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**Customer Service Quality in Ethiopian Electric
Power Corporation (EEPCO)**

Prepayment Customer Service

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Abstract:

Ethiopian Electric Power Corporation (EEPCO), state owned monopoly that generates, transmits, and distributes and sales electric power nationwide, has been undergoing various continued utility management practices.

One of the major improvements, as part of the transformation, was the introduction of Prepayment (Metering) System, over that of the conventional metering service, which had been forcing the Corporation to follow lengthy service processes, in order to support the realization of its long term strategic vision of providing quality electric service and being competitive in an energy export.

However, despite the introduction of this new type of service-prepayment customer service, the Corporation has not been able to attract more than only about five percent out of the two million total customers.

Therefore, this study tried to assess and analyze the existing practice (quality) of prepayment customer service both from the employee and the Corporation's perspectives, and thereby propose possible marketing strategies that are capable of improving the customer service quality for the subsequent adoption of prepayment service. SERVQUAL, as a methodological approach to service quality measures, was employed to measure the prepayment service quality by comparing customers' perception of the received service against their expectations.

Accordingly, the study revealed, despite its limitations, that there has been a substantial gap between customers' expectations and perception of the service rendered, for which different possible marketing strategies were suggested for improvement.

Key words: Customer Service Quality, SERVQUAL, Prepayment, EEPCO, Relationship Marketing, Customer Behavior

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1. Introduction

In today's constantly changing business environment, providing a superior service quality, through an adequate and a strong focus on customer (Chiara G., 2007), is one of the key factors enabling firms to gain a lasting competitive advantage in winning the market. For this, nowadays marketers, according to R. Ladhari (2011), are trying to focus more on a continuous monitoring and evaluation of service quality, involving various innovative offerings and service developments, which have a direct influence on customers' service experiences. Because, for instance, better service quality increases perceived service value and satisfaction; improves the service provider's customer retention and financial performance; and also enhances a firm's corporate image. (Nguyen and Leblanc, 1998)

Providing a quality service is therefore about meeting and even, depending on the company's capability, excelling customers' expectation. In other words, it is the difference between expectation prior to the service encounter and the actual perceived service that the company provides, making it to be reliant on the customers satisfaction/service experience. (Grönroos, 2008) Thus, companies in various service industries have to be able to measure the actual service quality in order to take any corrective measures in relation to improving the both the technical and functional qualities, such as by introducing new and innovative product/service features, revisiting the established relationship, etc. One way of conducting service quality measurement, which is quite popular, is through the application of SERVQUAL. It basically measures quality in terms of five dimensions of service, namely the tangibles, reliability, responsiveness, assurance and empathy. Therefore, this paper will try to analyze and assess the challenges of service quality in Ethiopian Electric Power Corporation (EEPCO) while trying to measure and focus on prepayment customer service with the help of SERVQUAL.

1.1 Organizational and Problem Background

EEPCO, a state utility monopoly, was established in Ethiopia in the year 1956 in order for electric power generation, transmission, distribution and sales service in the country. (www.eepco.gov.et)

The corporation has about 2 million customers in the country and has also recently started exporting power to the neighboring Djibouti, with a monthly fee of 1.5 million dollar for 35

Mega Watt power. It plans to expand the foreign market to other countries such as Kenya, Sudan and Eritrea in the near future. (www.eepco.gov.et)

The company has been undergoing various continued transformations, such as via Customers' Management System (CMS), decentralization of Accounting and Billing system from once highly centralized down to the regional distribution offices, districts, and customer service centers (CSCs), and Prepayment (Metering) System, in an effort to realize its long term strategic vision of "becoming a center of excellence in providing quality electric service to everyone's doorstep and being competitive in energy export." The corporation has also set a mission of "providing adequate and quality electricity generation, transmission, distribution, and sales services, through continuous improvement of utility management practices, and responsive to the socio-economic development and environmental protection needs of the public." (www.eepco.gov.et)

Conventional Metering System customers normally pay their electric consumption at the end of every month's consumption following after the lengthy process of bill preparation that involves manual meter readings (meter reading technicians), feeding the collected readings in to a computer at every CSC and /or districts, depending on the access to CMS and the number of customers, and finally preparing it all for data processing at a centralized data (bill) processing unit, which is found at the headquarter. Once the bills are ready for sell, they will be dispatched to CSCs, districts and Regional Offices, where then customers would pay for their regular consumptions at a predefined dates. This long process of bill preparation has been costly both for the corporation and more importantly for its customers as it involves a number of human and non-human errors, such as inaccurate readings, inputting errors, and preparation of wrong billing amounts, delays in bill preparation, swapping customers' bills, which result in unusually high or low bill amount than their actual consumptions, right from the collection of readings up to the sales of the bills.

Besides, the corporation has been also facing a huge problem of collecting bills from customers in that customers fail to pay their bills regularly even if they continue using the electricity services that the corporation is providing. For instance, the company has sued a single customer

for an outstanding bill amount of 2.9 Million Euro. The total unpaid bills' amount is increasing from time to time.

Accordingly, since 2005, the corporation has introduced a prepayment system, in parallel to the CMS which was introduced a bit earlier, where customers are expected to pay before their actual consumptions. This has been beneficiary for the customers that they no longer are obliged to face the inconvenience and all other sources of dissatisfaction that they would face if they were to use the mechanical meters. The company also, in addition to improving the customer service quality, has the advantage of avoiding unnecessary costs of taking any remedial actions as a result of customer complaints for the one or more of the foregoing problems.

However, so far the corporation is having the prepayment system only on a limited customer service branches, mainly in the capital due to infrastructure and some other technical and non-technical requirements, even if it has been its priority to completely change, despite some its very serious limitations, the old meter user customers into the new prepayment system for the subsequent improvement of its service quality. So far it's only less than 5% (with a total of 125,149 customers, as of September 2011, and yearly revenue of 92,202,640.89 Euro) of its total customers who actually started to use the prepayment service during the last 7 years of the project life. This clearly indicates that there is something wrong that the corporation needs to address so as to meet customers' expectation and thereby attract as many customers as possible.

1.2 Problem Statement

Prepayment system has been receiving a continued resistance from the customers even if the corporation keeps on using different promotional tools and marketing strategies in order to increase the number of (early) adopters, such as providing the meter and its accessories free of charge for those wishing to change the older meter, as well as retain those who have tried the new service through better management of its relationship with existing customers. This is partly due to the fact that most customers have less confidence in the Corporation, based on their historical relationship, especially following after the implementation of the CMS, during which there was a record high number of customer complaints in its history.

In addition, those who adopted the new prepaid metering system service are often heard presenting their service dissatisfaction in that the corporation does not have customer-friendly

service hours so that customers can refill their prepayment (smart) card anytime they run in short of power (say at night and early in the morning).

Customers are even heard of complaining that there is a failure in the system itself that they couldn't refill in which the corporation is linking this problem again with network, which is owned by Ethio Telecom, another state owned (monopoly) communication service provider. The company has had for instance a total of 19, 271 malfunctioning smart card replacements, mainly due to the technical problem of the card itself; the meter display being in English and symbols that the local people, often elderly and illiterate ones, are not fully conversant with make it all to be less customer friendly.

There are also technical problems that are related with the electronic meters which allow the customer either to use the electricity service for free, running low so fast than the normal consumption rate, the meter display (LCD) fails to display Kilo Watt readings, or the meter stops working all of a sudden that the customers can't even get help unless otherwise it occurs at day time.

These and other problems combined are posing an enormous challenge that the Corporation needs to address urgently in order to acquire as many customers as possible and at the same time retain them through the delivery of an adequate and quality customer service right from the activities of initiating sales to the after sales services. With this in mind, the following major question is developed:

- General Question: How do the existing customer service experience, innovation and relationship marketing of the Corporation look like in affecting the customer service quality of prepayment system?

Some of the specific questions to be addressed within the general question stated above are:

- ✓ What are the existing challenges of introducing prepaid energy metering system in relation to providing an adequate and quality customer service that the company is aiming to provide?
- ✓ How do the comparative advantages of prepaid customer service (when viewed from perspectives of both customers, and the corporation) look like and how would these be used in

making a smooth transition, especially with respect to improving the overall service experience, to a prepayment service?

