Total Service Management (TSM) for Ensuring the High Level Performance of the Service Organizations

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**ABSTRACT**

Service quality plays a vital role in the success of any service oriented organization. Total Service Management (TSM) is such a newly adopted philosophy that helps any organization to fulfill its goal. TSM is a vast concept of ensuring best service in every steps of the organization. This technique ensures exact service in every level of the organization. TSM is nothing but an aggregation of measuring, improving and controlling sets for any service organization. The main concern the service organizations to have a good understanding on what exactly the people want and how the service should be ensured. Service quality measuring scale SERVQUAL is the tool that helps to measure and analysis the service given by the organization. Hence, there are many improving tools and techniques for the betterment of the service quality like DMAIC approach with Pareto analysis, cause and effect diagram, KAIZEN, TQM etc. It is an efficient model of helping any organization to shape up their efforts in bridging the gap between perceived and expected service. This research has carried out especially about to design the best layout of rendering service to the people with the maximum efficiency with the help of TSM system. Basically the Local Government (Union Parisad) of Bangladesh which is the front line service giving organization is the main focus of this topic. Here total system is analyzed carefully and an algorithm has designed for this purpose to ensure the best service quality.

**Keywords** - TSM, SEVQUAL scale, service quality, DMAIC, JIT.

1. **INTRODUCTION**

Improving the service quality was the main target of any service organization from the early stage and since now this improving work is going on. TSM is totally a new and successful system in the service sector for improving service quality. TSM is completely the mathematical based analysis system with several numbers of improving tools. The transparency of this system is high because of conversion every physical property to mathematics. TSM is a complete work of measuring service level, performance with analyzing, improving and controlling stage. SEVQUAL scale is an effective scale to measure the service level with its five dimensions Reliability, Assurance, Tangibles, Empathy, and Responsiveness. This scale is widely used in measuring service quality in hotel industries, air cargo, hospital and many other organizations. After measuring service quality DMAIC is a flow process by which it is easy to identify major problem and sequentially analyzing, improving and controlling stages can be achieved. In this experiment a union parisad is to select for implementing TSM for improving the service level as well as to reduce the harassment of the general people of Bangladesh who are living under the poverty line and have no consciousness about government facilities. TSM is only best solution of improving the service quality of those organizations.

2. **LITERATURE REVIEW**

Researcher from different areas and eras are continuously developing the methods of improving any system. Mei et al. (1999) examined the dimensions of service quality in the hotel industry in Australia. They used the SERVQUAL instrument as a foundation and developed a new scale called HOLSERV scale, a new instrument to measure service quality in the hotel industry [1].

Perceived service quality derives from the individual service encounter between the customer and the service provider, during which the customer evaluates quality and develops satisfaction or dissatisfaction [2].
Considering other significant conceptual and empirical works in the area, it appears that service quality encompasses (1) customers’ experiences with the tangibles, reliability, responsiveness, assurance, and empathy aspects of the services delivered by a firm [3]; (2) technical and functional quality [4]; (3) service product, service environment, and service delivery [5]; and (4) interaction quality, physical environment quality, and outcome quality [6].

A specific application for the hotel industry, named LODGQUAL, was developed as a derivative of SERVQUAL and used similar dimensions [7]. Saleh and Ryan (1991) used SERVQUAL finding a five factor solution was identified but the dimensions differed from those in SERVQUAL [8].

3. THEORIES RELATED TO STUDY

Total Service Management is a vast concept of improving service quality. It is a balance combination of Measuring service level, Analyzing, Improvement and Control. TSM lies at the intersect region of these stages. SERVQUAL scale is used in this measuring stage. SERVQUAL was originally measured on 10 aspects of service quality: reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding the customer and tangibles. The simplified RATER (Reliability, Assurance, Tangibles, Empathy, and Responsiveness) model however is a simple and useful model for qualitatively exploring and assessing customers’ service experiences and has been used widely by service delivery organizations. So these five physical dimensions are converted into mathematical percentage and then calculate the average percentage to calculate the service quality.

**Tangibles:** Physical facilities, equipment, and appearance of personnel.

**Reliability:** Ability to perform the promised service dependably and accurately.

**Responsiveness:** Willingness to help customers and provide prompt service.

**Assurance:** Knowledge and courtesy of employees and their ability to inspire trust.

**Empathy:** Caring, individualized attention the firm provides its customers.

DMAIC is another tool with five phases to develop any system. Basically Define, Measure, Analysis, Improve and control are the steps of DMAIC which is used for improvement. These phases are directly involved with any kind of change an transformation of any system.

**Phase 0 (Define):**
This phase is concerned with the identification of the process or service that needs improvement. It is also concerned with benchmarking of key service or process characteristics of other world-class service organization. In this phase, defining is the main concern. In every process the steps are carefully observed and try to find out the main problem. So, any kind of fault is mainly defined out in Define step.

