

## Service Quality of Garbage System at Urban Council Special reference to Trincomalee District

S Priyadharsan<sup>#</sup> and S Mayuran

<sup>1</sup>Department of Business and Management Studies, Faculty of Communication and Business Studies,  
Trincomalee Campus, Nilaveli, Sri Lanka

<sup>#</sup>ssubathini@yahoo.com.au

**ABSTRACT** - Consumer satisfaction is the outcomes felt by buyers who have experienced a company performance that has fulfilled expectations. Service quality means meet or exceed the customers' expectations and requirements. It focuses on physical environment, interaction quality and output quality. Trincomalee urban council has engaged in providing many services to the public. But they have been complaints regarding their Garbage clearing system. Therefore researcher intends to study whether the customers are satisfied or not in urban council services. The objectives of the research are to identify the factors which determine the service quality, to find out the relationship between service quality and customer satisfaction of Trincomalee Urban Council and to provide the suggestion to enhance the customer satisfaction through service quality of Trincomalee Urban Council. The research is limited to servicing areas of Trincomalee town and gravents. SERVQUAL model has been used for the conceptual frame work. It has the reliability, responsiveness, assurance, tangible and empathy. The research is confined only 250 Tamil families selected through convenient sampling from 18 G.N divisions in the Town and Gravents. Data's were collected structured questionnaire. Univariate and bivariate used for analysis purpose. According to the analysis of research revealed that variables are moderately satisfied. Empathy and reliability having the low correlations, reasons are few vehicles are available, safeguard material has not been used properly, lack of supervision, lack of awareness of the public relations and customer waiting time is high. Suggestions are to improve their services such as change the garbage clearing time due to the public convince, maintain friendliness with beneficiaries and short out the labor and vehicle problems.

**Key words:** Service quality, customer satisfaction, need fulfillment

### I. INTRODUCTION

Generally consumers have needs and wants that have to be satisfied. For that they need goods and services. Organizations are engaged in manufacturing goods or

producing services. Services are neither visible nor tangible. However the services are essential to fulfill the various needs of consumers. Organizations who deliver services to the consumers are called service providers. Achieve the pre-defined goals is the common characteristic for service providers, although they differ from each other in their objectives and activities. It may be profit or non-profit purpose. At the same time ownership of the firm also differ as private or public (Kottler-2003). Public services tend to be those considered so essential to modern life that for moral reasons their universal provision should be guaranteed, and they may be associated with fundamental human rights (such as the right to water). In modern, developed countries the term public services often includes, Broadcasting, Education, Electricity, Fire service, Gas, Health care, Military, Police service, Public transportation, Social, housing, Telecommunications, Town planning, Waste management and Water services.

According to Lewis and Booms (Steve 1995) service quality is a measure of how well the service level delivered matches customer expectations. Delivering quality services means confirming to customers' expectations on a consistent basis. Receiving a high level of service is important to consumers but understanding how to evaluate the service quality is more difficult. The quality of service provide by the Government should be assessed to ensure the accountability of the Government towards general public. Further quality of services provided by the Government organizations should be evaluated to ascertain the achievement of their objectives of the regional, rural community development.

According to the recent history, Trincomalee Urban Council was formed in the Form of British Rule from 1884 to 1932 this urban council was function as local Board after that, according to the Municipal Local Board circular dated 1925.11.14 the Local Board has been changed in the name of Urban District Board W.e.f. 01.01.1933 and Simultaneously established as urban council from 1940.01.01. Permanent Building of urban council of

Trincomalee was founded said by Chairman of at that Period Mr. A. Ehamparam in 1956.05.11 urban council building was constructed and cleared opened by Mr. P. Neminathan Chairman of that time in 1956.06.17. The pettah library which was formed in 1835 was taken out by the urban council Trincomalee from 1946 and maintained. Then new building for library was constructed on 2009 and the library is functioning at that Building still now. Trincomalee urban area was divided into 9 wards and Scavenging and Health Services. 12 wards and the services to the Public are provided continuously. The total extend of the urban area is 7.5 kilometers. And 18.G.S Divisions is in Trincomalee Urban area. Around 16128 families and 64753 populations living in Trincomalee urban area. Approximately 9523 Sinhalese 41234 Tamils 7581 Muslims and 415 others living in the urban council administration limits (Source: Local authority participating development plan / 2013). Functions of ratepayers as per urban council are as follows:

