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The Financial Sustainability of Small and Medium-Scale Pharmacy Businesses in Naga City

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Abstract

This study determined the financial sustainability of small and medium-scale pharmacy businesses in Naga City, Camarines Sur, Philippines, during Fiscal Year 2025. Specifically, it examined the business profile of pharmacies, the extent of financial sustainability practices in terms of investment and planning, understanding customer needs, cost optimization, managing revenue and expenses, and inventory management, as well as the challenges affecting sustainability. The study employed a descriptive-evaluative-inferential research design involving 197 respondents composed of pharmacy owners, managers, pharmacists, cashiers, and accounting staff from small and medium-scale pharmacy businesses. Data were collected using a validated survey questionnaire and analyzed through frequency count, percentage, weighted mean, rank order, and the Wilcoxon Mann-Whitney U-Test. Findings revealed that most pharmacies operated as sole proprietorships, had been in operation for 1–10 years, employed 1–9 personnel, and generated average monthly incomes ranging from ₱100,001 to ₱500,000. Financial sustainability practices were generally much evident across all dimensions, including investment and planning, understanding customer needs, cost optimization, managing revenue and expenses, and inventory management, with cost optimization, receiving the highest rating. The study also found that pharmacies experienced challenges related to rising drug costs, supply chain disruptions, staffing shortages, increasing operational expenses, and compliance with regulatory requirements. Significant differences were observed in the rank orders of financial sustainability practices and challenges between small and medium-scale pharmacies, indicating that business scale influences sustainability capacity and responses to operational pressures. The study concludes that strengthening financial planning, operational efficiency, inventory control, and regulatory compliance is essential for enhancing long-term sustainability among community pharmacies. The study supports Sustainable Development Goal (SDG) 3 on Good Health and Well-Being and SDG 8 on Decent Work and Economic Growth by promoting sustainable pharmaceutical services and strengthening local enterprises. Its sustainability contribution lies in supporting public health access, economic resilience, and the long-term viability of community pharmacy businesses.

Keywords: Community Pharmacy; Financial Sustainability; Inventory Management; Pharmacy Management; Regulatory Compliance; Small and Medium Enterprises; Supply Chain Disruptions

1. Introduction

Community pharmacies serve as essential healthcare providers by ensuring access to medicines, pharmaceutical services, and health information, particularly in communities where healthcare facilities are limited (Al-Worafi et al., 2024; Leal et al., 2025; Hedima et al., 2025). In the Philippines, small and medium-scale pharmacy businesses contribute significantly to healthcare delivery, employment generation, and local economic development while operating within regulatory frameworks that promote safe and affordable access to medicines (Abad et al., 2025; Alenezi et al., 2023; Widjaja et al., 2025). However, increasing operational pressures, regulatory requirements, and market uncertainties have intensified concerns regarding the long-term financial sustainability of community pharmacies.

1.1 Background of the Study

Small and medium-scale pharmacy businesses play a crucial role in ensuring continuous access to prescription medicines, over-the-counter drugs, and pharmaceutical services. Their contribution extends beyond healthcare by supporting entrepreneurship and economic activity within local communities (Abad et al., 2025; Widjaja et al., 2025). The operation of pharmacies in the Philippines is guided by Republic Act No. 10918 and Republic Act No. 9502, which promote professional pharmacy practice, consumer protection, and access to affordable medicines. While these policies strengthen healthcare delivery, they also require pharmacy businesses to maintain financial stability, operational efficiency, and regulatory compliance. Despite their importance, community pharmacies continue to face challenges associated with rising drug costs, supply chain disruptions, staffing shortages, increasing operational expenses, and compliance requirements (Salako et al., 2017; Shukar et al., 2021; Iyengar et al., 2023; Rosenberg et al., 2024). These challenges may threaten business continuity and affect the ability of pharmacies to sustain quality services and profitability.

