

Excel Optimization for Financial Resilience in Pre-Order SMEs: A Case Study of Digital Accounting Adaptation in Indonesia

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ABSTRACT

This study examines the impact of strategically customized digital accounting tools on financial management and asset utilization within small and medium-sized enterprises (SMEs), with a specific focus on accessible software like Microsoft Excel. Using an Indonesian convection SME operating on a pre-order model as a case study, a mixed-methods approach was employed. Financial data from 2023 and 2024 were analyzed through comparative horizontal analysis, common-size vertical analysis, and key financial ratios. The findings reveal a significant financial turnaround following the optimization of an Excel-based system, marked by an 83.17% revenue increase, a 1190.08% surge in gross profit, and a shift from a net loss to a 16.40% net profit margin. These improvements are primarily attributed to enhanced cost control and superior data structuring enabled by the tailored system. The research concludes that the strategic adaptation of readily available digital tools, prioritizing flexibility over sophistication, can substantially bolster financial resilience and operational efficiency for SMEs with niche business models amidst digital transformation.

INTRODUCTION

Small and Medium-sized Enterprises (SMEs) serve as the economic backbone in emerging markets such as Indonesia, making significant contributions to GDP and employment (OECD, 2022). Despite their importance, many SMEs struggle with financial management and asset optimization, often relying on manual accounting methods that lead to errors and delayed decisions (Susanto & Wijaya, 2023). While digital solutions—including cloud-based and AI-driven accounting tools—promise efficiency and real-time insights, adoption remains limited among SMEs with unique operational structures, such as those using pre-order models (Budiarto & Siregar, 2024). Current literature often emphasizes sophisticated accounting software, creating a gap in understanding how simpler, accessible tools like Microsoft Excel can be strategically deployed in niche SME contexts. This study addresses that gap by examining the experience of Antara Konveksi, an Indonesian convection SME that optimized its Excel-based accounting system. The findings highlight notable financial improvements and offer practical insights into how adaptable digital tools can enhance operational resilience without requiring advanced technology.

LITERATURE REVIEW

Digital Transformation in Accounting

The accounting field is undergoing significant digital change, driven by advances in cloud computing, automation, and artificial intelligence (Vasarhelyi et al., 2022). These technologies do more than automate tasks they improve forecasting precision and support real-time strategic decisions (Moll & Yigitbasioglu, 2022). This evolution demands greater technical fluency among accounting professionals and represents a key trend in contemporary accounting research (Knudsen, 2022).

SME Adoption and Performance Implications

Research on SME adoption of digital accounting tools often draws on frameworks like the Technology Acceptance Model (Venkatesh & Davis, 2000). Evidence suggests that effective implementation of these tools correlates with improved financial efficiency and profitability (Hendrawan & Prabowo, 2023). However, achieving these benefits depends heavily on how well the technology aligns with the firm's specific operational context (Granlund & Malmi, 2023).

Managerial Accounting and Asset Optimization

Managerial accounting techniques play a vital role in SME sustainability. Digital tools offer timely and accurate financial data, which supports cost control, budgeting, and resource planning (Tayles et al., 2023). Yet, many SMEs particularly those with non-standard business models find that generic software lacks the flexibility needed for their workflows (Caglio, 2022). This points to a research gap concerning the strategic use of customizable platforms like spreadsheets in specialized SME settings (Bhimani & Willcocks, 2023).

METHODOLOGY

This study adopts a mixed-methods design, integrating quantitative financial analysis with qualitative insights to ensure a comprehensive

investigation (Creswell & Clark, 2018). The single-case study approach was selected for its ability to provide rich, contextual understanding of the phenomenon under review (Yin, 2018).

Research Subject

The research focuses on Antara Konveksi, an Indonesian SME in the convection industry. The firm was chosen due to its distinctive pre-order model, its transition from manual to digital accounting, and its willingness to share detailed operational and financial data

Data Collection

Two primary data sources were utilized:

1. Documentary Analysis: Historical income statements and balance sheets for the period 2023–2024.
2. Semi-structured Interviews: Conversations with the owner-manager and head of accounting, exploring tool selection, implementation challenges, perceived benefits, and the system’s impact on daily operations and strategy.

Data Analysis Techniques

Financial data were examined using three established methods:

- Comparative (Horizontal) Analysis: To identify absolute and percentage changes in key financial items between 2023 and 2024 (White et al., 2020).
- Common-Size (Vertical) Analysis: To express each income statement item as a percentage of revenue, enabling structural comparison across periods (Robinson et al., 2022).
- Financial Ratio Analysis: To compute Net Profit Margin (NPM) and Gross Profit Margin (GPM), with results benchmarked against industry standards (Palepu et al., 2020).