**Phase 1 (Measurement):**
This phase entails selecting service characteristics; i.e., dependent variables, mapping the respective processes, making the necessary measurement, recording the results and estimating the short- and long-term process capabilities. Quality function deployment (QFD) plays a major role in selecting critical product characteristics.

**Phase 2 (Analysis):**
This phase is concerned with analyzing and benchmarking the key service performance metrics. Following this, a gap analysis is often undertaken to identify the common factors of successful performance; i.e., what factors explain best-in-class performance. In some cases, it is necessary to redefine the performance goal. In analyzing the service performance, various statistical and basic QC tools are used.

**Phase 3 (Improvement):**
This phase is related to selecting those service performance characteristics which must be improved to achieve the goal. Once this is done, the characteristics are diagnosed to reveal the major sources of variation. Next, the key process variables are identified usually by way of statistically designed experiments including KAIZEN and JIT. The improved conditions of key process variables are verified.

The DMAIC process can be depicted flowingly:
This last phase is initiated by ensuring that the new process conditions are documented and monitored via statistical process control (SPC) methods. After the “settling in” period, the process capability is reassessed. Depending upon the outcome of such a follow-on analysis, it may become necessary to revisit one or more of the preceding phase. Shortly TSM can be represented by a set of Personal service management (PSM), Group service management (GSM), Organization service management (OSM).

4. METHODOLOGY
To attain the goal of Total Service Management is a very complicated and time consuming process. Firstly the level of service is being calculated and then the improvement steps are to follow for improving the service level until the level is near to 100%. Here DMAIC is to apply for improving. Though the working limit is very high, in this experiment some fixed steps are taking under study. Only the thorough study of service given by the Union parisad is done here and a few but important activities are taken under improvement or refinement. A after measuring the service level sequentially the problems of the organization are identified and analyzed them very carefully using Pareto analysis, Cause and effect diagram, process flow chart etc. Finally the improving tools like KAIZEN, JIT are used to improvement. Moreover a better co-ordination among Personal service management (PSM), Group service management (GSM) and Organization service management (OSM) is to ensure. So the methodology can be represented by a flow diagram.
5. FINDINGS OF THE STUDY

In our country from the early 1973 there had built an ordinance of formulation of Local Government for ensuring the better service as well as to keep the rural people in touch with Government of Bangladesh. Naturally after fixing some goal it had been launched and performing it’s duty since then. The name Union Parisad has established by the president of Bangladesh in 1983 according to order no.22. Since then Local Government is familiar as Union Parisad. The Local Government has some infrastructures from the year of 1983. These are:

1. Chairman (1 person)
2. Elected Member (9 persons)
3. Elected women member(3 person, Reserved)

According to ordinance no. 30, 31, 32, and 33 there are some activities and responsibilities of the union parisad.

1. Socio-economical activity.
3. Tax and Administration.
5. Judgement.
6. Communication.
8. Water supply.
9. Cultural and Social welfare.

By analyzing the database of 2009-2010 session the calculated service level is 62.8% and which is not satisfactory. The result is calculated on the basis of face to face interviewing of the village people.

This service level is not appreciating the target of Total Service Management (TSM). So the DMAIC is designed to improve the service level.

Union Parisad has some following problems which hamper the process or activity to achieve the goal

1. Different standing committees of Union Parisad are ineffective.
2. Performance of Village Court and Village Police are very poor.
3. Continues rights violation is a common phenomenon.
4. Birth and Death registration activities are not working properly.
5. Favoritism and nepotism in Union Parisad has made the system isolated from the general people.
6. The construction work is done in unplanned way.
7. VGD/VGF card and other facilities are given in an undisciplined manner.
8. Lack of coordination and monitoring in time of service.
9. The people are not clear about the services.
10. The process is not transparent.

Now at the measuring and analyzing stage the system is deeply and carefully examined by cause and effect diagram and Pareto analysis. This project work has determined the effect and the causes beyond this by

<table>
<thead>
<tr>
<th>Factor</th>
<th>Percentage (%)</th>
<th>(%) average</th>
<th>Average (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangible</td>
<td>Roads and bridge 70</td>
<td>56.25</td>
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<tr>
<td></td>
<td>School 50</td>
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<tr>
<td></td>
<td>Mosque 60</td>
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<td></td>
<td>Temple 45</td>
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<tr>
<td>Reliability</td>
<td>Judgement 60</td>
<td>57.66</td>
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<td></td>
<td>Security 63</td>
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<td></td>
<td>Transparency 50</td>
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<tr>
<td>Responsiveness</td>
<td>Dutifulness 71</td>
<td>69.5</td>
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<tr>
<td></td>
<td>Help 68</td>
<td></td>
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<tr>
<td>Assurance</td>
<td>Performance 62</td>
<td>51</td>
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<td></td>
<td>Time economy 40</td>
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<td>Empathy</td>
<td>Amiability 76</td>
<td>77</td>
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<td></td>
<td>Sympathy 78</td>
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</table>

By analyzing the database of 2009-2010 session the calculated service level is 62.8% and which is not satisfactory. The result is calculated on the basis of face to face interviewing of the village people.
using cause and effect diagram. Actually cause and effect diagram is used here for identifying the root cause. Pareto analysis is here for identifying major portion of expenditure of the process. The core technique of the TSM is to develop the major sector which is highly focused the service activity. The cause of the effect can only reduced by gradual eliminating the causes which are found in cause and effect diagram.