- ✓ How and what marketing strategies best suit in order to overcome the existing challenges of customer service (with the introduction of prepaid customer service)?

1.3 Objective

Generally, the study aims to trying to make an analysis and assessment of introducing prepayment customer service over that of the Conventional (Metering) customer service in the process of improving the Corporation's customer service quality and thereby propose possible recommendations for the subsequent improvement. Some of the specific objectives are:

- To analyze and assess the existing challenges of prepayment system service delivery process
- To identify and suggest possible marketing strategies capable of improving the customer service quality so as to attract and retain more customers

1.4 Delimitation of the Study

Due to the resource constraints (time, finance), the scope of the study was limited to only CSCs and other supporting offices in the capital, Addis Ababa. Therefore, the findings would be limited in this regard. However, I'm very much aware that a more generalization of findings would have been possible if representation of sales and marketing (service) branches of the country were considered to a reasonable degree given the fact that the Corporation is such a very complex and huge organization that has a monopolistic control of power utility service locally, and internationally.

1.5 Organization of the Work

In the chapterization of the thesis, chapter one contains introduction, research methods and tools, problem statement, research questions, objective, delimitation of the study, definition of concepts, terms and terminology, etc. Chapter two comprises the different theoretical/ literature reviews; chapter three involves empirical findings of the case study; the fourth chapter also contains an analysis and discussion of data (linking the theoretical framework, methods and evidences); the fifth chapter has a conclusion and recommendation, and finally bibliography, and appendix.

2. Literature Review

In this section, different theoretical literatures, which will be used for the subsequent analysis of the empirical findings, are going to be critically reviewed, discussed, compared and contrasted with respect to (customer) service quality.

2.1 Customer Experience

One of the main routes to reach in the creation of long lasting competitive advantages is through a stronger focus on the customer. Nowadays, the customer experience factor plays an increasingly significant role in determining the success of any offering. In the previous years, the growing attention on the customer resulted in an increased focus on Customer Relationship Management (CRM). More recently, as the number of contact points between a company and its customers increased, such attention revealed the fundamental importance of monitoring the many experiences that originate from those contact points. (Chiara G., 2007, pp. 395)

Marketers, therefore, underline the critical role service quality plays in the customer's service experience. For instance, researchers demonstrate that better service quality increases perceived service value and satisfaction; improves the service provider's customer retention and financial performance; and also enhances a firm's corporate image (Nguyen and Leblanc, 1998). In addition, researchers also investigated the drivers of perceived service quality such as demographic factors (the effect of culture and personal values). (R. Ladhari et al. 2011, 951–957)

Customer experience generally “originates from *a set of interactions between a customer and a product, a company, or part of its organization, which provoke a reaction. This experience is strictly personal and implies the customer's involvement at different levels (rational, emotional, physical and spiritual). Its evaluation depends on the comparison between a customer's expectations and the stimuli coming from the interaction with the company and its offering.*” (P. Asubonteng, et. Al 2007, pp. 397)

2.2 Customer Service and Service Quality

Service: is a process (Grönroos, 2007) involving a series of intangible activities which, most of the cases, take place in interactions between the customer and service employees - and/or

physical resources or goods and/or systems of the service provider - which are provided as solutions to the customer's problems.

It is also generally characterized by, as commonly understood in marketing, such as its intangibility, variability (heterogeneity), inseparability and perishability. Service is intangible in the sense that it couldn't be touched, smelled, etc. using the senses of our body except experiencing it in the process of value creation; inseparability refers to the fact that it can't be separated from the service provider, as opposed to product offerings; variability on the other hand is to mean that it is highly variable(heterogeneous) throughout its production and delivery process, under the influence that both the customer and the service provider exert (Grönroos, 1990) ; and perishability denotes that it is specifically designed to satisfy the needs and wants of a customer at a certain point in time after which it can no longer be stored or reclaimed to be reused by the customer.

Service Quality: refers to (Patrick P. et. al 1996, pp. 62), the “difference between customers’ expectations for service performance prior to the service encounter and their perceptions of the service received. Service quality theory (Oliver, 1980) predicts that clients will judge that quality is low if performance does not meet their expectations and quality increases as performance exceeds expectations. Accordingly, customers’ expectations serve as the foundation on which service quality will be evaluated by customer. In addition, as service quality increases, satisfaction with the service and intentions to reuse the service increases.”

Generally, the different literatures define service quality in the following ways:

- An outcome of evaluation process (Grönroos, 1984), and differences (Asubonteng et al. 1996) in that customers make comparison (Parasuraman et. al, 1988) of their expectation with their perception of the service received;
- The overall impression of consumers towards the superiority or inferiority of an organization and its services (Bitner, 1990).

Service quality can be both (Grönroos, 1982) technical quality- involves what the customer is actually receiving from the service, and functional quality- involves the manner in which the service is delivered.

Marketing research studies resulted in a general agreement that firms providing high service quality have a competitive advantage, and often are more profitable (Bhat, 2005).

Moreover, a high level of service quality enhances customer satisfaction, decreases customer defection, and enhances customer loyalty (Jun and Cai, 2001). Studies conducted in Western cultures typically conceptualize service quality in five dimensions: tangibles, reliability, responsiveness, assurance, and empathy (Cronin and Taylor, 1992; Parasuraman et al. 1988; Raajpoot, 2004). (R. Ladhari et al. 2011, 952-53)

- **Tangibles** - refer to the appearances or access to personnel, equipment, suppliers, physical facilities, etc.
- **Reliability**- refers to the ability of the service provider to perform the promised service accurately and dependably.
- **Responsiveness**- means providing prompt service and displaying a willingness to help customers.
- **Assurance**-means employee knowledge and ability to inspire confidence and trust.
- **Empathy**- refers to the level of individualized attention the firm gives to its customers.

Under the above dimensions of service, there are about 22 attributes (sub- dimensions) which are worth considering while measuring the (perceived) service quality. Some of these attributes include such as anticipation, attitude, access, communication, credibility, ease of use, flexibility, follow-up-after initial service, friendliness, image/reputation, politeness, performance, reasonable cost, skills, speed, confidentiality/security, accuracy, timely/prompt service, understanding/knowing the customers, willingness to correct errors, etc

It is vital to making a valid and reliable service quality measure as a corner stone of marketing strategy. This may be done by using the most popular service quality measure for different service industries called SERVQUAL (Patrick A. et al. 1996). SERVQUAL helps to measure the quality of the service provided as perceived by the end-users, i.e. the customers. Especially it would be important to measure customer perceptions of quality before and after the quality action is taken (eg. before and after the introduction of prepayment service, in this case), by developing the service dimensions from the customer's perspective. This way the company will

have an opportunity to see if the goal of say improving customer service has been achieved as a result or not.

2.3 Customer Satisfaction

Customer satisfaction is a compelling issue because in the service industry customer retention is more important than attracting new customers. Retaining customers has a stronger impact on company profit than does attracting new customers. Therefore, companies, so as to maximize profits in the long term, should strive for zero defection through customer satisfaction.

There is an increasing tendency to view satisfying customer as going beyond providing just a technically superior product or service, i.e., defect reduction and continuous improvement programs. Quality is also as such defined by the customer's perception, not by the service provider. However, it should also be born in mind that even if the first person who is considered as a customer is the buyer (end user), there are several other people who need to be considered as customer for the reason that their involvement in the production and distribution of the service or product, or project (LR Ireland, 1992, 123-124) affects the quality of the service. Generally, customers may be of:

- Product/service end users- users expectations such as ease of use, safe operation, reliable products, durable goods, and easily maintained products, etc. which all together enhances better functional performance and or greater ease of use compared to other competing products/services.
- Boss (senior management) - the project director expects the project manager to effectively and efficiently undertake the work, including keeping informed every stakeholder as to its progress and potentials that could affect its success and relationship with customers, etc.
- Project team members- the team expects professional leadership of the project manager, safe work environment, clear directions pertaining to work, training for new works, and appropriate rewards for superior performance. Of course, the team members also expect loyalty from the project manager to shield them from outside interference with their work.
- Functional organization-involves an expectation of efficient use of assigned resources (human, material, financial, information, etc.)

