



# Service Quality Measure and Customer Satisfaction towards Prepaid Meter in Facilities Management at Malaysia

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Article Info Volume 81 Page Number: 3396 - 3402 Publication Issue: November-December 2019 Article History

Article Received: 5 March 2019 Revised: 18 May 2019 Accepted: 24 September 2019 Publication: 16 December 2019

### Abstract:

Prepaid meters have being wide adopted by utilities in numerous countries. The research disclosed that consistent service quality is the most efficient way to maintain customer satisfaction, which reduces the price of attracting different clients and increases revenues and market share. The aim of this paper is to measure the service quality on customer satisfaction of prepaid energy meter system among facility management in Malaysia. To fulfill the needs of end user, developing a model to assess the extent to that service quality indicators and different instructive attributes could also be wont to forecast customer satisfaction.

**Keywords:** measure, prepaid meter, service quality, customer satisfaction, facilities management

### I. INTRODUCTION

In many countries, prepayment for electricity, gas and water is a way of life. In Malaysia, commercial customers currently use prepaid meters as an alternative to the conventional practice of electricity payment system (Casarin & Nicollier, 2008).

South Africa is the first country that begun implementing this prepaid energy meter system. However, is currently wide utilized in the United Kingdom, Turkey and India but it is still debatable (Moki, 2012). According to Mathenge (2015) the prepayment innovation was at first created in South Africa in the late 1980s with the target of providing

vitality to an extensive number of low-salary and geographically scattered customers.

The prepaid system not only helps customers budget their utility expenditure, but it also avoids unpleasant surprises when bills arrived. It promotes lower utility risk when connecting customers without deposits or when reconnecting for non-payment. It also reduces paperwork and the associated costs of postage, paper, printing, and handling because with prepayment, there is no monthly bill.

The study on the potential impacts of prepaid meter implementation in the Malaysian market is



very imperative because it will provide new insights for the proposal on implementation mechanism to move forward. The decision in the implementation of prepaid meter is a very crucial issue for Malaysia's electricity industry. There are many benefits and drawbacks reported by countries worldwide who have already implemented the system. In Malaysia currently, prepaid meter is an alternative to the conventional practice of electricity payment system

A customer is a completely crucial character in any business enterprise. Of all economic activities, customer spending is via a long way the most dominant contributor to financial increase (Fornell, Rust, & Dekimpe, 2010). They also point out that if customer expenditure slows, the economy slows down; if customer expenditure falls even marginally, it is probable that the economy will contract. Besides, they also claim that for managers, whether they are in production, finance, or marketing, the implications of customer spending levels also affect the availability and magnitude of the resources themselves. Accordingly, it is critical for marketers to try to find out in advance what their customers' expectations are, because a failure to meet or exceed these expectations could lead dissatisfaction and defection (Ofir & Simonson, 2007).

In many countries, there is negative perception at the beginning of implementation which contributed to customer resistance. The resistance is due to low expectations especially in regard to usefulness, ease of use and perceived risk in using prepaid meter. In order, to maximize the effectiveness of marketing spend and minimize losses arising from underutilized service delivery systems, one must measure customer adoption tendency for prepaid meters, so they can accurately forecast and effectively segment and target markets before investing in high-tech products and services. Thus, this study conducted a survey to measure domestic customer readiness towards prepaid meter implementation.

### II. PROBLEM STATEMENT

According to Gina (2016), when customers fail to meet their expectations, they become increasingly challenging, less tolerant and very critical. They have plenty to choose where and with whom to handle. The authority has now moved to the customers as a consequence. If they feel that you cannot meet their expectations, they will just vote with their feet and cope with someone they want.

In previous study, customer experienced meter faulty (due to unknown error), meter run out of battery and card problem especially in the beginning of installation. There are some instances where customers experienced system down that caused disruption on tenant business activities. In many cases, supplier able to help them in fixing the mistakes but in some cases they need to replace the meter and card. Other than that, some meter especially single phase meter lack in security as it can easily bypass. Some customer detect tampering from their tenants due to no seal, faulty seal and tenants' effort. Since almost customers used one way system, they unable to detect tampered meter automatically. In reducing this risk, most customers do monthly inspection of the meter and keep usage report to detect abnormality. Thus, it creates another difficulty for participants to regulate their employees for inspection, maintenance and reporting.

