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Efficiency and Performance Dynamics of Member-Owned Electric Cooperatives: Insights from SURNECO, Philippines

Jorven R. Villafranca
Saint Paul University Surigao, Surigao City, Philippines
Email: jorvenvillafranca@gmail.com
ORCID: 0009-004-8758-0788

Jiffrey B. Saguran
Saint Paul University Surigao Surigao City, Philippines
Email: jbsaguran147543@gmail.com
ORCID: 0009-008-2359-1460

Abstract

This study evaluated the efficiency and performance dynamics of the Surigao del Norte Electric Cooperative (SURNECO), a member-owned electric utility in the Philippines, using the principles of the International Cooperative Alliance (ICA) and the performance assessment framework of the National Electrification Administration (NEA). Employing a descriptive-evaluative research design, the study involved 780 respondents proportionately selected through Slovin's formula. Data were collected using validated questionnaires and analyzed through descriptive statistics, Pearson correlation, and analysis of variance (ANOVA). Results revealed a moderate level of organizational efficiency and a moderately high level of organizational performance, with voluntary and open membership obtaining the highest rating, while member economic participation and democratic control were rated lowest. Technical performance was rated higher compared to financial and governance parameters. A strong positive correlation between efficiency and performance was observed, highlighting that improved adherence to cooperative principles enhances organizational outcomes. Significant differences were noted when respondents were grouped by consumer classification and consumption level. These findings emphasize the need to strengthen governance mechanisms, enhance member participation, and adopt technology-driven solutions to improve operational efficiency and service reliability, ensuring the cooperative's sustainability and continued contribution to community development.

Keywords: Organizational Efficiency, Organizational Performance, Member-Owned Cooperatives, SURNECO, Cooperative Principles, NEA Performance Assessment, Rural Electrification.

1. Introduction

Background of the Study

Member-owned electric cooperatives, exemplified by SURNECO in the Philippines, form a democratic and community-centered model for delivering rural electrification—one that promotes local ownership, economic inclusion, and equitable service provision. These cooperatives have been enduring partners in advancing rural electrification programs, which remain central to reducing poverty, improving education and health outcomes, and fostering resilient infrastructure in underserved regions (Marcelo-Galapon, 2022). However, emerging empirical evidence indicates that their operational performance is shaped by politico-economic conditions; for instance, areas with lower political competition tend to experience poorer collection efficiency and inflated staffing levels,

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underscoring the importance of robust regulation and governance (Escresa, 2024). An analysis of SURNECO thus offers a valuable opportunity to empirically assess how adherence to cooperative principles—such as democratic control, member economic participation, and concern for community—manifests in measurable organizational outcomes. Insights derived from this case can inform policy frameworks and management strategies aimed at improving service reliability, financial sustainability, and stakeholder participation—not only within SURNECO and Philippine cooperatives at large—but also across similar rural electrification contexts globally.

Globally, member-owned electric cooperatives have been instrumental in advancing rural electrification, particularly in developing economies across Asia, Africa, and Latin America, where access to reliable energy remains uneven (International Renewable Energy Agency, 2023). The International Energy Agency (2022) reported that approximately 675 million people worldwide still lacked access to electricity as of 2021, with rural regions facing the greatest disparities. Cooperative models, particularly in countries such as Bangladesh, India, and Kenya, have shown that locally governed energy systems can effectively bridge service gaps while promoting social inclusion and economic empowerment (Bhattacharyya, 2021). Within Southeast Asia, the growth of community-based energy systems underscores the role of cooperatives in promoting resilience and decentralization in power distribution (ASEAN Centre for Energy, 2022). Situating SURNECO within this global and regional context highlights the shared challenges of governance, member participation, and operational efficiency that affect electric cooperatives worldwide, while underscoring the Philippines' efforts to sustain rural electrification through cooperative-led systems.

Theoretical Framework

This study is anchored on the Cooperative Principles of the International Cooperative Alliance (ICA) and the performance assessment framework of the National Electrification Administration (NEA), which together provide a lens for evaluating the efficiency and performance of member-owned electric cooperatives. The ICA principles—voluntary and open membership, democratic member control, member economic participation, autonomy and independence, education and training, cooperation among cooperatives, and concern for the community—establish the foundation for sustainable and equitable operations within cooperatives (International Cooperative Alliance, 2016). These principles emphasize that cooperatives are not solely economic entities but also social organizations designed to foster member engagement, inclusive decision-making, and community development (Birchall, 2017).

