



Analyzing the Relationship between Service Quality and Customer Satisfaction on the Power Services Delivery of Northern Davao Electric Cooperative

^{1,2}Rey M. Navarro, ³Jovenil R. Bacatan

¹Program Head, Bachelor of Public Administration, Samal Island City College, Philippines

²Part-time Faculty, UM Peñaplata College, Philippines

³Faculty, Teacher Education, UM Peñaplata College, Philippines

Email – ¹remina_services@yahoo.com, ²jovenilbacatan@umindanao.edu.ph

Abstract: *The study aimed to determine the significant influence of service quality on customer satisfaction with the Power Services Delivery of Northern Davao Electric Cooperative (NORDECO) in the Island Garden City of Samal, Davao del Norte. The respondents were the 415 customer members of the cooperative that manage their power utility services. This quantitative survey employed a descriptive-correlational research design to determine the association and influence of service quality on customer satisfaction. The research instruments used in this study were adapted from Parasuraman et al. (1985), Mihelis et al. (2001), Grigoroudis and Siskos (2002), and Ipsilandis et al. (2008) for service quality and customer satisfaction, respectively. The statistical tools used in this study were the Mean, Pearson Product-Moment Correlation Coefficient, and Multiple Linear Regression Analysis. Based on the results, it was found that the level of service quality of the cooperative was low, and the level of satisfaction of the customers was also low. It was revealed that service quality has a very high positive relationship with customer satisfaction. Further, it was also shown that tangibility was the best predictor of customer satisfaction. In addition, all service quality domains in this study's context were significant predictors of customer satisfaction. Based on the results, it can be concluded that NORDECO's ability as a service provider in terms of service quality is seldom manifested. It was reflected in customer satisfaction, which was also seldom manifested. There was a link between service quality and customer satisfaction which can be concluded that there exists a great dependency between both constructs and that an increase in one is likely to lead to an increase in another. Lastly, service quality domains have significantly influenced overall customer satisfaction at a 95% confidence level.*

Key Words: *service quality, customer satisfaction, cooperative, power services.*

1. INTRODUCTION:

In this contemporary world, energy, like electricity, plays a crucial role and fundamental function in socioeconomic growth and development. Wherein it dramatically influences the day-to-day pattern of people's activity, electricity is a limiting and binding constraint for all kinds and sizes of businesses. Eventually, insufficient, unreliable, and costly access to power can be a bottleneck and hindrance to the development and progress of the business. Thus, energy is required to power the industrial processes to produce goods, equipment, and services in the most productive sectors within an economy. In effect, sufficient energy provision is also strongly associated with improved human development (Bergasse et al., 2013). Economic growth per se requires adequate readily available energy to maintain stability, as production should be a function of capital, labor, and energy (Stern, 2011). In the Philippines, the distribution of power is a regulated activity wherein the right to distribute electricity is granted by a franchise covering a particular geographical area called distribution utilities (DUs). Such DUs have the exclusive right to sell electricity to the end users connected to their respective distribution networks, subject to the entry of qualified third-party providers in inaccessible areas of the franchise area. As of 2006, there are 144 DUs, of which 16 are investor-owned utilities (PUs), eight (8) are local government-run, and 120 are customer-owned electric cooperatives (ECs). Therefore, the majority of the electricity provider throughout the country were electric cooperatives (ECs). The concept of electric cooperatives (ECs) was adopted in the Philippines based on the 1966 study recommendation on the total electrification



