CHAPTER 4

DEVELOPMENT OF A SURVEY INSTRUMENT

4.1 INTRODUCTION

Development of a TQM model for a specific sector requires thorough understanding of the sector under study and the TQM variables which are very relevant to the sector under consideration. Financial Institutions are taken up in this research work for investigating the quality performance. A thorough literature review helped us in identifying the relevant TQM variables. Using the variables a TQM model is conceived and based on this a TQM model is developed. Thereafter, an instrument consisting of the various elements of TQM pertaining to the financial institutions has been developed. The TQM model and validation of the instrument are discussed in this chapter.

4.2 TQM MODEL

Based on the thorough review of literature on TQM implementation in banks and financial institutions as presented in chapters 3 and 4, an ideal TQM model to implement TQM in financial sector has been developed and is given in Figure 4.1. This model is the culmination of the efforts of the present researcher, quantifying how well the activities within a process or the outputs of a process achieve a specified goal. The performance measurement is a fundamental block of TQM which measures the TQM success, namely level of customer satisfaction, level of employee satisfaction, and increase in
business turnover of the institution. It is postulated that higher the level of TQM Implementation variables, higher will be the TQM success. The relationship between the eight TQM implementation constructs and the TQM success is also shown in Figure 4.1. This study considers the success of TQM implementation as a multidimensional construct as suggested by Hartman and Schmidt (1995) and Sureshchandar et al. (2002). The constructs of the model are: Policy and Strategy, Top Management Commitment, Organizational Structure, Human Resources, Systems and Processes, Tangibles, Continuous Improvement, Customer Focus and TQM success. They are defined as follows;

**Figure 4.1 TQM Framework for financial sector**

- **Policy and Strategy**: The propositions related to policy and strategic actions for implementing TQM in banks and
financial institutions are encompassed. It involves Mission, performance measures, technology.

- **Top Management Commitment**: Propositions dealing with aspects related to leadership, culture, decision process, partnership with customers and suppliers are assembled.

- **Organizational Structure**: Propositions dealing with appropriate hierarchy, adequacy, and adaptation for implementation of TQM are compiled.

- **Human Resources**: Propositions dealing with aspects related to selection, training, assessment, participation, involvement, creativity and recognition of staff for implementing TQM are covered.

- **Tangibles**: Propositions related to physical facilities, equipments, communication materials and employee presentation are dealt with for implementing TQM.

- **Systems and Processes**: Propositions dealing with aspects related to costs of quality, control of processes, reliability and rationalization are involved.

- **Continuous Improvement**: Propositions involving competitors, benchmarking, and economy are dealt with.

- **Customer Focus**: Propositions deal with aspects of customer satisfaction, customer retention, and customer addition.

- **TQM Success**: The TQM success is the performance measure used on the basis of indicators numbering to 11. The indicators form a part of Questionnaire Part III in Appendix 2.
4.3 KEY OPERATING ELEMENTS (ITEMS) OF TQM IMPLEMENTATION CONSTRUCTS FOR FINANCIAL SECTOR

The use of constructs in designing a survey instrument has played an important role in management research (Prajogo and Sohal 2003). Constructs or scales are defined as latent variables that cannot be measured directly (Ahire et al 1996). The researcher after frequent interaction with executives of banks and financial institutions to verify the critical reviews of the elements arrived after a thorough literature survey, decided to conceive this instrument. The researcher has come up with 83 operational items for TQM Implementation constructs and 11 operational elements for TQM success. The operating elements included under each TQM construct are discussed in the following section.

4.3.1 Policy and Strategy (PAS)

PAS1. TQM is approached as a larger function and quality implementation methodology is designed in the institution.

PAS2. Policy and ideals are framed to achieve goals.

PAS3. There is a plan of action for implementing quality in all departments and in all their branches.

PAS4. Quality standards are prescribed for each function of institution.

PAS5. Information system for measuring the degree of quality implementation is developed.

PAS6. Performance of institution is regularly measured during TQM implementation.

PAS7. The institution has automation in areas of operations.
PAS8. The institution has electronic services like ATM, internet account operations, etc.

PAS9. Latest technology is constantly identified and used for services.

4.3.2 Top Management Commitment (TMC)

TMC1. Top management shows commitment in Quality Implementation by providing necessary finance, manpower, technology, training, etc.

