

Community Service Program on Strengthening Financial Resilience of Small and Medium Supermarkets Affected by Producer Price Index Movements in Moshi Municipality

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Abstract

This community service program was developed based on prior research examining how Producer Price Index (PPI) fluctuations affected the financial performance of small and medium supermarkets in Moshi Municipality. The program aimed to strengthen financial resilience, improve cost-management capacity, and enhance operational strategies through empowerment, education, and mentoring. The methods applied included participatory workshops, financial literacy training, cost-optimization mentoring, and development of adaptive pricing strategies. Results demonstrated increased managerial knowledge, improved inventory practices, enhanced ability to mitigate inflationary pressures, and greater adoption of innovative operational models. The community service intervention successfully bridged research findings with practical capacity-building to support SMEs' sustainability under rising PPI conditions.

Keywords: SMEs; PPI; Financial Resilience; Empowerment

Abstrak

Program pengabdian kepada masyarakat ini dikembangkan berdasarkan hasil penelitian mengenai bagaimana fluktuasi Producer Price Index (PPI) memengaruhi kinerja keuangan supermarket kecil dan menengah di Kabupaten Moshi. Program ini bertujuan memperkuat ketahanan finansial, meningkatkan kapasitas manajerial dalam pengelolaan biaya, serta mengembangkan strategi operasional adaptif melalui pendidikan, pendampingan, dan pemberdayaan. Metode yang digunakan meliputi pelatihan partisipatif, workshop literasi keuangan, pendampingan optimalisasi biaya, serta penyusunan strategi harga adaptif. Hasil kegiatan menunjukkan peningkatan pengetahuan manajerial, perbaikan praktik pengelolaan stok, peningkatan kemampuan menghadapi tekanan inflasi, serta meningkatnya inovasi dalam operasional. Program ini berhasil menjembatani temuan penelitian dengan implementasi nyata untuk mendukung keberlanjutan UMKM dalam kondisi kenaikan PPI.

Kata kunci: SMEs; PPI; Financial Resilience; Empowerment

INTRODUCTION

Small and medium supermarkets in Moshi Municipality have experienced increasing operational pressures due to rising Producer Price Index (PPI) levels, which have affected

procurement costs, product availability, and profit margins. Previous research demonstrated that although demand constraints were the strongest predictor of financial performance, PPI indirectly affected supermarket sustainability. Given these challenges, a structured community service program was needed to translate research findings into capacity-building efforts that directly support supermarkets in adapting to cost-push inflation. The novelty of this program lies in its evidence-based design, linking empirical findings with community empowerment.

Rising Producer Price Index (PPI) levels, which represent changes in producer-level input prices, have imposed significant pressure on the operational stability of Small and Medium Enterprises (SMEs), particularly small and medium-sized supermarkets. Increases in PPI lead to higher costs of raw materials, logistics, fuel, and energy, creating substantial operational burdens for SMEs that typically operate under tight capital constraints and narrow profit margins. This challenge is especially pronounced in Moshi Municipality, where supermarkets depend heavily on vulnerable upstream supply chains and possess limited bargaining power to offset price volatility. Global disruptions including the Russia Ukraine conflict, post-pandemic market instability, and supply chain bottlenecks—have further intensified cost fluctuations, leading to inventory delays, diminished product availability, and reduced profitability for SMEs. Evidence from West and East Africa shows that rising producer prices reduce competitiveness, weaken cash flow stability, and force SMEs to downscale operations, while many adopt reactive rather than strategic approaches due to limited adaptive capacity. In Tanzania, ongoing PPI fluctuations between 2021 and 2024 have heightened cost pressures within the retail sector, particularly supermarkets, as increases in transportation, agricultural, and manufacturing costs erode profit margins and complicate long-term planning.

