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Customer Relationship Management and Customer Satisfaction between Electric Distribution Utilities

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Abstract: *This study examined and compared the Customer Relationship Management (CRM) and Customer Satisfaction among residential consumers of two electric distribution utilities (EDUs): Cebu I Electric Cooperative, Inc. (CEBECO I) and Cebu II Electric Cooperative, Inc. (CEBECO II). Guided by the CRM framework of Admasu (2019) and customer satisfaction indicators by Ong et al. (2022), the study investigated the CRM practices customer satisfaction variables. The findings revealed that while both electric distribution utilities were rated favorably, CEBECO I consistently outperformed CEBECO II in key areas. The study concludes that effective CRM strategies aligned with customer expectations are crucial for improved customer satisfaction.*

Keywords: Customer Relationship Management, Customer Satisfaction, Electric Distribution Utilities

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1. Introduction

Globally, the electric power industry is a fundamental driver of economic growth, technological advancement, and improved quality of life. Reliable electricity supply enables households, businesses, and public institutions to operate effectively, making electric distribution utilities (EDUs) indispensable to national development (International Energy Agency [IEA], 2021)

In many developing economies, the primary challenge lies not only in expanding electricity generation capacity but also in ensuring equitable, efficient, and reliable distribution. This requires modern infrastructure, sound operational systems, and service delivery that meets consumer expectations (World Bank, 2020).

Over time, consumers have shifted their expectations beyond the basic provision of electricity to include responsiveness, transparency, and proactive service. Parasuraman, Zeithaml, and Berry (1988) emphasize that service quality is a central determinant of customer satisfaction, especially in service-dependent industries.

Customer Relationship Management (CRM) has emerged as an effective strategic approach for meeting these demands. CRM is a holistic system that integrates customer focus, organizational alignment, knowledge management, and technology to build and maintain strong customer relationships (Buttle & Maklan, 2019; Nguyen & Mutum, 2012).

In the utility sector, CRM enhances service delivery by enabling faster response times, accurate billing, and better communication. Research shows that well-implemented CRM systems lead to increased consumer trust, improved retention rates, and more efficient operations (Kumar & Reinartz, 2016; Payne & Frow, 2017).

However, the level and quality of CRM implementation varies across organizations. Factors such as leadership commitment, technological capability, organizational culture, and resource allocation influence the effectiveness of CRM practices (Sin et al., 2005; Eid, 2007). These variations can result in significant differences in customer satisfaction outcomes.

This is particularly evident in utility services where the customer base is diverse and service delivery challenges are shaped by geography, infrastructure, and local management practices. Comparative studies are therefore useful in identifying best practices and performance gaps among similar service providers (Admasu, 2019; Ong et al., 2022).

In the Philippines, electric distribution services are delivered by both private utilities and electric cooperatives operating under the supervision of the National Electrification Administration (NEA).

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Cooperatives are mandated to provide reliable electricity access while maintaining a service-oriented, community-based operational model (NEA, 2021; Department of Energy [DOE], 2022).

Within Cebu Province, Cebu I Electric Cooperative, Inc. (CEBECO I) and Cebu II Electric Cooperative, Inc. (CEBECO II) serve different geographic and demographic areas. While both aim to deliver efficient service, anecdotal accounts and customer feedback suggest differences in CRM effectiveness and overall satisfaction

This study addresses these differences by applying a descriptive-comparative design to examine and compare the CRM practices of CEBECO I and CEBECO II in relation to customer satisfaction. The findings aim to guide cooperative managers, policymakers, and stakeholders in refining CRM strategies to enhance service quality and strengthen consumer trust in the Philippine electric distribution sector.

2. Materials and Methods

This study employed a descriptive-comparative research design. Data were gathered using a validated questionnaire adapted from Admasu (2019) and Ong et al. (2022), designed to measure CRM practices along with customer satisfaction indicators. A total of 378 residential consumers were selected through stratified random sampling from the service areas of Cebu I Electric Cooperative, Inc. (CEBECO I) and Cebu II Electric Cooperative, Inc. (CEBECO II).

The instrument utilized a five-point Likert scale, with descriptive equivalents for each scale point to ensure consistent interpretation by respondents. Weighted mean scores were computed to determine the level of CRM practices and customer satisfaction in each cooperative. To test significant differences between the two groups, the independent samples t-test was applied.

3. Results

3.1. Key Customer Focus

The factor Key Customer Focus explored the extent to which customer representatives demonstrated attentiveness, empathy, and responsiveness in addressing customer needs and concerns. Table 1 presents the comparative data on the perceived level of Key Customer Focus between the two electric cooperatives included in the study, namely, CEBECO I and CEBECO II.

EDU	Mean	t stat (Welch)	df	p-value	Interpretation
CEBECO I	4.19	2.20	317.00	0.03	Significant
CEBECO II	4.02				

Table 1: Key Customer Focus

3.2. CRM: CRM Organization

The factor CRM Organization explored the internal structure, leadership support, interdepartmental collaboration, and overall organizational commitment that enable the effective implementation of Customer Relationship Management (CRM) systems. Table 2 presents the comparative data on CRM Organization between CEBECO I and CEBECO II based on the responses of residential consumers.