TMC2. Enthusiasm is observed on the part of managers for implementing quality in operations.

TMC3. There is an effective communication at all levels of employees for implementing quality in their functions.

TMC4. The management recognizes employee trade unions (registered with Governments) and considers their issues regarding remunerations, perquisites, etc.

TMC5. There is a constant drive at managerial level and workforce for improving quality in operations of the institution.

TMC6. Team work culture prevails in functioning of institution.

TMC7. Service quality culture like empathy, responsiveness, assurance, etc. is followed.

TMC8. Decision making is decentralized for avoiding delay.

TMC9. There is a quick processing and decision making on the customer’s applications for finances and other matters.

TMC10. Managers, supervisors, other employees sit together to take group decisions whenever necessary, for improving service quality.

TMC11. The institution has partnership with suppliers (sub contractors/service providers) for quality improvement.
TMC12. The institution has partnership with customers in the efforts for quality improvement.

TMC13. Periodical review meetings are conducted with suppliers (sub contractors/ service providers/customers) for quality improvement.

4.3.3 Organizational Structure (OS)

OS1. The hierarchical levels enable smooth implementation of quality in the organization.

OS2. There is an agile structure which provides quick and easy function in areas of operations

OS3. Quality groups with managers are created in the institution for quality implementation.

OS4. The levels in hierarchy are just adequate for supervision and control.

OS5. Special cells with expertise (like software) are provided to solve technical snag, if any, within the institution.

OS6. The bigger units (where customers and business are large), are divided into smaller units for ensuring personalized and quality service.

OS7. The institution considers environmental factor (nature of place, people, etc.) for offering quality services.

OS8. The institution is flexible to change/reposition Organizational Structure as per requirement for improving quality in its functions

OS9. Revamping of the administrative systems is done, wherever required, to improve productivity, efficiency and effectiveness.
4.3.4 Human Resources (HR)

HR1. Intelligence, competence and potential of staff are assessed before recruitment.

HR2. Education and training are provided by the TQM experts to staff recruited.

HR3. Periodical Quality council/committee meetings for TQM implementation are conducted.


HR5. All employees participate and involve in quality implementation.

HR6. Employees are empowered in solving small problems faced, if any, in day to day operations.

HR7. Potential of employees at all levels is used for Quality implementation.

HR8. Employees are encouraged to be creative in contributing to quality operations.

HR9. Rewards and incentives are given to employees who contribute much for improving quality in operations.

HR10. Remuneration is given as a function of results.

4.3.5 Tangibles (TAN)

TAN1. Location and Building premises of the institution are convenient for customers.

TAN2. Premises are adequately secured by safe vaults and security personnel.
TAN3. The environment and facilities inside the institution are comfortable for customers.

TAN4. Digital display is provided to ensure proper queuing and timely services at the counters.

TAN5. Audio equipment is available to call out customers for services.

TAN6. Sophisticated equipment is available to ensure fast, accurate, secured operations.

TAN7. Communication materials like pamphlets about various services offered by the institution are available at the premises.

TAN8. Visual / electronic displays about products/services are put up in premises.

TAN9. Enquiry counter like ‘May I help you’ is put up for providing necessary information.

TAN10. Dress and uniform code is maintained for employees.

TAN11. Hospitable and competent staff is provided to offer services in ‘May I help you’ counter.

TAN12. Personalized assistance is extended to senior citizens, like giving forms, assistance to fill up etc.

4.3.6 Systems and Processes (SAP)

SAP1. Estimation and analysis of costs is done for implementing quality systems.

SAP2. Cost of prevention of mistakes/failures in operations and cost of rectification of them are analyzed.
SAP3. Wasteful costs for activities which do not contribute to Quality are eliminated.

SAP4. Systems and Processes are adopted for prevention of defects/mistakes in operations and improvement of quality in services.

SAP5. Timely corrective measures are taken up by the supervisors, in case of any deviation from set standards.

SAP6. Quality systems and procedures are standardized and documented by the institution.

SAP7. Compliance to quality system procedures by the institution are audited every quarter internally by Quality groups.

SAP8. Services like bill payment and other commitments to customers are kept promptly.

SAP9. Failures in services are analyzed to improve reliability.

