



Increasing the Profitability of Pottery MSMEs through Financial Efficiency and Production Optimization in Tabanan Regency

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Abstract: This study aims to analyze strategies for increasing the profitability of pottery Micro, Small, and Medium Enterprises (MSMEs) through financial efficiency and production process optimization in Tabanan Regency, Bali. The research employed a mixed-method approach combining qualitative and quantitative analysis through literature review, secondary data analysis, and case studies involving selected pottery MSMEs. Data were obtained from financial records, production reports, and interviews with business owners, and were analyzed using comparative descriptive analysis to assess conditions before and after the implementation of efficiency strategies. The findings indicate that the implementation of structured financial management, including cash flow planning and raw material inventory control, reduced operational costs by approximately 20%. Meanwhile, production optimization through process standardization and the adoption of simple technologies, such as controlled firing systems, increased daily production capacity by up to 30% and reduced defect rates. Furthermore, product diversification and digital marketing strategies expanded market reach and improved revenue stability. This study highlights the importance of integrating financial efficiency, production optimization, innovation, and risk management to support sustainable growth and enhance the competitiveness of pottery MSMEs.

Introduction

Micro, Small, and Medium Enterprises (MSMEs) play a strategic role in national economic development, particularly in job creation, income distribution, and community welfare improvement. In Indonesia, MSMEs also contribute significantly to preserving local culture and traditional industries. One sector with strong economic and cultural potential is the pottery industry, which combines artistic value, local wisdom, and market demand from tourism and creative industries. Despite this potential, pottery-based MSMEs continue to face structural and managerial challenges that limit their ability to achieve sustainable profitability in an increasingly competitive and dynamic economic environment (Utama et al., 2024; Sehnem et al., 2020).

One of the most prominent challenges faced by pottery MSMEs is inefficient financial management. Many small-scale artisans still lack structured financial recording systems, frequently mix personal and business finances, and do not apply proper cost planning or working capital management. As a result, business owners experience difficulties in identifying actual production costs, setting competitive prices, and accurately measuring business performance. Poor cash flow management often leads to liquidity constraints, which hinder the ability of MSMEs to expand production or invest in efficiency-enhancing technologies (Brigham & Houston, 2013; Srbinoska et al., 2023).

In addition to financial issues, suboptimal production processes further constrain profitability. Pottery MSMEs largely rely on traditional and manual production techniques, resulting in low productivity, long production cycles, and inconsistent product quality. Inefficient raw material usage, limited adoption of simple production technologies, and inadequate labor and time management increase operational costs and product defect rates. These inefficiencies reduce competitiveness, particularly when pottery products compete with mass-produced or

imported alternatives (Render et al., 2017; Kaligis, 2023).

Several studies have emphasized the importance of financial efficiency and production optimization as key drivers of MSME performance. Financial efficiency enables business actors to allocate capital more effectively, control costs, and maintain healthier cash flows, while production optimization improves productivity and quality without necessarily increasing costs. However, most existing studies focus on MSMEs in general or manufacturing sectors broadly, with limited empirical attention given to traditional craft-based MSMEs, particularly pottery enterprises at the local or regional level (Gupta & Barua, 2016; Güldenpfennig et al., 2021).

Furthermore, prior research often examines financial management or production efficiency in isolation, without sufficiently exploring the integrated relationship between these two dimensions and their combined impact on profitability. Studies that do address integration tend to rely on large-scale industrial contexts, making their findings less applicable to small, resource-constrained pottery MSMEs that operate with traditional production systems and limited access to capital and technology (Xu et al., 2023; Olson et al., 2021).

Based on these limitations, there remains a clear research gap concerning how financial efficiency and production optimization can be simultaneously implemented and synergized to enhance the profitability and sustainability of pottery MSMEs, particularly within a localized context. Therefore, this study seeks to address this gap by analyzing the role of financial efficiency and production optimization in improving the profitability of pottery MSMEs in Tabanan Regency. By focusing on practical implementation and empirical evidence from traditional pottery enterprises, this research aims to contribute both theoretically and practically to the development of sustainable MSME management strategies in the creative and cultural industry sector.

Profitability of MSMEs

Profitability is a key indicator of business performance that reflects a firm's ability to generate profits from its operational activities and resource utilization. For MSMEs, profitability is not only essential for business survival but also for supporting long-term growth and resilience in competitive markets. Previous studies emphasize that MSME profitability is strongly influenced by internal managerial capabilities, cost structures, and efficiency in resource allocation (Brigham & Houston, 2013).

Recent empirical evidence suggests that MSMEs with structured financial management systems tend to achieve higher profit margins and better financial stability compared to those relying on informal practices. Utama et al. (2024) found that MSME growth and profitability in Indonesia are significantly driven by managerial intentionality, financial discipline, and operational efficiency, highlighting the importance of integrated business management strategies.