Despite national initiatives aimed at strengthening SMEs, most interventions have centered on financial access rather than equipping businesses with practical managerial capabilities needed to respond to PPI-driven challenges. This reveals a significant gap: while economic research has extensively documented the effects of PPI on SMEs, it has not been effectively translated into community-based empowerment programs that directly enhance the adaptive capacity of small supermarkets. The urgency for community service intervention therefore becomes evident, as such programs can transform research findings into actionable strategies through participatory training, mentoring, and capacity-building activities. Community service initiatives can support supermarket operators in understanding cost patterns associated with PPI, improving operational efficiency, implementing adaptive pricing strategies, strengthening inventory management, and adopting simple technological tools to monitor financial performance. In this way, community engagement becomes a vital mechanism for bridging academic insights with practical solutions, fostering resilience and sustainability among SMEs in Moshi Municipality amid ongoing macroeconomic pressures.

GENERAL DESCRIPTION OF THE COMMUNITY, PROBLEMS AND TARGET SOLUTIONS

General Description

The target community for this service program consists of Small and Medium Enterprise (SME) operators, particularly managers, owners, cashiers, and storekeepers of small and medium supermarkets operating within Moshi Municipality, an urban and economically active area in Northern Tanzania. The local economy heavily depends on retail systems in which supermarkets play a central role in supplying essential goods to the population. These supermarkets are predominantly small-scale, locally owned, and characterized by limited financial capital, narrow supplier networks, and varied managerial capacities. As documented in the previous research findings, the majority of supermarket employees possess certificate or diploma-level qualifications and 3–5 years of work experience, indicating that their capacity to respond to economic pressures relies more on experiential knowledge than on formal managerial training. Within this context, the community faces multiple challenges driven primarily by rising Producer Price Index (PPI) movements that have increased operational costs across procurement, logistics, utilities, and product handling. Research findings reveal that PPI fluctuations have contributed to reduced product variety, increasing difficulty in maintaining affordable prices, declining profit margins from 2020–2024, and deteriorating working capital despite overall revenue growth. Many supermarkets struggle with cash flow shortages, inability to restock essential items on time, weak pricing strategies, and overdependence on single suppliers. Compounding these pressures is declining consumer purchasing power, which was identified as the strongest predictor of financial performance. As a result, the challenges facing the supermarket community stem not only from external inflationary forces but also from internal limitations in managerial capabilities and resilience-building strategies.

The target solutions proposed through this community service program involve a participatory empowerment approach aimed at strengthening managerial capacity and operational resilience among supermarket SMEs. Core interventions include training on understanding PPI cost dynamics, adaptive pricing strategies, cost-control mechanisms, inventory efficiency techniques, and supply chain diversification. Workshops, mentoring sessions, group dialogues, and hands-on practice are designed to help participants translate economic concepts into practical operational adjustments. Through these strategies, the program aims to improve SMEs' ability to anticipate cost fluctuations, manage financial risks, and sustain business performance amid economic volatility. Ultimately, the solutions intend to enhance the resilience, competitiveness, and long-term sustainability of small and medium supermarkets in Moshi Municipality.

No	Target	Characteristics	Amount	General Problem
1	Non-economic target	Cashiers, storekeepers, frontline supermarket staff	120	Low financial literacy and limited ability to manage cost increases driven by PPI
2	Economic target	Supermarket owners and managers	69	Operational inefficiency and weak adaptive strategies in responding to rising PPI pressures

Problems

Problem	Solution	Indicators
Low ability to manage cost increases driven by PPI	Financial literacy training and managerial mentoring	Improved budgeting and cost-control scores
Reduced product variety due to rising procurement costs	Inventory optimization training and adaptive restocking strategies	Increased stock-rotation efficiency and improved product availability
High dependence on a limited number of suppliers, creating price vulnerability	Supplier diversification training and negotiation strategy development	Increased number of alternative suppliers and reduced stockout frequency
Weak adaptive pricing strategies under inflationary pressure	Workshops on cost-based and demand-based pricing	More stable pricing and improved profit margins
Unstable cash flow due to unstructured financial record-keeping	Training on basic bookkeeping and financial monitoring tools	Higher accuracy of financial records and improved cash-flow stability

METHOD

This community service program adopted a participatory empowerment model grounded in empirical research findings on the effects of Producer Price Index (PPI) fluctuations on the financial performance of small and medium supermarkets. The model emphasized active involvement of participants, iterative capacity strengthening, and collaborative problem-solving to ensure that the interventions were contextually relevant and directly applicable to the operational challenges faced by SMEs in Moshi Municipality. The implementation process was structured into four key phases: needs identification, capacity-building intervention, applied practice, and reflective evaluation.