program adopted and replicated on the rural electric cooperative (REC) model in the United States and of the failure of the local distribution system in rural areas due to technical, financial and managerial problems. As such, it paves the birth of two (2) pilot projects, electric cooperatives (ECs); Misamis Oriental Rural Electric Service Cooperative (MORESCO) in Mindanao and Victorias Rural Electric Service Electric Cooperative (VRESCO) in Visayas respectively. Furthermore, its management and supervision of the said pilot project under the Electrification Administration (EA) created by the Philippine Congress in 1960, wherein task to implement the government's declared objective of total electrification as a national policy. Latterly, in 1969 renamed by Congress as National Electrification Administration (NEA) repeatedly as the implementing agency on the country's total electrification policy. Under the NEA supervision and management, the rural electric cooperative (RECs) were designated as the primary electricity distribution system of the country. The same given authority to establish and oversee, make loans, acquire physical property and franchise rights of existing suppliers, borrow funds, and extend subsidies to RECs (Patalinghug, 2003). Thereby the member-customers are becoming more demanding of a higher degree of service quality of businesses about convenience, affordability, and immediate response system (Felix, 2017). Consequently, achieving the cooperative's objectives through customer satisfaction requires effective tools, including excellent service quality, since customers' general impression of the relative inferiority or superiority of the organization and its services are associated with the quality of service and said to be saturated with intrinsic weaknesses and challenges making them experience an uphill climb towards sustainability (De Torres et al., 2015). In addition, the rapidly changing market, upgrading of technologies, a count of uncertainties, and more proactive customers and members make satisfaction ambiguous (Gopinathan & Velmurugan, 2016). Therefore, it is crucial to investigate service quality and its effect on customer satisfaction. However, still, a lot would want to measure the quality of the services and the satisfaction of the customers.

The Davao del Norte Electric Cooperative (DANECO), now Northern Davao Electric Cooperative, Inc (NORDECO), is the franchise holder and authorized by law to electrify the selected cities, municipalities, and barangays in the Province of Davao de Oro and Davao del Norte, including the separated island city, the Island Garden City of Samal. The Island Garden City of Samal is a fast-emerging eco-tourism hub described as the Davao region's eco-tourism portal. Naturally endowed with white sand beaches, waterfalls, caves, marine sanctuaries, giant clam enclave, and world-renowned fruit bats that all lure and attract an ever-increasing number of foreign and domestic visitors (Philippine Daily Inquirer, 2013). Wherein as transpired in the Mindanao Strategic Development Framework 2010-2020 under the Sustainable Resource-Based Industrialization development themes as dubbed Davao Region Tourism Circuit, the Island Garden City of Samal shall be this circuit's central nature themes and the primary resort destination. Therefore, the very aim of pursuing this research is to provide enough evidence and practical proposals to improve identified issues regarding the satisfaction of member-consumer on the quality of services offered by Northern Davao Electric Cooperative (NORDECO) in Island Garden City of Samal, Davao del Norte, Philippines.

1.1 Statement of the Problem:

The study primarily aimed to determine which domain of service quality influences member satisfaction. It specifically aims to answer the following questions:

- 1) What is the level of service quality provided in terms of tangibility, reliability, responsiveness, assurance, and empathy?
- 2) What is the level of satisfaction of the customers towards its services in terms of personnel, availability, price, access, and service?
- 3) Is there a significant relationship between service quality and customer satisfaction?
- 4) Which domain of service quality best predicts member satisfaction?

1.2 Theoretical Framework:

The study was anchored on the SERVQUAL model developed by (Parasuraman et al., 1985) as the most often used approach for measuring service quality and comparing customers' expectations before a service encounter and their perceptions of the actual service delivered. The model uses five (5) dimensions in measuring service quality to include; *assurance*-knowledge and courtesy of employees and their ability to inspire trust and confidence; *empathy*-caring, individual attention the firm provides its customers; *reliability*-ability to perform the promised service dependably and accurately; *responsiveness*-willingness to help customers and provide prompt service; and, *tangibles*-physical facilities, equipment, and staff appearance; Furthermore, the modified and combined MUSA (Multi-criteria Satisfaction Analysis) model by Mihelis et al. (2001), Grigoroudis & Siskos (2002), and Ipsilandis et al. (2008) was utilized to determine the customers' satisfaction evaluation. Using the MUSA model, the customers are asked to give a comprehensive satisfaction level for a service or a product under consideration and a marginal satisfaction level for each one of its features (evaluation criteria). Further, this tool will supply a complete set of results that explain their satisfaction level



and analyze the respondent's behavior and expectations in depth. For this model, the evaluation of the member-customers of DANECO will include; *access*-ability of the communication to keep customers informed; *availability*-coverage of networks, technical and expert personnel, working hours, and power line supply available for consumption; *personnel*-possessing the required skills and knowledge necessary to perform the services adequately; *price*-monetary value equates to the services delivered; and, *services*-willingness of employees to display and exhibit to promptly and efficiently find solutions to customer's problems.