- Vendors/suppliers- Vendors and suppliers have a vested interest in providing parts, components, and materials to the project meeting the quality requirements. These customers have expectations of proper specification practices by project personnel and prompt payment upon delivery.
- Society- a special interest groups and is the guardian of such general areas as the environment and public safety. The issues addressed by society include environmental pollution of rivers and streams, maintenance of a natural habitat, etc.

How well a company addresses each and every requirement of these groups of customers determines the new product/service's success in the market. Therefore, companies should consider customers as their important part of gaining improved quality of service.

2.4 Customers' Behavior and Marketing Strategies

Fishbein developed a ‘multiattribute attitude model’ to better explain and understand the way customers behave in relation to the introduction of new product. The model is used to predict the behavior and attitude of customers by focusing on their beliefs towards multiple products and/or brand attributes. It is understood that that the ‘evaluations of salient beliefs cause over all attitude’, i.e., customers prefer to like products with ‘good’ attributes and dislike products with ‘bad’ attributes. (Peter and Olson 2008, P.139)

The model further explains that the strength of the customers’ brand or product belief is affected by customers’ past experiences where belief about product attributes/consequences to be stronger when based on actual uses of the product. Therefore, beliefs based on direct experience tend to have greater impact on the overall attitudes toward a product thus marketers try to induce potential customers to actually use the products (eg. Providing free trials of prepayment meter...). Whereas, unlike to experience based beliefs, beliefs from mass advertising or conversations with sales person tend to be weaker.

Generally, the model, (Peter and Olson 2008, pp.139), helps in exploring customer behavior and is also much easier to be used in research. Marketers can use the model to understand their customers, indentifying which attributes are the most important-salient, diagnosis their marketing strategies for the subsequent change and adjustment in strategies, and understanding situational influences for the reason that situational factors can affect the type of beliefs to be activated from memory and make purchase decision in those particular situational settings.

2.5 Relationship Marketing: Customer Oriented Approach to Marketing

An emphasis has been given (Szmigin 2003, pp. 79), to “understanding the importance of customer behavior with a focus on relationship marketing, i.e., analysis of relationship with in the social context, which makes the relationship very complex, and thereby making the customer as an active participant. It is vital to consider customers as in insiders-making them actively engage as this would help in better understanding consumers.” This will subsequently strengthen and make the relationship mutually beneficial.

Besides, given the fact that customer behavior is a very dynamic process in which “thinking, feelings, and actions of individual customers, target customer groups and society at large are constantly changing” (Peter and Olson 2008, 6) as well as the effects of different environmental factors (such as the marketing mixes, competition and culture), any approach to marketing need to reflect these core basis of understanding customers behaviors, including their frustrations and unintended consequences of different marketing stimuli. Accordingly, the product, brand, power balance (the varying need for the relationship that each party has) and nature of the customer interactions are considered critical in making the type of relationship effective.

2.6 Innovation and Customers

According to Szmigin (2003, p.82), innovation as well as the way producers and suppliers engage themselves with consumers-innovation as a relationship issue- are key to the challenge of marketing theory and practices in today’s business. Therefore, in order to be successful, innovative suppliers need to forge relationship with appropriate customers by broadening it to embrace the active customers, unlike to the continued treatment of customers as passive.

This would enable customers to have says on the product which ultimately leads to benefit the customers in getting the right product, which is tailored toward their needs, tastes and preferences, and the business, in terms of making the innovation commercially successful. Customer behavior involves, Peter and Olson (2008), ‘interaction and exchange’ showing that relationship is key for better understanding and subsequently devise an effective marketing strategy. It is also argued that there has been fundamental shift in the meaning of innovation for the reason that customers are no longer focused on only the functional attributes of new product but on other aspects (of value) too. This reinforces, as explained earlier from that of Peter and Olson, the idea that consumer behavior is very dynamic and needs to be continuously reviewed.

There is a distinction between resisting consumption and customers' non adoption of new items where (Szmigin pp. 86) resistance may imply a positive response where as non-adoption of new items is worrying for business. Because it implies that there is something wrong with the product itself or the ways it has been packed, distributed or communicated. Businesses may be willing to spend millions developing and improving such non-adopted items while they are much less likely to spend the same amount trying to convince the resisters that they should buy.

Equally to understanding the people's differences, characteristics of different adopter categories, it is also important to analyze innovation differences as to why one innovation is accepted over the other. An examination of the different relationships between different people or adopter categories and the innovation differences might in turn lead to a deeper understanding of reactions and responses in the marketplace.

Generally, for better understanding of customers' relationship with innovation and the relationships between business and innovation, four factors are identified as worth examining for their specific application of marketing and consumption (Szmigin, 2003. P. 87-88). These are namely: the innovation itself; the channel through which it is communicated; the time over which it is diffused; and the members of the social system in to which it is marketed.

Innovation is defined as (Szmigin 2003, p. 88-89) "an idea, practice, or object that is perceived as new by an individual or other unit of adoption", making it all dependent up on each individual perception as well as his/her situation. Such a subjective approach to innovation places the user as central to understanding the nature and role of the innovation.

Likewise, (Robertson, T.S. 1967), majority of the innovation definitions include newness and usefulness but still this newness is in the "eye of the beholder" and difficult to define objectively "what is new". Hence, according to Robertson, innovation should be looked from the commercial perspective saying that it could be technologically advanced and novel but if the customers don't buy it, then it won't be called as innovation. This of course might lead to have little doubt to agree fully as the commercial success merely doesn't rely on the newness of the product because even if it succeeds for some time, it may still fail after a certain time due to unforeseen circumstances (eg . changing behavior of customers due to economic crisis).

In other words, the commercial success of an innovative product/idea may also be affected by different factors, other than the innovation itself, such as the deployed marketing strategy as “understanding markets and developing and implementing superior strategies to attract and hold customers profitably” (Peter and Olson 2008, 14) is also crucial to its success.

There are three types of innovations, on the basis of which linkage is made between the customer and the product, which Isabelle adopted from Robertson, namely the continuous, the dynamically continuous and the discontinuous innovation. However, here the focus will be on the third type of innovation which is found to be directly related to this research.

Discontinuous innovation: it is characterized by an innovation that brings about the greatest change for users and which requires the establishment of new behavioral patterns. Therefore, it requires much more marketing efforts to convince customers abandon their old behavior and patterns of product use.

Different attributes are also important factors for innovation. Some of the attributes (Roger, 2003, 97) are compatibility, observability, complexity and trial-ability. Compatibility refers to the degree to which the new product is consistent with customers existing values and past experiences. Observability (visibility) is the degree to which the effect of the innovation is visible to others, i.e., ease of communicating the product to the potential customers. The more visible the product, the more easily it is getting diffused among its users. Products demonstration is deemed relevant from consumers’ perspective.

Complexity refers to the relative ease of difficulty with which an innovation is understood. Trialability is the last attribute which denotes the degree to which a product is tested and accessed before purchase.

From the foregoing discussion, it is implied that the balance between identifying innovation characteristics and their relevance in terms of customer acceptance and the type of value (functional and symbolic) is likely to impact the nature of adoption and ultimately the relationship. The balance is therefore between the production-characteristics of innovation-and consumption-characteristics of adopters and non-adopters.

2.7 Adoption and Resistance of an Innovation

Time is considered relevant in understanding the behavior of customers, because they do organize, use, create, lose and plan their time. Relating time and innovation, Isabella (2003, P. 104) by referring to Rogers and Shoemaker's definition, was considered as "the degree to which an individual is relatively earlier in adopting an innovation than other members of the system."

Peter and Olson (2008) too have shown the role of time, by using an adoption curve, along with the percentage of adoption (diffusion over time) where the curve shows the adoption process characterized by an upward increasing curve. In the beginning, there are innovators with 3-5% adoption rate, early adopters with 10-15%, early majority and late majority with up to 34% each and finally the laggards of 5-6% adoption. Therefore, unlike to the critics made by different authors, time is important for the success of innovation as it also guides marketer which strategy and at what time to follow.

However, it shall be acknowledged the qualities, suggested by Rogers, of innovation (relative advantage, simplicity, observability, compatibility, triability) are equally, and even more important factors of influencing the degree of adoption.

Customers creativity reveals a wide forms of resistance, some highly proactive and some possibly unconscious. According to a study result taken from Midgley and Dowling (2003, pp.111), despite the fact that most individuals are interested in the particular innovations, the dominant act of behavior was to reject adoption.