1. To maintain and clean all public thorough fares and open spaces.
2. To enforce the proper maintenance, cleanliness and repairs to all private roads.
3. To supervise and provide for town planning scheme for the growth and the execution of public improvements.
4. To established and maintain any public utility service which is required for the welfare, comfort or convenience of the public.
5. To promote the public health sanitation and the development of public welfare.

(Source: TUC programme budget / 2013)

Trincomalee urban council has engaged in providing many services to the public. But they have been complaints regarding their Garbage clearing services (Source: (Local authority participating development plan / 2013)). Therefore the researcher going to study of customer satisfaction of service quality of Trincomalee urban council.

## II. LITERATURE REVIEW

Service quality affects customer satisfaction by providing performance (real benefits). Parasuraman et al., (1985, 1988): Service quality is determined by the differences between customer's expectations of services provider's performance and their evaluation of the services they received. Gefan (2002): Service quality as the subjective comparison that customers make between the quality of the service that they want to receive and what they actually get. Taylor & Huneter (2002) believed that the perceived service quality contributes to positive business outcome as greater level of customer satisfaction, and by

extension, favorable marketing, behaviors, such as repurchases and positive word-of-mouth behaviors of customers. Zeithaml and Bitner (2003) argue that customer satisfaction has become a major contributor for enhancing a service company such as long term profitability, customer loyalty, and customer retention. That means for example that it is important to encourage the staff to deliver the right service to the right people in reasonable time and showing good manner. Satisfied customers may also give positive word of mouth and for that reason attract new customers and create long term business profit. According to Rust and Oliver (1994) while a strong positive correlation between service quality and satisfaction has been acknowledged, there is considerable debate regarding the direction of positive relationship. Quality and customer satisfaction have long been recognized as playing a crucial role for success and survival in today's competitive market. Regarding the relationship between customer satisfaction and service quality, Oliver (1993) first suggested that service quality would be antecedent to customer satisfaction regardless of whether these constructs were cumulative or transaction-specific. Some researchers have found empirical supports for the view of the point mentioned above (Anderson & Sullivan, 1993; Fornell et al 1996; Spreng & Macky 1996); where customer satisfaction came as a result of service quality. In common but satisfaction generally is a broader concept, whereas service quality focuses specifically on dimensions of service (Wilson et al., 2008). Although it is stated that other factors such as price and product quality can affect customer satisfaction, perceived service quality is a component of customer satisfaction (Zeithaml & Bitner, 2003). As said by Wilson et al. (2008), service quality is a focused evaluation that reflects the customer's perception of reliability, assurance, responsiveness, empathy and tangibility while satisfaction is more inclusive and it is influenced by perceptions of service quality, product price and quality, also situational factors and personal factors. In line with the findings of Sivadas & Baker-Prewitt (2000), Su et al., (2002) in their study of customer satisfaction and service quality, found out that; these two variables are related, confirming the definitions of both variables which have always been linked. They also dictated that service quality is more abstract because it may be affected by perceptions of value or by the experiences of others that may not be so good, than customer satisfaction which reflects the customer's feelings about many encounters and experiences with service firm. They state that in measuring perceived service quality the level of comparison is what a consumer should expect, whereas in measures of satisfaction the appropriate comparison is what a consumer would expect. Quality of service is a

critical influencer of consumer satisfaction and there is therefore a requirement to identify carefully any gaps in performance. The widely adopted SERVICEQUALITY tool provides a mechanism through which to examine potential gaps in relation to the variables of reliability, tangibles, responsiveness, assurance & empathy.