2. LITERATURE REVIEW:

A. The Island Garden City of Samal, Northern Davao Electric Cooperative (NORDECO) and Electrification of the Island

President Elpidio Quirino issued Executive Order No. 151 on July 18, 1946; the District Municipality of Samal was formally created as Municipality, wherein Mr. Apolonio Mahinay was appointed the first town Mayor. The then, Municipality of Babak was created thru Executive Order No. 596, dated May 28, 1956, by President Elpidio Quirino purposely to fast-track the delivery of basic services down to the grassroots level. Latterly, President Ferdinand E. Marcos signed the Republic Act 4754 on July 18, 1966, establishing the Municipality of Kaputian (Comprehensive Development Plan, 1999-2008). Moreover, on January 30, 1998, President Fidel V. Ramos signed the Republic Act No. 8471, merging the Municipality of Babak, Samal, and Kaputian into the first amalgamated municipalities in the Philippines and the component City of Davao del Norte known today as the Island Garden City of Samal (R.A. 8471, Art. I, Sec. 2a). City is envisioned to pursue a better quality of life, preserve and enhance the environmental condition as well as cultural heritage while meeting the needs of the present without sacrificing the need of the future generation in the advancement of a world-class tourism City. The Northern Davao Electric Cooperative (NORDECO), latterly Davao del Norte Electric Cooperative, Inc., popularly known by its acronym DANECO is a non-stock and non-profit cooperative organized on September 24, 1971, by the Republic Act No. 6038, latterly amended by Presidential Decree No. 269, Presidential Decree No. 1645 and Letter of Instruction No. 38 respectively. Wherein the birth of DANECO was listed as the 14th Electric Cooperative (EC) under the NEA roster. The DANECO was organized purposely to provide affordable, dependable, and round-the-clock electricity not only in urban areas but also in far-flung barangays and remote areas on an area coverage basis. Its noble mission is to improve the quality of Filipino lives through the developments brought by electricity. DANECO, as one of the catalysts of this mission, is a holder of Franchise Certificate Nos. 017 and 103 issued by NEA with a permit to operate for 50 years.

In 1986, DANECO, thru a soft loan of 22 million pesos from the National Electrification Administration (NEA), laid down the submarine cable and its protective device to expand its services to the Island Garden City of Samal initially lit the Island in 1987 among the selected areas in Municipality of Babak. For nearly 40 years in service of the submarine cable that brings energy to the Island, notable and miserable incidents were experienced, including; the intentional cutting off of the portion of the cable in Coaco, Davao City, near the BMEG plant prior to its initial energization in March of 1987, anchor of a foreign tanker ship entangled and cut-off the cable resulting total black-out of Samal Island in June 1987, another ship MV Mosses entangled the submarine cable on July 14, 2004, wherein the City Government declares state of calamity and again another cargo vessel MV Ecuador damaged underwater power cable most probably by an anchor on March 17, 2016, putting the City again in the dark for almost a month.

Power Consumption Trend:

As presented in Table 1, there is a distinct manifestation of an increasing pattern every year for the past five years from 2012 to 2016, estimated at 3-5%

Table 1. Comparative Household Population 2017-2021

District	Year				
	2017	2018	2019	2020	2021
Babak	11,138	11,339	11,676	12,105	13,581
Samal	7,297	7,901	8,069	8,401	9,060
Kaputian	7,916	8,025	8,179	8,399	9,088
Total	26,351	27,265	27,924	28,905	31,729

Source: Actual Survey by City Health Office, Island Garden City of Samal

As shown in Table 2, the Households Served with Electricity in 2012-2106 constantly surged upward.