There are three scenarios of rejection, i.e. 1) symbolical rejection of innovation on the basis of the available information that it is not for them-example reading a good review of a given film but opting not to watch it because it is a violent, 2) Symbolically accepting the idea (innovation) but unable to move to the trial stage for some other reasons (example a student favoring a store card but unable to own it due to his income) and 3) Symbolically accepting the idea but postponing the trial till an appropriate time or situation.

Generally, non-adoption can be explained either by rejection (consumers have processed the information needed to make the decision not to adopt) or postponement (not wishing to adopt at a particular time because of the need for more information or more time to process the information they have).

Resistance, as Szmigin (2003) referred to Rams' suggestion, becomes less threatening to marketing if it is not perceived as the opposite of adoption and needs to be effectively designed as a normal customer process. This makes the success of innovation to rest on how it is flexible to modification.

Customers also feel about "the comfort of the status quo", i.e. comfort with the existing consumption(situation) which is also termed as habit(strength) and less motivation to change this habit especially if the innovation is more of discontinuous type, as explained above.

In general, as consumers adopt innovation for its functional and/or symbolic value, so do they resist due to two primary forms of barrier, i.e. functional and psychological barriers (Szmigin 2003, P.115-116). Psychological barrier arise from tradition and norms of customers, and perceived product image where it creates conflict with the consumers' prior belief.

Functional barriers include product usage patterns, product value (performance to price value), risk associated with the product usage (economical, physical, functional and social risks). According to Robertson, the initial price is also important in determining the success of innovation, i.e. charging either too high or too low than the fair market price.

For better understanding of customer behavior, it has been suggested that resistance behavior should be considered as imputes for the subsequent integration of the resistance itself, as part of the diffusion process of innovation than trying to oppose it. The different forms of resistance behaviors can also be explained by the concept of 'overt behavior', according to Peter and Olson (2008, 194), as it underlines that marketers need to understand the observable and measureable responses (actions). Because the success of marketing strategies for innovative product may depend on changing consumer (overt) behavior than just creating a good feelings and knowledge about the innovation, i.e. just the affect and cognition, especially for those consumers having good feeling but postponing the adoption or trail of the innovation.

Customer Service Quality Model: The following model is developed, having reviewed the different literatures in the previous section, in order to provide a clear view of how the specific concepts and theories are linked to each other and are going to be applied in analyzing, presenting, and discussing the empirical findings. According to the model, the focus is in evaluating and measuring the prepayment service quality of EEPKO (A-B), with the help of SEVQUAL, which depends on the customer service delivery process consisting of such as the innovation, product

development, and relationship marketing, among others. By SERVQUAL, it is meant to refer to tangibles, reliability, responsiveness, assurance, empathy.

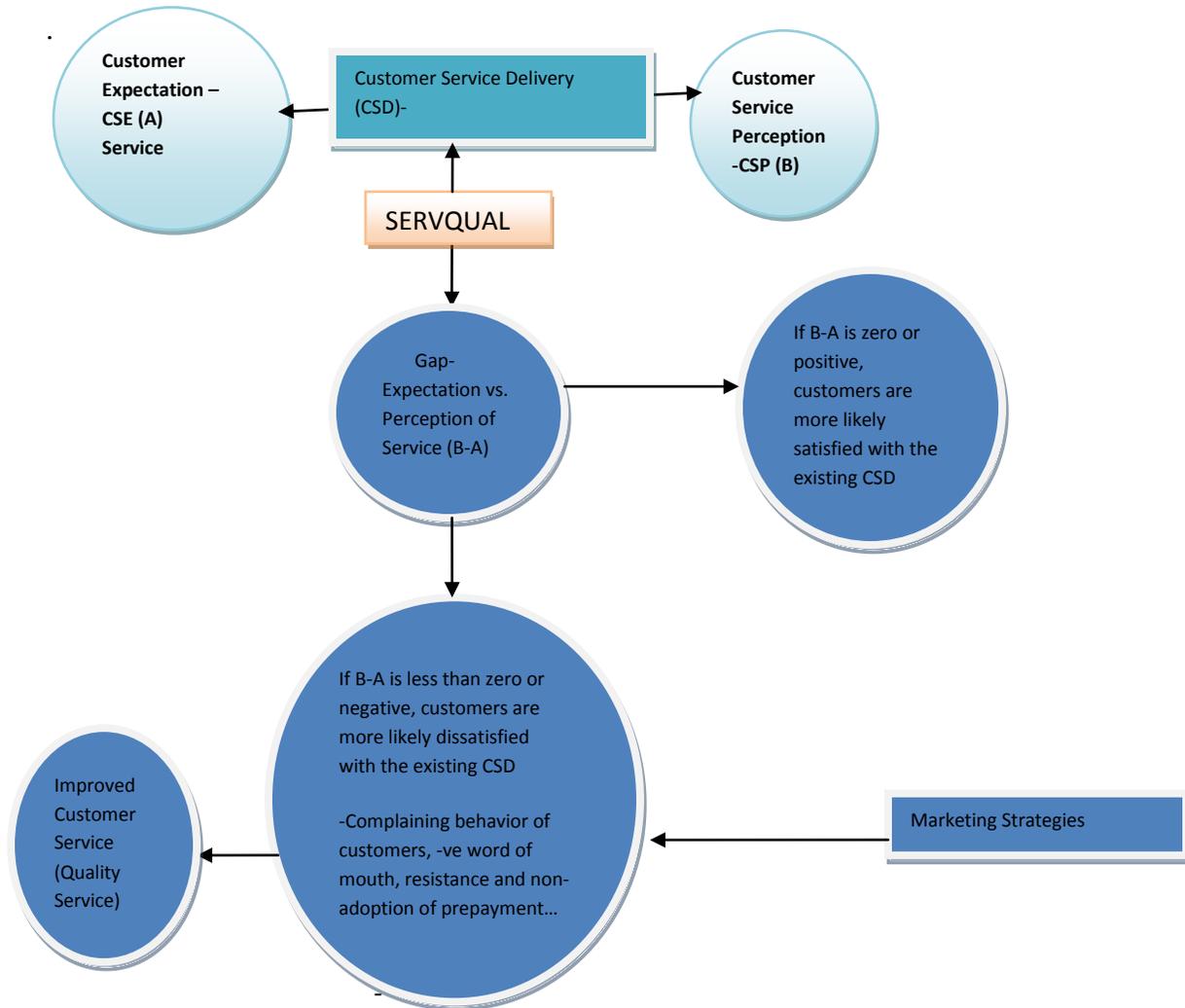


Figure: Customer service quality model

This model is developed, having reviewed the different literatures in the previous section, in order to provide a clear view of how the specific concepts and theories are linked to each other and are going to be applied in analyzing, presenting, and discussing the empirical findings. According to the model, the focus is in evaluating and measuring the prepayment service quality of EEPCO with the help of SEVQUAL. Therefore, customers' service perception (experience) will be evaluated against their expectation so as to see the resulting deviation, and thereby determine and recommend appropriate marketing strategies of improving the existing customer service.

3. Research Methodology

The appropriate methods and tools which were employed during data collection, presentation and analysis are described as follows.

3.1 Method and Tools

Primary and secondary data, of both quantitative and qualitative nature, were used in writing this thesis project. In collecting primary data, random (simple) and non-random (systematic random) sampling techniques were employed. The sample taken using systematic random sampling was based on my prior knowledge, as an employee, and was aimed at accommodating the views and responses of those customers who are having a deviating demographic profile than the general customers such as in income, education, age and settlements. Besides, interviews were also made with specifically selected employees, and of course customers too, with the help of key-informants, of the company. Thus, the respondents were both new and experienced, those who have a thorough knowledge and experience working with the prepayment customer service, so as to have a deeper and better understanding of the subject. This is because the company is characterized by high employee turn-over as well as job rotation that it might be unrepresentative and illogical to apply a random sampling for all of the customer service centers. Applying semi-structured interview helped to engage the respondents more for instance by asking for clarification. However, it posed a methodological challenge that it was very time consuming and required more efforts of the respondents as well as the interviewer. (Bryman & Bell 2007)

Some of the tools employed in collecting primary data were interview and observation (at customer service centers as well as customers' premises where prepayment meters are placed). SERVQUAL, which was dealt more thoroughly in the previous chapter, was also used during the data collection and presentation, and analysis process. The qualitative application of SERVQUAL, with the help of the service dimension/attributes, was used to compare perceived service against expected service and thereby determine the quality of prepayment service provision in the company.