1.2 Themes and Insights from Related Literature

The literature highlights financial sustainability as a critical factor influencing the long-term viability of pharmacy businesses. Sustainable financial management enables organizations to allocate resources effectively, manage risks, maintain adequate inventory levels, and respond to changing market conditions (Rosenberg et al., 2024; Nkwinika & Akinola, 2023). Research emphasizes the importance of investment and planning, customer-focused strategies, cost optimization, revenue management, and inventory control in sustaining business operations. Effective inventory management reduces shortages and wastage while improving operational efficiency (Dewi et al., 2019; Jobira et al., 2022; Soliveres et al., 2024; Sukasih & Firdiansjah, 2020). Likewise, financial planning and cost management contribute to organizational resilience and profitability among small and medium enterprises (Anoos, 2020; Bakhtiari et al., 2020; Martins et al., 2022; Rago et al., 2023). Studies also identify several barriers to sustainability, including drug shortages, rising pharmaceutical costs, supply chain disruptions, workforce limitations, and increasing regulatory demands (Kho et al., 2017; Moosivanda et al., 2017; Shukar et al., 2021; Rosenberg et al., 2024). These factors require pharmacies to continuously adapt their management strategies to maintain competitiveness and operational effectiveness.

1.3 Local, National, and Global Context

Globally, community pharmacies are recognized as critical components of healthcare systems, particularly in developing countries where they improve access to medicines and healthcare services (Al-Worafi et al., 2024; Hedima et al., 2025). However, pharmacies worldwide face financial pressures resulting from supply chain disruptions, increasing operational costs, and evolving healthcare demands (Rosenberg et al., 2024; Shukar et al., 2021). Nationally, Philippine pharmacies operate within a highly regulated environment governed by Republic Act No. 10918 and Republic Act No. 9502. These policies promote quality pharmaceutical services and affordable medicines while requiring pharmacies to comply with professional, operational, and financial standards. Locally, pharmacy businesses in Naga City, Camarines Sur contribute to healthcare accessibility and local economic development. Understanding their financial sustainability practices and operational challenges is essential in strengthening their capacity to serve communities effectively while maintaining long-term business viability.

1.4 Theoretical or Conceptual Basis

The study is anchored on the concept of financial sustainability, which emphasizes the ability of an organization to maintain operations, manage resources efficiently, and remain financially viable over time (Nkwinika & Akinola, 2023; Martins et al., 2022). Financial sustainability among pharmacies is reflected through effective investment and planning, understanding customer needs, cost optimization, management of revenues and expenses, and inventory management. The conceptual framework assumes that the extent of financial sustainability practices influences the ability of pharmacy businesses to address operational challenges and maintain long-term organizational stability. Challenges such as rising drug costs, supply chain disruptions, staffing shortages, increasing operational expenses, and regulatory compliance requirements may affect sustainability outcomes.

1.5 Research Gaps and Rationale

Existing studies have examined financial management practices and sustainability issues among small and medium enterprises; however, limited research has focused specifically on the financial sustainability of community pharmacies in the Philippine setting. Most available literature addresses general business performance, financial management, and operational challenges without concentrating on the unique conditions affecting pharmacy businesses. Given the essential role of pharmacies in healthcare delivery and local economic development, there remains a need for empirical evidence regarding the sustainability practices and challenges experienced by community pharmacies. This study addresses this gap by examining the financial sustainability practices and challenges of small and medium-scale pharmacy businesses in Naga City, Camarines Sur, thereby providing information that may support business owners, policymakers, and healthcare stakeholders.

1.6 Alignment with Relevant Sustainable Development Goals (SDGs)

This study aligns with SDG 3 (Good Health and Well-Being) by supporting the sustainability of community pharmacies that provide access to medicines and healthcare services. It also aligns with SDG 8 (Decent Work and Economic Growth) through its focus on strengthening small and medium-scale enterprises that generate employment and contribute to local economic development. Furthermore, the study supports SDG 9 (Industry, Innovation and Infrastructure) by promoting sustainable business practices that improve organizational resilience and operational efficiency.

1.7 Importance of the Study to Multidisciplinary Sustainability

The study contributes to public health sustainability by supporting the continuity of pharmaceutical services and access to essential medicines. It promotes economic sustainability by identifying practices that strengthen the financial viability of small and medium-scale pharmacy businesses. The study also contributes to institutional sustainability by encouraging effective financial planning, resource management, inventory control, and regulatory compliance, which are essential for long-term organizational stability and community service delivery.

2. Material and methods

2.1 Research Design

The study employed a descriptive-evaluative-inferential research design to determine the business profile of pharmacy businesses and assess the extent of their financial sustainability practices and challenges. The design was also used to examine differences between small and medium-scale pharmacy businesses regarding financial sustainability practices and challenges affecting their operations.