SAP10. Reliable systems in operations are incorporated and streamlined.

4.3.7 Continuous Improvement (CI)

CI1. The competitors operating similar services in the state/country are identified and studied by the institution.

CI2. The World Class banks and financial institutions operating similar services are identified and their practices are studied.

CI3. Data on the practices followed by leaders in the field are periodically collected and reviewed.

CI4. The practices of the institution are compared with practices of World Class Banks / financial institutions.

CI5. Best practices in operations are recalibrated and adopted..
**CI6.** A continuous benchmarking is done by the institution for Continuous Improvement in their operations.

**CI7.** Funds for quality improvement are provided in annual budget of company.

**CI8.** Resource allocation is made department wise, branch wise, for TQM implementation.

**CI9.** Utilization of funds allotted is monitored constantly to avoid waste and wrong use of funds allotted.

4.3.8 **Customer Focus (CUF)**

**CUF1.** Customers’ expectations and demands for improving service quality in the institution are identified through customer feedback forms.

**CUF2.** The complaints from the customers are redressed quickly, by front line executives or by a Grievance Redress Cell in the institution.

**CUF3.** Products and services are offered by institution at affordable and reduced cost.

**CUF4.** The institution meets Government objectives for weaker sections and takes up community services.

**CUF5.** Customer relationship is strengthened by periodical communication through letters.

**CUF6.** Customer relationship is enhanced by personalized visits and services, when required.

**CUF7.** The old and loyal customers are given due recognition and complimented and given concessions in service charges.
CUF8. Marketing of institution’s products and services are done through mass media.

CUF9. Marketing is done through marketing personnel.

CUF10. The existing customers are mobilized to add new customers to the institution.

CUF11. Incentives are extended to existing customers who bring new customers.

4.3.9 Indicators for Measuring Success of TQM Implementation (TQM Success)

QMS1 Reduction in average number of complaints received by institution from customers.

QMS2 Reduction in average number of complaints received from agencies.

QMS3 Reduction in complaints appearing in news items like “Letters to Editor”

QMS4 Reduction in number of cases pending against institution in various courts.

QMS5 Decrease in number of complaints / cases filed by employees against institution.

QMS6 Decrease in labor turnover of the institution.

QMS7 Percentage increase in customer base.

QMS8 Increase in level of customer satisfaction according to survey made by the institution.

QMS9 Increase in level of employee satisfaction according to survey made by the Institution.
QMS10  Increase in business turnover of the institution.

QMS11  Increase in profitability of the institution.

### 4.4 MEASURING INSTRUMENT

Based on the literature survey, nine dimensions (sections 4.3.1 through 4.3.9) pertaining to TQM implementation and measurement in financial sector are identified. 94 items explaining the nine dimensions were included to design a questionnaire (Appendix 2).

The instrument was designed to measure the level of quality service provided by the financial institutions through the perception of executives. The instrument was derived by the synthesis of a number of TQM implementation indicators proposed in the quality literature, combined with variegated personal experiences and many hours of ponderous thinking of the researcher. The perception in combining a number of indicators was that this would provide a more comprehensive picture of quality practices by building upon the range of indicators proposed in the literature. This in turn reflects the perfection of quality as a comprehensive approach. By a comprehensive review of literature and based on the brainstorming with experts in banking and financial institutions, an attempt has been made and the instrument has been developed with 94 items in order to maximally address all the aspects of TQM with respect to various dimensions. A multi-dimensional scaling technique was used. A comprehensive survey questionnaire was prepared and the scale used was a seven-point Likert’s scale ranging from strongly disagree to strongly agree (valued from 1 for strongly disagree to 7 for strongly agree) for the operating items (sections 4.3.1 through 4.3.8), five point Likert’s scale ranging from very low to very high (valued from 1 for very low to 5 for very high) for the TQM success operating items (section 4.3.9). The questions had
three attributes: focus, brevity and clarity; and every question remained focused on a specific issue or topic. Survey questions were self-explanatory for elicitation of the exact information from respondents.

4.5 CONTENT VALIDITY

The instrument so designed was circulated to twenty experts comprising academicians, researchers and practitioners. Their comments and suggestions were considered. Subsequently, discussions were held with a team of officials from banks and financial institutions and quality experts in Chennai city, India. Thus, the questionnaire designed was ensured to have content validity.