Finally, empirical findings were presented with the help of respondents' opinions and views on the open ended questions from which then analysis and discussion of the empirical findings were made.

4. Empirical Findings

In this chapter, presentation of the interview results will be made. During data collection, as described in the methodology section, interviews, mainly unstructured and semi-structured, observation and informal talks were employed in order to gather as much information as possible. This way an attempt had been made to have an in-depth and better understanding of the existing prepayment customer service quality (challenges) in EEPCO. In addition, historical data of the Corporation (various reports such as sales, number of complaints, customers, etc, company websites, etc.) were partly considered in order to supplement the primary data. During the whole process of data collection, which was carried out for 6 weeks (18th of March 2012 to 30th of April 2012), two important perspectives, the company and customers', were taken in to account.

Under normal circumstances, the prepayment service system requires configuration of vending station in each CSCs, trained and skilled sales people, electronic meters, smart cards, etc. The vending station configuration includes vending server consisting of a data base, vending server application, and one or more vending clients, which operate in an online, semi-online or off-line basis. (EEPCO Prepayment Procedure, 2011)

There were different respondents, as shown bellow, both employees and customers, who involved in different stages of the data collection process. As indicated earlier on the delimitation section, the study was conducted in Addis Ababa, the capital of Ethiopia, where CSCs (four customer service centers in total being considered for this particular case study) with prepayment services, prepayment project office and the head quarter are all found. The people involved were:

- One prepayment project team member
- Four CSC heads
- Five prepayment CSC sales persons, each representing different CSC
- Two prepayment meter technicians, and
- Ten customers for interview, including two on a participatory observation

Identification and selection of the respondents were made not as such randomly, but with more or less an adequate planning and consideration of all other factors, such as prior work experience and exposure to prepayment service, representativeness of the different prepayment branches

(CSCs), demographic factors, etc., that occurred with the help of key informants. However, there still could be biases especially for the reason that both the interview, as a method, by itself and the choice of the respondents posed a reasonable challenge from making the study very much objective. The sample size was not also large enough, especially in taking much of the customers' view points, and this is because the intention of the research was not to make generalization. Instead, it was aimed at trying to have a thorough understanding and analysis of the existing practice, which I think is not as such highly variable with the size of the sample. In doing so, it was enough to have the aforementioned representatives and thereby make possible suggestions for the subsequent improvement of the service quality in the Corporation. The empirical findings are organized and presented below with the help of the SERVQUAL, which consists of five major dimensions of service qualities (tangibles, reliability, responsiveness, assurance, and empathy).

4.1 Tangibles

According to the respondents view, the two major problems related to the prepayment customer service are directly related to the meter and smart card, which are identified as major hindrances of providing satisfying customer service.

The prepayment meter, as tangible offering of the corporation, as explained by the interviewees, has several easily malfunctioning components such as Electrical Erasable Programmable Read Only Memory (EEPROM), Real Time Clock (RTC), relay, Integrated Circuit Reader (ICR) of the meter, which reads and writes on the card, Battery, card insertion slot, etc.

The respondents explained that the failures usually take forms of meter cover expansion and contraction (due to heat and cold), forcing the relay switch to either open or stop power supply; the meter requires a special card, held by a technician of the Corporation, after each and every power cut-off, forcing customers to call the technician and wait in the absence of power; the meter fails to read the card and load the purchased power of the customer, leading to unnecessary and costly meter replacements; and some of the LCDs (Liquid Crystal Displays) of the meters, apart from the meters' non-user friendliness that doesn't consider the socio-economic aspects, is easily damaged when exposed to sunshine which in turn causes customers' inconvenience as they couldn't be able to manage their power simply by reading on the meter display.

Therefore, failure in one or more of these parts resulted in meter replacement which in turn has been affecting the service delivery. From respondents' discussion, it was revealed that:

- Customers are often required, if encountered with malfunctioning meter, to remain without power supply until the customer's meter gets replaced.
- Customers are forced to waste their time to correct errors (defective meters and cards) by making calls and/or visiting CSCs, as a result of which they become dissatisfied.
- The Corporation's revenue is affected due to recurrent meter replacement prior to their expected life span, as promised by the vendor (supplier), raising the cost of restoring the service despite the fact that the move to prepayment was primarily, apart from improving the customer service, meant to facilitate its revenue maximization. Because the revenue collection has been plagued by various factors, among which one is customers' behavior of not paying their consumption bills on a timely and regular basis.
- Districts and CSCs are obliged to unplanned work load, including uncoordinated resources uses in the efforts of solving never ending customers' problem at least on a short term basis, and ultimately causing an increase in their respective overhead costs.
- Illegal measures taken by individuals due to the sudden and frequent power breaks
- Customers would become, as a result, highly dissatisfied with the existing nature of the Corporation's service delivery.
- Wide spread negative word-of-mouth is becoming a trend, which affects the image of the Corporation among the entire society.

The other major problem associated with the tangible aspects of the prepayment service that the respondents described is the card (smart) that is retained by customers for the purpose of refilling their electric consumption. The card brings data back and forth between the meter and the vending stations (data base).

The card was described to possess a very bad quality that can easily be malfunctioning, including improper use and handling by customers (due to lack of customers knowledge/skills on how to use and handle), in transferring the power purchased from the vending station to the customers' meter. However, some of the customer indicated that handling the prepayment card is easy and convenient especially when trying to purchase electricity than carrying and visiting vending

stations with a “A4-size” bill, which is a requirement for post payment service, every time they wish to pay for their electric bills.

The Corporation normally replaces defective cards for free, which consequently increases its cost, according to the views of the CSC heads. During my observation customers were heard of complaining that the cards don't last even for some months, say after a first or second purchase of electricity. As per the observation and from the views of some of the customers that I met in the CSCs, it was clear that there were not adequately prepared, accessible and easy to understand user manuals, instructions and other helpful materials of prepayment service in order for customer to be able to use the service to its fullest.

The interviewed employees, especially from the prepayment project, were also aware of this problem and believed that this has contributed to exacerbating the challenges in the implementation and expansion of the project. Therefore, according to their view, much promotional work is deemed to be undertaken in creating public awareness using printed and non-printed Medias (communication mediums) in the future. Sometimes, according to the CSC heads, customers also play a part in that they don't provide appropriate placement of meters either because they don't have or are unaware of the associated risks of placing meters such as on surfaces that transfer heat.

For instance, the average recorded monthly complaint in one of the CSC was 250, according to a monthly report of CSC4, 2012. Besides, the total number of recorded meter replacements done due to one or more of the above factors in all the Addis Ababa regional offices over the last five years of the project life, according to the report (2012), was 7,226. Apart from the actual meter replacements, the sales people responded that they also undertake meter replacement in the software (application) alone in order to resolve card related problems, which amounts so far to a total of 11, 278 (EEPCO's prepayment annual report, 2012). In this case alone, the service performance was viewed by both the employees and customers as far below customers' expectation, and even lower than the Corporation's service standards. The total number of card replacements was also 19, 271.

On the contrary, it was interesting to see that some (three) of the interviewees found prepayment service convenient due to the fact that they no longer had to worry about unpaid bills following which the Corporation would come and disconnect the power. Because this service would allow them to pay in advance and even is more helpful as tenants won't leave any arrears when finishing the rental agreement. They also showed that it has helped them to become more aware of their actual consumption (such as the Kilo Watt Hour, tariff, etc) and make planning easier as the process is transparent than just paying the bill that is produced by the Corporation. Similarly, getting acquaintance to new technology, through the prepayment meter and card, was another positive aspect mentioned by the participants despite the fact that there are still customers who don't even actually know how to operate their meter and cards.

