

# ORGANIZATIONAL DETERMINANTS OF SERVICE QUALITY OF SURIGAO DEL SUR ELECTRIC COOPERATIVE I: BASIS FOR DEVELOPING A LOGIC MODEL

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## Abstract

*The paper examined the factors influencing service quality of Surigao del Sur Electric Cooperative I or SURSECO I in San Fernando, Mangagoy and Barobo. The results provide basis for designing a logic model based on generated results of regression. The study employed a descriptive comparative and correlational method to describe perception of respondents in relation to service quality of SURSECO I. Results of analysis revealed that service quality of SURSECO I is influenced by organizational variables such as: administrative support, employees' relationship building, effective information sharing and communication, strategic management and employees' technical competence. These variables are indispensable and essential to provide SURSECO I's customers the best services.*

*Keywords: organizational determinants, service quality, logic model*

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## 1.0 Introduction

Organizations that continually improve are distinguished by cultures present in it Martin and Terblanche (2003). Organizational culture is observed through norms, actions and rules which develop through communications and relationships among members. This interaction helps members understand how an organization operates which subsequently influence their judgments and behaviors (Hartmann, 2006). Organizations can be differentiated through cultures practiced. The way an organization operates its business, adapts to external pressure or deals with internal differences is determined by its culture (de Hilal, Wetzel & Ferreira, 2009). In addition, negative behaviours such as resistance towards change and withdrawal are also influenced by cultures (Nguyen & Kleiner, 2003; Yusof & Shafiei, 2011). Therefore, applying to Schein's (2004) proposition, understanding of organizational culture is a vital management tool for improvement. The purpose of this paper is three-fold: first, to provide facts about some organizational variables which can be linked to service quality of the Surigao del Sur Electric Cooperative I (SURSECO I), the result of which can be an avenue for enhancement framework. In this paper, the variables are achieving organizational mission, administrative support, employee relationship building, adaptation to organizational and technological change, effective information sharing and communication, strategic management and employee's technical competence; second, to highlight the quality of services of SURSECO I; and third, to develop a logic model through which an innovation to improve the service quality of SURSECO I can be made. In this study, the term logic model is used as a generic label to display how change unfolds for improvement.

SURSECO I is a leading electric power distributor in the region committed to provide safe and reliable energy distribution service while ensuring consumer satisfaction. Its vision is sustained meaningful contribution to national

development. It is mandated by law to implement government policy on ensuring quality, reliability, security and affordability of electric power supply.

In year 1990, SURSECO I bagged three (3) National awards: outstanding electric cooperative, the NEA conferred the Outstanding General Manager Award to GM Claudio S. San Pablo and retained its Best in Collection Efficiency Award. In 1995 for 1994 performance, the coop received four (4) national awards: Top Performing Electric Cooperative (Classified as Category A+), Best in Collection Efficiency, Outstanding General Manager in the Philippines for Large Coop category, and Member of the Hall of Fame-Region XI Award. Unfortunately, in subsequent years, the inflation rate which affected socio-economic activities in the area affected SURSECO I. During this period the coop was unstable that necessitated some changes in order to shield the coop from crisis. In two years, there were three OIC-General Managers who steered SURSECO I into its recovery.

Today, the coop's thrust is to continue electrifying the remaining sitios to achieve its mission of total electrification at the least possible cost. Also, SURSECO I continue to reach out to communities through its Gawad Kalinga programs which fosters unity and the spirit of bayanihan. SURSECO I will continue to be devoted in "taking committed service to greater heights".

## 2.0 Theoretical and Conceptual Framework

This study focuses on determining the influence of organizational variables to service quality of SURSECO I is anchored on some principles underlying the Total Quality Management (TQM) ([www.change.management.com](http://www.change.management.com)) as advocated by Chao and Dugger (1996). The concept of TQM rests largely on five principles:

1. Produce quality work the first time.

2. Focus on the customer.
3. Have a strategic approach to improvement.
4. Improve continuously.
5. Encourage mutual respect and teamwork.

According to this principle to be effective in improving quality, TQM must be supported at all levels, from the highest executive to the lowest-level hourly employee. TQM extends the definition of quality to all functional areas of the organization, including production, marketing, finance, and information systems. The process begins by listening to customers' wants and needs and then delivering goods and services that fulfil these desires. TQM even expands the definition of customer to include any person inside or outside the company to whom an employee passes his or her work.