4.6 PRELIMINARY SURVEY

Valid data were collected from 144 executives of banks and financial institutions in and around Chennai through a preliminary survey. Assurance was given to the respondents that the information collected from them would be kept confidential and would be used only for academic purposes.

The questionnaire was given to 200 members but only 159 were collected. The non-response number was only 41. Out of the questionnaires that were collected, 15 were not usable due to insufficient and/or incomplete data. As a result 144 valid questionnaires were used for the analysis. Due to valid response rate of 72%, which is high, the none-response was dismissed as inconsequential or non-significant.

The data collected from 144 executives representing the universe of 60 banks and 12 financial institutions were analyzed. SPSS version 9.0 was
used for all statistical computations. Unidimensionality, Reliability, Discriminant analysis, and criterion-related validity were conducted and questionnaire was validated.

4.7 SCALE REFINEMENT AND VALIDATION

Development of good measure to obtain valid and reliable estimates of the constructs of interest is important. Without establishing Reliability and Validity, it is difficult to standardize the measurement scales, and find out whether they really measure what they are intended to measure. Therefore, the survey instrument developed by the researcher was assessed in terms of Reliability and Validity. Reliability refers to the instrument’s ability to provide consistent results in repeated cases, whereas validity refers to the degree the instruments measures the concept the researcher wants to measure. The validity of an instrument is commonly assessed using these characteristics: content, criterion and construct validity (Churchill 1979),

4.7.1 Construct Validity

Unidimensionality was used to assess the construct validity. It is the extent to which observed indicators are strongly associated with each other and represent a single concept. Principal component method was employed to extract single component. The Results of factor analysis is given in Table 4.1.
Table 4.1 Unidimensionality analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>No. of items used</th>
<th>No. of items retained</th>
<th>Loading Range</th>
<th>Eigen Value</th>
<th>% Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy and Strategy</td>
<td>9</td>
<td>8</td>
<td>0.68-0.77</td>
<td>4.064</td>
<td>50.801</td>
</tr>
<tr>
<td>Top Management Commitment</td>
<td>13</td>
<td>10</td>
<td>0.68-0.86</td>
<td>5.866</td>
<td>58.66</td>
</tr>
<tr>
<td>Organizational Structure</td>
<td>9</td>
<td>6</td>
<td>0.68-0.86</td>
<td>3.594</td>
<td>59.894</td>
</tr>
<tr>
<td>Human Resource</td>
<td>10</td>
<td>8</td>
<td>0.60-0.85</td>
<td>4.6111</td>
<td>57.635</td>
</tr>
<tr>
<td>Tangibles</td>
<td>12</td>
<td>9</td>
<td>0.68-0.86</td>
<td>5.531</td>
<td>61.455</td>
</tr>
<tr>
<td>Systems and Processes</td>
<td>10</td>
<td>8</td>
<td>0.55-0.79</td>
<td>4.105</td>
<td>51.311</td>
</tr>
<tr>
<td>Continuous Improvement</td>
<td>9</td>
<td>7</td>
<td>0.67-0.79</td>
<td>3.780</td>
<td>54.000</td>
</tr>
<tr>
<td>Customer Focus</td>
<td>11</td>
<td>8</td>
<td>0.68-0.81</td>
<td>4.575</td>
<td>57.184</td>
</tr>
<tr>
<td>TQM Success</td>
<td>11</td>
<td>6</td>
<td>0.57-0.88</td>
<td>3.965</td>
<td>66.088</td>
</tr>
<tr>
<td>Total</td>
<td>94</td>
<td>70</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It can be seen from Table 4.1 that

- Out of 9 items of Policy and Strategy, 8 items were extracted to a single factor. The percentage of variance is 50.8%. PAS5, was deleted due to poor loading.

- Out of 13 items of Top Management Commitment, 10 items together explain the single concept with 58.7% of total variance. Items TMC3, TMC6 and TMC12 were omitted due to poor loading.
- Out of 9 items included for Organizational Structure, only 6 items got loaded onto a single factor, explaining 59.9% of total variance. Items OS1, OS5 and OS9 were deleted due to poor loading.

- Out of 10 items explaining the concept of Human Resources, only 8 items jointly describe the concept leaving HR2 and HR3 due to poor loading.