Nevertheless, the above two problems-lack of technical quality meter and card- combined posed a significant challenge in terms of providing superior and quality customer service experience in order for the Corporation to maximize its revenue from prepayment electric sales service. Its yearly revenue of prepayment in the budget year of 2010/11 was 94,843,038.62 Euro from 125, 149 customers. (Prepaid Annual Report, 2012)

4.2 Reliability

Even if the company has been striving to rendering an accurate and dependable prepayment service, the CSC heads and the project team member pointed out that it has never been an easy task given the complexity and problematic nature of the newly implemented “sub-standardized” prepayment system. Especially as the number of customers grows and gets bigger, they demonstrated their frustration; given the existing limitations, it would be hardly viable for customers to be reliant of the Corporation's service unless something urgent is done.

The frustration was shared by the sales persons, who are directly responsible in providing and handling customers' requests. Even sometimes they became too pushy and tend to advise customers (according to the branch heads) to insist on complaining to the branch heads so that they would shift to the post payment service. The CSC heads also described that high turnover and job rotation of sales persons, without any prior notice and arrangements, has also made provision of dependable and reliable service very questionable.

Similarly, some of the interviewed customers replied that they have had a very bad service experience in their attempt to restore the power cut-off encountered for some reasons which were not known to them. They explained that they had to revisit and continuously remind the service centers in order to get help on the problem at hand.

4.3 Responsiveness

Despite considerable delay in some cases such as due to absence of transportation and other resources, including technicians, the respondents (customers) said that the employees are positive and willing to help them with their problems. However, the promptness and provision of timely service is influenced by the lack of resources which made the staff to be busy in handling different complaints.

The CSC heads also added that normally special care and attention has been given to prepayment service, as compared to the post payment service, to make sure that customers' requests get the required response as soon as possible. But in practice, this is has been affected by various internal, and external resource related factors, such as lack of persistent and reliable network which is a prerequisite to execute the sales of prepayment electric service and other resource constraints.

The employees' skills and knowledge about the prepayment service does also affect the service promptness. For example, according to the CSC heads, in addition to newly placed employees of CSCs, employees working in the emergency technical unit of each region (which receives phone calls and handless all customer complaints at night and public holidays, i.e., when it's not CSCs office hours), have not been given training regarding prepayment and they often find it difficult to restore any power break caused by failure in the prepayment meter and card-which is unknown to those technicians.

4.4 Assurance

According to the interviewed customers, they replied that some of the staffs, including those working on and off the prepayment, are hesitant from instilling confidence in them about the benefits of using prepayment service. "Some of the sales people pointed the customers towards a particular person (eg. the branch head) instead of addressing the request," replied the CSC head. Because, as raised by the CSC heads as well as the project members, the employees themselves

have not yet been made to own the system through adequate training and capacity-building programs. Rather they are made to think as if it belongs to a particular group or individual. Even if they get the training, as stated, it is beyond the capacity of the branch to make sure that the employee is retained until at least another sales person is trained and well acquainted with the prepayment.

Furthermore, the branch heads themselves, and especially the project team, shared the frustrations due to the reason that the supplier (vendor) of the technology has been resisting from taking any efforts of, as per the agreement, technology and knowledge transfer, provision of technical manuals, improving the feature and qualities of the smart card and meters, and even replacing defective meters and cards for free. The top management members, capable of influencing the supplier of the technology, are also reluctant, according to the CSC heads and project leaders, in putting pressure on the supplier, which makes the problem of assured customer service so complex.

4.5 Empathy

According to the interviews and the observation I made in different vending stations (CSCs), customers believe that the Corporation doesn't actually understand the specific needs and wants of customers. For instance, the Corporation's working hours (from 8:00 am to 5:00 pm every Monday through Friday and from 8:00 am to 11:00 am on every Saturday) is not flexible enough when customers have to stay and wait, should they run out of power outside these business hours, without power supply.

On top of this, the vending stations are not too many and/or as close as any nearby convenient store that customers needs will specifically understood and met. With this in mind, some of the CSC heads with too many customers (eg. Eastern Addis Ababa Region-AAR, CSC number 4) stated that they are paying over time and asking for the sales people to work on holidays and Sundays but again this is very much dependent up on the willingness and individual preferences as it is not official working hour. The CSC heads also said that there have been limitations of the data communication in that there is a very slow broad band network line; there is a frequent interruption of ADSL and Wireless broad band network lines; the time it takes to install, restore

damaged or broken network line is very long; and some of the CSCs don't have ADSL or wireless data lines.

Therefore, in these regards, the employees (and the customers themselves) felt that customers are generally less treated in terms of meeting those individual and specific needs.

4.6 Customer Behavior, Relationship Marketing and Innovation

When asked about the behavioral intentions, some of the interviewed customers replied that they wouldn't at least recommend it to other people, if not saying negative. One of them also responded saying that she would rather switch to post payment service if given the opportunity. However, those who actually rented their houses were very positive about it that it has avoided their worries of paying arrears that tenants might fail to pay for. As a result, they thought that they would recommend it to other people, including friends and families who own and rent houses and offices.

There was also another customer who switched from the post-payment to prepayment service due to his earlier dissatisfaction (who was asked to pay exaggerated amount due to wrong estimation of meter readings). He said that he is very positive about it and would like to recommend it if asked.

As part of my observation, I was also able to witness customers fully agreeing on the benefits of prepayment relative to post payment that the sales people described. But they were distancing themselves from the actual usage of the service saying like "I will switch when you change all the meters in the neighborhood," and, for now, instead "I would like to continue using the post-payment service that I'm familiar and used to it for years."

5. Analysis and Discussion

The major empirical findings, shown in the previous section, of this case study are going to be discussed here considering those already identified and reviewed relevant theories of customer service with respect to the dimensions of the service quality.

5.1 Tangibles

Apart from the functional quality (Grönroos, 1982), the technical quality of the Corporation's tangible offerings of prepayment electric service, which are basically the prepayment meter and card, have been directly influencing the quality of its service. Because, for example, failure in one or more of the various parts of the meter alone, such as EEPROM, RTC, relay, ICR, battery, insertion slot, etc., as presented in the empirical findings, resulted in lowering the quality of the Corporation's service where customers are forced to stay without power supply and/or waste their time, energy and money to correct technical and functional errors. Thus, the Corporation has so far registered and handled about 18,500 complaints related to the meter alone, i.e., for which meter replacements were made either on the customers' premises and/or on the application system.

Likewise, the smart card is believed to possess a poor quality, according to the views of the CSC heads, that it can easily get damaged and hence influences the service delivery. Customers' lack of awareness, which leads to improper use and handling of the card itself, is also mentioned as contributing factor to the damages of the prepayment card. Because the new card (and the meter) system has its own compatibility (Roger 2003) issue in that it is inconsistent with customers values, beliefs and past experiences of electric service requiring them to learn to new behaviors. For instance the total number of defective prepayment cards, which were replaced due to failure, was 19, 271. This also indicates a significant number of reported customer dissatisfactions, showing that service performance is low when viewed from customer expectation on the basis of service quality evaluation, according to the theory of service quality (Oliver, 1980).

Accordingly, the Corporation is also forced to spend a sizeable amount of financial and non-financial resources in response to customers' complaints, leading to an increase in the cost while reducing the revenue and profit.

It can be argued that the Corporation might not be at risk of losing its competitive advantage (Bhat, 2005) as a result, at least in the short run, for the mere fact that it has been for long a state owned sole producer and supplier of electric service in the country. But it shouldn't be undermined that a high level service quality helps the Corporation to enhancing (Jun and Cai, 2001) the overall customer experience in the form of boosting customer satisfaction, decreasing customer defection and enhancing customer loyalty, which are more important in the long term. Providing a quality service, (Nguyen and Leblanc, 1998), also plays a critical role where better service quality increases perceived service value and satisfaction, improves the Corporation's financial performance, and enhances its corporate image.

However, according to the findings of the interviewed respondents (customers as well as employees), currently prepayment customers have become dissatisfied with the existing service given the existing limitations and challenges of prepayment meter and card. They even did not like that both the meter and card requires them to learn to new skills and behave differently, changing their habits, often non-compatible to their values and beliefs, due to the complexity of the new service type (Roger, 2003).

Customers are also forced to voice their dissatisfaction in different ways, including widespread negative word of mouth which also affects the image (Roger, 2003) of the Corporation.