In the initial phase, the service team conducted a rapid situational assessment through interviews, focus group dialogues, and direct observation in selected supermarkets. This assessment identified critical gaps in cost management, pricing adaptation, inventory efficiency, and financial planning areas directly affected by PPI fluctuations. Based on these findings, a tailored empowerment curriculum was developed.

The capacity-building phase consisted of structured workshops, interactive tutorials, and guided group discussions designed to enhance participants' understanding of PPI dynamics, operational cost structures, and adaptive financial strategies. Workshops introduced conceptual frameworks and practical tools, while tutorials provided step-by-step demonstrations of cost-tracking, budget planning, and inventory optimization techniques. Group discussions facilitated peer learning, encouraged sharing of local experiences, and fostered collective problem-solving, enabling participants to contextualize theoretical knowledge within their daily business operations.

The managerial mentoring component served as a hands-on application stage, where participants received individualized guidance to implement new operational strategies within their respective supermarkets. Mentors supported participants in refining their pricing models, restructuring procurement practices, and adopting more efficient stock rotation methods. This coaching approach ensured that improvements were not only conceptual but also demonstrated in real operational settings.

To measure the effectiveness of the intervention, several instruments were employed, including pre- and post-knowledge assessments to evaluate cognitive gains, observation checklists to track behavioral and operational changes, and reflective logs that captured participants' insights, challenges, and evolving decision-making processes. These evaluation tools provided a comprehensive understanding of the learning trajectory and the practical impact of the program.

All program activities were conducted across multiple locations in Moshi Municipality from May to June 2025, ensuring accessibility to diverse supermarket groups and allowing sufficient time for iterative learning and practice. The systematic integration of research evidence with community-based empowerment strategies enabled the program to strengthen managerial resilience, enhance operational efficiency, and improve the capacity of SMEs to withstand price volatility driven by PPI fluctuations.

RESULTS AND DISCUSSION

Results

The community service program implemented from May to June 2025 in Moshi Municipality produced significant improvements in managerial skills, financial literacy, and operational efficiency among small and medium supermarket participants. Evaluation was conducted through pre- and post-knowledge assessments, observational checklists, and reflective journals. Overall, the results show substantial gains in participants' understanding of Producer Price Index (PPI) fluctuations, cost-management strategies, adaptive pricing, and inventory optimization.

Table 1. Improvements in Participants' Knowledge and Skills

Measured Aspect	Before the Program (%)	After the Program (%)	Description
Understanding of PPI dynamics	32	81	Substantial improvement after conceptual workshops and case analysis
Budgeting and cost-control ability	41	77	Increased following financial planning exercises and mentoring
Inventory rotation and stock management	38	74	Evident through reduced slow-moving items and better stock tracking
Adaptive pricing skills	29	69	Enhanced through simulation exercises and group discussions

Measured Aspect	Before the Program (%)	After the Program (%)	Description
Accuracy in basic financial record-keeping	45	83	Improved due to introduction of simple digital bookkeeping tools

Beyond cognitive improvements, tangible operational changes were observed in the participating supermarkets. Several establishments began implementing daily cost-monitoring sheets, created alternative supplier lists, and adopted more systematic stock-rotation procedures. Participants from the managerial group demonstrated stronger improvements compared to frontline staff, particularly in strategic areas such as pricing decisions and procurement planning.

Discussions

The findings of this community service program reveal a complex interplay between macroeconomic pressures particularly those driven by fluctuations in the Producer Price Index (PPI) and the internal managerial capacity of small and medium supermarkets in Moshi Municipality. These findings reflect and extend the conclusions drawn in the original research, which highlighted consumer purchasing power as the strongest determinant of financial performance, despite the structural influence of PPI.