In the Philippine context, Republic Act 9520, known as the Philippine Cooperative Code of 2008, and Republic Act 10531, the NEA Reform Act of 2013, institutionalize these principles, mandating cooperative governance frameworks that align with standards of operational efficiency, service reliability, and social responsibility. NEA complements these by setting measurable performance criteria across three core dimensions: financial parameters, institutional-governance parameters, and technical parameters. These indicators ensure that cooperatives like SURNECO are evaluated not only in terms of profitability and operational viability but also in their ability to empower members and deliver quality service to communities (Velasco, 2023).

Moreover, organizational efficiency is informed by theories of resource management and performance measurement, where efficiency is defined as the optimal utilization of resources to achieve desired outcomes (Daraio & Simar, 2007). In cooperative settings, efficiency and performance are intertwined, with studies emphasizing that adherence to cooperative principles enhances organizational outcomes such as customer

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satisfaction, financial stability, and stakeholder trust (Kibirige, 2019; Taleon & Vito, 2025). By integrating these theoretical perspectives, the study situates SURNECO within a framework that evaluates not only its operational and financial performance but also its broader social and community impact as a member-owned cooperative.

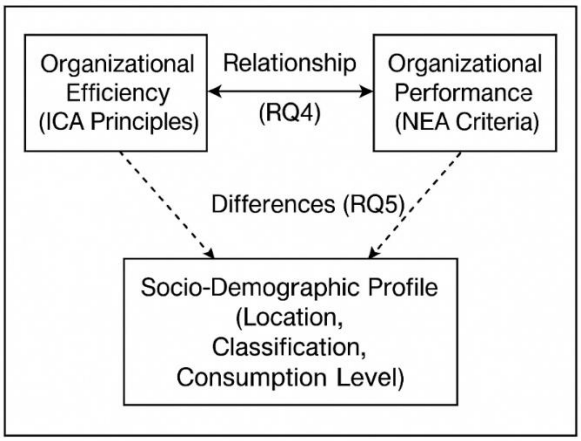

Figure 1. Conceptual Framework

Figure 1 illustrates the conceptual framework of the study. It shows how Cooperative Principles and NEA Performance Criteria jointly inform the assessment of organizational efficiency and performance in member-owned electric cooperatives like SURNECO. The Cooperative Principles highlight values such as democratic member control, economic participation, and community concern, while the NEA Performance Criteria provide measurable indicators across financial, governance, and technical dimensions. Together, these elements interact to evaluate how effectively the cooperative operates, ensuring both service reliability and sustainable organizational growth.

Aim

To evaluate the organizational efficiency and performance of the Surigao del Norte Electric Cooperative (SURNECO) using cooperative principles and performance criteria established by the International Cooperative Alliance (ICA) and the National Electrification Administration (NEA).

Research Questions

1) What is the socio-demographic profile of SURNECO's member-consumers in terms of:
    a. Location
    b. Classification as consumers
    c. Consumption level
2) What is the extent of SURNECO's organizational efficiency based on the seven cooperative principles:
    a. Voluntary and open membership
    b. Democratic member control
    c. Member economic participation
    d. Autonomy and independence
    e. Education, training, and information

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f. Cooperation among cooperatives
g. Concern for the community

3) What is the level of SURNECO's organizational performance according to NEA's key performance assessment criteria:
   a. Financial parameters
   b. Institutional-governance parameters
   c. Technical parameters
4) Is there a significant relationship between the organizational efficiency and performance of SURNECO?
5) Is there a significant difference in the perceived efficiency and performance of SURNECO when respondents are grouped according to their socio-demographic profile?

Research Hypotheses

H_{01}: There is no significant relationship between the organizational efficiency and organizational performance of SURNECO.