EDU	Mean	t stat (Welch)	df	p-value	Interpretation
CEBECO I	4.11	0.90	333.00	0.37	Not Significant
CEBECO II	4.03				

Table 2: CRM Organization

3.3. Customer Satisfaction: Customer Expectation

Customer Expectation explores how well the electric distribution utilities align their services with what residential consumers anticipate in terms of reliability, transparency, responsiveness, and overall service experience.

EDU	Mean	t stat (Welch)	df	p-value	Interpretation
CEBECO I	4.07	4.56	279.00	<.001	Significant
CEBECO II	3.68				

Table 3: Customer Expectation

3.4. Analysis of Composite Mean Differences

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Table 4 shows that the socio-economic condition and aspirations in life of out-of-school youths in Tarlac City have no significant relationship at the 0.01 level.

Composite Variable	CEBECO I Mean	CEBECO II Mean	Mean Difference	Significance
Customer Relationship Management (Overall)	4.14	4.05	0.09	Not Significant
Customer Satisfaction (Overall)	4.07	3.65	0.42	**Significant (p < .001)**

Table 4: Analysis of Composite Mean Differences

4. Discussion

4.1. CRM: Key Customer Focus

The results revealed a statistically significant difference in the perceptions of residential consumers between the two electric distribution utilities regarding Key Customer Focus. CEBECO I recorded a higher mean score (M = 4.19) compared to CEBECO II (M = 4.02), with a p-value of 0.03, indicating that customers of CEBECO I perceive their utility provider to be more attentive, responsive, and empathetic to their needs and concerns

4.2. CRM: CRM Organization

The analysis of the CRM Organization practice revealed no statistically significant difference between CEBECO I (M = 4.11) and CEBECO II (M = 4.03), with a p-value of 0.37. This suggests that both electric cooperatives are perceived by their residential consumers to have comparable internal structures and organizational systems that support customer relationship management. These include leadership commitment, interdepartmental collaboration, and employee readiness to implement CRM-related policies and procedures. Although CEBECO I scored slightly higher, the margin was not sufficient to reflect a meaningful difference in customer perception.

4.3. Customer Satisfaction: Customer Expectation

The analysis of Customer Expectation revealed a statistically significant difference between the two electric distribution utilities. CEBECO I obtained a mean score of 4.07, while CEBECO II scored 3.68, with a p-value of < .001, indicating a significant gap in how well each utility aligns with the anticipations of its residential consumers. The data suggest that CEBECO I is more effective in setting realistic service standards, providing consistent communication, and fulfilling promises in a way that meets or exceeds what customers expect, whereas CEBECO II may be falling short in managing or addressing these expectations.

4.4. Analysis of Composite Mean Differences

The results revealed that significant differences in several CRM practices and Customer Satisfaction indicators, highlighting variability in service delivery and customer experience across the two cooperatives.

4.5. Customer Relationship Management

4.5.1. Technology-Based CRM

In elevating their technology-based CRM strategies, both cooperatives may invest in more interactive and real-time digital platforms, such as mobile apps, automated response systems, and customer dashboards that offer self-service features. Leveraging data analytics and integrating AI-powered CRM tools may help enhance customer profiling, automate service follow-ups, and improve responsive-ness. These enhancements would modernize their CRM approach and better meet the expectations of increasingly tech-savvy consumers.

4.5.2. Knowledge Management

Regarding the enhancement of the CRM practice, both electric cooperatives may upgrade their knowledge management systems to include analytics and proactive feedback loops. This includes the use of CRM software that not only stores data but also enables insights into consumer trends, behaviour, and service gaps.

4.6. Customer Satisfaction

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To improve overall customer satisfaction, CEBECO II may implement an integrated customer satisfaction improvement plan, focusing on enhancing frontline services, billing transparency, response time, and customer feedback mechanisms. Thus, in fostering a culture of service excellence and responsiveness, CEBECO II can gradually close the satisfaction gap and improve the overall customer experience.

5. Conclusion

The findings of the study revealed that CEBECO I outperform CEBECO II in customer satisfaction due to more effective execution of customer-focused CRM practices. While both utilities have similar CRM systems, only CEBECO I translate these into consistent, responsive service that better meets customer expectations. This highlights the importance of applying CRM strategies in daily operations to enhance consumer trust and satisfaction.

The recommendations call for both CEBECO I and II to enhance CRM and customer satisfaction, with emphasis on improving CEBECO II's service delivery. Key actions include frontline staff training, better feedback systems, upgraded technology, and stronger internal coordination. CEBECO II should focus on clearer communication, billing transparency, and expectation alignment. Both cooperatives are encouraged to monitor performance regularly and adopt digital tools to improve responsiveness. Sustaining customer-focused practices and aligning CRM with actual service are essential for boosting satisfaction and trust.

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AUTHOR'S BIO-NOTE

Carissa A. Vital is currently pursuing a Master's degree in Business Administration at the Tarlac State University (TSU) and is acquiring work experience as an Energy Sourcing Staff in a private electric distribution utility located in Tarlac City. She graduated from TSU in June 2019, with a Bachelor's degree in Business Administration, majoring in Marketing Management. At present, she is driven by her well-founded educational background and corporate experience in the energy sector to investigate how CRM practices affect customer satisfaction concerning electric distribution utilities. Her research aims to compare CRM dimensions with satisfaction levels between CEBECO I and CEBECO II, reflecting both her professional insight and academic commitment. She believes that continuous learning and research-driven strategies can create a positive domino effect on her career growth and contribute to improving service quality in the energy industry.