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Evaluation of the Fuel Subsidy Removal Effect on the Performance of Cooperative Societies in Osogbo Local Government Area of Osun State

Taiwo Olabisi Abdulahi
Nnamdi Azikiwe University, Nigeria
Correspondence Email: ao.taiwo@unizik.edu.ng

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Abstract

This study evaluated the impact of removing the fuel subsidy on the performance of cooperative societies in the Osogbo Local Government Area of Osun State. 112 members of cooperative societies were selected using a multi-stage random sampling method. The results of the findings indicated that although the cooperatives provided diverse range of services, prevalent among them are: loans and savings mobilization, farm inputs supply, marketing and processing of agricultural produce, findings also revealed that the fuel subsidy removal had a moderate to high negative impact on the revenues and expenditures of cooperative societies in Osogbo LGA, which led to increased operational costs, declining revenues, reduced profitability, and the need to adjust pricing strategies and expenditures amongst others. Similarly, the removal of fuel subsidy had a moderate negative impact on the membership, assets, and service delivery of cooperative societies in Osogbo LGA, resulting in declining membership, challenges in attracting and retaining members, increased costs of maintaining and acquiring assets, and difficulties in providing quality services and accessibility. Thus, this led the cooperatives to adopt various strategies to cope with the effects of fuel subsidy removal, with moderate effectiveness. Several recommendations were proffered by the researcher, among which are that the government should consider implementing targeted support programs and incentives for cooperative societies, including access to affordable credit, subsidies for essential inputs and services.

Keywords: Fuel Subsidy, Cooperative Society, Performance.

Introduction

Fuel subsidies were first introduced in Nigeria in the 1970s in response to the 1973 oil price shock and were institutionalised in 1977 with the Price Control Act, which legally fixed fuel prices below the market rate. The policy was implemented to shield Nigerians from volatile international oil prices and was a significant tool to manage the domestic price of petroleum products. Fuel subsidy reform has been a recurring policy issue in Nigeria since the return of democratic rule in 1999. The problem has brought the government and the citizens to a crossroads with no clear roadmap. In addition, Fuel subsidy in Nigeria is one of many consumption subsidy programmes of the government.

It aims to lower fuel costs by providing direct financial support to oil firms, thereby reducing fuel prices for Nigerians (Nigeria Economic Summit Group (NESG), 2023).

The recent trend in government fuel subsidy bills and commitments has escalated to the point that it is outstripping the government's earnings from crude oil sales. As of H1-2023, the landing cost of fuel in Nigeria ranges from N500 to N600, with an average of N200 nationwide. The government is therefore responsible for the excess of N300–N400. In 2022, an estimated N2.74 trillion was paid as fuel subsidy, while just over N600 billion was made in oil revenue. Meanwhile, in the 2023 budget, N3.36 trillion was allocated to fuel subsidy through June 2023, while N2.23 trillion was projected for oil revenue for the year. The situation has degenerated, and the government borrows to fund subsidies, making the country's finances unsustainable. In 2022, the fuel subsidy reached ₦4 trillion (approximately US$6.088 billion), accounting for 23 per cent of the national budget of ₦17.126 trillion (approximately US$25.87 billion) (Akintoye et al., 2025). As a result, Nigeria could no longer sustain its fuel subsidy in 2023, and the government announced that the fuel subsidy would be removed in June 2023, which took effect when the president-elect was inaugurated on May 29, 2023. This attempt was made to save the government money. Still, the removal of fuel subsidies has led to increases in the cost of living, including transportation costs, food prices, and other necessities, particularly for the day-to-day activities of many businesses, regardless of size, as well as cooperative enterprises in Nigeria.

Cooperatives and small businesses in Nigeria cannot be separated from the impact of the fuel sub-sector, as both their economic and social activities are directly linked to it. To ensure that small businesses in Nigeria and all Nigerians enjoy the full benefits of this natural resource (fuel), the government implements policies to regulate the sector, including the fuel subsidy. It has been a long-standing policy aimed at alleviating the burden of high fuel prices on citizens. This subsidy, which has been in place for many years, was initially implemented to help low-income individuals afford fuel and to provide financial assistance to oil companies to keep fuel prices artificially low. However, in reverse, it was also used to protect oil companies' profits. Cooperative societies play a crucial economic and social role in Nigeria, providing essential services and livelihoods for millions of citizens. Cooperatives advance the welfare of their members and broader development goals. They enhance members' livelihoods through essential services, skills training, and social support networks (Ngozi et al., 2025). Despite challenges, the cooperative movement holds strong potential for inclusive growth. However, despite its potential, this growth seemed threatened by the impact of removing the fuel subsidy. An increase in fuel costs can make services unaffordable for cooperative customers, forcing cooperatives to scale back in operations (Jesuola, 2024).