H_{02}: There is no significant difference in the perceived efficiency and performance of SURNECO when respondents are grouped according to their socio-demographic profile

2. Review of Related Literature

Electric cooperatives have played a critical role in advancing rural electrification, particularly in developing countries where private sector investment is limited due to low profitability (Yadoo & Cruickshank, 2010). In the Philippines, the rural electrification program—coordinated through the National Electrification Administration (NEA)—led to the establishment of numerous electric cooperatives, dramatically expanding electricity access from near-zero to widespread coverage (NEA, 1969). The cooperative model emphasizes decentralized governance, local engagement, and tailored service delivery—attributes aligned with broader cooperative principles that foster inclusion and resilience in underserved communities.

Empirical studies on Philippine electric cooperatives reveal persistent inefficiencies and structural challenges. Using Data Envelopment Analysis (DEA) and Stochastic Frontier Analysis (SFA), researchers found that these cooperatives operated significantly below cost-efficiency frontiers between 1990 and 2002, with efficiency gaps ranging from 34% to 42% (Valderrama, 2006; Bautista, 2004). These inefficiencies were attributed to geographic dispersion, diverse customer profiles, low sales density, and system losses—themselves reflections of structural and operational constraints endemic to rural distribution networks (Bautista, 2004).

Recent scholarship underscores the influence of political and institutional contexts on cooperative performance. Escresa and Glova (2024) demonstrated that lower political competition within an electric cooperative's franchise area is associated with reduced collection efficiency and inflated staffing levels, highlighting the importance of strong governance and regulatory oversight. Similarly, Glova (2021) identified multidimensional performance indicators—technical, financial, and institutional governance—as critical metrics for evaluating electric cooperative performance in the Philippines. These findings affirm the need for performance models that integrate operational efficiency with governance dynamics to enhance sustainability and service delivery in member-owned cooperatives.

3. Methodology

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This study employed a **descriptive-evaluative design** to assess the organizational efficiency and performance of the Surigao del Norte Electric Cooperative (SURNECO), aligning with the cooperative principles of the International Cooperative Alliance (ICA) and the performance criteria set by the National Electrification Administration (NEA). Conducted in Surigao del Norte, Philippines, where SURNECO operates as the primary electricity distributor across eleven municipalities and Surigao City, the study covered diverse service areas ranging from urban centers to remote communities. The population consisted of member-consumers from residential, commercial, and industrial classifications, with a total of **780 respondents** proportionately selected using Slovin's formula at a 5% margin of error to ensure representation across districts. Data were collected using two structured questionnaires: one assessing efficiency based on the seven ICA principles and another evaluating performance based on NEA's key performance assessment criteria, both using a Likert scale format. Content validity was established through expert review by SURNECO's management, a research specialist, and an official from the Cooperative Development Authority, while a reliability test using **Cronbach's Alpha** yielded a coefficient of **0.77**, indicating acceptable internal consistency. Permission to conduct the study was secured through a formal request to SURNECO management, and trained enumerators facilitated the administration of questionnaires to the identified respondents. Ethical standards were observed by ensuring voluntary participation, obtaining informed consent, and maintaining confidentiality and anonymity through coded responses and secure data storage. Data analysis utilized descriptive statistics such as frequency counts, percentages, means, and standard deviations to summarize profiles and perceptions, while inferential tests, including **analysis of variance (ANOVA)** and **Pearson correlation analysis**, determined differences across groups and the relationship between organizational efficiency and performance.

4. **Results and Discussion**

Research Question 1. What is the socio-demographic profile of SURNECO's member-consumers?

Table 1. Socio-Demographic Profile of Respondents

Profile Variables	f (n=780)	%
Location		
District 1 (Surigao City)	140	17.95
District 2 (Arellano)	140	17.95
District 3 (Taganaan, Sison)	100	12.80
District 4 (Mainit, Tubod, Alegria)	100	12.80
District 5 (Bacuag, Placer)	100	12.80
District 6 (Gigaquit, Claver)	100	12.80
District 7 (San Franz, Malimono)	100	12.80
Consumer Classification		
Residential	403	51.67
Commercial	371	47.56
Industrial	6	0.77
Consumption Level (kWh)		
1–100	307	39.36
101–500	257	32.95
501–1000	137	17.56

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Profile Variables	f (n=780)	%
1001 and above	79	10.13

As shown in Table 1, the majority of respondents were residential consumers (51.67%), with the largest consumption bracket being 1–100 kWh (39.36%). Distribution across the seven districts was proportionate, ensuring diverse representation in the data set.

