously validated measurement scales and anonymous responses.

4.2 Measurement Model Evaluation

In this study, the validity concept of each indicator was evaluated using two approaches. The factor loading value for each questionnaire item was evaluated using a convergent validity test as the initial technique. Convergent validity is used to assess the validity of a construct. According to the general rule (*rule of thumb*), an indicator is considered valid if its factor loading value is 0.700 or higher. However, factor loading values ranging from 0.500 to 0.600 may still be acceptable when developing new models or indicators (Hair et al., 2019). Since all statement items in **Table 4** exhibit factor loading values exceeding 0.700, it can be concluded that all validity indicators in this study are considered valid.

Table 4. Evaluation of Measurement Models

Construct	Code	Loading Factor	Cronbach's Alpha	CR	AVE
(X1) Financial Management	X1.1	0.889	0.906	0.912	0.780
	X1.2	0.886			
	X1.3	0.927			
	X1.4	0.829			
(X2) Financial Inclusion	X2.1	0.908	0.916	0.925	0.801
	X2.2	0.929			
	X2.3	0.911			
	X2.4	0.828			
(Y1) Risk Management	Y1.1	0.842	0.903	0.908	0.776
	Y1.2	0.855			
	Y1.3	0.930			
	Y1.4	0.894			
(Y2) SMEs Performance	Y2.1	0.863	0.905	0.912	0.778
	Y2.2	0.911			
	Y2.3	0.885			
	Y2.4	0.869			

Source: Primary Data Processed (2025)

The second approach involves calculating the Average Variance Extracted (AVE) for each variable to assess discriminant validity. Discriminant validity is considered adequate if the AVE value of a variable meets or exceeds the threshold of 0.500, as per established criteria (Hair et al., 2019). As presented in **Table 4**, the AVE values for all variables meet this criterion: Financial Management has an AVE of 0.780, Financial Inclusion 0.801, Risk Management 0.776, and SMEs Performance 0.778. These results confirm that each variable demonstrates strong discriminant validity, indicating that they are distinct constructs effectively capturing different dimensions of this study.

Table 5. Discriminant Validity with the Fornell and Larcker Approach

Variable	Financial Management	Financial Inclusion	Risk Management	SMEs Performance
(X1) Financial Management	**0.883**			
(X2) Financial Inclusion	0.361	**0.895**		
(Y1) Risk Management	0.418	0.606	**0.881**	
(Y2) SMEs Performance	0.426	0.518	0.720	**0.882**

***Source**: Primary Data Processed (2025)*

Discriminant validity can also be assessed by comparing the correlation values between latent variables with the square root of the Average Variance Extracted (AVE). According to the Fornell-Larcker Criterion, the square root of the AVE should be greater than the correlation between latent variables to confirm discriminant validity (Fornel & Larcker, 1981). As shown in **Table 5**, the square root of AVE for each variable exceeds the corresponding correlation coefficients between latent variables. This indicates that each construct is distinct and measures different aspects of the study. Consequently, all statement items in the research instrument are considered reliable and appropriate for use as measurement tools.

Subsequently, the Cronbach's alpha values for all variables were calculated, along with a composite reliability test to assess the reliability of the research instrument. An instrument is deemed reliable if both the Cronbach's alpha value and composite reliability meet or exceed the threshold of 0.700 (Hair et al., 2019). As presented in **Table 3**, all research variables surpass this threshold, confirming the robustness of the measurement model. These findings indicate that each variable used in this study demonstrates strong reliability.

4.3 Structural Model Evaluation

Next, the internal model of this study is assessed using the R-square value, which represents the proportion of variance explained in each latent endogenous variable. Evaluating the R-square values allows for a better understanding of how exogenous latent variables influence endogenous variables and whether these effects are statistically significant (Hair et al., 2021). According to established criteria, an R-square value exceeding 0.670 indicates a strong influence, values between 0.330 and 0.670 suggest a mediating influence, and values ranging from 0.190 to 0.330 indicate a weak influence (Hair et al., 2019).