Similarly, Sennuga et al. (2024); Sulaiman et al. (2023) affirmed that it can also reduce the economic activity and purchasing power of cooperative customers after subsidy removal, further diminishing consumer demand and sales at retail, as well as in cooperatives' crafts and services. These impacts had disrupted local economic flows and reduced dependence on robust cooperative enterprises in Nigerian states and their Local Government Areas, with special reference to what is

obtainable in Osogbo LGA, Osun State.

McCulloch et al. (2020), in a study of fuel subsidy reform and the social Contract in Nigeria, showed that many Nigerian citizens oppose fuel subsidy removal or reform because they believe the government is corrupt and cannot implement transparent reforms. Despite this evidence in the literature, there is little or no discussion of the effect of the recent fuel removal in Nigeria on the performance of cooperative societies in the study area. The removal of fuel subsidies could significantly impact the performance and sustainability of many Nigerian cooperatives, which play an indispensable economic and social role. An increase in transport costs directly increases operating expenditures for cooperative societies across all sectors of the Nigerian economy. This could also reduce services to members and local communities, loss of members and sales due to lowered local purchasing power, and present further difficulties in adjusting to market fuel prices. Cooperatives might alternatively pass rising fuel-based costs on to smaller margins on sales, retail goods, transport fares, or loan rates. However, producers and buyers, faced with economy-wide imported inflation, also have less discretionary income left for consumption after allocating more to basic needs such as food, mobility, and household items (Agbasi et al., 2024). This reduces cooperative revenue streams. Meanwhile, depletion of working capital reserves without offsetting income inflows is not financially sustainable in the long term. These complex dynamics illustrate how subsidy removal, a macroeconomic policy, is transmitted to micro cooperative operations, potentially triggering inefficiencies in the performance of cooperative societies if not effectively addressed.

Each cooperative's resilience adjusting to multifaceted economic shocks depends on existing financial cushions like reserves or assets buffering periodic setbacks alongside leadership adeptness persuading members to accept temporary mutual sacrifices through fee hikes or service curtailments (Obasi et al., 2017). However, the magnitude of the effects of national subsidy removal may overwhelm local risk management capacities across entire cooperative sectors. This threatens widespread economic and social fallout if significant numbers of cooperative enterprises, smallholder agricultural value chains, grassroots transport systems, informal labour networks, and remote villages dissolve without government interventions (Oigochie et al., 2025).

Despite all this, there remains a need for in-depth academic inquiry into how the removal of fuel subsidies has significantly affected cooperatives' performance in the Nigerian context. This led the researcher to investigate and evaluate the impact of the removal of fuel subsidies on the performance of cooperative societies in Nigeria, especially in Osogbo LGA. The experiences of cooperatives in Osogbo LGA mirror these challenges, as they reflect the challenges of cooperatives nationwide, adjusting to painful fuel price shocks amid limited government assistance. Therefore, this study aims to thoroughly assess and evaluate the effects of fuel subsidy removal on key performance indicators for cooperative societies, using Cooperatives in Osogbo LGA of Osun State as a case study. The findings will provide clearer insights into how cooperatives have been impacted, which can guide initiatives to bolster cooperative resilience and recovery. The study will also document strategies adopted by

cooperatives to cope with the challenging effects of fuel subsidy removal. Therefore, this study sought answers to the following research questions:

1. What do cooperative societies in Osogbo LGA provide in their primary operations and services?
2. How has fuel subsidy removal affected the revenues and expenditures of cooperative societies in Osogbo LGA?
3. In what ways has fuel subsidy removal impacted membership, assets, and service delivery of cooperatives in Osogbo LGA?
4. What key challenges have cooperatives in Osogbo LGA encountered due to fuel subsidy removal?
5. What strategies have cooperatives in Osogbo LGA adopted to cope with the effects of fuel subsidy removal?

Research Method

This study adopts a descriptive survey research design (Iremeka et al., 2021). The cooperative department in the Ministry of Cooperative and Empowerment revealed that Osogbo has 141 registered multipurpose cooperative societies with a membership strength of 2,902 (Source: Department of Cooperatives, Osun State, 2024). Of the 141 multipurpose cooperative societies, nine were randomly selected, and they have a membership of 184. A final sample size of 126 cooperative members were selected, using a 95% confidence level and 5% margin of error, the optimum sample size is 126 Cooperative members. The completed questionnaires were sorted, coded and entered into the Statistical Package for Social Sciences (Areh et al., 2021). The quantitative data were analysed using descriptive statistics, including frequencies, percentages, means, and standard deviation, were calculated to summarise respondents' response while t-test analysis was used for hypotheses testing.