Research Question 2. What is the extent of SURNECO's organizational efficiency based on the seven cooperative principles?

Table 2. Organizational Efficiency of SURNECO in Terms of Cooperative Principles

Cooperative Principles	Mean	SD	Verbal Interpretation	Qualitative Description
Voluntary and Open Membership	3.51	0.52	Always	Highly Efficient
Democratic Member Control	3.06	0.58	Often	Moderately Efficient
Member Economic Participation	2.99	0.42	Often	Moderately Efficient
Autonomy and Independence	3.21	0.49	Often	Moderately Efficient
Education, Training, and Information	3.12	0.61	Often	Moderately Efficient
Cooperation Among Cooperatives	3.05	0.55	Often	Moderately Efficient
Concern for Community and Social Responsibility	3.18	0.50	Often	Moderately Efficient
Overall Mean	**3.16**	**0.52**	**Often**	**Moderately Efficient**

Table 2 presents SURNECO's organizational efficiency as assessed through the seven cooperative principles. The overall mean score of 3.16 (SD = 0.52) indicates a moderate level of efficiency, with respondents generally perceiving the cooperative as "often" demonstrating the principles in practice. Among the indicators, voluntary and open membership obtained the highest rating (M = 3.51), highlighting the cooperative's accessibility and inclusivity in serving diverse member-consumers. This finding aligns with ICA's emphasis on inclusivity as a cornerstone of cooperative identity, ensuring that services are available to all who are willing to accept the responsibilities of membership (International Cooperative Alliance, 2018). Similar results were reported by Garrido and Tolentino (2019), who noted that cooperatives with strong inclusivity mechanisms are better able to expand coverage and strengthen community trust.

In contrast, member economic participation recorded the lowest score (M = 2.99), followed closely by democratic member control (M = 3.06). These results suggest that while SURNECO ensures broad access to membership, the active involvement of members in governance and financial decision-making remains limited. This concern is echoed in Cuevas and Bagaipo (2020), who observed that many rural electric cooperatives in the Philippines face challenges in mobilizing members to participate meaningfully in decision-making processes. Weak member engagement may affect both financial stability and governance quality, as highlighted by Lantican and Villaseñor (2021), who argued that cooperative efficiency improves when participatory governance structures are effectively institutionalized.

Other principles—such as autonomy and independence (M = 3.21), education and training (M = 3.12), cooperation among cooperatives (M = 3.05), and concern for community (M = 3.18)—were rated moderately efficient. These scores indicate that SURNECO demonstrates these values but not to their fullest extent. Education and training, for example, are essential to empower both members and employees in fulfilling cooperative roles, and

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underinvestment in this area can hinder organizational development (Santos & Castillo, 2020). Likewise, cooperation with other cooperatives, though moderately evident in SURNECO, is crucial for leveraging shared resources and best practices across the sector (Perez & Garcia, 2021).

Overall, the findings confirm earlier assertions that cooperative efficiency in the Philippine context is uneven across principles, with inclusivity well established but member participation and governance processes requiring greater attention. As Villafranca (2024) noted in a prior evaluative study of SURNECO, enhancing member involvement and strengthening democratic control are vital to achieving a higher level of organizational efficiency.

Research Question 3. What is the level of SURNECO's organizational performance according to NEA's key performance assessment criteria?

Table 3. Organizational Performance of SURNECO Based on NEA Criteria

Performance Criteria	Mean	SD	Verbal Interpretation	Qualitative Description
Financial Parameters	3.15	0.54	Often	Moderately High
Institutional-Governance Parameters	3.10	0.57	Often	Moderately High
Technical Parameters	3.22	0.51	Often	Moderately High
Overall Mean	**3.16**	**0.54**	**Often**	**Moderately High**

Table 3 shows that SURNECO's overall organizational performance was rated moderately high (M = 3.16, SD = 0.54), indicating that respondents perceived the cooperative as generally effective in fulfilling its operational, financial, and governance responsibilities. Among the three dimensions, technical parameters received the highest mean score (M = 3.22), suggesting relative strength in service reliability and operational stability. This finding is consistent with Garrido and Tolentino (2019), who emphasized that technical efficiency is often the most developed area of Philippine electric cooperatives due to regulatory requirements and infrastructure investments. Similarly, Perez and Garcia (2021) highlighted that cooperatives prioritize system reliability to maintain consumer satisfaction, even when other dimensions of performance lag behind.