Table 6. R-Square

	R-Square	R-Square Adjusted
(Y1) Risk Management	0.413	0.400
(Y2) SMEs Performance	0.545	0.530

***Source**: Primary Data Processed (2025)*

The Risk Management variable has an R-square value of 0.413, indicating that 41.3% of its variance is explained by the Financial Management and Financial Inclusion

constructs, while the remaining variation is attributed to external factors beyond the scope of this study. Based on the classification by (Hair et al., 2021), where R-square values of 0.670, 0.330, and 0.190 denote strong, moderate, and weak influences, respectively, the influence of Financial Management and Financial Inclusion on Risk Management is considered moderate.
Similarly, the R-square value for SME Performance is 0.545, meaning that 54.5% of its variability is accounted for by Financial Management, Financial Inclusion, and Risk Management, with the rest explained by factors not included in this study. Referring to (Hair et al., 2019), which categorizes R-square values in the same manner, the model's explanatory power for SME Performance is also classified as moderate.

The next step involves calculating the effect size (*F-Square*), which assesses the impact of exogenous latent variables on endogenous latent variables. According to (Hair et al., 2019), an F-square value of 0.020 indicates a small effect, 0.150 represents a moderate effect, and 0.350 signifies a large effect. The results of this analysis are presented in **Table 7**.

Table 7. F-Square Value

Variable	(X1) Financial Management	(X2) Financial Inclusion	(Y1) Risk Management	(Y2) SMEs Performance
(X1) Financial Management			0.078	0.034
(X2) Financial Inclusion			0.406	0.015
(Y1) Risk Management				0.463
(Y2) SMEs Performance				

***Source**: Primary Data Processed (2025)*

From the results above, the following results can be described: The Financial Management variable on Risk Management has an F-square value of 0.078, so its influence is classified as **small/weak**. The Financial Inclusion variable on Risk Management shows an F-square value of 0.406, so its influence is classified as **large/strong**. The Risk Management variable exhibits an F-square value of 0.463 in relation to SME Performance, classifying its influence as large/strong. Meanwhile, the Financial Management variable has an F-square value of 0.034, indicating a small/weak influence on SME Performance. Similarly, the Financial Inclusion variable records an F-square value of 0.015, also suggesting a small/weak effect.

Furthermore, the research model demonstrates strong relevance. The Standardized Root Mean Square Residual (SRMR) value, as presented in **Table 8**, is 0.052, which falls below the recommended threshold of 0.080, confirming a good model fit.

Table 8. Model Fit

	Saturated Model	Estimated Model
SRMR	0.052	0.052
d_ULS	0.370	0.370
d_G	0.319	0.319
Chi-square	177.749	177.749
NFI	0.863	0.863

***Source**: Primary Data Processed (2025)*

Figure 2 below presents the path coefficients for the structural equation model.

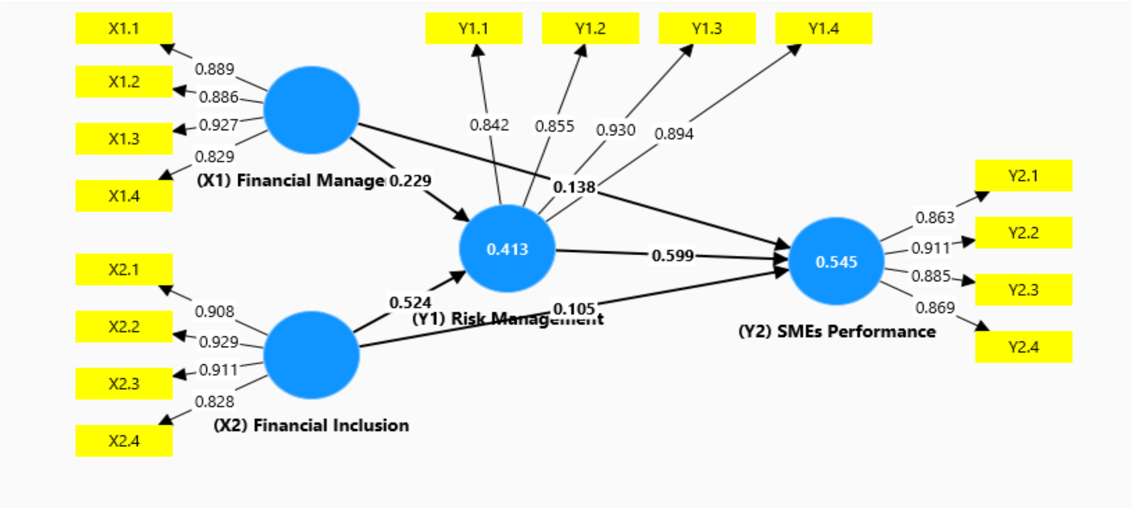

Figure 2. Structural Equation Modeling
Source: Primary Data Processed (2025)