Results and Discussion

RQ 1: What are the Main Operations and Services Provided by Cooperative Societies?

Table 1: The Main Operations and Services Provided by Cooperative Societies

Cooperative Societies Activities Metrics	Frequency	Percentage
Farm inputs (seeds, fertiliser, machinery)	85	75.9%
Transportation	62	55.4%
Loans and savings programs	92	82.1%
Crop purchase for sales/export	71	63.4%
Retail shops/stalls	48	42.9%
Housing development	32	28.6%
Investment and lending	66	58.9%
Consumer goods distribution	55	49.1%
Marketing and processing of agricultural produce	78	69.6%
Agricultural production and supply	81	72.3%
Savings mobilization and credit disbursement	88	78.6%

Procurement and supply of inputs	74	66.1%
Insurance services	39	34.8%
Social welfare services	47	42.0%
Training and education	51	45.5%

Source: Researcher Field Survey, 2025

Table 1 shows that the most common services and operations provided by cooperatives in Osogbo LGA are loans and savings programs (82.1%), savings mobilization and credit disbursement (78.6%), and farm inputs supply (75.9%). This highlights the significant role cooperatives play in providing financial services and supporting agricultural activities in the region. Additionally, a significant proportion of cooperatives are involved in agricultural production and supply (72.3%), procurement and supply of inputs (66.1%), and crop purchase for sales/export (63.4%). These findings underscore the vital contribution of cooperatives to the agricultural value chain and the overall development of the agricultural sector in Osogbo LGA.

The implication from Research Question 1, reveal the diverse and multifaceted nature of cooperative societies in Osogbo LGA, showcasing their vital role in supporting various aspects of the local economy and addressing the needs of their members and communities. These findings align with previous studies highlighting the versatility and adaptability of cooperative societies in Nigeria. Furthermore, the high proportion of cooperatives involved in savings mobilisation, credit disbursement, investment, and lending activities highlights their critical role in promoting financial inclusion and providing access to financial services in the region. This aligns with Agbasi et al. (2024), who emphasized the financial intermediation function of cooperatives in Nigeria; and, the observations of Akarara (2025), who highlighted the diverse sectors in which cooperatives operate, including transportation, marketing, and processing.

RQ 2: How has Fuel Subsidy Removal Affected the Revenues and Expenditures of Cooperative Societies?

Table 2: Fuel Subsidy Removal Effects on Revenues and Expenditures of Cooperative Societies

S/N	Fuel Subsidy Removal Effects Metrics	χ	Decision
1.	The fuel subsidy removal increases operational costs for our cooperative	2.65	Moderate impact
2.	We experienced a decline in revenues due to the fuel subsidy removal	2.59	Moderate impact
3.	Fuel subsidy removal negatively impacted our profitability	2.70	High impact
4.	Fuel subsidy removal made us adjust our pricing strategies	2.63	Moderate impact
5.	Fuel subsidy removal significantly increases our Transportation Expenses	2.79	High impact
6.	There is an increase in the price of goods and services we provide due to the Fuel subsidy removal	2.71	High impact
7.	Fuel subsidy removal helped us reduce our expenditures on certain activities	2.65	Moderate impact

8.	Access to credit and other financial resources has become more difficult for our cooperative with the subsidy removal	2.69	Moderate impact
9.	Our ability to invest in new projects and initiatives has been negatively impacted	2.66	Moderate impact
10	Fuel subsidy removal has decreased the disposable income of our members and their ability to patronize cooperative products and services	2.75	High impact
11	We experienced a decline in membership size due to the economic impact of the fuel subsidy removal	2.64	Moderate impact
12	Fuel subsidy removal has led to an increase in the cost of agricultural inputs for cooperative members	2.71	High impact
13	Fuel subsidy removal has negatively impacted the ability of our cooperative to transport goods and services to members	2.68	Moderate impact
14	We adjust our procurement strategies due to the fuel subsidy removal	2.66	Moderate impact
15	Fuel subsidy removal has led to an increase in the cost of maintaining our cooperative's assets and infrastructure	2.70	High impact
	Grand Mean	**2.68**	**Moderately Impacted**

Source: Field Survey, 2025

Table 2 shows that the mean values for the items range from 2.59 to 2.79, indicating a moderate-to-high impact of fuel subsidy removal on the revenues and expenditures of cooperative societies in Osogbo LGA.