Taylor (2003) stated that customers' service is not something that the company can decree and then expect to succeed in achieving for long. Rather, it is the employee who has the competence to give customers the quality service they deserve. The competence to establish healthy relationship with co-workers in the workplace and among the clients it serve is vital to sustain any organization or business firms. For customer service to be sustained, the employee has to be convinced that service is something worth giving to the customer, and that it is part of the commitment that the employee should strive to maintain and improve.

Jennerich (2002) advocated that being "customer friendly" requires more than a smile and a pleasant manner. It requires that one has to demonstrate to his customers that the organization really cares about them and their problems. Effective information dissemination or communication techniques are another significant tool needed to ensure efficiency in an organization. This is an important tool in an organizational process since it is a way by which people are able to transmit their respective ideas and judgments to others. Without communication, it is impossible for various elements of an organization to properly network with each other.

Maxwell (2003) stated that creating positive change in an organization requires communication "interaction fuels action"; that is the power of the Law of Communication. Gardner (2004) once emphasized that if one has to name a single all-purpose instrument of leadership, it would be communication. Teams succeed or fail based on the way that team members communicate.

Quality management is a good avenue to set coordinated activities to direct and control an organisation in order to continually improve the effectiveness and efficiency of its performance. It was postulated further by Evans and Dean (2003) that the most basic practices for dealing with customers are (1) to collect information constantly on customers' expectations (2) to disseminate this information widely within the organization, and (3)

to use this information to design, produce and deliver the organization's products and services.

In this paper, the researcher came up with a logic model theory. For clarity and better understanding, a logic model theory is briefly discussed as follows:

A logic model presents a picture of how your effort or initiative is supposed to work. It explains why your strategy is a good solution to the problem at hand. Effective logic models make an explicit, often visual, statement of the activities that will bring about change and the results you expect to see for the community and its people. A logic model keeps participants in the effort moving in the same direction by providing a common language and point of reference. More than an observer's tool, logic models become part of the work itself. They energize and rally support for an initiative by declaring precisely what you're trying to accomplish and how.

The term logic model is used as a generic label for the many ways of displaying how change unfolds. Some other names include: road map, conceptual map, or pathways map, mental model, blueprint for change, framework for action or program framework, program theory or program hypothesis, theoretical underpinning or rationale causal chain or chain of causation, theory of change or model of change.

Each mapping or modeling technique uses a slightly different approach, but they all rest on a foundation of logic - specifically, the logic of how change happens. By whatever name you call it, a logic model supports the work of health promotion and community development by charting the course of community transformation as it evolves.

The logic model of the study is presented by the schematic diagram in fig. 1 showing the relationship between the independent variables and dependent variables used in the study. The independent variables of the study are: achieving organizational mission, administrative support, employee relationship building, adaptation to organizational and technological change, effective information sharing and communication, strategic management, and employee's technical competence. Whereas, the dependent variables are: interaction environment, house-wiring connection, house-wiring disconnection, response to complaint, power bill notification, power bill collection and refund mechanism, response to line problems, and database efficiency.

Customers' concern is the manner how customer service is delivered by employees of SURSECO I. Organizational Effectiveness on the other hand, refers to organizational capability in conceptualizing and carrying out the firm's strategic plan. Meanwhile, communication signifies delivery of information characterized by knowledge-based, confidentiality and integrity of data. Relationships are built through trust and rapport in non-threatening manner which promotes peace and order and