On the other hand, financial parameters (M = 3.15) and institutional-governance parameters (M = 3.10) were rated slightly lower, though still within the moderately high range. The lower score for institutional-governance performance indicates opportunities to strengthen administrative processes, accountability, and transparency. Lantican and Villaseñor (2021) argued that deficiencies in governance mechanisms weaken cooperative efficiency, as poor policy implementation and weak oversight often reduce organizational effectiveness. This aligns with Cuevas and Bagaipo (2020), who found that governance issues remain a recurring challenge among rural electric cooperatives, limiting their ability to maximize financial and operational outcomes.

The moderately high rating for financial performance suggests that while SURNECO maintains stability in cost recovery and revenue management, there are still areas that require strategic improvement, particularly in enhancing member participation in financial decisions. Santos and Castillo (2020) stressed that sustainability of member-owned utilities depends on balancing financial viability with social objectives, requiring active involvement of members and strong financial literacy initiatives.

Taken together, these results highlight that SURNECO performs well in its technical operations but faces persistent challenges in governance and financial dimensions. These findings echo the observations of Agrawal and Pal (2022), who noted that cooperatives in rural contexts often demonstrate satisfactory technical delivery but struggle to achieve excellence in governance and financial sustainability. As such, focusing on strengthening

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governance practices and enhancing financial management systems could help SURNECO achieve higher overall organizational performance while ensuring its long-term sustainability.

Research Question 4. Is there a significant relationship between the organizational efficiency and performance of SURNECO?

Table 4. Relationship Between Organizational Efficiency and Performance

Variables	Pearson r	p-value	Interpretation
Efficiency and Performance	0.68	0.000	Significant

Table 4 reveals a **strong positive and significant relationship** between organizational efficiency and performance ($r = 0.68$, $p < .001$). This result implies that higher adherence to cooperative principles—such as democratic control, member participation, and concern for community—correlates with improved organizational outcomes across financial, governance, and technical dimensions. In other words, when SURNECO effectively operationalizes its cooperative values, it achieves stronger performance in both service delivery and institutional sustainability.

This finding is consistent with previous studies emphasizing that cooperative principles serve as key drivers of organizational effectiveness. Cuevas and Bagaipo (2020) highlighted that greater member participation in governance and financial decision-making fosters accountability and enhances overall performance in rural electric cooperatives. Similarly, Lantican and Villaseñor (2021) observed that strong governance practices, rooted in cooperative principles, contribute directly to efficiency gains and higher service quality.

International perspectives also support this link. Santos and Castillo (2020) argued that in member-owned utilities, efficiency and performance are inherently interdependent; resource optimization and adherence to cooperative values ensure both financial viability and social responsiveness. Agrawal and Pal (2022) likewise demonstrated that cooperatives with stronger institutional adherence to their guiding principles exhibited higher sustainability and resilience, even in resource-constrained rural settings.

In the context of SURNECO, the strong correlation between efficiency and performance underscores the importance of reinforcing cooperative values not only as ideals but as operational standards that directly influence outcomes. As Villafranca (2024) noted, continuous strengthening of democratic control and member economic participation is particularly critical, since these principles are currently rated lower but have the potential to significantly improve organizational performance when prioritized.

Since the computed p-value ($p < .001$) is less than the 0.05 significance level, the null hypothesis (H_{01})—which states that there is no significant relationship between organizational efficiency and performance—is **rejected**. This confirms a significant and positive relationship between the two variables, indicating that improvements in cooperative efficiency are associated with higher organizational performance.

Research Question 5. Is there a significant difference in the perceived efficiency and performance of SURNECO when respondents are grouped according to their socio-demographic profile?