4.4 Hypothesis Testing

Hypothesis testing was conducted using the bootstrapping function in SmartPLS 4 software. In economic and management research, it is widely accepted that the significance level should range between 5% and 10%. A hypothesis is considered supported if the T-statistic exceeds the minimum threshold of 1.960 and the significance level (*P*-value) is equal to or less than 0.050 (Hair et al., 2019). This indicates a significant relationship between exogenous and endogenous variables. Conversely, if the *P*-value exceeds 0.050 and the T-statistic is below 1.960, the relationship between the variables is deemed statistically insignificant, suggesting that the exogenous variable does not have a meaningful effect on the endogenous variable (Hair et al., 2019).

The results of the hypothesis testing are presented in **Table 9** below.

Table 9. Path Coefficient and Hypotheses Testing

Hypothesis	Relation	Original Sample	Mean	SD	T-Statistics	P-Values	Description
H1	FM → SP	0.138	0.142	0.084	1.634	0.102	**Not Supported**
H2	FI → SP	0.105	0.103	0.114	0.924	0.355	**Not Supported**
H3	RM → SP	0.599	0.598	0.110	5.430	0.000	**Supported**
H4	FM → RM	0.229	0.232	0.100	2.298	0.022	**Supported**
H5	FI → RM	0.524	0.527	0.089	5.858	0.000	**Supported**
H6	FM → RM → SP	0.137	0.139	0.067	2.043	0.041	**Supported**
H7	FI → RM → SP	0.314	0.315	0.078	4.008	0.000	**Supported**

Note: FM = Financial Management, FI = Financial Inclusion, RM = Risk Management, SP = SMEs Performance.
Source: Primary Data Processed (2025)

The results presented in **Table 9** indicate that only some of the proposed hypotheses are empirically supported. Financial management was found to have a positive but statistically insignificant effect on SME performance ($\beta = 0.138$, $t = 1.634$, $p = 0.102$). Although the positive coefficient suggests that better financial management may contribute to improved business performance, the effect is not sufficiently strong to reach statistical significance. Consequently, **Hypothesis 1 is not supported**.

Similarly, financial inclusion does not exert a significant direct influence on SME performance ($\beta = 0.105$, $t = 0.924$, $p = 0.355$). This finding indicates that greater access to financial services alone is insufficient to improve the performance of culinary SMEs in Makassar City. Therefore, **Hypothesis 2 is also rejected**.

In contrast, risk management demonstrates a strong and statistically significant positive effect on SME performance ($\beta = 0.599$, $t = 5.430$, $p < 0.001$), providing strong **support for Hypothesis 3**. Among all the independent variables examined, risk management exhibits the largest standardized path coefficient, suggesting that it is the most influential determinant of SME performance. This finding implies that SMEs with more effective risk management practices are better equipped to cope with uncertainty, maintain operational stability, and achieve superior business outcomes.

The analysis further reveals that financial management significantly contributes to the implementation of risk management practices ($\beta = 0.229$, $t = 2.298$, $p = 0.022$), **supporting Hypothesis 4**. This result suggests that sound financial management provides the organizational foundation necessary for identifying, assessing, and mitigating business risks more effectively.

Likewise, financial inclusion has a significant positive effect on risk management ($\beta = 0.524$, $t = 5.858$, $p < 0.001$), providing **support for Hypothesis 5**. The relatively large path coefficient indicates that access to financial products and services enables SMEs to strengthen their capacity to manage financial uncertainty, improve liquidity management, and enhance organizational resilience.

Overall, these findings demonstrate that while financial management and financial inclusion do not directly improve SME performance, both variables play an important role in strengthening risk management capabilities, which, in turn, contribute substantially to improved business performance.

The mediating effect of risk management was examined using the interaction term approach in SmartPLS. The results indicate that risk management significantly mediate the relationship between financial management and SME performance ($\beta = 0.137$, $t = 2.043$, $p = 0.041$), thereby **supporting Hypothesis 6**. This finding suggests that the positive contribution of financial management to SME performance becomes stronger when firms implement effective risk management practices. In other words, financial management yields greater performance benefits when accompanied by the ability to anticipate, evaluate, and mitigate business risks.