Furthermore, customers who subscribe to the utilization of the prepaid meter usage most at time are seen telling their dissatisfaction with respect to



corporation not having customer friendly service hours in order that customers can recharge their prepaid cards anytime they run short of credit. Most customers even complain of failure if confronting trouble of refilling recharge charge with problems such as network problem (Boadu, 2015).

### III. LITERATURE REVIEW

### A. Prepaid Meter

Prepaid energy metering system alluding to the idea 'First Come First Serve' yet for this project the idea is 'First Pay First Serve'. All electricity can be just produced once individuals pay cash or reload fist before utilize. After a reload, the credit is activated and from that, all of the electricity will begin being utilized. At the point when the credit runs out, instantly the electricity will be cut off and customers' needs to reload and fill in the credit to utilize back the electricity. An energy metering system can efficiently control the amount of electricity consumed by the user. Electricity users can purchase a selected amount of energy to use it only if they need. In this way, all customers will be more cautious and will not squander the power and be more mindful (Ngadilan, 2015).

# B. Brief Background of Prepaid Meter in Malaysia

Looking at the transition from post-paid to prepaid system in the context of organizational change, it is vital to examine how key stakeholders and energy customers, may respond to changes in electricity billing and payment system. The study on the potential impacts of prepaid meter implementation in the Malaysian market is very imperative because it will provide new insights for the proposal on implementation mechanism to move forward. The decision in the implementation of prepaid meter is a very crucial issue for

Malaysia's electricity industry. There are many benefits and drawbacks reported by countries worldwide who have already implemented the system. In Malaysia currently, prepaid meter is an alternative to the conventional practice of electricity payment system.

# C. Facilities Management in Malaysia

According to Elyna Myeda and Pitt (2014) facilities management (FM) is one of the great parts in many ventures. Begun in the 1970s, it became one of the main cost-cutting initiatives when outsourcing of services ended up prominent. In Malaysia, facility management is a region that is still new regarding the growth of knowledge and practice according to FM industry needs in Malaysia. Thusly, learning in the FM field needs to be studied to develop a competency model, and to guarantee a wonderful future in the FM field. There are a few important factors that contribute to the success in developing a certification designation for managers in a particular industry, for instance, understanding what learning related, abilities and qualities.

From the viewpoint of facilities management unit or company, prepaid meter has several advantages that inspire them to use prepaid meter in their premise. Most of participant stated that prepaid meter allows better cash flow especially in term of credit control where they able to reduce risk of bad debt among their tenants. Furthermore, it also allows them to control their tenant by limiting ability of top-up when tenant have debt issues with the company. In addition, some participant stated that they able to save cost of printing bills and man hour in meter reading. Since the implementation of prepaid meter, only few technicians needed to do monthly reading or doing maintenance. Other than advantages for the participant, they also believe that



prepaid meter can help their tenant control their electricity usage, cost as well as reduce the complexity of having to deal directly with electric supplier. All the matters in regard to electricity will be managed by the participants. Most of the participants also stated that they cover all installation and maintenance cost of prepaid meter, to the satisfaction of their tenants

# D. Service Quality

Service Quality is a word used by business administration to define service performance. It represents a service aspect that is both objective and subjective. Measuring an objective element of customer satisfaction accurately needs the use of thoroughly predefined criteria. Measuring subjective elements of customer service relies on the anticipated advantage being consistent with the perceived outcome. This in turn relies on the imagination of the customer of the service they could receive and on the skill of the service provider to present this imagined service (G/Eyesus, 2016).

Reviewing the latest history of appropriate scholarly studies, the words "service quality" have been appearing since the 1980s in academic journals, scholarly debates, managerial classes, and so on. It is simple to discover the reasons why researchers, companies even their customers began to concentrate on and study service quality or we can say the quality of service, for the first moment, economic globalization revealed it is significance, western companies sought some method to increase competition and differentiate themselves economic globalization revealed its significance, Western companies sought some lucrative methods to increase competition and differentiate themselves, even shoppers jointly started to find out more about their purchasing behaviour, which may have led them to pay extra attention to the quality of service offered by completely distinct types of merchant organizations and in reality, service organization (Pei, 2013).