Table 2. Comparative Electrical Power Consumption 2016-2020

Type of Connection		2018	2019	2020
Residential		12,065	13,166	22,739,357
Low Voltage	Small Commercial	809	838	4,151,534
	Public Building	346	350	2,424,101
	Street Lights	557	524	320,268
High Voltage	Small Commercial	193	218	7,267,803
	Large Commercial	-	-	38,224
	Industrial	-	-	-
	Public Building	-	-	-
	Street Lights	-	-	-
TOTAL		13,969	15,114	

Source: Socioeconomic and Ecological Profile, 2018, 2019, 2020, City Planning & Development Office, Island Garden City of Samal

Perspective on Service Quality and Customer Satisfaction:

Service quality per se is defined as the difference between customers' expectations for service performed prior to the service encounter and their perception of the service received. Customer expectation is a foundation for evaluating service quality because quality is high when performance exceeds expectations, and quality is low when performance does not meet expectations (Asubonteng et al., 1996). In addition, the expectation is considered in service quality literature as desires or wants of consumer example, what they feel a service provider should offer rather than would offer (Parasuraman et al., 1988). The perceived service is the outcome of the consumer's view of the service dimensions, which are both technical and functional (Gronroos, 1984). The customer's total perception of service is based on his/her perception of the outcome and the process; the outcome is either value-added or quality, while the process is the role undertaken by the customer (Edvardsson, 1998). Parasuraman et al. (1988) define perceived quality as a form of attitude related but not equal to satisfaction and results from consumption of expectations with perceptions of performance. Therefore, having a better understanding of consumers' attitudes will help know how they perceive service quality services offered.

Moreover, customer-perceived service quality has been given increased attention in recent years due to its specific contribution to business competitiveness and developing satisfied customers (Negi, 2009). This makes service quality a significant construct for firms by knowing how to measure it and making necessary improvements in its dimensions where appropriate, especially in areas where gaps between expectations and perceptions are wide. The relevance of service quality to companies is emphasized here, mainly because it offers a competitive advantage to companies that strive to improve it and hence bring customer satisfaction. Service quality has received a great deal of attention from both academicians and practitioners (Negi, 2009), and service marketing literature service quality is defined as the overall assessment of a service by the customer (Eshghi et al., 2008). Ghylin et al. (2008) point out that, by defining service quality, companies can deliver services with a higher quality level, presumably resulting in increased customer satisfaction. Understanding service quality must involve acknowledging the characteristics of service, which are intangibility, heterogeneity, and inseparability (Parasuraman et al., 1985; Ladhari, 2008). In that way, service quality would be easily measured.

Therefore, the consumer who has developed a heightened perception of quality has become more demanding and less tolerant of assumed shortfalls in service or product quality and identifies the intangible elements (inseparability, heterogeneity, and perishability) of service as the critical determinants of service quality perceived by a customer (Douglas & Connor, 2003). Thus, it is vital to note here that service quality is assessed not only as the results but also on how it is delivered during the service process and its ultimate effect on consumer perceptions. Similarly, customer satisfaction measures how products and services a company supplies meet or surpass customer expectations. Remarkably, it has been traditionally considered that more customer satisfaction leads to more individual loyalty. When customers perceive that an organization fulfills the agreed conditions, they will feel satisfied and believe that these behaviors will return. Customer satisfaction is based on the customer's experience of a service encounter, and some think customer satisfaction is cumulative based on the overall evaluation of service experience (Jones & Suh, 2000). These highlight that customer satisfaction is based on experience with the service provider and the service outcome. Thus, customer satisfaction is identified by a response (cognitive or affective) that pertains to a focus (i.e., a purchase experience and/or the associated product) and occurs at a particular time (i.e., post-purchase, post-consumption)". In addition, Tse and Wilton (1988) defined customer satisfaction as the consumer's response to evaluating the perceived