Similarly, the interaction between financial inclusion and risk management is found to be positive and statistically significant ($t = 4.008$, $p < 0.001$), providing **support for Hypothesis 7**. This result indicates that risk management strengthens the effectiveness of financial inclusion in improving SME performance. SMEs that have greater access to financial services are more likely to translate these financial resources into superior business outcomes when supported by robust risk management practices.

Taken together, the moderation results reinforce the strategic importance of risk management in the SME sector. Rather than acting merely as an operational control mechanism, risk management serves as an enabling capability that amplifies the benefits of both financial management and financial inclusion. These findings highlight that the successful transformation of financial resources into superior organizational performance depends not only on access to finance and sound financial practices but also on the firm's ability to manage uncertainty effectively.

4.5 Discussion

From the results of direct relationship testing, all previously formulated research hypotheses can be answered well. In addition, this research model effectively explains the important role of several variables on the performance of SMEs in Makassar City, especially those engaged in the culinary sector. Hypothesis analysis shows that financial management does not have a positive and significant effect on the performance of culinary SMEs in Makassar City. Although sound financial management can generate several organizational benefits, particularly by maintaining financial stability through effective cash flow planning, it enables firms to meet their operational obligations, maintain business continuity, and minimize liquidity constraints (Otoo, 2024; Suriani et al., 2024). In addition, efficient management allows funds to be allocated to priority areas, reduces waste, and supports growth opportunities, such as business expansion or investment in innovation (Atmaja & Sinabutar, 2022; Otoo, 2024). With organized finances, businesses are also better prepared to face unexpected risks, increasing credibility in the eyes of customers, partners, and investors (Ma'ruf Idris, 2024). Additionally, well-organized financial data enhances strategic decision-making, positioning financial management as a crucial factor for business sustainability and success (Otoo, 2024; Suriani et al., 2024). However, the findings of this study suggest that financial management does not necessarily lead to improved SME performance in the Digital Era. The insignificant impact of financial management on SME performance in this study may be attributed to several factors.. First, many SMEs do not yet have adequate understanding or skills in managing finances, so that the financial management practices carried out are not optimal and do not have a significant impact on business performance. Second, SME performance in the digital era may be more influenced by other factors, such as technology adoption, marketing strategies, or product innovation, which have a more dominant role than financial management. In addition, the limited availability of accurate and complete financial data can also reduce the effectiveness of financial management. Some SMEs have also not maximized the use of digital financial technology (fintech) to support their financial efficiency. In addition, the impact of financial management is often only seen in the long term, while this study may focus on short-term results. These factors may be the main reasons why the influence of financial management on SME performance is not significant in this study.

Financial inclusion was also found to have no significant positive impact on enhancing the performance of culinary SMEs in Makassar City. While financial inclusion benefits the broader community by providing easier access to financial services—such as savings, loans, and digital payments—its direct effect on SME performance remains inconclusive (Kumar & Jie, 2023; Mishra et al., 2024). In theory, financial inclusion enables SMEs to manage finances more efficiently, support operational activities, and accelerate business growth (Anthanasius Fomum & Opperman, 2023). Additionally, it facilitates easier access to capital, allowing SMEs to innovate, expand their businesses, and enhance the quality of their products and services (Hasanudin & Panigfat, 2023; Suárez Mayorga et al., 2024). However, the findings of this study indicate that these advantages do not necessarily translate into measurable improvements in SME performance.

For the community, financial inclusion helps improve welfare by providing access to financial instruments that enable better financial planning, including investment or insurance (Kumar & Jie, 2023; Mishra et al., 2024). Overall, financial inclusion strengthens the economy by encouraging inclusivity, increasing purchasing power, and opening up opportunities to improve living standards, however, based on the findings of this study, financial management does not necessarily lead to improved SME performance in the Digital Era. The insignificant effect of financial management on SME performance in this study may be attributed to several factors. First, although SMEs have access to financial services, such as loans or digital payments, not all business actors use them optimally to increase productivity or operational efficiency. Second, financial inclusion may not yet be a primary need for some SMEs, especially for small-scale businesses or those that still rely on traditional methods in managing their businesses. In addition, the lack of understanding of the benefits of modern financial services, such as financial technology (fintech), can hinder SMEs from maximizing the potential offered by financial inclusion. On the other hand, SME performance may be more influenced by other factors, such as product innovation, marketing strategy, or technology adoption, so that the influence of financial inclusion becomes less visible. These factors may be the main reasons why the influence of Financial Inclusion on SME performance is not significant in this study.