On the contrary, customers pointed out that the meter has helped them to have become more aware of their actual electric consumption (the KWH and the corresponding tariff) as compared to post payment service where planning and budgeting is difficult due to the fact that customers' don't have a direct control of their consumption (errors due to inaccurate meter readings, data entry, bill processing, sales of bills, etc.). Similarly, handling the prepayment is also found out to be easy and convenient especially when trying to purchase electricity than carrying and visiting vending stations with a "A4-size" bill every time they wish to pay for their electric bills, as is the case with the post payment electric service.

In general, the Corporation seems to put much focus on attracting new prepayment users while exerting minimum efforts of keeping existing customers even if it is obvious that retaining customers (LR Ireland, 1992), by striving for their satisfaction through zero defection, has a stronger impact on its profit in the long term than does actually attracting new customers.

Therefore, meeting users' expectations (LR Ireland) such as ease of use, safe operation, reliable meter/card, durable meter/card, and easily maintained products, etc., all together enhancing better functional performance and or greater ease of use compared to post payment service, should be the ultimate goal of the Corporation.

5.2 Reliability

According to the interview results, there seemed to evolve an increasing tendency of sharing customer worries-an impression of customers towards the inferiority of the services rendered (Bitner, 1990) - among employees themselves over time that expectations of receiving accurate and dependable service have not been met. This evaluation (Grönroos, 1984) and the resulting differences (Asubonteng et al. 1996) of expectation with the perception of service received imply that there is a bad quality of service offered by the Corporation (Parasuraman et. Al, 1988).

There is a strong concern that this trend would continue unless otherwise measures are taken to improve the existing prepayment service barriers, particularly those draw backs related to the functional and non-functional (technical) aspects (Grönroos, 1982) of the meter and card as well as having accessibly trained, skilled and well-equipped sales people at each CSC.

The frustration of providing reliable service led even some of the sales people to have become, according to the branch heads, too pushy and furthermore advising customers to shift to post payment electric service. The CSC heads also described that high employee-turnover and job rotation, without any prior notice and arrangements, has also made provision of dependable and reliable service very questionable.

Therefore, the implication is that the Corporation needs to revise the reliability of the existing service provision practices. More importantly, it should consider the employees, the other group of customers, as its important part of gaining improved quality of service (LR Ireland, 1992) through adequate training and supply of the necessary material, informational, financial and other resources supportive of providing a reliable service.

Currently, there is a raising number of dissatisfaction, as compared to some years ago when there was limited number of users, which is proportional to the rise in number of customers, caused by the "sub-standardized prepayment system". This has also made managing the relationship between the customer and the Corporation also very complex and difficult because trying to

understand customer behavior, with a focus on addressing problems through customers as insiders to the Corporation, with the help of relationship marketing has become cumbersome (Szmigin, 2003). Hence, as per the interview, customers had to revisit and continuously remind the service centers in order to get help on their problems instead.

On the other hand, the Corporation (particularly the top management) is still aggressively pursuing, being too optimistic, in order to keep on attracting and having new prepayment users with the hope that the prepayment service would rather help archive its strategic vision of “becoming center of excellence on providing quality electric service to every customer” through continuous improvement of its existing utility management practices, taking in to account the socio-economic developments of the country. (www.eepco.gov.et, 2012)

5.3 Responsiveness

Even if customers agreed that employees are positive and willing to help customers with their problems, but CSC heads mentioned that the responsiveness is influenced by lack of resources, including skilled employees. An inefficient use of human, material, financial and information (lack of persistent and reliably established network system) resources, which are important for the functional organization, according to LR Ireland (1992), leads to considerable delay in responding to customers queries, which by itself is a defect in service.

For example technicians, who takes care of customer complaints, during outside the working hours of CSCs, are not trained to handle customer problems related to prepayment meter and card. As a result, the respondents said that they, as customers, would be in practice required to wait for long time without power supply (such as for the whole night, or long hours during the day time) for the reason that there is not any clear direction pertaining to and /or training of employees about the prepayment service.

5.4 Assurance

According to the respondents, it was highlighted that some of the employees of the Corporation hesitate from instilling confidence in customers about the benefits of using prepayment service. Mostly, according to their views, this has to do with the low level of trust that they have with the system itself for various reasons, mentioned earlier, and lack of adequate knowledge training.

The CSC heads too, and especially the project team, shared this very same view stating that the supplier (vendor) of the technology has been so far resisting from taking any efforts taking remedial actions such as provision of technical manuals, improving the feature and qualities of the smart card and meters, and even replacing defective meters and cards for free. The top management team, capable of influencing the supplier of the technology, is also reluctant, according to the CSC heads and project leaders, in putting pressure on the supplier.

These all together proved to be an impediment for the Corporation's successful commercialization of prepayment service (in the form of customer adoption) through an effective customer relationship management. The relationship management involves an interaction and exchange of information specific to prepayment in a way that customers can understand and be assured of the prepayment service to make use of the information for the subsequent purchases (Peter and Olson, 2008).

In other words, the prepayment service lacks visibility, the degree to which its use is visible to customers, due to the absence or inadequate communication to the potential customers. The more visible the service (Roger 2003), the more easily it becomes diffused (adopted) among its users. Therefore, service demonstration is more relevant from consumers' perspective to have become confident and assured enough of its quality before they perceive the actual service.

5.5 Empathy

Customers believed, as per the interview and observation, that prepayment service doesn't really provide them as such the promised "relative advantage" (considered one of the important factors, in addition to simplicity, observability, compatibility and trialability, determining customers' adoption of prepayment service), over that of post payment/conventional service. Because the Corporation doesn't actually understand their specific needs and wants of by establishing flexible working hours and easily accessible CSCs, forcing customers sometimes to stay without power during weekend, night and public holidays.

Moreover, customers claimed that they still have to re-visit the CSCs more than once in a month, most likely to correct errors and/ or purchase for electricity as they don't know their consumption trend in the beginning. This is in contrary to what they were used to, i.e., visiting

only once (to pay for their monthly bills at predetermined days of every month, lasting 5 days) in the case of the post payment electric service.

The very low speed of “data communication”, according to the CSC heads, frequent interruption of ADSL and Wireless broad band network lines, a very long time required to install, restore damaged or broken network lines, and absence of ADSL or wireless data lines in some of the vending stations add challenges to making the prepayment service more convenient to customers. Therefore, in these regards, the employees (and the customers themselves) felt that customers are generally less treated in terms of meeting those individual and specific needs.

On the other hand, the Corporation still insists on the relative advantage that prepayment customers could purchase as much as they would like and avoid the inconveniences which might occur if they fail to pay their bills every month at a predetermined schedule. Because the procedure is that the Corporation would cut off the power if customers fail to pay within five working days every month. Then, the power will be re-connected once customers pay for their consumption as well as reconnection (penalty) fees.

5.6 Customer behavior, Relationship marketing and Prepayment adoption

The existing service experience (Chiara G., 2007), relationship marketing, and the prepayment service (Szmigin, 2003) of EEPCo significantly influence the service quality and subsequently the way customers behave in response to the different marketing strategies which are supportive of diffusing the innovation.

It was realized that the interviewed prepayment customers tended to have felt in one or the other way a negative customer service experience as a result of which they indicated that they wouldn't recommend it at all to others (post-paid). Currently, the Corporation provides the prepayment service to all new service request while those who have been using post payment before are free to or not to switch to prepayment service. And if they choose to switch to prepayment, the electronic meter and its accessories are given free of charge, as part of promotion, in order to attract more new adopters.

I also saw some customers agreeing on the benefits of prepayment relative to post payment that the sales people described but refraining from using the service, i.e., either rejecting its adoption,

or postponing till they get some more information/time to think about it (Sizmigin, 2003). Some rather said that they would like to switch when all other post payment customers in the surrounding are going to use the new service. One of the major explanations they provided for was that they have been using the post payment for years and it would be problematic for them to trying to break their established consumption habit-trend, and pattern and the comfort of the 'status quo', up on which they have also invested for years.

The prepayment, when viewed from the majority of the customers, is characterized by its rejection, which is a more worrying, as described by Szmigin (2003), for the Corporation. Because it implies that there is a problem with the prepayment itself and/or the way it is marketed, and not necessarily as such with the customers themselves. The resistance becomes even more widespread as the Corporation keeps trying to reach all its potential customers who don't read and understand English symbols and letters-the complex and key features of prepayment.