discrepancy between prior expectations and the actual performance of the product or service as perceived after its consumption. Furthermore, according to Wicks and Roethlein (2009), customer satisfaction can be formed through an affective evaluation process, which is done following the purchase experience by the consumer. Organizations that consistently satisfy their customers enjoy higher retention levels and greater profitability due to increased customer loyalty, Wicks and Roethlein, (2009). Therefore, it is vital to keep consumers satisfied, which can be done in different ways; one way is by trying to know their expectations and perceptions of services offered by service providers. In this way, service quality could be assessed, thereby evaluating customer satisfaction. Through the years, DANECO has been a recipient of various prestigious awards given by NEA for the excellent performance it has rendered to its member-consumers. It is categorized as an A+ Extra Large Cooperative and one of the Outstanding Electric Coops in the country. Eventually, as the demand for new connections increased, the coop was classified as a Mega Large Coop. Within its coverage area, DANECO successfully energized sixteen (16) municipalities and two (2) cities in two (2) provinces, namely: Compostela Valley Province and Davao del Norte.

Relationship between Service Quality and Customer Satisfaction:

According to Sureshchandar et al. (2002), customer satisfaction should be a multi-dimensional construct, just as service quality means it can occur at multi-levels in an organization. It should be operationalized along the same factors on which service quality is operationalized. Parasuraman et al. (1985) suggested that when perceived service quality is high, it will increase customer satisfaction. He supports the fact that service quality leads to customer satisfaction, which is in line with Saravana and Rao (2007) and Lee et al. (2000), who acknowledge that customer satisfaction is based on the level of service quality provided by the service provider. Moreover, Negi (2009) stated that the idea of linking service quality and customer satisfaction has existed for a long time. That in his study investigating the relevance of customer-perceived service quality in determining customer overall satisfaction in the context of mobile services (telecommunication) concluded that reliability and network quality (an additional factor) are the critical factors in evaluating overall service quality but also highlighted that tangibles, empathy, and assurance should not be neglected when evaluating perceived service quality and customer satisfaction.

Further, Su et al. (2002) initiated a study linking service quality and customer satisfaction. They concluded that a significant dependency exists between both constructs and that an increase in one is likely to lead to an increase in another. Also, they pointed out that service quality is more abstract than customer satisfaction because customer satisfaction reflects the customer's feelings about many encounters and experiences with the service firm. In contrast, service quality may be affected by perceptions of value (benefit relative to cost) or by the experiences of others that may not be as good. In this study, the researchers ask customers to evaluate service quality by considering several important quality attributes in power service delivery, and the researchers think firms must take improvement actions on the attributes with a lower satisfaction level. This means customer satisfaction will be considered on specific service quality dimensions to identify which aspects customers are satisfied with.

3. MATERIALS AND METHOD:

Research Design:

This quantitative study employed a descriptive correlation research design to determine the significant influence of service quality on customer satisfaction with the power services delivery of Northern Davao Electric Cooperative (NORDECO) in the Island Garden City of Samal, Davao del Norte. Correlational research is research designed to discover relationships among variables and to allow the prediction of future events from present knowledge (Stangor & Walinga, 2014).

Research Respondents:

The respondents of this study are the 415 customer members of NORDECO. The researchers applied stratified random sampling in identifying the barangay of the respondents. The respondents were also grouped according to service areas, such as residential, commercial, and industrial, respectively. Stratified random sampling is a method for sampling from a population whereby the population is divided into subgroups, and units are randomly selected from the subgroups. It is often used when designing business, government, and social science surveys (DeYoreo, 2018).

Research Instruments:

A survey questionnaire was utilized to acquire the necessary data for the study. The questionnaire used in this study consisted of two parts. The first part is about service quality and was adapted from the study of Parasuraman et al. (1985). The second part is about customer satisfaction and was adapted from the modified and combined MUSA



(Multi-criteria Satisfaction Analysis) model by Mihelis et al. (2001), Grigoroudis and Siskos (2002), and Ipsilandis et al. (2008).

Statistical Tools:

The statistical tools that the researchers used in this study were the following:

- 1) *Mean*--This was used to determine the level of service quality and customer satisfaction.
- 2) *Pearson Product-Moment Correlation Coefficient*--This was used to determine the significant relationship between service quality and customer satisfaction.
- 3) *Multiple Linear Regression Analysis*--This was used to determine the significant influence of service quality on customer satisfaction. This was also used to determine the domain of service quality that best predicts customer satisfaction.