1. Reliability: the ability to perform the promised service dependably & accurately.
2. Tangibles: the images created by the appearance of physical facilities equipment, personnel & communication materials.
3. Responsiveness: the willingness to help consumers & provide prompt service.
4. Assurance: the process by which the knowledge, ability courtesy of employees engenders consumers trust & confidence in the service provider.
5. Empathy: created by the caring, individualized attention which employees offer the consumer

### III. METHODOLOGY

#### A. Conceptualization

Conceptualization is the process of giving clear idea and precise meaning and accepted definition to various concepts and variables used in the area of research undertaken. General Conceptual frame work for service quality is the general frame work of SERVQUAL which presented by Parasuraman, Zeithaml and Berry (1985). It has five dimensions which are Reliability, Responsiveness, Assurance, Tangible and Empathy.

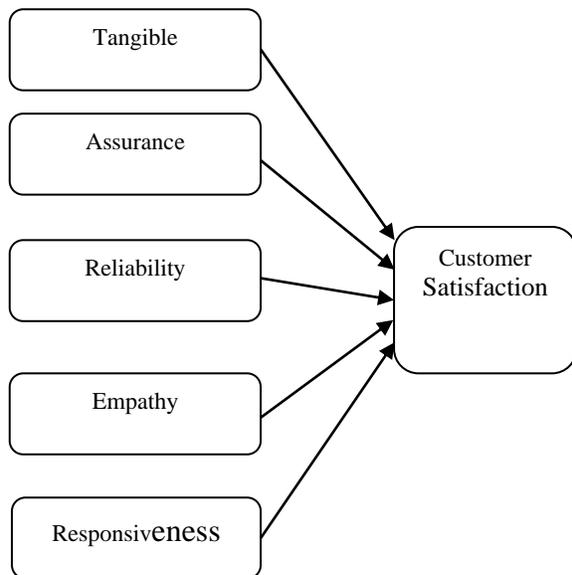


Figure 1. Conceptual framework

#### B. Operationalization

Table of operationalization is given below

Table 1. Operationalization

Dimension	Indicators	Measurement
Tangible	Vehicles Safeguard materials Identification of employee	Questionnaire
Responsiveness	Promptness Helpfulness Waiting time	Questionnaire
Assurance	Respect Friendliness Knowledge	Questionnaire
Reliability	Maintenance Promised time Promised service	Questionnaire
Empathy	Caring Convenient hours Money	Questionnaire
Customer satisfaction	Work satisfaction Expectation Needs	Questionnaire

#### C. Sampling

A subgroup of the elements of the population selected for participation in the study is called as sampling. For the purpose of data collection the sample cover the population which residing in the urban council servicing area.

#### D. 1). Sample size:

The research considers 250 Tamil families as sample from the 18 G.N divisions in the Urban Council servicing area.

#### E. 2). Method of Data collection:

There are two types of data used in this research.

Primary data.

Secondary data

The secondary data obtains from following sources.

- Ordinance of urban council
- Annual capital budget of TUC
- Statistical report of Planning Department (DS office, Trincomalee Town and Gravets)
- Website

3). *Sample selection:*

Table 2. Sample selection

TUC servicing GN Divisions	Number of Tamil Families	Percentage %	Sample
Abayapura	209	4.957	5
Anpuvalipuram	1077	25.5455	26
Arasadi	581	13.780	14
Arunagirinagar	435	10.317	10
Jinnanagar	52	1.233	01
Linganagar	709	16.816	17
Manayaveli	702	16.650	17
Mihindupura	159	3.771	4
Murugapuri	387	9.179	9
Orr's hill	1526	36.1954	36
Pattanatheru	374	8.870	9
Peruntheru	385	9.1318	9
Selvanayahapuram	652	15.464	15
Sivapuri	952	22.580	22
Sonagavadi	312	7.400	7
Thillainagar	557	13.211	13
Thirukadaloor	820	19.449	20
Villundy	651	15.441	16
Total	10540	100	250

4). *Sampling method:*

Convenient sampling method has been selected for the sample taking. Based on the percentage of the total number of Tamil families in 18 G.N divisions 250 families selected for data collection

5). *Method of Data collection*

The reliability and credibility of the research is depending on data collection. This research mainly used primary data and secondary data. 250 questionnaires were issued to the beneficiaries of the Trincomalee Urban Council servicing areas.