The implication from Research Question 2, is that the removal of the fuel subsidy has had a moderate-to-high negative impact on the revenues and expenditures of cooperative societies in Osogbo LGA. The mean values for items related to increased operational costs, declining revenues, reduced profitability, and the need to adjust pricing strategies and expenditures suggest that cooperatives have faced significant challenges due to the removal of fuel subsidies. These findings are consistent with Akinwunmi and Adekoya (2022) found that the removal of fuel subsidies in Nigeria led to increased production costs, reduced profitability, and higher prices for goods and services across various industries. Similarly, Akarara (2025); Johnson (2024) reported that the removal of fuel subsidies significantly increased transportation costs, which in turn affected businesses' overall operating costs and profitability. Various authors such as Agbasi et al. (2024); Bojnec and Žampa (2021) observed that the removal of fuel subsidies had a detrimental effect on the financial performance of firms/cooperative societies, as it led to increased production, transportation, and distribution costs. Agbasi et al. (2024) noted that cooperatives faced difficulties accessing credit and other financial resources due to the economic challenges posed by the fuel subsidy removal, thereby limiting their ability to invest in new projects and initiatives.

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RQ 3: In what ways has fuel subsidy removal impacted membership, assets, and service delivery of cooperatives?

Table 3: Fuel Subsidy Removal Effect on Membership Size, Assets, and Service Delivery

S/N	Metrics for Fuel Subsidy Removal Effect on Membership Size, Assets, and Service Delivery	χ	Decision
	Fuel Subsidy Removal Effect on Membership Size		
1.	Fuel subsidy removal has decreased the number of members in our cooperative	2.57	Moderate impact
2.	New members find it difficult to join our cooperative, as it impacts their livelihood	2.63	Moderate impact
3.	Existing members have left our cooperative due to the challenges posed by the fuel subsidy removal	2.58	Moderate impact
4.	The fuel subsidy removal has negatively impacted the ability of our cooperative to attract and retain members	2.63	Moderate impact
5.	Our cooperative has had to adjust its membership registration policies and requirements due to the fuel subsidy removal	2.56	Moderate impact
	Fuel Subsidy Removal Effect on Assets		
6.	The fuel subsidy removal has led to an increase in the cost of maintaining and repairing our cooperative's assets	2.69	Moderate impact
7.	Our cooperative has had to delay or cancel plans to acquire new assets due to the fuel subsidy removal	2.60	Moderate impact
8.	The values of our cooperative's assets have been negatively impacted fuel subsidy removal	2.61	Moderate impact
9.	The fuel subsidy removal has made it more difficult for our cooperative to access financing for asset acquisition	2.67	Moderate impact
10	Our cooperative has had to sell or dispose of certain assets due to the economic impact of the fuel subsidy removal	2.55	Moderate impact
	Fuel Subsidy Removal Effect on Service Delivery		
11	The fuel subsidy removal has led to a decline in the quality of services provided by our cooperative	2.62	Moderate impact
12	Our cooperative has had to reduce the range of services offered due to the fuel subsidy removal	2.59	Moderate impact
13	The fuel subsidy removal has negatively impacted the accessibility of our cooperative's services to members	2.65	Moderate impact
14	The fuel subsidy removal has led to delays and disruptions in the delivery of services by our cooperative	2.67	Moderate impact
15	Our cooperative has had to adjust its service delivery strategies to cope with the challenges posed by the fuel subsidy removal	2.64	Moderate impact
	Grand Mean	2.62	Moderately impacted

Source: Field Survey 2025

Table 3 shows that the mean values for membership items range from 2.56 to 2.63, suggesting a moderate negative impact on membership due to fuel subsidy removal. The mean values for assets range from 2.55 to 2.69, indicating a moderate to high negative impact on cooperative assets. The mean

values for service delivery range from 2.59 to 2.67, suggesting a moderate to high negative impact on service delivery.

The findings from Research Question 3 indicate that the removal of fuel subsidies has had a moderate negative impact on the membership, assets, and service delivery of cooperative societies in Osogbo LGA. The mean values for items related to declining membership, challenges in attracting and retaining members, increased costs of maintaining and acquiring assets, and difficulties in providing quality services and accessibility suggest that cooperatives have faced significant challenges in these areas. Oyinlana et al. (2025) found that the removal of fuel subsidies in Nigeria led to a decline in household incomes and purchasing power, which in turn affected individuals' ability to participate in and benefit from cooperative activities. Akarara (2025); Johnson (2024) reported that the removal of fuel subsidies harmed the asset values and investment capabilities of various organisations, including cooperatives. Sennuga et al. (2024) observed that the removal of fuel subsidies posed challenges for cooperatives in retaining existing members and attracting new members, due to the economic hardships individuals faced. Agbasi et al. (2024) noted that cooperatives faced difficulties in maintaining and upgrading their physical infrastructure and assets, as well as providing high-quality services to members, due to the increased costs and financial constraints resulting from the fuel subsidy removal.