4. RESULT AND DISCUSSION:

Level of Service Quality of Northern Davao Electric Cooperative (NORDECO):

Table 3 shows the level of service quality data of NORDECO in the Island Garden City of Samal. The table reveals the overall mean score, which is 2.44 with a standard deviation of .98. The mean score is described as *Low* level and shows that items in the service quality are seldom manifested. Looking at the data for each indicator, it can be seen that *Empathy* got the highest mean rating of 2.50 and a standard deviation of 1.06 with a descriptive level of *Low*, followed by *Assurance* with a mean rating of 2.47 or *Low* and a standard deviation of 1.05; *Reliability*, with a mean rating of 2.42 or *Low* and a standard deviation of 1.04; and *Responsiveness*, with a mean rating of 2.41 or *Low* and a standard deviation of 1.08; The indicator, *Tangibility*, got the lowest mean rating of 2.39 or *Low* with a standard deviation of 1.02.

Based on the results mentioned above, the overall level of service quality of NORDECO is low. This was the agreement of the respondents given their answers to the questionnaire. All five indicators of service quality: *tangibility*, *reliability*, *responsiveness*, *assurance*, and *empathy* have a low rating. This means that NORDECO's service quality is seldom manifested in member satisfaction. It can be construed that their ability as a service provider to hear customers' problems and effectively address their concerns and demands (*empathy*), to instill trust and confidence in customers (*assurance*), to provide committed services truthfully and consistently (*reliability*), and their willingness to help customers; provide prompt service (*responsiveness*) and to provide quality physical facilities, equipment and staff appearance (*tangibility*) are seldom manifested. In addition, it is notable that *tangibility* got the lowest mean rating. It can be deduced that the cooperative's ability to visualize the service in terms of physical facilities, equipment, and personnel appearance is also seldom manifested. Thus, the result is in contrast to the statement of Parasuraman et al. (1988) that the service quality measures how well the delivered service could match customers' expectations; NORDECO has done the contrary. The cooperative was not able to deliver services as expected.

Table 3. Level of Service Quality of Northern Davao Electric Cooperative (NORDECO)

Indicators	Mean	SD	Description
Assurance	2.47	1.05	Low
Empathy	2.50	1.06	Low
Reliability	2.42	1.04	Low
Responsiveness	2.41	1.08	Low
Tangibility	2.39	1.02	Low
Overall	2.44	.98	Low

Level of Member Satisfaction on the Power Services Delivery of Northern Davao Electric Cooperative (NORDECO)

Presented in Table 4 is the level of member satisfaction with the power services of NORDECO. The overall mean member satisfaction score is 2.34 or *Low* with a 0.97 standard deviation. This means that the items related to member satisfaction are seldom manifested. The *Personnel* got the highest mean of 2.42 and a standard deviation of 1.04 with a descriptive level of *Low*; *Access* got a mean score of 2.41 or *Low* and a standard deviation of 1.04; *Availability* got a mean score of 2.35 or *Low* and a standard deviation of 1.04; and *Price* got a mean score of 2.28 or *Low* and a standard deviation of 1.04. The indicator *Services* obtained the lowest mean score of 2.26 or *Low* and a standard deviation of 1.02. As figures were enumerated above, it can be gleaned that the other variable of the study,



member satisfaction, in general, is described as low. In addition, all five indicators of member satisfaction: *access, availability, personnel, price, and services* have a low rating. It can be understood that the NORDECO's monetary value equates to the services delivered (price); the coverage of networks, technical and expert personnel, working hours, and power line supply available for consumption (availability); the ease and convenience with which customers can use the services the cooperative offers (access); and the possession of required skills and knowledge necessary to perform the services adequately (personnel) are seldom manifested. It is important to highlight also that the services got the lowest mean value which is described as low. It can be interpreted that the willingness of employees to display and exhibit to promptly and efficiently find solutions to customer's problems is seldom manifested. Thus, the low-level satisfaction rating signifies that the services provided by NORDECO are not that acceptable or tolerable by the customers, as mentioned in the criteria laid by Liu et al. (2008) for measuring the satisfaction level of customers regarding the purchase and subsequent consumption of goods or services.