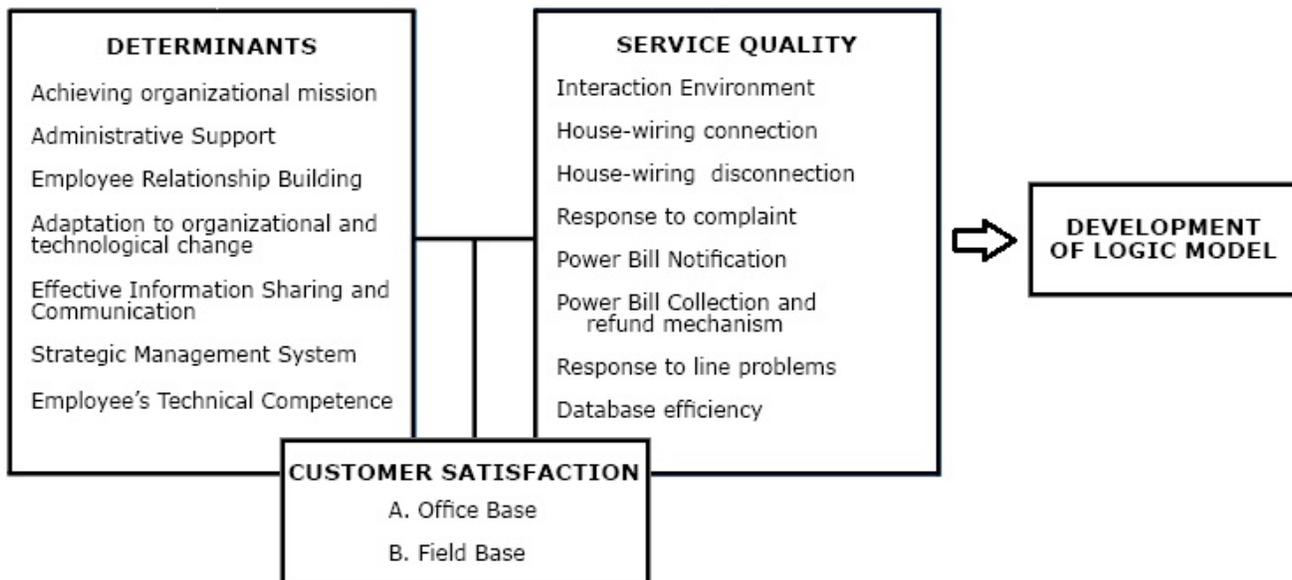


Figure 1. Schematic diagram of the study showing the relationship between the independent and the dependent variables.

commitment to the mission of SURSECO I. Teamwork pertains to participation and collaborative efforts among individuals which recognize and value diversity of individuals in opinion and perception. Environmental safety implies adherence to the facility's safety plan and compliance with mandatory safety requirements, maintaining an environment that safely and effectively supports customer services.

Quality management is the practice to provide support and resources to employees. Interaction environment pertains to the environmental climate which focuses on customer-employee interface and dealings. House-wiring connection includes processing of application for connection and the extent to which power lines are put in place.

### 3.0 Research Methodology

The study employed a descriptive comparative and correlational method to describe the perception of the respondents in relation to the service quality of SURSECO I. There are three offices or substations considered in this study: San Fernando, Barobo, and Mangagoy with administrators, employees and customers as the main unit of analysis. SURSECO I has been implementing the government's rural electrification since July 20, 1971, incorporated and registered with the National Electrification Administration (NEA). The respondents of the study were composed of all administrators, selected employees and customers of SURSECO I, Surigao del Sur. All administrators were included in the study while employees and customers were randomly selected using simple random sampling. The sample size for customers was determined through Sloven's Formula and thereafter, simple random sampling was used to determine those ought to be included in the

investigation. Based on the computation, a total of 500 total respondents were considered in the study giving account to each group. Data were generated in terms of their responses on the validated researcher-made instrument purposely to evaluate the service quality and the extent of manifestation of the organizational variables of SURSECO I. The instrument had gone through pilot testing and validation process through other people almost of the same characteristics as the main respondents and through consultation with the some experts. These experts included some administrators of SURSECO I and those who are in the academic communities known to be credible in validating survey instrument. Pilot testing was done among few selected personnel and 30 randomly selected walk-in clients to ensure that the proposed instrument was made clear and comprehensive enough in its presentation. The testing of reliability was processed by the Research Center of Saint Joseph Institute of Technology. In its validation process, the coefficient of 0.887 was obtained-this means that the questionnaire used was highly valid and reliable.

### 4.0 Results and Discussion

Table 1 below shows the summary results of organizational variables when classified by three Offices which are in Barobo, Mangagoy, and San Fernando as the main office.

Overall mean rating given by respondents on "achieving organizational mission" is 4.63 which imply strong desire of the administrators and employees to seriously spread the mission. Both were decisive in developing and communicating the mission by making sure that plans and implementation activities were aligned. In the third item, specifying the accountabilities for the realization of the mission, it is observed that

Table 1. Summary results of organizational variables/system factors parameters across three (3) offices of SURSECO I

Organizational Variables/ System Factors	Office 1		Office 2		Office 3		Over-all	
	Mean	VD	Mean	VD	Mean	VD	Mean	VD
On Achieving Organizational Mission	4.40	O	4.60	A	4.69	A	4.63	A
On Administrative Support	4.37	O	4.36	O	4.56	A	4.53	A
On Employee-Relationship Building	4.47	O	4.47	O	4.50	O	4.49	O
Adaptation to organizational and technological change	4.20	O	4.50	O	4.53	A	4.47	O
On Effective Information Sharing and Communication	4.43	O	4.54	A	4.65	A	4.56	A
On Strategic Management System	4.34	O	4.37	O	4.55	A	4.47	O
Employee's Technical Competence	4.38	O	4.42	O	4.56	A	4.48	O