RQ 4: What key challenges have cooperatives encountered due to fuel subsidy removal?

Table 4: Key Challenges Cooperatives Due to Fuel Subsidy Removal

S/N	Key Challenges Cooperatives due to Fuel Subsidy Removal	χ	Decision
1.	Increased operational costs due to higher fuel prices	2.85	High Impact
2.	Reduced profitability and financial performance	2.76	High Impact
3.	Difficulty accessing credit and financial resources	2.71	High Impact
4.	Challenges in maintaining and expanding membership	2.67	Moderate Impact
5.	Reduced demand for goods and services due to decreased disposable income of members	2.71	High Impact
6.	Disruptions in the supply chain and transportation of goods and services	2.76	High Impact
7.	Higher costs of agricultural inputs and production	2.74	High Impact
8.	Challenges in attracting and retaining skilled labour and personnel	2.67	Moderate Impact
9.	Increased competition from larger businesses with greater financial resources	2.69	Moderate Impact
10.	Difficulty in adopting new technologies and innovations due to limited resources	2.68	Moderate Impact
11.	Challenges in maintaining and upgrading physical infrastructure and assets	2.72	High Impact
12.	Reduced investment in new projects and initiatives	2.69	Moderate Impact
13.	Difficulty in compliance with changing regulations and policies related to the fuel subsidy removal	2.66	Moderate Impact

14.	Difficulty in maintaining financial sustainability and solvency	2.71	High Impact
15.	Erosion of trust and confidence among members and stakeholders	2.69	Moderate Impact
	Grand Mean	2.71	Highly Impacted

Source: Field Survey 2025

Table 4 shows that the mean values for the items range from 2.66 to 2.85, indicating that cooperatives in Osogbo LGA have encountered moderate to high challenges due to fuel subsidy removal. The highest mean value of 2.85 corresponds to "Increased operational costs due to higher fuel prices," suggesting that this is the most significant challenge faced by cooperatives.

The findings from Research Question 4 indicate that cooperatives in Osogbo LGA have faced moderate to high challenges following the removal of the fuel subsidy. The highest mean value corresponds to "Increased operational costs due to higher fuel prices," suggesting that this is the most significant challenge faced by cooperatives. These findings are consistent with previous studies examining the broader economic and sectoral impacts of fuel subsidy removal in Nigeria. Akinwunmi & Adekoya (2022) found that the removal of fuel subsidies led to increased operating costs, reduced profitability, and challenges in accessing credit and other financial resources across various industries. Akarara (2025); Johnson (2024) reported that the removal of fuel subsidies disrupted supply chains and transportation networks, leading to challenges in the distribution of goods and services. Sennuga et al. (2024) observed that cooperatives faced increased production costs, reduced demand for their goods and services. Agbasi et al. (2024) noted that cooperatives faced challenges in attracting and retaining skilled labour and personnel, as well as increased competition from larger businesses with greater financial resources.

RQ 5: What are the strategies that cooperatives adopted to cope with the effects of fuel subsidy removal?

Table 5: Strategies Adopted by Cooperatives to Cope with Fuel Subsidy Removal

S/N	Metrics for Strategies Adopted	χ	Decision
1.	Implementing cost-cutting measures and efficiency improvements	2.67	Moderate impact
2.	Diversifying income streams and exploring alternative revenue sources	2.64	Moderate impact
3.	Seeking external funding and support from government agencies or NGOs	2.61	Moderate impact
4.	Strategic partnerships and collaborations with other cooperatives or businesses	2.67	Moderate impact
5.	Investing in energy-efficient technologies and sustainable practices	2.62	Moderate impact
6.	Adjusting pricing strategies and service offerings to reflect changes in costs	2.69	Moderate impact

7.	Enhancing member engagement and education to promote loyalty and support	2.63	Moderate impact
8.	Expanding into new markets or geographical areas	2.60	Moderate impact
9.	Adopting digital technologies and online platforms for service delivery	2.66	Moderate impact
10.	Strengthening governance and management practices for an improved decision-making process	2.65	Moderate impact
11.	Improving financial management and budgeting processes	2.68	Moderate impact
12.	Investing in training and capacity-building for members and staff	2.64	Moderate impact
13.	Advocating for favourable policies and regulations from government authorities	2.67	Moderate impact
14.	Exploring alternative transportation and logistics solutions	2.65	Moderate impact
15.	Promoting sustainability and self-reliance through local sourcing and production	2.63	Moderate impact
	Grand Mean	**2.65**	**Moderately impacted**