The deeper analysis presented in this discussion section aims to systematically interpret the program outcomes, integrate them with the theoretical and empirical literature, and demonstrate how community-based empowerment interventions can strengthen the resilience of SMEs facing persistent economic volatility.

A central theme emerging from this program is that rising PPI continues to exert significant pressure on small retail businesses through escalating procurement, logistics, and operational costs. These findings are consistent with broader global observations in which inflationary pressures stemming from geopolitical tensions, supply chain disruptions, and post-pandemic economic adjustments have disproportionately affected SMEs due to their limited financial buffers and weaker bargaining positions (Alhitmi & Ndambuki, 2023; Vinh, Bach & Phung, 2025). In Moshi's supermarket sector, participants articulated that rising wholesale prices directly constrained their ability to maintain product variety, stabilize retail prices, and manage cash flow. These experiences closely mirror the challenges documented in Nigeria, Kenya, Uganda, and WAEMU countries, where increased PPI led to squeezed profit margins, inconsistent pricing, and weakened firm growth (Onakoya et al., 2024; Karuku, 2023; Matovu, 2023; Coulibaly, 2021).

The data gathered through pre- and post-assessments within the program indicate substantial improvements in knowledge and operational competencies. Understanding of PPI dynamics increased from 32% to 81%, budgeting skills from 41% to 77%, stock management from 38% to 74%, adaptive pricing skills from 29% to 69%, and financial record accuracy from 45% to 83%. These increases signal that the participants not only absorbed the theoretical content but also gained practical strategies essential for navigating inflationary environments. The magnitude of improvement suggests that the learning model rooted in participatory workshops, case analyses, situational mentoring,

and group reflections was effective in bridging the gap between abstract economic concepts and real-world decision-making.

To understand why such improvements occurred, it is necessary to examine the internal capability gaps that existed within the supermarkets prior to the intervention. The original research revealed that many supermarkets were operating without structured financial planning, possessed inadequate inventory systems, and lacked dynamic pricing strategies. These gaps inhibited their ability to respond effectively to rising PPI. Literature across sub-Saharan Africa indicates that when SMEs do not adopt proactive cost-monitoring and strategic planning, inflation amplifies operational inefficiencies and accelerates financial vulnerability (Adusei & Nkrumah, 2021; East African Business Council, 2022). In Moshi, the community service program provided targeted training that directly addressed these weaknesses. Participants reported that before the program they rarely assessed the cost implications of supplier price changes, depended on single suppliers, and used intuition rather than structured financial tools to make pricing decisions. The post-program shift toward the use of daily cost sheets, diversified supplier lists, and more deliberate pricing mechanisms represents a significant internal transformation.

The program's findings reinforce the argument that internal managerial capability interacts strongly with external economic pressures in determining SME resilience. While rising PPI undoubtedly constrains supermarket performance, the degree of impact is mediated by the firm's ability to strategically adjust operations and pricing. This reflects the core idea proposed in several African studies that inflation shocks do not uniformly affect all SMEs; rather, firms with higher managerial capacity, better information systems, and more diversified supply chains adapt more quickly and suffer fewer losses (Molela, Kasoga & Ismail, 2024). Thus, the improvement observed in Moshi's supermarkets after the intervention suggests that the program succeeded in enhancing the firms' strategic agility, an essential component for surviving inflationary volatility.

Another important dimension of the discussion concerns consumer purchasing power, which emerged as the strongest statistical predictor of financial outcomes in the original article. Participants' reflections during group discussions confirmed that when consumer spending declines, supermarkets face a dual challenge: reduced sales volumes and increased operational costs. This aligns with international evidence showing that inflation reduces real purchasing power, affecting household consumption patterns and destabilising retail firms (European Commission, 2023). In Moshi, the diminished purchasing power limited supermarkets' ability to pass increased PPI-driven costs to consumers without risking sales loss. As a result, supermarkets often absorbed the cost increases, further squeezing their margins. The program, therefore, emphasized adaptive pricing strategies, including gradual price adjustments, bundling lower-cost alternatives, and rotating promotional items to balance affordability with profitability. The significant improvement in adaptive pricing rising from 29% to 69% in assessment scores reflects the effectiveness of this focus.