Legend: 4.51-5.00 - Always (A)  
3.51-4.50 - Often (O)

2.51-3.50 - Sometimes (S)  
1.51-2.50 - Seldom (Se)

1.00-1.50 - Never (N)

administrators having greater responsibilities therefore more accountable were more committed to ensure that the mission are fully achieved rather than the rank and file employees. The above results could be attributed to the fact that administrators are the ones running the cooperative and have foreseen the consequences ahead if they were not responsible to the implementation. Monitoring activities were regularly conducted to make sure details of plans laid were implemented and sustained. In consonance with the results, according to Philbin & Mikush (2000), at the heart of an organization is a vision and core set of values. That vision and those values help shape the organization's mission, which, in turn, directs its program strategies, systems and structures. Field (2002) cited that an organization is effective if it accomplishes the stated goals.

Accordingly, it is noticeable that administrators have seen themselves to be more supportive than what the employees have perceived about them. Based on the administrators' assessment even when the support goes out from the top management, facilities and other resources were being provided to ensure that clients are being served such that their expectations are being met. Arnett (2010) supports the idea that is to ensure high performance in achieving the established mission. Accordingly, high performance requires the effective use of organizational resources.

Respective to employee relationship building, all are convinced that there exists an overwhelming friendly atmosphere in the workplace. SURSECO I is one among many cooperatives known for its friendly, responsive, sociable and gracious people. Conflicts rarely arise when they do were immediately resolved. Feedbacks are processed smoothly leaving rarely hint of unsolved issues. Transparency and the initiatives to do things right

are highly valued.

As the cooperative experienced the pressure of globalization, it updated strategies and technologies in its offices to add value to its services and thereby obtaining and retaining customers to continually grow and earn profit. Organizational restructuring in SURSECO I contributed to meet the demands brought by changing times. New and more investments in technology to maintain and upgrade infrastructure in order to provide new electronic information-based services, link with other banks for smooth paying transactions especially for customers living far from office. The internet was recognized as an opportunity to increase access to information and queries, and adopts various forms of technological innovations or electronic delivery channels adopted by banks.

With respect to information sharing and communication, it was noted that administrators find themselves to be regularly communicating with each other and with employees. Second highest in the overall results, it revealed determination of administrators and employees to be well-informed as a means to maximizing customer service. Data are evaluated, converted into useful information to expedite communication with safeguards on confidentiality, security, and integrity of data and information.

In terms of strategic management system, ratings of both administrators and employees are found to be slightly different. Accordingly, there are evidences that employees effectively demonstrate the following: stewardship of time, defining of scope of service per departmental operational plan; defining and monitoring of internal and external customer needs and expectations; providing support and resources for all employees to practice quality improvement principles; integrating quality into new and existing processes; establishing and

maintaining feedback system that encourage employees to evaluate and adjust performance, and maintaining the reporting mechanism to customers to ensure that goals for performance improvement are met.

The above findings were similar from that of the study of Dobouzet (2009). She specifically stressed, based on the results of her study, that managers of ANECO-Butuan City have higher ratings compared with the staff. Accordingly, managers are more convinced that they really are more able to ensure that comprehensive short and long term plans are established and communicated. Likewise, they affirmed that they are highly competent in the implementation of key areas with direct link to the vision and mission of ANECO Butuan.

Overall observation revealed that employees do evaluate things/situations thoroughly before making a decision. They were also observed to be competent in terms of reading verbal and non-verbal communication and changing perceptions and impressions. Although they are at low position and under the authority of their respective heads, they tend to apply management principles and practices in their respective assignment. Working with diverse managerial styles was also observable. Support of unit, section and division activities, Keeness of financial development and programming were likewise demonstrated.

Table 2 is a result of processing the ratings of the administrators and employees when comparison is the primary objective. Here, the t-test was employed.

As reflected in the analysis, data reveal that ratings of the administrators and employees differ significantly on the following indicators: on administrative support, on adaptation to organizational and technological change, on strategic management system, and employees' technical competence.

In indicators where respondents' ratings differ, clearly evident was the administrators' claim of high demonstration

of support to the employees. Employees in the higher level may not have recognized such support because they were never contented. In adaptation to organizational and technological change, area administrators and employees differ in their assessment of what specific organizational and technological aspects were to be considered obsolete and what should be adopted.