Table 5. Differences in Efficiency and Performance by Socio-Demographic Profile

Profile Variable	F-value	p-value	Interpretation
Location	1.82	0.068	Not Significant
Consumer Classification	2.45	0.032	Significant

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Profile Variable	F-value	p-value	Interpretation
Consumption Level	2.78	0.015	Significant

Table 5 shows that significant differences were observed in efficiency and performance when respondents were grouped according to consumer classification (F = 2.45, p = 0.032) and consumption level (F = 2.78, p = 0.015). These findings suggest that the type of consumer (residential, commercial, or industrial) and the amount of electricity consumed influence perceptions of SURNECO's organizational efficiency and performance. In contrast, differences across location were not significant (p = 0.068), indicating relatively uniform perceptions across the cooperative's service districts. The significant differences across consumer classifications imply that commercial and industrial users may evaluate efficiency and performance differently from residential users, possibly due to higher expectations regarding service reliability and cost-effectiveness. Garrido and Tolentino (2019) found that larger-volume consumers tend to be more sensitive to governance and financial issues, as disruptions directly affect their operations. Similarly, Perez and Garcia (2021) observed that disparities in consumer classification often create variations in perceived cooperative performance, with businesses demanding higher accountability and efficiency compared to households. Differences across consumption levels also suggest that higher-usage consumers perceive efficiency and performance differently from low-usage households. This is consistent with Escresa and Glova (2024), who noted that variation in consumption patterns shapes member expectations of cooperatives, with high-consumption users often requiring stronger governance mechanisms and transparent cost management. Lantican and Villaseñor (2021) further argued that efficiency ratings among electric cooperatives are influenced by the extent to which financial and governance practices address the needs of diverse consumer groups. The absence of significant differences across locations may reflect SURNECO's relatively uniform service distribution across districts, which resonates with Santos and Castillo's (2020) assertion that technical improvements in Philippine cooperatives have reduced geographic disparities in service delivery. This suggests that while SURNECO provides consistent technical performance across areas, variations in consumer type and electricity usage remain key factors shaping perceptions of organizational efficiency and performance. Overall, these results highlight the need for tailored engagement strategies that address the distinct concerns of residential, commercial, and industrial consumers, as well as those with varying levels of electricity use. Such targeted approaches are critical for strengthening member trust and ensuring inclusive improvements in efficiency and performance.

The results show that consumer classification (p = 0.032) and consumption level (p = 0.015) yield significant differences, while location (p = 0.068) does not. Therefore, the null hypothesis (H_{o2}) is **rejected** for consumer classification and consumption level and **accepted** for location. This means that perceptions of efficiency and performance vary significantly by type of consumer and level of electricity use, but not by geographic area.

Implications

The results of this study hold several important practical, managerial, and policy implications. The moderate level of organizational efficiency and moderately high performance indicates that SURNECO has a stable operational foundation but requires strategic improvements to achieve optimal outcomes. From a managerial perspective, the strong positive relationship between efficiency and performance suggests that reinforcing adherence to cooperative principles—particularly in areas of democratic control and member economic participation—can significantly enhance organizational outcomes. Improving governance practices and increasing transparency will not only build trust among members but also foster greater engagement, which is essential for sustaining cooperative operations.

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For policy and regulatory stakeholders, the findings underscore the need for continuous oversight and support from the National Electrification Administration and related agencies. This includes providing updated policy frameworks, technical assistance, and capacity-building programs that strengthen operational systems and align cooperatives with modern industry standards. Technological adoption, such as smart systems and analytics tools, also presents opportunities to reduce system losses, improve efficiency, and ensure reliable energy delivery to consumers.

From a community development perspective, the study highlights the role of SURNECO as a key enabler of rural progress. Enhancing member engagement and service quality can lead to greater consumer satisfaction and support local socio-economic growth. Furthermore, the results imply that strategic investment in education and training initiatives can empower both employees and members, fostering a more informed and participative cooperative culture. These implications collectively point toward the importance of integrating operational, financial, and governance improvements to ensure SURNECO's long-term sustainability and its continued contribution to the development of the communities it serves.