A.Parasuraman (1988) recommended that the customers' evaluation of the general service quality depend upon the gap between the real overall performance and their expectancies. Additionally, they claimed that customers compare service quality through the use of 5 criteria which is tangibles, reliability, responsiveness, assurance and empathy. Among these unmistakable measurements can be the slightest critical and the reliability dimension was of most concern to clients. After that these authors developed an instrument called SERVQUAL that has been the foremost broadly utilized device in measuring customer's recognition of benefit quality. The Five (5) Service Quality Dimensions:

- 1) Tangibles: The appearance of the physical offices, gear, work force and communication material.
- 2) Reliability: The capacity to perform the guaranteed benefit dependently and accurately.
- 3) *Responsiveness:* The eagerness to assist a client and give provoke service.
- 4) Assurance: Confirmation alludes to information and affability of representatives and their ability to rouse believe and confidence.
- 5) Empathy: Empathy alludes to caring, individualized consideration the firm gives its customer.

# E. Customer Satisfaction

Customer satisfaction could be a compelling issue as a result of within the industry client



retention is a lot of necessary than attracting new customers. Retentive customers' features a stronger impact on company profit than will attracting new customers. Therefore, companies on maximize profits within the future, ought to try for zero defection through customer satisfaction (Akele, 2012).

# F. Service Quality and Customer Satisfaction

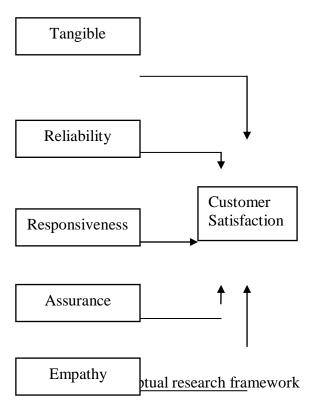
This complete view then drives customer satisfaction where the fulfilment of perceptions contributed to positive satisfaction. In order to fulfil consumer perceptions, service or product must reach absolute threshold of the differences between perceptions and actual experiences (Giese & Cote, 2000).

The absolute threshold in this context is the lowest level at which consumer able to detect any changes in their experience which must be aligned with the standard they set on service performance. Meanwhile, service quality is the difference between customer expectation and service performance prior to the service encounter and their perceptions of the service received (Asubonteng, McCleary, & Swan, 1996). As it is derive from these differences, customer expectation act as the foundation of service quality evaluation (Akele, The outcome of evaluation process, nevertheless require great quality in the service and as it is in still in total control of provider compared to customer perceptions and expectations, it becomes key of strategic factor for service provider (Gina, 2016). Service quality can be both technical qualities involve service that the customer receives while functional quality is the manner upon which it is delivered (Ghotbabadi, Feiz, & Baharun, 2015). In this study, service quality of prepaid meter relies on the reliability of the prepaid meter technology

and its provider as well as the ability for the service provider to inspire confidence on the consumer.

In instilling confidence on the service, provider often use benefit customer possibly gain by using their service as selling factor. For prepaid meter, the benefit often stated is energy consumption behaviour where the usage allow consumer to control their consumption thus acting proenvironmentally. The use of moral obligation as the motivation able to influence social norms on behaviour and the accompanied satisfaction becomes a reward (Lopes, Antunes, & Martins, 2012).

Service Quality



IV. CONCLUSION

This study will assist the industry enhance the quality of its service to better satisfy its customers. It can be a nice illustration of what



can be achieved as customer satisfaction and quality of service are one of the fundamental possibilities that assist the company to operate, enhance its business and profit, and in particular save its customers' loyalty. To implement a prepaid meter project, we should look into the importance of the needs for both the utility and its customers. Given due consideration to ensure that whatever technology is deployed the same is socially acceptable and as such, the economic viability is justified. Furthermore, customer satisfaction has a beneficial impact on the profitability of an organization. The more customer are satisfied with products or services, the greater the possibility that customer satisfaction will lead to repeated purchase, brand loyalty and favorable word of entry marketing for any successful company.

### ACKNOWLEDGMENT

The authors would like to thank the FRGS grant provided by the Ministry of Higher Education, Malaysia and University Tenaga Nasional, Malaysia for the funding of this research.

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