In SURSECO I most employees had no updates on new technological trends while administrators who attend trainings and conferences were expose to new models of technology, policy direction, development, trends, system, and processes. This holds true even in the area of quality management system.

Talking about employee's competence, note that administrators are keenly aware of their subordinate's work, to what extent they perform the job and how well they do the job. As such, administrators have high regards on their own employees. It is for that reason that they gave them higher ratings implying that employees have demonstrated a higher level of competence in doing the delineated tasks.

Table 3 shows the summary results of SURSECO's service quality when analyzed by office.

In terms of the eight service quality variables, both administrators and employees have manifested the same descriptive rating of very satisfactory. Respective to interaction environment variables, reports indicated that there were evidences that customers are receiving very satisfactory services of SURSECO whenever they are inside its premise. Accordingly, consumer welfare desk officers are friendly in servicing a member's concerns. Concerns and queries are responded very satisfactorily. The office is clean, comfortable and well equipped with facilities to ensure efficiency in servicing the clients.

In terms of house-wiring connection, perceived rating could be attributed to the well implemented, convenient and manageable processing of documents from the start

Table 2. Results of the t-test on degree of manifestation of the organizational variables based on the ratings of the administrators and employees

Organizational Variables/ System Factors	Administrator		Employees		T-stat	p-value	Interpretation
	Mean	VD	Mean	VD			
On Achieving Organizational Mission	4.71	A	4.56	A	1.13	0.214	Fail to reject H <sub>0</sub>
On Administrative Support	4.58	A	4.48	O	3.24	0.011	Reject H <sub>0</sub>
Adaptation to organizational and technological change	4.65	A	4.33	O	5.38	0.000	Reject H <sub>0</sub>
On Effective Information Sharing and Communication	4.47	O	4.48	O	1.02	0.302	Fail to reject H <sub>0</sub>
On Strategic Management System	4.57	O	4.37	O	2.89	0.023	Reject H <sub>0</sub>
Employee's Technical Competence	4.62	O	4.34	O	5.23	0.000	Reject H <sub>0</sub>

Legend: 4.51-5.00 - Always (A)                      2.51-3.50 - Sometimes (S)                      1.00-1.50 - Never (N)  
 3.51-4.50 - Often (O)                                1.51-2.50 - Seldom (Se)

Table 3. Summary results on service quality parameters across three (3) offices of SURSECO I

Service Quality Variables/Variate	Office 1		Office 2		Office 3		Over-all	
	Mean	VD	Mean	VD	Mean	VD	Mean	VD
Interaction Environment	3.82	O	4.18	O	3.86	O	3.92	O
House-Wiring Connection	3.86	O	4.04	O	3.85	O	3.90	O
House-Wiring Disconnection	3.89	O	4.16	O	3.82	O	3.94	O
Response to Complaint	3.67	O	3.93	O	3.75	O	3.75	O
Power Bill/Energy Notification	3.80	O	4.09	O	3.92	O	3.90	O
Power Bill Collection & Refund Mechanism	3.51	O	3.84	O	3.55	O	3.60	O
Response to Line Problems/Emergency/Request	3.63	O	3.92	O	3.68	O	3.71	O
Database Efficiency	3.63	O	3.88	O	3.79	O	3.73	O

Legend: Interval Responses Description Interval Responses Description Interval Responses Description  
 4.51-5.00 - Always (A)- Outstanding 2.51-3.50 - Sometimes (S)- Satisfactory 1.00-1.50 - Never (N) - Very Poor  
 3.51-4.50 - Often (O) - Very Satisfactory 1.51-2.50 - Seldom (Se) - Poor

of its application to the installation of the power line. Similarly, housewiring disconnection rated as outstanding except on the issue that crew does not observe proper protocol before disconnection.

In terms of response to complaint, very satisfactory rating is perceived due to prompt response of the complaint from the concerned customers either done via phonecall or through personal visit to the office. Accordingly, as cited by Dobouzet (2009), stability within an organization also enhances delivery of efficient customer service. Efficient customer service starts with managements' commitment to invest in competitive systems that gives employees an edge in dealing directly with customers. Van Der Velde & Roth (2002) advocated that efficient delivery of services is a potential, competitive marketing tool. Product and service quality that results to customer satisfaction are just one of the benefits of organizational development.

With respect to power bill notification both agree on the fact that customers are notified properly about power bill rate components adjustment, well defined notification of the SURSECO I power bills, statement of account, and other requirements are transparent and that customers are well informed of the schedule of power interruptions and resumptions of power for specific area.