Table 4. Level of Customer Satisfaction on the Power Services Delivery of Northern Davao Electric Cooperative (NORDECO)

Indicators	Mean	SD	Description
Access	2.41	1.04	Low
Availability	2.35	1.04	Low
Personnel	2.42	1.04	Low
Price	2.28	1.04	Low
Services	2.26	1.02	Low
Overall	2.34	.97	Low

Significant Relationship between Service Quality and Member Satisfaction:

The test of the correlation between service quality and member satisfaction is shown in Table 5. The data reveal the overall computed r -value of .903 with a p -value of less than 0.05. The confidence level set for this study was $p < 0.05$. Therefore the overall result illustrated a significant relationship between the variables. The result also rejected the hypothesis of no significant relationship between service quality and member satisfaction. In addition, all indicators of service quality have been seen to have a high to a very high positive correlation with the indicators of *member satisfaction*.

Table 5. Significant Relationship between Service Quality and Member Satisfaction

Service Quality	Customer Satisfaction					
	Access	Availability	Personnel	Price	Services	Overall
Assurance	.732* (.000)	.748* (.000)	.769* (.000)	.727* (.000)	.742* (.000)	.795* (.000)
Empathy	.758* (.000)	.787* (.000)	.803* (.000)	.770* (.000)	.782* (.000)	.835* (.000)
Reliability	.787* (.000)	.796* (.000)	.808* (.000)	.791* (.000)	.791* (.000)	.850* (.000)
Responsiveness	.806* (.000)	.810* (.000)	.819* (.000)	.801* (.000)	.811* (.000)	.866* (.000)
Tangibility	.816* (.000)	.813* (.000)	.823* (.000)	.776* (.000)	.794* (.000)	.861* (.000)
Overall	.837* (.000)	.849* (.000)	.862* (.000)	.829* (.000)	.842* (.000)	.903* (.000)

$p^* < .05$

Consequently, a close examination of the data further revealed that tangibility has the highest r -value among the indicators of service quality and positively correlated with personnel as one of the indicators of Member Satisfaction, as evidenced by the r -value of .823 and p -value of less than 0.05, which is significant at $p < 0.05$, however, when correlating to the overall member satisfaction, responsiveness has the highest r -value as confirmed by the r -value of .866 and p -value of less than 0.05. The above results concurred with the study of Su et al. (2002), which initiated a study linking service quality and customer satisfaction and concluded that there is an excellent dependency between both



constructs and that an increase in one is likely to lead to an increase in another. Further, Bharwana et al. (2013) cited that all the perspectives of SERVQUAL have a significant relationship with customer satisfaction. This was confirmed by Jothi (2016), the relationship between service quality and customer satisfaction, and revealed that perceived service quality leads to satisfaction. Lastly, the result of the study coincided with the SERVQUAL model developed by (Parasuraman et al., 1985) as the most often used approach for measuring service quality and comparing customers' expectations before a service encounter and their perceptions of the actual service delivered.

Regression Analysis of the Influence of Service Quality on Member Satisfaction:

Depicted in Table 6 is the regression analysis that revealed which indicator of service quality best influence member satisfaction. The data in Table 8 shows a significant influence of service quality over member satisfaction. The obtained F-value of 381.751 is significant at $p < 0.05$, which indicates a model fit. Also, the R-squared value of .824 suggested that F, the variance in member satisfaction, was attributed to the service quality indicators specified in this study. This means that .176 or 17.6% of the variance could be credited to other things that are already beyond the concern of this study. However, since the main point of this section was the determination of the indicator that best influences member satisfaction, the data show that tangibility is the best predictor of member satisfaction in their singular capacities. *Tangibility* obtained a β -coefficient value of .299 with the corresponding computed t-value of 7.056 and p-value of .000. It could be noted that the probability value of tangibility is lower than the p-value of 0.05, which was set as the significance level in this study. Therefore, it could be inferred that *the tangibility* of service quality can best influence member satisfaction.