Fig. 4. Cause and Effect diagram

Pareto Analysis on the expenditure of different sector and this analysis help to indentify the few vital problems which are the major factor for improving. From the expenditure list it is come to know that:

<table>
<thead>
<tr>
<th>Description</th>
<th>Expenditure in Taka</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road construction</td>
<td>1103000</td>
</tr>
<tr>
<td>Agriculture</td>
<td>520000</td>
</tr>
<tr>
<td>House building</td>
<td>300000</td>
</tr>
<tr>
<td>Education</td>
<td>70000</td>
</tr>
<tr>
<td>Health</td>
<td>60000</td>
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<tr>
<td>Others</td>
<td>25000</td>
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</tbody>
</table>

Table 2: The expenditure of different sector

From Pareto analysis it is found that the vital sector of cost is road construction side and also this sector is not satisfactory to general people. So this sector id mandatorily been changed for better service of the organization.

6. IMPROVEMENT

Among all those cause only road construction, citizen certification letter giving process and VGD card giving problem are taken under improvement step. Also in Pareto analysis it is found that construction works are the main parts of expenditure lists where people are not satisfy. In the current method it is found that these selected jobs were done in manually and without calculation. Though this project cannot implement physically but after analyzing some solutions are taken by which it will easy to improve the service level to satisfy the public. Road constructing decision has to take from the calculative process. The constructing project is given on the basis of calculated value, V. The word that has the largest V is selected for getting the project and this table is open and transparent that is why the people will get satisfy.
Table 3: Calculating Table (Importance Calculation according to different factors)

<table>
<thead>
<tr>
<th>War no</th>
<th>Length of total Road</th>
<th>Length of muddy road</th>
<th>% of muddy road (M)</th>
<th>% on Importance(I)</th>
<th>Calculated value ( V ) = ( (M \times .5 + I \times .5) )</th>
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</table>

For giving citizen certification letter it will more convenient to make a representative in every village. He must make a document on the person who has taken one and after two or three month he must update the information to the union parisad. In this process the complexity of getting the letter is reduce. Another thing is VGD and VGF card which must be given after ensuring that a/he is eligible. The authority must have a strong database of per head income, number of earning person in any family in his Union. More over some improvement proposals are enlisted here which will help to improve the service level and to achieve the required service level.

1. Spontaneous monitoring and improving system more and more. (KAIZEN).
2. Proper service system design as per requirement. (Centralized, De centralized)
3. Transparent information system and must be visible to all.
5. Competitive benchmarking.
6. Remove Barrier from the entire department.
7. All projects must be done in Just in Time philosophy.
8. Proper segmentation of service level should be ensuring.

9. Seminar or conference should be compulsory in presenting the general public. Calculative decision should be prioritized.

7. DISCUSSION

Improving the service quality was the main target of any service organization from the early stage and since now this improving work is going on. Serviceability improvement depends on plan execution, coordination and management. Total Service Management (TSM) is depended more on coordination. Now-a-days judgment of any organization whether it is better or not is made by observing service of these organizations. The more upgrade service the more quality is achieved. The quality of service is measured by the use of five dimensional SEVQUAL scale. Quality ranking is done through and using these five dimensions scale. Total Service Management (TSM) is achieved when Personal service management (PSM), Group service management (GSM) and Organization service management (OSM) are worked on same line. There needs to be coordination between Personal service management (PSM), Group service management (GSM) and Organization service management (OSM) to achieved Total Service Management (TSM). In order to upgrade TSM of any organization “Union Parisad” as a case study is taken. In this paper worked on Union Parisad’s different types of service, service quality, and implementation. Among these various services VGD card and Road construction service is taken as a case study to improve service quality. VGD card and Road construction are done on the basis of some data and also using some formulas which ensure better service quality than before. Despite some reasons implementation and improvement of whole service couldn’t be done for huge services. In this project, improvement and implementation are showed using algorithm. By analyzing the database of 2009-2010 session the calculated service level is 62.8% and which is not satisfactory. By implementing these algorithms service level will be about above 80%.

8. CONCLUSION

The main goal of any service oriented organization is to provide services to the clients. The quality of service is totally depending on the ratio of actual and theoretical service providing phenomenon. Previous conceptual research strongly advocated the implementation Total Service Management (TSM) suggesting the result in
stronger organizational service quality. Our research suggests that greater implementation of TSM will lead to higher levels of service performance. If organizations are to be truly committed to total service management, however, the quality of the internal workplace must become as important as the quality of services delivered to general people.

REFERENCES