Concerning SURSECO's responses to problems or requests by customers, perceptions of administrators and employees were found to be different. Employees of SURSECO I were undecided but conveyed an information that services in this area is effective. Meanwhile, customers agree that problems on wire lines were acted promptly. Feedbacks from clients in relation to problems in power transmission irregularities are well noted and are being acted without delay.

Lastly, with respect to database efficiency, employees were undecided but conveyed an information that services of SURSECO I in this area is effective. On the part of the employees, they agree that database system of SURSECO is accurate, consistent with other records in all accredited

banks or agencies, and found to be very efficient.

Generally, organizational effectiveness, productivity, service efficiency, customer satisfaction and cost are key factors that drive the performance of any organizations. In this uncertain world, the drive towards efficiency and service excellence can only be realized if strategic steps are taken to enhance capability to secure well-being of the cooperative or any organization. The important aspects of enhanced effectiveness and competitiveness of the organization is whether there is enhanced access, convenience, timeliness, and customized service. Quality and efficiency of services to its customers are the main concerns of any organizations or industries because service quality or efficiency is in the eye of the clients (Azzolini & Lingle, 2002). It must provide a service environment that is appealing to the clients. Clients care about the quality of products and services they need as well as the interaction quality which encompasses the attitudes and interaction style of any personnel to its customers. SURSECO personnel understand and willingly serve customers timely. The Head Office or management, on the other hand, cares about operational effectiveness like the provision of technology, evidence of quality management system, even leadership styles and the branch relationship with its community.

In the overall analysis using the t-test, computed t-values generated were all found to be not significant at 0.05 level. Overall results indicated that ratings of the respondents on the service quality of SURSECO I do not differ significantly. This led to the acceptance of the established null hypotheses. It goes to show that administrators and employees are in harmony with their overall observations and experiences in the way they deal with the customers in the workplace.

In terms of the customer's rating to SURSECO's service quality results are presented in table 4. It can be gleaned from the table that services were rated as very satisfactory in terms of the six parameters except power bill

collection and refund mechanism and database efficiency. Very satisfactory rating could be attributed to friendly, well attended and responsive consumer account desk or consumer welfare desk officers, processing of documents relevant to housewiring connection at the start of its application to installation of the power line is convenient and manageable. In terms of housewiring disconnection, customers were treated with proper protocol prior to disconnection, which is in contrary to the perception of the administrators and employees. In relation to response to complaint, complaints from concerned customers were addressed promptly either done via phonecall or through personal visit to the office. With respect to power bill notification, customers are properly notified about power bill. Statement of account, and other requirements are transparent and that customers are well informed of the schedule of power interruptions and resumptions of power for specific area. Lastly, with respect to database efficiency, customers expressed little disappointment in their account. They have experienced somewhat delayed in viewing their complete records and accounts and sometimes did not reconcile with other banks and other accredited outlets.

Table 4. Summary Results of Service Quality of SURSECO Based on the Customer's Ratings

Service Quality Parameters	Mean	VD
Interaction environment	3.66	O
Housewiring connection	3.65	O
Housewiring disconnection	3.67	O
Response to complaint	3.59	O
Power bill notification	3.62	O
Power bill collection and refund mechanism	3.37	S
Response to line problems	3.51	O
Database efficiency	3.50	S
<b>Overall Mean</b>	<b>3.57</b>	<b>O</b>

Legend: Interval - Responses - Description  
 4.51-5.00 - Always (A)- Outstanding  
 3.51-4.50 - Often (O) - Very Satisfactory  
 2.51-3.50 - Sometimes (S)- Satisfactory  
 1.51-2.50 - Seldom (Se)- Poor  
 1.00-1.50 - Never (N) - Very Poor

In Table 5, ratings of customers in the field base, both consolidated reports from three offices of SURSECO are presented. The overall result as noted in its overall mean value of 2.79 indicates that customers are fairly satisfied regarding the services of SURSECO. Compared with the results from Office Base as rated by customers themselves, services of SURSECO in the field base are not really that impressive. This could be interpreted that crews off the office of SURSECO, as can be seen with what the consumers have perceived about their services which boils down to personnel efficiency, resourcefulness, initiative, and diligence, are less supervised and monitored by the top management. Hence, looking at the other side,

crews assigned in the field are more likely vulnerable for not being able to perform their delineated duties and functions and may appear complacent in the job other than having attributed the problems to the non-availability of the requested transformer or delayed transactions. It may appear also, as observed by consumers in the field, that concerned personnel only deliver the services to the best of their ability in their respective office assignment where supervision is stricter and highly evident.