Financial Efficiency in MSMEs

Financial efficiency refers to the ability of a business to manage its financial resources effectively to minimize costs and maximize returns. In the context of MSMEs, financial efficiency includes proper budgeting, cash flow management, cost control, and separation of personal and business finances. Several studies have identified poor financial literacy and informal financial practices as major barriers to MSME profitability (Srbinoska et al., 2023).

Gupta and Barua (2016) emphasize that financial efficiency enables MSMEs to allocate limited capital more strategically, which is critical for adopting innovation and improving competitiveness. Moreover, effective financial planning allows MSMEs to anticipate risks, stabilize cash flows, and invest in productivity-enhancing initiatives, thereby strengthening business sustainability.

Production Optimization and Operational Efficiency

Production optimization involves improving production processes to increase efficiency, reduce waste, and enhance product quality without significantly increasing costs. For traditional craft-based MSMEs such as pottery enterprises, production optimization often focuses on process standardization, simple technology adoption, and better labor management. Render et al. (2017) argue that even small-scale improvements in production flow and quality control can significantly reduce defect rates and operational costs.

Empirical studies show that MSMEs adopting structured production management practices experience improvements in productivity and consistency. Gldenpfennig et al. (2021) found that production efficiency improvements positively affect financial performance when supported by appropriate management controls. Similarly, Kaligis (2023) highlights that technology adoption in traditional pottery MSMEs enhances production capacity and reduces losses caused by product defects.

Integration of Financial Efficiency and Production Optimization

While financial efficiency and production optimization are often studied separately, recent literature emphasizes the importance of integrating both aspects to improve MSME performance holistically. Financial efficiency provides the foundation for investment in production improvements, while optimized production processes contribute to lower costs and higher profit margins (Xu et al., 2023).

Xu et al. (2023) demonstrate that integrated management approaches combining financial control and operational optimization significantly enhance MSME performance. However, most studies focus on manufacturing MSMEs in general and pay limited attention to traditional craft-based sectors such as pottery, where production processes are heavily influenced by cultural practices and manual skills.

Research Gap and Conceptual Positioning

Based on the reviewed literature, it is evident that financial efficiency and production optimization play crucial roles in improving MSME profitability. However, existing studies present several limitations. First, empirical research focusing specifically on pottery MSMEs remains limited, particularly in the Indonesian context. Second, most prior studies analyze financial management or production efficiency independently, without examining their synergistic effects on profitability and sustainability. Third, research that integrates financial efficiency, production optimization, and innovation within traditional craft industries is still scarce (Sehnem et al., 2020).

Therefore, this study addresses these gaps by examining the integrated role of financial efficiency and production optimization in enhancing the profitability of pottery MSMEs in Tabanan Regency. By focusing on a traditional craft-based industry at the local level, this research contributes to both theoretical development and practical policy recommendations for sustainable MSME management.

Research Methods

This study employed a mixed-methods approach, integrating qualitative and quantitative techniques to obtain a comprehensive analysis of strategies for improving the profitability of pottery Micro, Small, and Medium Enterprises (MSMEs). The research design combined a literature review, secondary data analysis, and case study methods to ensure both theoretical depth and empirical relevance.

The literature review was conducted to examine and synthesize relevant theories and empirical findings related to financial management efficiency, production process optimization, and risk management in MSMEs. This stage provided a conceptual foundation for identifying key variables and analytical indicators used in the study.

Secondary data were collected from financial statements, production records, and survey documentation of pottery MSMEs. These data were analyzed to identify core operational and financial issues, including the predominance of traditional production methods, high operational costs, inefficient resource utilization, and fluctuating market demand. Quantitative analysis focused on key performance indicators such as production costs, production volume, and profitability trends.

In addition, this research incorporated case studies of selected pottery MSMEs to examine the practical implementation of financial efficiency and production optimization strategies. A comparative descriptive analysis was applied by comparing business performance conditions before and after the adoption of improvement measures, including the use of simple production technologies, product diversification initiatives, and the application of digital marketing strategies.

This methodological integration enabled the study to assess changes in profitability, income stability, and business competitiveness in a structured manner. By combining qualitative insights with quantitative performance indicators, the research provides a comprehensive understanding of the challenges faced by pottery MSMEs and proposes practical, evidence-based solutions that support business sustainability and enhance their economic contribution.

Result and Discussion

Profitability Challenges in Pottery MSMEs

The findings indicate that the profitability of pottery MSMEs remains relatively low despite their strong cultural and economic potential. This condition is primarily driven by structural and operational constraints that limit efficiency and value creation. Similar findings have been reported in previous studies, which emphasize that traditional craft-based MSMEs

often face difficulties in translating cultural value into sustainable financial performance (Sehnem et al., 2020).