Source: Field Survey 2025

The mean values for the items in Research Question 5 range from 2.60 to 2.69, indicating that cooperatives in Osogbo LGA have adopted various strategies to cope with the effects of fuel subsidy removal, with moderate effectiveness. The highest mean value of 2.69 corresponds to "Adjusting pricing strategies and service offerings to reflect changes in costs," suggesting that this is one of the most commonly adopted strategies by cooperatives. Other strategies with relatively high mean values include implementing cost-cutting measures and efficiency improvements (2.67), forming strategic partnerships and collaborations (2.67), advocating for favourable policies and regulations (2.67), improving financial management and budgeting processes (2.68), and exploring alternative transportation and logistics solutions (2.65).

The implication from Research Question 5, show that cooperatives in Osogbo LGA have employed various strategies to mitigate the effects of fuel subsidy removal and maintain their operations. The adoption of cost-cutting measures, efficiency improvements, and adjustments to pricing strategies and service offerings aligns with the findings of Akarara (2025); Johnson (2024), who reported that cooperatives in Nigeria implemented cost-saving measures and pricing adjustments to cope with the impacts of fuel subsidy removal. The formation of strategic partnerships and collaborations with other cooperatives or businesses is a strategy that has been highlighted by Agbasi et al. (2024), Seeking external funding and support from government agencies or NGOs is a strategy that resonates with the findings of Sennuga et al. (2024), who observed that cooperatives sought financial assistance and support from external sources to mitigate the impacts of fuel subsidy removal.

The adoption of digital technologies and online platforms for service delivery aligns with the findings of Akarara (2025); Johnson (2024), who reported that cooperatives leveraged digital solutions to improve operational efficiency and service delivery amid economic challenges. The focus on enhancing member engagement and education to promote loyalty and support is consistent with the findings of Adekunle et al. (2021), who highlighted the importance of maintaining strong member relationships and support in cooperative societies. However, some strategies, such as expanding into new markets or geographic areas, may have faced greater implementation challenges due to the economic constraints posed by the fuel subsidy removal.

Test of Hypotheses

Test of Hypothesis One

H_o: The removal of fuel subsidies has had no significant impact on the revenues and expenditures of cooperative societies in Osogbo LGA.

Table 6: T-test Analysis of Hypothesis One

Source of variation	N	Mean	SD	df	t-cal	*P*-value	Decision
Subsidy Removal	112	2.681	.0496	14	14.877	.00	Sig

Source: SPSS Ver. 25

As shown in Table 6, since the p-value (0.00) is less than the significance level (0.05), we reject the null hypothesis (H_{01}) and conclude that the removal of fuel subsidies has had a significant impact on the revenues and expenditures of cooperative societies in Osogbo LGA.

Test of Hypothesis Two

H_o: The removal of fuel subsidies has not significantly affected the membership, assets, and service delivery of cooperative societies in Osogbo LGA.

Table 7: T-test Analysis of Hypothesis Two

Source of variation	N	Mean	SD	df	t-cal	*P*-value	Decision
Subsidy Removal	112	2.617	.0425	14	11.602	.00	Sig

Source: SPSS Ver. 25

As shown in Table 7, since the p-value (0.00) is less than the significance level (0.05), we reject the null hypothesis (H_{01}) and conclude that the removal of fuel subsidies has significantly affected membership, assets, and service delivery of cooperative societies in Osogbo LGA.

Test of Hypothesis Three

H_o: Cooperative societies in Osogbo Lga have not encountered significant challenges due to the removal of fuel subsidies.

Table 8: T-test Analysis of Hypothesis Three

Source of variation	N	Mean	SD	df	t-cal	*P*-value	Decision
Challenges encountered	112	2.716	.0512	14	17.082	.00	Sig

Source: SPSS Ver. 25

As shown in Table 8, since the p-value (0.00) is less than the significance level (0.05), we reject the null hypothesis (H_{01}) and conclude that Cooperative societies in Osogbo LGA have not encountered significant challenges due to the removal of fuel subsidies.

The rejection of the null hypothesis (H_{01}) indicates that the removal of fuel subsidies has had a significant impact on the revenues and expenditures of cooperative societies in Osogbo LGA. This finding is consistent with several studies that have explored the effects of fuel subsidy removal on various sectors of the economy. Gana and Bashar (2024) studied impact of fuel subsidy removal on the Nigerian economy and found that it led to higher production costs, higher prices for goods and services, and a decline in consumers' disposable income. Consequently, businesses, including cooperatives, experienced reduced revenues and profitability. Similarly, Ngene et al. (2023) observed that the removal of fuel subsidies in Nigeria led to higher transportation and operating costs for businesses, adversely affecting their financial performance.