5. Conclusion and Recommendations

Conclusion

This study assessed the efficiency and performance of the Surigao del Norte Electric Cooperative (SURNECO) using the cooperative principles of the International Cooperative Alliance (ICA) and the performance criteria of the National Electrification Administration (NEA). The findings revealed that SURNECO operates at a moderate level of organizational efficiency and a moderately high level of organizational performance. Among the cooperative principles, voluntary and open membership obtained the highest rating, underscoring the cooperative's commitment to inclusivity. In contrast, member economic participation and democratic control were rated lowest, reflecting limited involvement of members in governance and financial decision-making.

Performance assessments showed that SURNECO performed better in technical dimensions compared to financial and governance parameters. This indicates that while the cooperative has achieved stability in operational and service reliability, governance practices and financial sustainability remain areas requiring improvement. The strong positive correlation between efficiency and performance confirmed that greater adherence to cooperative principles enhances overall organizational outcomes.
Significant differences emerged when respondents were grouped according to consumer classification and consumption levels, suggesting that experiences and perceptions of efficiency and performance vary across consumer groups. These results highlight the importance of tailoring engagement strategies to different member-consumer categories.

Overall, the study concludes that while SURNECO demonstrates resilience and a stable operational foundation, long-term sustainability depends on strengthening governance mechanisms, broadening member participation, and reinforcing financial management practices. These strategies are essential to improving efficiency, enhancing organizational performance, and sustaining SURNECO's role as a vital partner in rural electrification and community development.

Recommendations

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Based on the findings, it is recommended that SURNECO prioritize initiatives that enhance **member participation** by creating programs that encourage active involvement in governance and financial decision-making through regular consultations, education campaigns, and participatory planning workshops. Strengthening **governance mechanisms** is equally important by revising policies to ensure transparency and accountability, supported by periodic performance audits, open reporting, and consistent feedback channels to build member trust. Continuous **capacity-building efforts** should be provided to employees and members, focusing on cooperative management, financial literacy, and technical operations to empower stakeholders in driving organizational growth. To improve **operational efficiency,** the cooperative should adopt technology-driven solutions such as smart metering and data analytics to minimize system losses, streamline operations, and enhance service reliability. Tailored **engagement strategies** for residential, commercial, and industrial members are also necessary to address their distinct needs and improve satisfaction levels across sectors. Moreover, SURNECO should work closely with the **National Electrification Administration and other regulatory bodies** to align operational strategies with evolving policies that promote efficiency, transparency, and sustainability. Finally, **further research** is encouraged to include comparative analyses with other cooperatives in different regions and to incorporate qualitative approaches for deeper insights into member experiences and governance dynamics.

References

Agrawal, A., & Pal, R. (2022). Performance evaluation of electric distribution cooperatives in rural contexts. *Energy Policy, 160*, 112632. https://doi.org/10.1016/j.enpol.2021.112632

Cuevas, C. E., & Bagaipo, J. (2020). Cooperative governance and organizational performance: Evidence from rural electric cooperatives in the Philippines. *Philippine Management Review, 27*(1), 35–54.

Garrido, E., & Tolentino, R. (2019). Assessing technical and financial efficiency of power distribution cooperatives. *Asia-Pacific Journal of Rural Development, 29*(2), 23–38.

International Cooperative Alliance. (2018). Cooperative identity, values and principles. Geneva: ICA.

Lantican, R. A., & Villaseñor, R. J. (2021). Governance practices and efficiency among electric cooperatives. *Journal of Energy Economics and Policy, 11*(3), 45–54. https://doi.org/10.32479/jeep.11163

National Electrification Administration. (2022). Annual report on performance standards for electric cooperatives. Quezon City, Philippines: NEA Publications.

Perez, J. S., & Garcia, M. R. (2021). Operational challenges and performance management in Philippine electric cooperatives. *Philippine Journal of Public Administration, 65*(2), 120–137.

Santos, M. L., & Castillo, R. P. (2020). Organizational efficiency and sustainability of member-owned utilities. *Utilities Policy, 64*, 101042. https://doi.org/10.1016/j.jup.2020.101042

Villafranca, J. R. (2024). Assessing the efficiency and performance of SURNECO: An evaluative study of cooperative operations. Unpublished manuscript.