RESULTS AND DISCUSSION

Rationale for Tool Selection and Adaptation

Antara Konveksi initially chose Microsoft Excel for its flexibility, affordability, and compatibility with staff skills. After experiencing unsatisfactory results with rigid commercial software, the firm returned to Excel, developing customized templates and formulas that aligned with its pre-order workflow. This tailored approach significantly improved data accuracy and operational efficiency.

Comparative Financial Performance

As shown in Table 1, the firm’s financial performance improved markedly from 2023 to 2024.

Table 1. Comparative Financial Analysis (2023 vs. 2024)

Indicator	2023 (IDR)	2024 (IDR)	Absolute Change (IDR)	Percentage Change (%)
Revenue	919,702,264	1,684,664,000	+764,961,736	+83.17

Indicator	2023 (IDR)	2024 (IDR)	Absolute Change (IDR)	Percentage Change (%)
Cost of Revenue	861,249,049	930,567,761	+69,318,712	+8.05
Gross Profit	58,453,215	754,095,937	+695,642,722	+1190.08
Operating Expenses	229,228,396	477,782,242	+248,553,846	+108.43
Net Profit/(Loss)	(170,775,181)	276,313,695	+447,088,876	+261.80

Source: Processed Financial Statements of Antara Konveksi (2024)

Common-Size (Vertical) Analysis

Table 2 illustrates a pronounced shift in the cost structure, with the proportion of costs of revenue falling and the proportion of gross profit rising substantially.

Table 2. Common-Size Analysis of Income Statement (2023 vs. 2024)

Indicator	2023 (% of Revenue)	2024 (% of Revenue)
Revenue	100.00	100.00
Cost of Revenue	93.64	55.24
Gross Profit	6.36	44.76
Operating Expenses	24.92	28.36
Net Profit/(Loss)	-18.57	16.40

Source: Processed Financial Statements of Antara Konveksi (2024)

Financial Ratio Analysis

Profitability ratios improved significantly, exceeding typical industry benchmarks by the end of the study period (Table 3).

Table 3. Key Profitability Ratios (2023 vs. 2024)

Ratio	2023	2024	Approximate Industry Benchmark
Gross Profit Margin (GPM)	6.36%	44.76%	30%
Net Profit Margin (NPM)	-18.57%	16.40%	5-10%

Source: Processed Financial Statements of Antara Konveksi (2024)

The case of Antara Konveksi challenges the assumption that financial digitalization in SMEs requires costly, advanced software. The dramatic profitability turnaround, especially the drop in cost of revenue from 93.64% to 55.24% of total revenue, was achieved through a thoughtfully customized Excel system. This underscores that for SMEs with niche models, flexibility and adaptability often outweigh technological sophistication (Rikhardsson & Yigitbasioglu, 2022).

The firm's experience also highlights a common shortcoming of generic accounting software: its inability to accommodate unique business workflows (Caglio, 2022). The optimized Excel setup provided clearer cost visibility, enabling more agile pricing and resource decisions—core elements of managerial accounting effectiveness (Tayles et al., 2023; Scapens, 2022).

Achieving profit margins above industry standards indicates not only recovery but also the establishment of a resilient financial structure capable of supporting sustained growth (Hendrawan & Prabowo, 2023). This study thus adds to the literature by demonstrating that strategic optimization of accessible tools can deliver performance gains comparable to those associated with more complex systems (Bhimani & Willcocks, 2023). It also reinforces the importance of human skill in leveraging digital tools a reminder that technology alone is not a panacea (Warren et al., 2022).

CONCLUSIONS AND RECOMMENDATIONS

This case study demonstrates that a strategically customized Microsoft Excel system can meaningfully improve financial management, cost control, and profitability for SMEs with specialized business models. Key takeaways include:

1. Flexibility and customizability are often more critical for niche SMEs than advanced software features.
 2. Tailored digital tools can directly drive substantial financial improvement.
 3. Structured data systems enable informed decision-making, addressing a traditional weakness in SME management.
 4. Off-the-shelf accounting software frequently fails to meet the needs of non-standard business operations.
- For SME Practitioners: Prioritize adaptability when choosing accounting tools. Invest in customizing platforms like Excel and provide staff with relevant training. Regularly review financial data to guide strategic adjustments.
 - For Policymakers and Support Organizations: Develop training programs that focus on practical, customizable digital accounting methods. Promote accessible, scalable, and modular software solutions suited to diverse SME sectors.
 - For Software Developers: Design accounting systems with enhanced customizability and intuitive interfaces. Offer modular features and

industry-specific templates to reduce adoption barriers for SMEs with unique models.

FURTHER STUDY

As a single-case study, these findings are context-specific and not broadly generalizable. Future research could involve multiple SMEs across different industries and regions. Comparative studies examining transitions from Excel to integrated cloud-based systems would shed light on scalability and cost-benefit trade-offs. Additionally, exploring behavioral factors such as leadership influence and resistance to change could enrich our understanding of digital adoption dynamics in SMEs.

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