This study found that the risk management process has a positive and significant impact on enhancing the performance of SMEs in Makassar City. The results of the direct effect analysis indicate that risk management plays a crucial role in the future development of SMEs. The coefficient value is positive, confirming that an improvement in the risk management process is directly associated with an increase in the performance of culinary SMEs in Makassar City.

We summarize some of the important reasons for risk management for the future development of SMEs. SMEs often face risks such as income fluctuations, liquidity problems, and financial instability (Dvorsky et al., 2021; Ferreira de Araújo Lima et al., 2020). With risk management, it helps identify and anticipate these threats so that SMEs can be better prepared to face them. Through a structured approach, SMEs can manage operational risks associated with product quality, changing market preferences, or supply chain disruptions (Buganová et al., 2023). Furthermore, with the implementation of good risk management, SMEs demonstrate professionalism that can increase trust from investors, partners, and customers (Yakob et al., 2019). Consequently, SMEs with mature risk management systems are more capable of responding to regulatory changes, digital transformation, and dynamic market conditions (Monazzam & Crawford, 2024). Amid the rapid digitalization of business activities, technology-related risks, including cyberattacks and system failures, have become increasingly relevant, making effective risk management essential for the safe and efficient adoption of digital technologies (Huang, 2024).

Financial management shows a positive and significant influence on the risk management process carried out by SMEs. The risk management process carried out by SMEs in Makassar city needs to be started by knowing good financial management for their business. This can mean that the better the financial management, such as cash flow management, regular financial records, and effective budget planning, the ability of SMEs to identify, analyze, and manage risks will also increase. This relationship is statistically proven and can be trusted as one of the important factors that influence risk management. With good financial management, SMEs can establish budgets that facilitate the identification and mitigation of financial risks (Otoo, 2024). This planning includes maintaining reserve funds to address emergencies such as income fluctuations or sudden market changes. Moreover, structured budgeting enables SMEs to allocate resources to strategic activities, including risk management initiatives (Ma'ruf Idris, 2024). Accurate financial recording systems provide reliable information for identifying financial risk patterns, such as excessive expenditures or cash flow inconsistencies, thereby enabling timely corrective actions (Megeid, 2024). Efficient cash flow management also ensures the availability of financial resources needed to implement mitigation measures, including insurance coverage and employee training (Otoo, 2024).

Based on the research findings, financial inclusion also has a positive and significant impact on risk management. Improved access to financial services, including banking facilities, formal credit, digital payments, and financial technology (fintech), strengthens SMEs' ability to manage business risks effectively (Damane & Ho, 2024). Adequate financial inclusion enables SMEs to secure financial resources during periods of uncertainty, reduce liquidity risk, and develop more effective risk mitigation strategies (Kass-Hanna et al., 2022). Furthermore, access to digital payment systems and business accounts improves cash flow transparency, allowing SMEs to identify potential financial risks earlier and implement timely responses (Al-shami et al., 2024). Better financial stability also enables SMEs to withstand income fluctuations and rising operational costs, thereby enhancing business resilience (Dafri & Al-Qaruty, 2023).

The sixth hypothesis, which examines the relationship between financial management and SME performance through the risk management process, is supported by the findings of this study. The results indicate that financial management has a positive and significant impact on SME performance in the Digital Era when mediated by risk management. Good financial management can improve the performance of SMEs in the digital era, but the effect occurs through the role of risk management as a mediator. In other words, financial management does not directly improve the performance of SMEs, but rather through improving risk management capabilities first. Based on empirical evidence observed in this study, financial management improves SMEs' ability to manage business risks, including income volatility and liquidity constraints, which subsequently contributes to better business performance (Ferreira de Araújo Lima et al., 2020; Yakob et al., 2019). Effective risk management serves as a critical mechanism through which financial management is translated into improved organizational performance by minimizing operational disruptions and reducing unexpected financial losses (Virglerova et al., 2022).