However, those who actually rented their houses were very positive about it that it has avoided their worries of paying arrears that tenants might fail to pay for. Singles and the younger generation too found it interesting. As a result they thought that they would recommend it to other people, including friends and families who own and rent houses and offices. There was also another customer who switched from the post-payment to prepayment service due to his earlier dissatisfaction (who was asked to pay exaggerated amount due to wrong estimation of meter readings). He said that he is very positive about it and would like to recommend it to others if asked.

Therefore, understanding the customers' differences and their characteristics by making customers as center of the analysis (Robertson, T.S. 1967), with the help of relationship marketing, and analysis of the nature and role prepayment, observability, complexity and trial-ability (Roger, 2003) in helping customers with their problems relative to post payment service, are all very important determinant of the success or failure of attracting as many customers as possible. Especially, approaching resisting customers heavily relies on the whether or not the prepayment service is flexible enough for further modification taking in to account the tradition, norms, and beliefs of both the existing and potential customers.

6. Conclusion and Recommendation

6.1 Conclusion

This thesis project work was broadly aiming at analyzing and assessing prepaid (energy metering) service quality of EEPCO with a particular focus on the existing practice and challenges of the service delivery process. In doing so, the views of both customers and the Corporation were taken in to account.

Consequently, the study revealed, given its own limitations, that there is a substantial gap between customers' expectation and that of the service received, which has been adversely affecting the overall customer service experience with in the Corporation. The unfavorably held view of the customers on the Corporation's quality of service delivery was also shared among employees who actually are involved in the process of prepayment service provision.

For the prevalent gap of expectation against perception of prepaid customers' service, different contributing factors (challenges) of prepayment service were identified. Some of these are: sub-standardized tangible offerings of the prepayment service itself (technical and non-technical aspects), including, but not limited to, defective and less user friendly meter and card, high employee turnover and job rotation without any prior arrangement, lack of adequate training and supply of necessary material, information and other supportive resources (of reliable service), lack of quick and efficient response to customers' complaints, inflexible working hours, senior management's inaction, especially in putting pressure on the technology (prepayment) supplier, lack of visibility (awareness) and simplicity of the service to potential customers, due to the absence of an adequate promotion, and lack of persistent and reliable network (data communication).

Therefore, all of the factors, as stated in the forgoing statement, combined pose an enormous challenge to providing a quality prepayment service that is capable of meeting and/or exceeding customers' expectations. Thus, majority of the customers seemed to resist from adopting the prepayment service. This clearly indicates that the Corporation needs to internalize the problem, making customers' needs and wants at the center of its analysis, and thereby work through a concerted action towards improving the customer service.

Otherwise, if the trend continues it is expected that the Corporation will face a far-reaching consequence of negative publicity, and a significant reduction in its sales revenue as well as an increase in the cost of prepayment service.

6.2 Recommendation

Based on the analysis and assessment of the existing challenges of prepayment service, the following recommendations, as marketing strategies for the subsequent improvement, have been identified. These are:

- Considering employees and other group of customers, such as the supplier, as important part of gaining improved quality of service through proper training and supply of resources (material, information and financial).
- Ensuring, through standardization and working in close cooperation with the technology vendor, that the meter, card and other peripherals of repayment service meet the needs and requirements of customers (keeping in mind the existing realities of the society-such as economic and infrastructure developments, urban vs. rural people, literate vs. illiterate, life style, etc.) such as ease of use, safe operation, reliable and durable meter/card, easily maintained meter/card, etc. Because it is only after these measure that the Corporation can enhance better functional performance and/ or greater ease of use of prepayment service as compared to post paid service.
- Providing and facilitating towards a clear directions pertaining to prepayment service, training for new employees, and when found appropriate, rewarding superior performances.
- The project team, along with CSC heads, should continuously assess, monitor and evaluate the project, including keeping informed every stakeholder about its progress and potentials that could affect its success, and relationship with customers, etc.
- Undertaking a periodic customer satisfaction survey and taking measures on those factors which are believed to influence the customer service.
- Establishing and maintaining a lasting relationship with customers, including supplier, that fosters mutual trust and cooperation.
- Increasing public awareness about prepayment service through aggressive promotion

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Appendix:

I. Interview Questions

A. Semi-structured questions to customers, after having first very unstructured and informal gathering of information, that were used as follow up and guidance in seeking for validation on the earlier view points.

1. What was/were the main benefit(s) you considered while choosing prepayment service?
 - Easy to use
 - To become part of the community
 - Had no choice
 - To better plan and control my consumption/budget
 - Because I am renting my house out, so I don't have to worry about any unpaid bills
 - Because I don't stay at home all the time/Don't have time to go and pay for my bill at a predetermined payment schedule of the company
 - Dissatisfied/had problem with the postpaid meter
 - Other reason (specify please).....
2. For how long have you been using prepayment?
3. Have you ever encountered any problem related to prepayment service, if so how did it go?
 - Such as complaining/presenting your problem to those in charge)
4. How the complaint was handled (company's reliability)?
 - Got answer on a first contact over the phone
 - Got answer on a first contact having visited the customer service center
 - The company did not help me on my first attempt(over a phone/in person) as promised, so had to visit/make a call again
 - The problem is not still resolved
 - Don't know/other (specify).....
5. How do you evaluate the experience of complaint handling in relation to prepayment service?
 - The company was helpful
 - There was interpersonal engagement
 - There was problem resolution
 - The employee did take time to help
 - The employee had the required skills/ knowledge
 - Other(please specify)_____
6. How was your overall experience of the customer service given by the company?
 - Very Satisfied/above my expectation

- Satisfied/was up to my expectation
- Dissatisfied/was below my expectation
- Very dissatisfied/way below my expectation

7. Beliefs and perceptions of service quality.

- The electric meter display is easy to read and understand (Tangible)
- The smart card is easy to use(Tangible)
- There is accessible and easy to understand user manual, instructions and other helpful material regarding prepayment meter and smart card (Tangible)
- Employees show you a sincere interest to solve your problem (Reliability)
- The company usually solves your problem as it promises the first time to do so, without any other reminder (Reliability)
- Employees tell you exactly when services will be performed(Responsiveness)
- Employees give you prompt service(Responsiveness)
- Employees are always willing to help you(Responsiveness)
- Employees are never too busy to respond to your requests(Responsiveness)
- Employees instill confidence in you(Assurance)
- Employees are consistently courteous with you(Assurance)
- Employees have the required knowledge/skill to address your request(Assurance)
- You get individual attention/being treated individually(Empathy)
- The company has a convenient/flexible operating hours(Empathy)
- The company has a convenient/easy to reach vending outlets (Empathy)
- Employees generally understand your specific needs well (Empathy)

8. How do you explain your behavioral intention in relation to prepayment?

- Say positive/negative things about prepayment to others (word of mouth)
- Recommend to someone who actually asks your opinion about prepayment
- Encourage family and friends to use prepayment
- Would rather like to switch to post-payment, if given the chance,
- Keep on complaining both to the company and external stakeholders such as Medias, electric agency, etc. till I get a better service
- Don't know/Other, specify _____

9. Anything you would like to add?

B. Open ended questions to Customer Service Center Heads/Managers, Prepayment Project Team and employees

1. In your opinion, what are the challenges of prepayment service from the company, employees (sales people) and customers' perspective? (Mangers and Project team)

2. According to you view, how has it all been affecting the overall service quality of the corporation and some other implications, if any, say cost/revenue of the corporation? (Mangers and Project team)

3. What measures, if any, have been taken to manage these problems and thereby improve the customer service quality? If nothing has been done, why? (Mangers and Project team)

4. What is the role of the technology vendor (Supplier Company) in affecting the customer service (positive/negative)? (Mangers and Project team)

5. Do you evaluate and monitor the customers' satisfaction? If so, how and on what basis (standards)? (Mangers and Project team)

6. Can you briefly describe how customer complaints are handled? (Mangers and Project team)

7. Anything else that you would like to add in connection to prepayment service? (Mangers and Project team)

8. What problems/challenges do you see while working on and providing customer service to prepayment customers? (Employees)

9. What/how do you suggest to anyone concerned in order to improve the quality of customer service in the branch?(Employees)

10. Anything you would like to add as an end-user of the system?(Employees)