Table 5. Customers/client's rating on the field base service quality of SURSECO I

Indicators: FIELD BASE	Mean	VD
On the responses of the reported burst transformer.	2.97	FS
In addressing the identified fault line distribution	2.87	FS
In responding to the faulty wiring repair within the dwelling premises	2.83	FS
In the efficiency of executing the service Memorandum issued	2.88	FS
Response on service-drop relocation	2.76	FS
In responding to overbilling charges of power consumption	2.66	FS
In responding the request on temporary cut-off of service connection	2.75	FS
Response on consumer's request on change of consumer's name and address	2.80	FS
Request on Promissory Note	2.71	FS
Request for the execution of turn-on orders on the new connections	2.75	FS
Request for reconnection after clearance had been cleared	2.80	FS
Request for special reading/re-reading of KWH meter	2.72	FS
Response on emergency calls due to fire hits in an area	2.87	FS
Request on transformer lease especially on large commercial customers	2.78	FS
Request on transformer installation/retirement	2.77	FS
In response to request on tree trimming that branches hit distribution lines	2.78	FS
Request to conduct information drive in every barangay/sitio	2.80	FS
Request on load evaluation	2.72	FS
<b>Mean</b>	<b>2.79</b>	<b>FS</b>

Legend: Interval Description  
 3.51-4.00 - Very Satisfied  
 2.51-3.50 - Fairly Satisfied  
 1.51-2.50 - Less Satisfied  
 1.00-1.50 - Not Very Satisfied

*Multiple Regression Models of Predicting Service Quality of SURSECO*

Table 6 shows the multiple regression analysis of predicting service quality of SURSECO I. Regression analysis of Y<sub>1</sub> and X yields a significant overall fit such that the independent variables (organizational parameters)

explained only 26.2% variance in the field base satisfaction  $Y_1$  of the clients.

Table 6. Multiple regression models of predicting service quality of SURSECO I

Dependent variable: Field Base ( $Y_1$ )					
R	R2(%)	F	Probability		
0.512	26.2	12.493	.000		
COVARIATE	B	Beta	Std.Error	t-stat	Prob.
(constant)		1.0140	.229	4.437	.000
$X_1$	-.18349	-.17452	.109	-1.690	.092
$X_2$	.01366	.01320	.113	.121	.904
$X_3$	.00067	.00067	.100	.007	.995
$X_4$	.06428	.06476	.098	.654	.513
<b><math>X_5</math></b>	<b>.24559</b>	<b>.25665</b>	<b>.107</b>	<b>2.293</b>	<b>.023</b>
$X_6$	.08526	.09601	.086	.995	.321
$X_7$	.08654	.08887	.106	.816	.415
Dependent variable: Office Base ( $Y_2$ )					
R	R2(%)	F	Probability		
.684	46.8	31.039	.000		
COVARIATE	B	Beta	Std.Error	t-stat	Prob.
(constant)		1.1201	.195	.629	.537
$X_1$	.03969	.03764	.092	.430	.668
<b><math>X_2</math></b>	<b>.28366</b>	<b>.27334</b>	<b>.096</b>	<b>2.953</b>	<b>.003</b>
<b><math>X_3</math></b>	<b>-.32863</b>	<b>-.33171</b>	<b>.085</b>	<b>-3.865</b>	<b>.000</b>
$X_4$	.08770	.08809	.084	1.049	.295
<b><math>X_5</math></b>	<b>-.49802</b>	<b>-.51893</b>	<b>.091</b>	<b>-5.463</b>	<b>.000</b>
<b><math>X_6</math></b>	<b>-.20738</b>	<b>-.23286</b>	<b>.073</b>	<b>-2.843</b>	<b>.005</b>
<b><math>X_7</math></b>	<b>.33884</b>	<b>.34694</b>	<b>.090</b>	<b>3.754</b>	<b>.000</b>

- X1: Achieving organizational mission
- X2: Administrative support
- X3: Employee relationship building
- X4: Adaptation to organizational and technological change
- X5: Effective information sharing and communication
- X6: Strategic management
- X7: Employee's technical competence

It should be noted that a large variance unexplained by the service quality may be due to the multicollinearity of variables and accounted to random errors. It should be noted also that only  $X_5$  yielded significant estimate of regression coefficient (coefficient=0.246, t-stat=2.293 & p-value=0.000) as well as the model constant (coefficient=1.140, t-stat=4.437 & p-value=0.23. Thus, the following regression model are is proposed:

The Model for  $Y_1$

$$Y_1 = 1.0140 + .24559 X_5$$

implying that effective information sharing and communication ( $X_5$ ) primarily determines field base client satisfaction. Further, for every one unit increase in the service quality level of power/energy bill notification along five-point scale measurement, the field base satisfaction level of clients will increase by 0.25 units in a four-scale variable measurement.