Finally, to answer hypothesis 7, based on the research results, it was found that financial management has a positive and significant effect on SME Performance in the Digital Era through the risk management mediation process. This means that financial inclusion that provides easy access for SMEs to financial services such as loans, digital payments, or savings, can improve SME performance in the digital era, but its influence occurs through the role of risk management. In other words, Access to financial services enables SMEs to manage business risks more effectively, including liquidity shortages and income fluctuations, while strengthening their operational resilience (Damane & Ho, 2024; Kass-Hanna et al., 2022). SMEs with greater financial inclusion are better positioned to secure working capital, utilize digital payment technologies, and establish financial reserves to cope with unexpected events (Anthanasius Fomum & Opperman, 2023). Consequently, effective risk management enables SMEs to convert financial access into improved operational efficiency and superior business performance.

4.6 Implications

This study offers important theoretical, practical, and policy implications regarding the role of risk management in enhancing SME performance in the digital era.

From a theoretical perspective, this study extends the application of the **Resource-Based View (RBV)** by demonstrating that financial management and financial inclusion alone are insufficient to generate superior SME performance. Instead, these organizational resources create value only when they are effectively transformed into organizational capabilities through risk management. This finding reinforces the RBV argument that sustainable competitive advantage depends not merely on the possession of valuable resources but also on the firm's capability to deploy and integrate those resources effectively in response to environmental uncertainty (Barney, 1991; Kraaijenbrink et al., 2010). Consequently, this study positions risk management as a strategic organizational capability that enables SMEs to convert financial resources into improved business performance.

From a managerial perspective, the findings suggest that SME owners should move beyond viewing financial management solely as an administrative function. Instead, financial planning, budgeting, cash flow management, and financial reporting should be integrated into a comprehensive risk management framework. Such integration enables business owners to identify potential financial and operational risks at an early stage, allocate resources more efficiently, and respond proactively to market uncertainty. Similarly, access to financial services should not merely be used to obtain external funding but should also support the development of organizational resilience through appropriate risk mitigation strategies. SMEs that combine sound financial management, broader financial inclusion, and effective risk management are likely to achieve greater operational stability and long-term business sustainability. SME owners should integrate risk management into routine financial decision-making by conducting periodic cash flow monitoring, identifying operational and financial risks, establishing emergency financial reserves, and utilizing digital financial records to support timely risk identification and mitigation. These practices enable financial management and financial inclusion to generate measurable improvements in business performance.

The findings also generate important policy implications. Government agencies, financial institutions, and SME development organizations should design support programs that integrate financial management training, financial inclusion initiatives, and risk management education rather than implementing these programs separately. Existing government programs frequently emphasize improving access to financing, while comparatively limited attention is given to strengthening SMEs' capabilities in identifying, assessing, and managing business risks. The results of this study indicate that expanding access to finance alone is unlikely to produce substantial improvements in SME performance unless accompanied by stronger risk management capabilities. Financial institutions should complement financing programs with risk management advisory services, financial literacy training, and digital financial management tools. Such integrated support can enhance SMEs' capability to utilize financial resources more effectively, thereby improving the effectiveness of financial inclusion initiatives. Therefore, future SME development policies should incorporate practical risk management training, digital financial management systems, and financial literacy programs that emphasize resilience in an increasingly uncertain business environment. Government agencies should design SME development programs that integrate financial management training with enterprise risk management practices. Local governments may collaborate with financial institutions, universities, and business development centers to provide continuous mentoring, digital bookkeeping assistance, and risk assessment training for SMEs. Such initiatives can strengthen SME resilience and competitiveness in the digital economy.

Finally, this study contributes to the growing body of literature on SMEs in emerging economies by providing empirical evidence from Indonesia's culinary sector. The findings demonstrate that the success of SMEs in the digital era depends not only on financial resources or financial accessibility but also on their ability to manage uncertainty effectively. As digital transformation continues to reshape business environments, risk management should be recognized as a strategic capability that strengthens organizational resilience and enables SMEs to sustain competitive performance over time.

5. CONCLUSION

This study examined the relationships among financial management, financial inclusion, risk management, and SME performance in the digital era by focusing on culinary SMEs in Makassar City, Indonesia. The findings reveal that financial management and financial inclusion do not directly improve SME performance. Although both variables provide important organizational resources that support business operations, their direct contributions to performance are not statistically significant. This finding suggests that access to financial resources and sound financial practices alone are insufficient to create superior organizational outcomes in an increasingly uncertain and technology-driven business environment.

In contrast, risk management emerged as the most influential determinant of SME performance. SMEs with stronger risk management capabilities were better able to anticipate uncertainties, minimize operational disruptions, maintain financial stability, and adapt to changing market conditions. These findings emphasize that risk management is not merely a protective mechanism but a strategic organizational capability that enables SMEs to enhance their resilience and sustain business performance in the digital era.