6). *Method of Data Evaluation*

Based on the values indicated in the questionnaire a mean value for each question is calculated. Five point likert scale used for this purpose. The mean value is in the range of 1 to 5 (1-strongly disagree/2-disagree/3-neutral/4-agree/5-strongly agree). Decision rule can be formulated as follows:

Table 3. Decision rule

Range	Decision Attribute
$1 < X_i \leq 2.5$	Low level of satisfaction
$2.5 < X_i \leq 3.5$	Moderate level of satisfaction
$3.5 < X_i \leq 5.0$	High level of satisfaction

$X_i$  = Mean Value , where  $i = 1,2,3,4,5$  which indicate.

- $X_1$  - Tangibles
- $X_2$  - Responsiveness
- $X_3$  - Reliability
- $X_4$  - Assurance
- $X_5$  - Empathy

7). *Correlation Analysis*

Table 4. Correlations

Correlation between variables	Value of correlation
Complete direct correlation	+1
Highest direct correlation	+0.75
No correlation	0
Highest negative correlation	-0.75
Complete negative correlation	-1
Average correlation	+0.5/ -0.5
Low correlation	< 0.5

III. RESULTS AND DISCUSSION

A. *Descriptive Analysis*

Table 5. Descriptive analysis

Variable	Mean	Standard deviation
Tangible	3.01	0.553
Responsiveness	3.14	0.598
Assurance	2.84	0.472
Reliability	3.14	0.415
Empathy	2.66	0.427

Tangible show the moderate level of customer satisfaction. Regarding the vehicles 43% of the respondents said that the TUC (Trincomalee Urban Council) provides service with modernized vehicles. Tsunami disaster, Non-Governmental Organization had provided modern vehicles to TUC. (3 compactors are providing by Unicef another 1 compactor provide by CTV) at the same time they have 10 repaired Tractors. But 8 tractors are working from 2004. It is understood that sufficient vehicles are available to remove and transport the garbage. Considering the next indicator of safeguard materials 66% of the respondents have the opinion that

the TUC garbage clearing employees didn't wear gloves or any other safety materials when they are at work. They are ignored and neglect their safety. They do not realize that their health will be severely affected if they fail to wear these safety measures. TUC have adequate number of gloves and boots. But they are not providing these safeguard materials to all employees. Because when employees needs these safeguard materials, the Health Inspector put the issue order to the store keeper (in the issue order he mention how many boots and gloves needed and with employees name) then employees put the signature in the issue order and get it. But when his work finished he have to handover these materials to the store keeper. 45% of the respondents answered in the affirmative. Because Total employees of the Health service of the Urban Council are 116 among them 81 are the permanent staff. The uniform which were provided by the central government only for them. The casual employees are 35. The TUC responsible for their uniform. The employees who clear garbage wear blue color uniform with red collar and "TUC" label on it. Therefore, the indicator reveals the Moderate level quality. According to the responsiveness lack of supervisors (only 5 supervisors) repair of vehicles, delay to filling fuel, problems of allocation of duties of employees. Some of the customers explained that employees didn't pay attention to help the Beneficiaries during the service is provided. (Differentiate the plastic and decays garbage). And they didn't clean the road sides and lanes or cannels. Because of TUC servicing area is large and one compactor or tractor is collected only three loads garbage in a day) and sometimes beneficiaries are collect garbage themselves. Further, from the research findings it was revealed that the beneficiaries have to wait for a long time to dispose of their garbage.( eg : Sea view road – Wednesday morning 06.30am- 12am). Specially, during the rainy season the garbage not be cleared as quickly as possible from the residence which is usually done. Consider to the assurance, few customers are expressed employees didn't gave respect to the Beneficiaries. Because of some beneficiaries occupied as professionals employees respect them because of their profession. Lack of awareness of the public in relations to the particular service.