Inventory management represents another critical area where the program had measurable impact. Prior to the intervention, several supermarkets experienced stock discrepancies, high levels of slow-moving items, and inadequate tracking systems. These

issues are well documented in inflationary contexts, where increased input prices make inventory mismanagement more costly (Karuku, 2023). The program's practical tutorials on stock rotation, stock categorization, and minimum–maximum inventory levels contributed to a 36-point improvement (from 38% to 74%) in stock management competency. This improvement is significant, as efficient inventory systems help firms mitigate shortages, reduce wastage, and improve responsiveness to price volatility. The finding aligns with the argument by Molela et al. (2024) that strengthening supply-chain literacy among retailers enhances resilience to PPI-driven pressures.

The mentoring component, identified by participants as the most valuable aspect of the program, provided individualized guidance that enabled them to apply the learned concepts directly within their own business settings. This method proved particularly useful for supermarket owners and managers who needed step-by-step support in integrating adaptive strategies into existing practices. Mentoring facilitated behavioural and managerial transformation, reinforcing theoretical learning with practical execution. The importance of mentorship is consistent with community engagement literature, which highlights that SMEs benefit most from interventions that combine conceptual understanding with operational coaching (Bigambo, Mwakalobo & Msuya, 2023). Mentoring also helped participants reflect on consumer behaviour, cost fluctuations, and operational bottlenecks, offering a more holistic perspective of their business environment.

A deeper interpretation of the results suggests that the empowerment model used in this community service program successfully addressed both cognitive gaps (knowledge, understanding of PPI, financial literacy) and procedural gaps (pricing, budgeting, inventory rotation, supplier management). This dual impact is important because SMEs often require both types of transformation to achieve sustainable improvements. The significant increases in assessment scores across multiple domains indicate that the program built foundational managerial competencies. Meanwhile, the observational improvements such as the adoption of daily cost sheets and supplier diversification—demonstrate practical behavioural change.

Furthermore, the program's outcomes illustrate that even with external macroeconomic pressures, internal strengthening can substantially improve supermarket resilience. This insight supports the concept that community-based interventions can create meaningful economic outcomes by enhancing micro-level decision-making capacities, even in the absence of structural macroeconomic reforms. This reinforces the idea that community empowerment serves not merely as social support, but as an economically impactful strategy.

Overall, the discussion demonstrates that the community service program, grounded in empirical research and participatory learning, provided a comprehensive and effective response to the challenges faced by small and medium supermarkets in Moshi Municipality. By enhancing financial literacy, strategic planning, and operational efficiency, the program helped SMEs navigate the inflationary pressures associated with rising PPI. The integration of research evidence with practical empowerment activities bridged a

critical gap between academic knowledge and community needs, offering actionable insights that strengthened the resilience and sustainability of local retail businesses.

CONCLUSIONS AND SUGGESTIONS

The community service program effectively improved the managerial and operational capacity of small and medium supermarkets in Moshi Municipality in responding to cost pressures driven by fluctuations in the Producer Price Index (PPI). Participants demonstrated substantial gains in financial literacy, budgeting skills, adaptive pricing, and inventory management, reflected in clear improvements in both assessment scores and observable operational practices. These results confirm that participatory, research-informed empowerment approaches can strengthen SME resilience by translating macroeconomic insights particularly on PPI impacts into practical strategies that enhance day-to-day decision-making and long-term business sustainability. It is recommended that continuous capacity-building programs be maintained to reinforce financial and operational skills gained during the intervention. Supermarkets should adopt simple digital tools to improve cost monitoring and inventory control, while also diversifying suppliers to reduce vulnerability to cost fluctuations. Collaboration among SMEs should be encouraged to increase collective bargaining power. Finally, local institutions should integrate PPI-related economic updates into SME advisory services to support more informed business planning and enhanced resilience.

REFERENCES

Johnson & Martinez (2023)
Thompson & Ramirez (2020)
Oteh (2024)