Furthermore, this study demonstrates that risk management mediates the relationships between financial management, financial inclusion, and SME performance. Effective financial management improves organizational performance only when it strengthens the firm's ability to identify, assess, and mitigate business risks. Similarly, financial inclusion contributes to improved SME performance when access to financial products and services is accompanied by effective risk management practices. These findings highlight that the benefits of financial resources can only be fully realized when they are transformed into organizational capabilities that support strategic decision-making and business continuity.

From a theoretical perspective, this study enriches the Resource-Based View (RBV) by providing empirical evidence that organizational resources, such as financial management capabilities and financial inclusion, do not automatically generate competitive advantage. Instead, these resources must be effectively integrated through risk management capabilities to produce superior organizational performance. Therefore, risk management should be viewed as a strategic capability that enables SMEs to convert valuable financial resources into sustainable competitive advantage.

Overall, this study provides important insights for SME owners, policymakers, and financial institutions by demonstrating that strengthening risk management capabilities should become an integral component of SME development strategies. As digital transformation continues to increase business complexity and uncertainty, SMEs that successfully integrate financial management, financial inclusion, and risk management will be better positioned to achieve long-term resilience, competitiveness, and sustainable growth.

5.1 Research Limitations

Despite providing valuable empirical evidence, this study has several limitations that should be considered when interpreting its findings.

First, this study was conducted exclusively among culinary SMEs operating in Makassar City. Although the culinary sector represents one of the largest contributors to the local economy, the findings may not be fully generalizable to SMEs operating in other industries or geographical regions that experience different business environments, market structures, and competitive dynamics.

Second, this research employed a cross-sectional research design, in which data were collected at a single point in time. Consequently, the study captures only a snapshot of the relationships among financial management, financial inclusion, risk management, and SME performance. Longitudinal changes in organizational capabilities and business performance could not be observed.

Third, the study relied primarily on self-reported data collected from SME owners and managers. Although this approach is commonly adopted in SME research, respondents may unintentionally overestimate or underestimate their financial management practices, risk management capabilities, and business performance, thereby introducing the possibility of common method bias and subjective measurement errors.

Fourth, the proposed research model explains a mediating proportion of the variance in SME performance, indicating that other important determinants remain outside the scope of this study. Factors such as entrepreneurial orientation, digital capability, innovation capability, market orientation, government support, business networks, organizational learning, and environmental uncertainty may also influence SME performance and deserve further investigation.

Finally, this study focuses on the mediating role of risk management without considering potential mediating variables that may strengthen or weaken the observed relationships. Therefore, the findings should be interpreted within the boundaries of the proposed research model.

5.2 Recommendations for Future Research

Building upon these limitations, several directions for future research can be proposed.

First, future studies should extend the research to SMEs operating in different sectors, such as manufacturing, creative industries, agriculture, tourism, and service businesses, as well as to other provinces or countries. Comparative studies across industries and regions would provide a broader understanding of how contextual factors influence the relationships identified in this research.

Second, future research is encouraged to adopt longitudinal research designs to examine how financial management, financial inclusion, and risk management evolve over time and contribute to sustainable SME performance. Such an approach would provide stronger evidence regarding causal relationships than cross-sectional analysis.

Third, future studies should incorporate additional organizational capabilities and environmental variables into the research framework. Variables such as digital transformation capability, innovation capability, entrepreneurial orientation, financial literacy, organizational resilience, artificial intelligence adoption, cybersecurity readiness, and government policy support may provide a more comprehensive explanation of SME performance in the digital economy.

Fourth, future researchers may employ more advanced analytical approaches, including multi-group analysis (MGA), Importance-Performance Map Analysis (IPMA), or longitudinal PLS-SEM, to investigate whether the structural relationships differ across firm size, business age, owner characteristics, or levels of digital adoption.

Finally, future studies are encouraged to integrate the Resource-Based View (RBV) with complementary theoretical perspectives, such as Dynamic Capability Theory, Organizational Resilience Theory, or the Technology-Organization-Environment (TOE) Framework. Such theoretical integration would provide a richer explanation of how SMEs develop organizational capabilities that enable them to remain competitive and resilient amid rapid technological change and increasing environmental uncertainty.

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