The rejection of the null hypothesis (H_{02}) indicates that the removal of fuel subsidies has significantly affected membership, assets, and service delivery of cooperative societies in Osogbo LGA. This finding aligns with previous studies that have explored the broader impacts of fuel subsidy removal on organizations and communities. Taiwo et al. (2024) examined the effects of fuel subsidy removal on small and medium-sized enterprises (SMEs) in Nigeria and found that it led to declines in membership and patronage due to reduced customers' disposable income. Additionally, the higher operational costs resulting from the removal of fuel subsidies made it challenging for SMEs to maintain and upgrade their assets and infrastructure.

The rejection of the null hypothesis (H_{03}) indicates that cooperative societies in Osogbo LGA have faced various challenges arising from the removal of fuel subsidies. This finding is consistent with the literature on the effects of fuel subsidy removal, for instance, Mohammed et al. (2020) identified several challenges faced by businesses in Nigeria following the removal of fuel subsidies, including increased operating costs, reduced profitability, difficulty accessing credit and other financial resources, and disruptions to supply chains and transportation. These challenges align with the findings in Table 5, which highlight increased operational costs, reduced profitability, difficulty accessing credit, and transportation disruptions as key challenges faced by cooperatives. Furthermore, Jesuola (2024) noted that the removal of fuel subsidies in Nigeria led to challenges in maintaining and upgrading physical infrastructure and assets, as well as reduced investment in new projects and initiatives due to limited financial resources. These challenges were also observed in the cooperative societies in Osogbo LGA.

Conclusion

This study concludes that removal of fuel subsidies in Nigeria has had a profound impact on the performance and operations of cooperative societies in Osogbo LGA, Osun State. The removal of fuel subsidies has created an economic environment that has tested the resilience and adaptability of cooperative societies. The findings of this study have shed light on the multifaceted challenges these cooperatives face. Despite these challenges, the study has also highlighted the proactive strategies

adopted by cooperative societies to mitigate the impacts of fuel subsidy removal. However, it is important to recognize that the effectiveness of these strategies has been moderate, indicating that further support and interventions may be necessary to ensure the long-term sustainability and growth of cooperative societies in the region. Based on the findings of this study, the following recommendations are made:

1. The government should consider implementing targeted support programs and incentives for cooperative societies, including access to affordable credit, subsidies for essential inputs and services, and capacity-building initiatives to enhance their resilience and adaptability in the face of economic challenges.
2. Cooperative societies should actively explore and adopt sustainable and energy-efficient practices, such as the use of renewable energy sources, energy-efficient transportation solutions, and local sourcing of inputs, to mitigate the impact of fuel price fluctuations and reduce operational costs.
3. Cooperative leaders should prioritize strengthening governance and management practices, fostering transparency, and promoting inclusive decision-making processes. This will enhance member trust, engagement, and support, which are crucial for the long-term sustainability of cooperative societies.
4. Cooperative societies should actively seek strategic partnerships and collaborations with other cooperatives, businesses, and organizations to leverage resources, share knowledge and best practices, and explore innovative solutions to the challenges posed by fuel subsidy removal.
5. Capacity-building programs should be implemented to equip cooperative members and leaders with the necessary skills and knowledge to navigate the evolving economic landscape, including financial management, strategic planning, and entrepreneurial skills.

References

Adekunle, O. A., Ola, T. O., Ogunrinade, R., & Odebunmi, A. T. (2021). The role of cooperative societies in advancing small and medium scale enterprises in Osun State, Nigeria. *Journal of international Business and Management*, *4*(6), 1-13.

Agbasi, O. E., Nze, P., & Ifeme, C. (2024). Effect of Cooperative Marketing on Economic Revenue Following Fuel Subsidy Removal in Awka South Local Government Area, Anambra State. *UNIZIK Journal of Marketing*, *1*(3), 102-123.

Akarara, E. A. (2025, June 4). *The socioeconomic implications of fuel subsidy removal: Assessing household welfare and adaptive strategies in Bayelsa State, Nigeria*. Proceedings of the 3rd (Hybrid) International Conference, Faculty of Social Sciences, Niger Delta University: Social Sciences Perspectives in Development Planning in Post-Subsidy Regimes in Nigeria. https://doi.org/10.36108/wjss/ConfP.2025.001

Akintoye, O. A., Asuquo, E. E., Edet Harrison, U., Edwin, O., & Adesola, A. T. (2025). The Socio-Economic and Environmental Implications of Petroleum Subsidies Removal on Nigerians. *Available at SSRN 5274475*.