Table 6. Regression Analysis of the Influence of Service Quality on Member Satisfaction

Service Quality (Indicators)	Member Satisfaction		
	β	t	Sig.
Assurance	.098	2.412	.016*
Empathy	.102	2.143	.033*
Reliability	.141	2.948	.003*
Responsiveness	.252	5.527	.000*
Tangibility	.299	7.056	.000*
R	.908		
R ²	.82		
F	381.751		
p	.000*		

In the results, it was also found those other indicators of service quality, namely: *Responsiveness* ($\beta = .252, t = 5.527$), *Reliability* ($\beta = .141, t = 2.948$), *Empathy* ($\beta = .102, t = 2.143$), and *Assurance* ($\beta = .098, t = 2.412$) influence member satisfaction as they have also p-values lower than 0.05 that was set as the significance level in this study. The results were supported by the results in the study of Gobena (2019) that all service quality dimensions significantly influence customer satisfaction at a 95% confidence level. In addition, Gupta et al. (2014) conferred that there is a positive relationship between each of the study constructs between the service quality attributes and customer satisfaction. Arokiasamy and Abdullah (2013) proposed that service quality is the forbearer of satisfaction of customers, notwithstanding the concepts, whether collective or transaction-specific.

5. CONCLUSION AND RECOMMENDATION:

Conclusion: Based on the findings, the following are the conclusions drawn from the study:

- The level of service quality of the cooperative, in general, was described as low. This means that the service quality is seldom manifested. This means that NORDECO's service quality is seldom manifested in member satisfaction. It can be construed that their ability as a service provider to hear customers' problems and effectively address their concerns and demands, to instill trust and confidence in customers, to provide committed services truthfully and consistently, their willingness to help customers and provide prompt service; and quality of physical facilities, equipment, and staff appearance are seldom manifested.



- The level of customer satisfaction was described as low. This means that the satisfaction of the customers is seldom manifested. It can be understood that the NORDECO's monetary value equates to the services delivered (price); the coverage of networks, technical and expert personnel, working hours, and power line supply available for consumption (availability); the ease and convenience with which customers can use the services the cooperative offers (access); and the possession of required skills and knowledge necessary to perform the services adequately (personnel) are seldom manifested.
- There was a significant relationship between service quality and customer satisfaction. It can be concluded that a great dependency exists between both constructs and that an increase in one is likely to lead to an increase in another.
- Service quality influences customer satisfaction. All domains of service quality were significant predictors of customer satisfaction. In addition, among the domains of service quality, tangibility was the best predictor of customer satisfaction. Therefore, it could be inferred that the tangibility of service quality can best influence member satisfaction.

Recommendation:

Based on the conclusions, the following recommendations were offered:

- The Local Government Unit should create practical proposals about this city-wide energy problem concerning the services offered by Northern Davao Electric Cooperative (NORDECO). Addressing this issue may lead to high or very high satisfaction among the constituents and member-consumers of the cooperative.
- The Northern Davao Electric Cooperative (NORDECO) should address the identified issues of service quality by creating practical means of hearing customers' problems and effectively addressing their concerns and demands, instilling trust and confidence in customers, providing committed services truthfully and consistently and willingly helping customers; providing prompt service and improving the quality of physical facilities, equipment, and staff appearance. To improve customer satisfaction, the following should oftentimes be or always manifested: monetary value that equates to the services delivered; the coverage of networks, technical and expert personnel, working hours, and power line supply available for consumption; the ease and convenience with which customers can use the services the cooperative offers; and the possession of required skills and knowledge necessary to perform the services adequately. The cooperative should also focus on enhancing tangibility as it emerged as the best predictor of customer satisfaction.
- Future researchers should conduct similar studies to address the same research problem in different settings, contexts, and locations. They are also encouraged to explore other factors related to service quality and customer satisfaction and may use other research designs and sampling techniques.

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