The Model for  $Y_2$

$$Y_2 = 1.120 X_2 - 0.32863 X_3 - 0.49802 X_5 - 0.20738 X_6 + 0.33884 X_7$$

To account all dependent variables in one model, a multiple regression analysis was applied to seven (7) independent variables and two (2) dependent variables to evaluate the multivariate shared relationship between the two variable sets; namely, organizational variables and service quality/client satisfaction variables. The analysis yielded two functions with squared correlations ( $R^2$ ) of .495 and 0.068 for each successive function which are statistically significant as shown.

Table 7. Correlation analysis relating organizational variables of SURSECO I to service quality

Measures of Overall Model Fit for Correlation Analysis				
Canonical function	correlation R	$R^2$	F-statistics	Probability
<b>1</b>	<b>.704</b>	<b>.495</b>	<b>16.096</b>	<b>0.000</b>
2	.261	.068	2.955	0.005
Multivariate Tests of Significance				
Statistic	Value Approximate	F statistic	Probability	
Wilk's $\lambda$	<b>.47026</b>	<b>16.09612</b>	<b>.000</b>	
Pillai's criterion	.56354	13.82912	.000	
Hotelling's trace	1.05462	18.45592	.000	
Roy's gcr	.49530			

In addition to the tests of each function separately, multivariate tests of both functions were applied simultaneously. The test statistics employed included Wilks'  $\lambda$ , Pillai's criterion, Hotelling's trace and Roy's greatest characteristic root (gcr) criterion which all indicate that the two functions are significant at 0.01 level. Because Wilks'  $\lambda = .470$  with  $F(40, 968.79) = 5.870$  and  $p < .001$  represents the variance unexplained by the model,  $1 - \lambda$  yields the full model effect size in an  $R^2$  metric. Thus, for the set of two functions, the  $R^2$  type effect size was .530, which indicates that the full model explained a substantial portion, about 53%, of the variance shared between the variable sets. Given the effects for each function, only the first function is considered noteworthy in the context of this analysis (49.5% of shared variance). The second function only explained 6.8% of the remaining variance in the variable sets after the extraction of the prior functions.

### 5.0 Conclusion

Administrators and employees of SURSECO are more able to effectively and efficiently translate the mission and vision with sustained meaningful contribution to national development in providing safe and reliable energy distribution service while ensuring positive climate in the workplace and consumer satisfaction.

Administrators also seemed to perceive at different angle with higher level of point of views on administrative support, adaptation to organizational and technological

change, strategic management system, and employees' technical competence. Meanwhile, it could be seen that they, together with employees, share common understanding and interpretation on the following organizational variables, namely: on achieving the organizational mission and on effective information sharing and communication.

With very satisfactory ratings on the services of SURSECO, the energy service provider is more able to provide safe and reliable energy distribution service and smooth employee-customer interaction that practically meets the expectation and energy needs of the consumers.

In all circumstances, administrators and employees have proven by themselves that they both work as a team in delivering the services to the customers as they are able see together the needs, problems and solutions in every situation and experience.

As to office base, customers of SURSECO are well pleased of its services rendered to them by personnel of SURSECO but not so on the field base. Service quality that results to customer satisfaction are just one of the benefits of organizational development.

Among all organizational variables, regression analysis of customer's satisfaction in terms of office base and effective information sharing and communication yielded a significant overall fit. Thus, the following regression model is proposed:

$$Y_1 = 1.0140 + .24559 X_5$$

Where  $Y_1$  is the customer's level of satisfaction and  $X_5$  represents the effective information sharing and communication as an organizational variable.

For field base, the model is given by

$$Y_2 = 1.120 X_2 - 0.32863 X_3 - 0.49802 X_5 - 0.20738 X_6 + 0.33884 X_7$$

Where  $Y_2$  is the customer's satisfaction and  $X_2$  is the administrative support,  $X_3$  is employees relationship building,  $X_5$  is effective information sharing and communication,  $X_6$  is the strategic management and  $X_7$  is the employees' technical competence. The model indicates that service quality of SURSECO is influenced by the following organizational variables like administrative support, employees relationship building, effective information sharing and communication, the strategic management and the employees' technical competence. These variables are indispensable and essential to provide the SURSECO's customers the best services.

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