Based on the reliability collected garbage is now disposed at kanniya- Damming ground land area. It is far from the residential area. Therefore, the public have the opinion that this is an environment-friendly arrangement. 62% of the respondents stated that they informed in advance by

the employees or Supervisors regarding the time of rendering the service. (Morning 6.30am to 12 am). But 34% of the respondents stated that they not informed in advance by the employees or Supervisors regarding the time of rendering the service. This situation emerges due to lack of communication between the Organization and the beneficiaries. Employees unable to attend all types of roads and lanes equally. Because, some people residing in particular areas throw their domestic garbage on the roads. When much time is devoted in clearing this garbage the employees are unable to cover up the whole places / roads. In regard with the empathy respondents state employees consider beneficiary's home / business premises individually to render this service. If the member of the urban council they have the personal relationship among members of the society. 74% respondent's state the time the garbage clearing service is rendered by the TUC is not convenient for the beneficiaries. Because of mostly government servants find it difficult to find their time in the morning, reasons are involve in preparing foods, getting the children ready to go to school and ready to go for work.

*B. Correlation analysis*

Table 6. Correlations analysis

Variable	Customer satisfaction
Tangible	.373**
Responsiveness	.259**
Assurance	.292**
Reliability	.174**
Empathy	.158*

\*Correlation is significant at the 0.05 level (2-tailed)

\*\*Correlation is significant at the 0.01 level (2-tailed)

All the variables are having the positive relationship with dependent variable.

IV. CONCLUSION

Garbage clearing is the duty of the Urban Council which includes proper removal at proper periods and disposal of all house and shops refuse. To preserve a clean and pleasant environment and to prevent the Public from diseases it is essential to clearing garbage from the domestic areas. All the variables are moderately support to the customer satisfaction.

## V. RECOMMENDATIONS

Consideration of tangible variable takes action to provide different containers for different types of garbage and maintain them in the main streets for the use of the beneficiaries. Increase the number of laborers and the working hours taking into consideration of the beneficiaries and the number of streets. Provide uniform for the casual laborers with the funds received from the Health ministry and income of the Urban Council. Based on the responsiveness number of supervision should be increased in accordance with the laborers. During rainy season arrangements should be made to provide the necessary facilities for the laborers to start their work on time. Take necessary action against the laborers who fail to attend their duties in time. In order to the assurance encourage the laborers to participate the ceremonies, distributing prizes for their devoted services. Beneficiaries also should treat the laborers well during collection of garbage. Conduct awareness programmes for the existing laborers to enable them to carry out their duties properly. According to the reliability separate the reusable items for the proper disposal before dumping the garbage at Kanniya dumping ground. Wastage of polythene and plastics can be reduced through recycling them. Provide awareness with necessary materials to the public to collect the domestic wastage separately. (Put up garbage bins in some certain areas). Based on the empathy take disciplinary action against laborers expect in extra money for collect in extra garbage. Adjust the time of collection of wastage convenient for beneficiaries.

## References

Balachandran, S. (1999). Customer driven service management, First edition, A division of sage publication India PVT Ltd

Bob Hayes (1998) Measuring Customer Satisfaction: Survey Design, use and Statistical Analysis Method, 2<sup>nd</sup> edition, ASQ Quality press, Milwaukee, Wisconsin.

Parasuraman, A., Zeithaml, V. A., and Berry, L.L. (1985) A conceptual model of service quality and its implications for future research, Journal of Marketing.

Philip Kotler (2005), "Marketing Management, 5<sup>th</sup> edition, new Delhi North Western University.

Philips Kotler and Kevin Lane Keller (2007) Marketing Management, 12<sup>th</sup> edition.

Zeithaml, Parasuraman & Berry (1990), Delivering Quality Service; Balancing Customer Perceptions and Expectations.

## BIOGRAPHY OF AUTHORS



S Priyadarshan is a Senior Lecturer at the Department of Business and Management Studies, Faculty of Communication and Business Studies, Trincomalee Campus, Konesapuri, Nilaveli