2.2 Locale of the Study

The study was conducted in Naga City, Camarines Sur, Philippines. The locale was selected because it hosts a number of small and medium-scale pharmacy businesses that provide pharmaceutical products and services to the local community. The setting enabled the researchers to gather relevant information regarding the financial sustainability practices and operational challenges of community pharmacies.

2.3 Respondents of the Study

The respondents consisted of pharmacy stakeholders from small and medium-scale pharmacy businesses in Naga City. These included pharmacy owners, managers, pharmacists, cashiers, and accounting staff who were directly involved in business operations and financial management. A total of 197 respondents participated in the study and provided information regarding financial sustainability practices and challenges encountered by their respective pharmacy businesses.

2.4 Sample and Sampling Procedure

The population consisted of 363 employees from small-scale pharmacy businesses and 25 stakeholders from medium-scale pharmacy businesses operating in Naga City. To ensure adequate representation of the respondents, the researchers employed stratified random sampling. Using this procedure, a sample of 197 participants was selected from the identified population to provide data relevant to the objectives of the study.

2.5 Research Instrument

Data were gathered using a researcher-made survey questionnaire that was developed to determine the business profile of pharmacy businesses, assess the extent of financial sustainability practices, and identify challenges affecting sustainability. The instrument measured financial sustainability practices in terms of investment and planning, understanding customer needs, cost optimization, managing revenue and expenses, and inventory management. It also assessed challenges related to rising drug costs, supply chain disruptions, staffing shortages, increasing operational expenses, and compliance with regulatory requirements. Prior to implementation, the questionnaire was pilot-tested in selected small and medium-scale pharmacies in Naga City to ensure clarity, relevance, and suitability of the instrument. Responses on financial sustainability practices were measured using a five-point scale ranging from 5 (Very Much Evident) to 1 (Not-at-All), while challenges were measured using a five-point scale ranging from 5 (Very Much Challenging) to 1 (Not-at-All).

2.6 Data Gathering Procedure

The researchers conducted the study by first identifying the target respondents from small and medium-scale pharmacy businesses in Naga City. After the development and pilot testing of the questionnaire, copies of the instrument were manually distributed to the selected respondents. Data collection was conducted over a one-week period during the second week of December 2025. Completed questionnaires were retrieved, checked, organized, and prepared for statistical analysis.

2.7 Data Analysis Techniques

Frequency count and percentage were used to describe the business profile of the respondents in terms of type of ownership, initial investment, number of years in operation, number of personnel, and average monthly income. Weighted mean, rank order, and verbal interpretation were utilized to determine the extent of financial sustainability practices and the challenges encountered by pharmacy businesses. To determine significant differences between small and medium-scale pharmacy businesses regarding financial sustainability practices and challenges, the Wilcoxon Mann-Whitney U-Test was employed.

3. Results and Discussion

3.1 Financial Sustainability Practices Among Pharmacy Businesses

3.1.1 Business Profile of Pharmacy Businesses

The findings revealed that most pharmacy businesses operated as sole proprietorships, had initial investments ranging from ₱3,000,001 to ₱15,000,000, had been operating for one to ten years, employed one to nine personnel, and generated average monthly incomes ranging from ₱100,001 to ₱500,000. These findings indicate that pharmacy businesses in Naga City are predominantly small-scale enterprises characterized by modest capital investments, lean organizational structures, and stable income-generating capacities. The results reflect the typical operational profile of community pharmacies serving local healthcare needs while maintaining manageable business operations.

3.1.2 Extent of Financial Sustainability Practices

The results showed that all dimensions of financial sustainability practices were rated as Much Evident. Cost Optimization obtained the highest rating (4.25), followed by Understanding Customer Needs (4.24), Managing Revenue and Expenses (4.21), Inventory Management (4.21), and Investment and Planning (4.20). The findings suggest that pharmacy businesses consistently implement financial and operational practices that support business stability and long-term sustainability. The emphasis on cost optimization indicates a strong focus on efficient resource utilization and expenditure control, while attention to customer needs demonstrates responsiveness to market demands. Although investment and planning received the lowest rating among the indicators, it remained within the Much Evident category, indicating that strategic planning practices are still regularly implemented.