Akinwunmi, A. A., & Adekoya, O. D. (2022). Impact of fuel subsidy removal on the Nigerian economy: A sectoral analysis. *Journal of Energy Economics*, 16(3), 201–218.

Areh, C. E., Ajah, B. O., Ezeanya, O. C., EZE, A. U., Onwuchekwe, S. I., & Onyejegbu, C. D. (2021). The troubling epidemic of wife-battering in Ogbaru and Onitsha north local government areas of Anambra state, Nigeria. *International Journal of Criminology and Sociology*, *10*, 1349-1361.

Bojnec, Š., & Žampa, S. (2021). Subsidies and economic and financial performance of enterprises. *Journal of Risk and Financial Management*, *14*(11), 505.

Gana, I. M., & Bashar, N. M. (2024). Implications of fuel subsidy removal on Nigeria's sustainable development. *Nigerian Journal of Management Sciences*, *25*(1), 279–286.

Iremeka, F. U., Eseadi, C., Ezenwaji, C., Ezenwaji, I. O., Okide, C. C., Ogbonna, C. S., & Onwuchekwe, S. I. (2021). Effect of school-based rational-emotive behaviour program on burnout among adult learners: Moderating influence of participants' demographic variables. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, *39*(4), 712-729.

Jesuola, G. D. (2024). *Impact of the Nigerian Government's Fuel Subsidy Removal: Data Analysis and Suggestions* (Master's thesis, Texas A&M University-Kingsville).

Johnson, M. O. (2024). The politics of insecurity and fuel subsidy removal: the implications for Nigeria's development. *EBSU Journal of Social Sciences and Humanities*, *14*(3).

McCulloch, N., Moerenhout, T., & Yang, J. (2021). Fuel subsidy reform and the social contract in Nigeria: A micro-economic analysis. *Energy policy*, *156*, 112336.

Mohammed, A. B., Ahmed, F. F., & Adedeji, A. N. (2020). Assessment of impact of fuel subsidy removal on socio-economic characteristics: A survey of households in Maiduguri, Borno State, Nigeria. *Journal of Business and Economic Development*, *5*(1), 10.

Ngene, N. C., Okafor, O. E., & Okonkwo, C. J. (2023). Fuel subsidy removal and agricultural cooperative business performance in Imo state. *Journal of the Management Sciences*, *60*(3), 1-13.

Ngozi, O. S., Ezeani Ezeani, P. O., & Gift-Maureen, N. O. (2025). Assessing the Performance of Cooperatives in Youths Empowerment in Enugu State, Nigeria. *International Journal of Sub-Saharan African Research*, *3*(1), 245-256.

Nigeria Economic Summit Group (NESG) (2023). Retrieved from https://www.nesgroup.org/blog/Cost-and-Benefits-of-Fuel-Subsidy-in-Nigeria

Obasi, V., Ezenkwa, E., & Onwa, D. (2017). The political economy of fuel subsidy removal in Nigeria. *African Journal of Politics and Administrative Studies*, *10*(1), 51-69.

Oigochie, A. E., George, S., & Joshua, A. (2025). Fuel Subsidy Removal and Its Impact on the Efficiency of the Nigerian Civil Service. *Asian Research Journal of Arts & Social Sciences*, *23*(5), 34-44.

Oyinlana, G. O., Aderoju, J. A., & Olofin, T. B. (2025). Influence of Fuel Subsidy Removal on Economic Life of Low-Income Earners in Nigeria. *Business Education Research*, *1*(1), 32-40.

Sennuga, S. O., Isola, E. O., Bamidele, J., Ameh, D. A., & Olaitan, M. A. (2024). Impact of fuel subsidy removal on agricultural production among Smallholder Farmers in Niger State, Nigeria. *Journal of Economics, Business Management and Administration*, *5*(2), 7-17.

Sulaiman, M., Tanimu, L. A., Rilwan, B., & Ibrahim, S. A. (2023). Effect of fuel subsidy removal on households' consumption expenditure in Northwest Nigeria. *FUDMA Economic and Development Review (FEDER)*, *7*(1), 139–153.

Taiwo, D. A. E., Akinrinola, D. A. S., AKINTUNDE-ADEYI, J. F., Bademosi, S. D., & Abdussalaam, L. B. (2024). Effects of fuel subsidy removal on small and medium enterprises growth and development in Nigeria: case of block making industries. *International Journal of Research and Innovation in Social Science*, *8*(6), 1245-1258.