One major challenge identified is inefficient financial management. Many pottery MSMEs lack structured financial recording systems, resulting in difficulties in identifying actual production costs and setting competitive prices. Poor cash flow and working capital management reduce liquidity and constrain investment in productivity-enhancing technologies. This result is consistent with Srbinoska et al. (2023), who found that inadequate budgeting and financial planning significantly weaken MSME profitability and resilience.

In addition, traditional production processes continue to hinder productivity. Heavy reliance on manual techniques leads to longer production cycles, higher defect rates, and inconsistent product quality. Limited access to modern or semi-modern production technologies further increases operational costs and reduces competitiveness, particularly when competing with mass-produced goods. This finding aligns with Render et al. (2017), who argue that inefficient production systems directly erode profit margins in small-scale manufacturing.

Market-related challenges also play a critical role. Fluctuating demand, changing consumer preferences, and limited product variety reduce the adaptability of pottery MSMEs. Dependence on local markets and tourism exposes businesses to demand volatility, increasing revenue instability. Olson et al. (2021) highlight that MSMEs that fail to adopt digital marketing strategies remain trapped in narrow markets with weak bargaining positions.

Financial Efficiency and Its Impact on Profitability

The implementation of financial efficiency strategies produced measurable improvements in business performance. Improved budgeting practices and the separation of personal and business finances enhanced capital utilization and stabilized cash flow. These changes enabled MSMEs

to allocate working capital more strategically, particularly for raw material procurement during peak demand periods.

Cost control measures, especially in fuel consumption during the firing process, significantly reduced operational expenses. The partial adoption of more efficient kilns and centralized firing schedules lowered energy costs and reduced product damage. These findings support the argument of Brigham and Houston (2013), who emphasize that effective cost management is a fundamental driver of profitability in small enterprises.

Improved financial record-keeping also enabled MSMEs to calculate unit production costs more accurately and set prices that reflect both costs and market conditions. As a result, profit margins increased despite relatively stable production volumes. Similar outcomes were observed by Gupta and Barua (2016), who found that financial efficiency enhances MSMEs' ability to invest in innovation and operational improvements.

Production Optimization and Operational Performance

Production optimization yielded significant improvements in quality consistency, defect reduction, and production time efficiency. Standardizing production parameters—such as material thickness, drying duration, and firing temperature—reduced variability and minimized losses caused by cracking and deformation.

Skill enhancement initiatives improved labor productivity and reduced error rates during shaping and finishing processes. Furthermore, reorganizing production flow and firing schedules increased kiln utilization efficiency and reduced energy waste. These findings are consistent with Gldenpfennig et al (2021), who demonstrate that structured production control systems positively influence operational efficiency and financial outcomes.

Quality control at each production stage further reduced defect rates and improved customer satisfaction. Improved product quality enabled MSMEs to meet larger orders without compromising standards, contributing to revenue growth and stronger market positioning.

Synergy Between Financial Efficiency and Production Optimization

The results confirm a strong synergy between financial efficiency and production optimization. Efficient financial management provided the resources and flexibility needed to implement production improvements, while optimized production processes reduced costs and strengthened financial performance. This reciprocal relationship created a virtuous cycle of efficiency and profitability.

These findings reinforce the integrated management perspective proposed by Xu et al (2023), which emphasizes that MSME performance improves significantly when financial control and operational optimization are implemented simultaneously rather than independently.

Product Innovation, Marketing Strategy, and Risk Mitigation

Product innovation and digital marketing played a crucial role in expanding market reach and stabilizing income. MSMEs that diversified products and adopted online marketing platforms accessed broader markets and achieved higher margins than those relying solely on conventional sales channels. This finding aligns with Kotler et al. (2016), who highlight innovation and market orientation as key drivers of competitive advantage.

Risk mitigation strategies—such as product diversification, financial reserves, and improved cash flow management—enhanced business resilience. These practices reduced vulnerability to demand fluctuations and raw material price volatility, supporting long-term sustainability (Culp, 2001).

Conclusion

This study demonstrates that improving the profitability of pottery MSMEs requires an integrated approach combining financial efficiency, production optimization, product innovation, marketing strategies, and risk management. Financial efficiency enhances capital utilization and cost control, providing a solid foundation for operational improvements. Production optimization improves productivity, quality consistency, and cost efficiency, directly contributing to higher profit margins.

Furthermore, product innovation and digital marketing expand market access and increase revenue stability, while risk mitigation strategies strengthen business resilience in uncertain economic environments. The synergy among these dimensions creates a sustainable growth cycle that enhances competitiveness and long-term viability.

Despite its contributions, this study is limited by its localized scope and reliance on descriptive comparative analysis. Future research is recommended to employ larger samples, longitudinal data, and quantitative modeling techniques to further validate the relationships identified in this study.

Overall, this research provides both theoretical insights and practical guidance for policymakers and MSME practitioners seeking to strengthen the sustainability and economic contribution of traditional craft-based enterprises.

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