3.2 Differences in Financial Sustainability Practices

3.2.1 Financial Sustainability Practices Between Small and Medium-Scale Pharmacies

The analysis revealed significant differences in the rank orders of all financial sustainability indicators between small and medium-scale pharmacy businesses. Investment and Planning, Understanding Customer Needs, Cost Optimization, Managing Revenue and Expenses, and Inventory Management all yielded significant results, leading to the rejection of the null hypothesis. The findings indicate that organizational scale influences the implementation of financial sustainability practices. Medium-scale pharmacies generally possess greater financial resources, more structured management systems, and broader operational capabilities that enable them to implement sustainability initiatives more effectively. In contrast, small-scale pharmacies may experience limitations in capital, personnel, and operational capacity, affecting their ability to undertake extensive financial planning and business development activities.

3.3 Challenges Affecting Financial Sustainability

3.3.1 Financial Sustainability Challenges Encountered by Pharmacy Businesses

The results showed that pharmacy businesses experienced challenges related to rising drug costs, supply chain disruptions, staffing shortages, increasing operational expenses, and compliance with regulatory requirements. All challenge indicators were interpreted as Challenging. Among the identified challenges, Staffing Shortage obtained the highest weighted mean (3.42), followed by Rising Costs of Drugs (3.33), Compliance with Regulatory Requirements (3.17), Increasing Operational Expenses (3.05), and Disrupting Supply Chain (2.98). The findings suggest that despite maintaining sound financial sustainability practices, pharmacies continue to operate in a complex environment characterized by financial and operational pressures. These challenges may affect profitability, operational efficiency, and service continuity, requiring pharmacy businesses to continuously adapt their management strategies and resource allocation practices.

3.3.2 Differences in Challenges Between Small and Medium-Scale Pharmacies

The analysis revealed significant differences in the rank orders of all identified challenges between small and medium-scale pharmacies. Rising drug costs, supply chain disruptions, staffing shortages, increasing operational expenses, and compliance with regulatory requirements all produced significant results, resulting in the rejection of the null hypothesis. The findings indicate that organizational size affects the extent to which pharmacies experience and manage sustainability challenges. Medium-scale pharmacies generally possess stronger financial and operational capacities that enable them to better absorb external pressures, whereas small-scale pharmacies are more vulnerable to fluctuations in costs, workforce limitations, and compliance-related expenses. These results highlight the need for scale-sensitive interventions that address the unique operational realities of both small and medium-scale pharmacy businesses.

4. Conclusion and Recommendations

The study found that small and medium-scale pharmacy businesses in Naga City are predominantly independently owned enterprises with moderate capital investments, small workforces, and stable income-generating capacities. Financial sustainability practices in terms of investment and planning, understanding customer needs, cost optimization, managing revenue and expenses, and inventory management were generally evident, indicating the presence of sound financial and operational management practices. However, pharmacy businesses continue to experience challenges related to rising drug costs, supply chain disruptions, staffing shortages, increasing operational expenses, and compliance with regulatory requirements. Significant differences in both financial sustainability practices and sustainability challenges were observed between small and medium-scale pharmacies, indicating that organizational scale influences sustainability capacity and operational responses.

Pharmacy owners, managers, and stakeholders should continue strengthening financial sustainability practices by enhancing investment planning, customer-focused strategies, cost optimization, revenue and expense management, and inventory control. Greater attention should also be given to addressing challenges associated with rising drug costs, supply chain disruptions, staffing shortages, increasing operational expenses, and regulatory compliance to improve operational resilience and long-term sustainability among community pharmacy businesses.

The study was limited to small and medium-scale pharmacy businesses operating in Naga City, Camarines Sur during Fiscal Year 2025 and involved only pharmacy owners, managers, pharmacists, cashiers, and accounting staff as respondents. It focused specifically on business profile characteristics, financial sustainability practices, and challenges affecting sustainability; therefore, the findings are limited to the respondents, variables, and geographical area covered by the study.

Compliance with ethical standards

The authors declare no conflict of interest. This study received no external funding and involved voluntary participation from pharmacy owners, managers, pharmacists, cashiers, and accounting staff from small and medium-scale pharmacy businesses in Naga City, with informed consent obtained prior to data collection. Data were gathered using non-invasive questionnaire-based methods, and all responses were treated with strict confidentiality, ensuring that no identifying information was disclosed. The authors gratefully acknowledge the respondents and the University of Northeastern Philippines for their support and cooperation in the conduct of the study.

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