- Out of 12 items included for tangibles, the principal component extracted single factor with 9 items, explaining 61.5% total variance. Items TAN3 and TAN6 and TAN10 were omitted due to poor loading.

- Out of 10 items included for systems, the principle component extracted single factor with 8 items, explaining 51.3% total variance. Items SAP3 and SAP6 were ignored due to poor loading.

- For Continuous Improvement, 9 items were included for the study and extracted a single factor with 7 items, explaining a total variance of 54%. Items CI1 and CI9 were dropped due to poor loading.

- Customer Focus was explained using 11 items and in the factor analysis, only 8 items of Customer Focus were retained, explaining 57.2% total variance. Items CUF6, CUF8 and CUF9 were left out due to poor loading.

- Finally out of 11 items of TQM success performance measures, only 6 items were retained and the balance 5 items (QMS2, QMS3, QMS5, QMS7 and QMS11) were dropped due to non-loading onto a single factor.
It can also be seen from the Table 4.1 that all the loaded values are in the range of 0.55-0.88, explaining 51% to 66% of total variance which is considered very good for construct validity. Thus, out of 94 items included in the study, 70 items were retained in the instrument for further study.

4.7.2 Reliability Analysis

The Results of reliability analysis is given in Table 4.2. An examination of the Cronbach alpha for scales revealed that the values were in the 0.85 to 0.92 ranges for all the nine dimensions. Reliability values of 0.70 and above are considered very good (Nunnally 1970) for scale reliability. Thus all the scales developed in the study are highly reliable.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
<th>No. of items</th>
<th>Reliability (alpha)</th>
<th>Discriminant validity Alpha-AVISC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy and Strategy</td>
<td>5.6658</td>
<td>0.6457</td>
<td>8</td>
<td>0.8601</td>
<td>0.1724</td>
</tr>
<tr>
<td>Top Management Commitment</td>
<td>5.6576</td>
<td>0.7539</td>
<td>10</td>
<td>0.9190</td>
<td>0.1593</td>
</tr>
<tr>
<td>Organizational Structure</td>
<td>5.7928</td>
<td>0.6511</td>
<td>6</td>
<td>0.8614</td>
<td>0.1942</td>
</tr>
<tr>
<td>Human Resource</td>
<td>5.7170</td>
<td>0.6274</td>
<td>8</td>
<td>0.8922</td>
<td>0.1754</td>
</tr>
<tr>
<td>Tangibles</td>
<td>5.8179</td>
<td>0.8104</td>
<td>9</td>
<td>0.9168</td>
<td>0.1471</td>
</tr>
<tr>
<td>Systems and Processes</td>
<td>5.6424</td>
<td>0.6576</td>
<td>8</td>
<td>0.8571</td>
<td>0.3471</td>
</tr>
<tr>
<td>Continuous Improvement</td>
<td>5.5694</td>
<td>0.6326</td>
<td>7</td>
<td>0.8554</td>
<td>0.5238</td>
</tr>
<tr>
<td>Customer Focus</td>
<td>5.7960</td>
<td>0.6627</td>
<td>8</td>
<td>0.8893</td>
<td>0.3960</td>
</tr>
<tr>
<td>TQM Success</td>
<td>5.7882</td>
<td>0.8621</td>
<td>6</td>
<td>0.8887</td>
<td>0.2297</td>
</tr>
</tbody>
</table>
4.7.3 Discriminant Validity

Discriminant validity refers to the degree to which a construct (operationalization) and its indicators differ from another construct and its indicators. Cronbach’s alpha versus Average Inter Scale correlations with positive difference indicates the discriminant validity. The Results of discriminant validity is given in the Table 4.2. On examination of the values it is found that the scales developed in the study exhibit strong discriminant validity.

4.7.4 Criterion – Related Validity

Flynn et al. (1994) explained that criterion-related validity is a measure of how well scales symbolizing the various quality management practices are correlated to measures of quality performance (i.e., the criterion). In the present study TQM success is treated as outcome of quality improvement efforts. The correlations between the TQM constructs and TQM success are shown in Table 4.3 and the regression results are given in Table 4.4. It should be noted that all the scales have significant correlations.

In Tables 4.3 and also in 4.4, it is shown that TQM constructs predict TQM success significantly, thus criterion-related validity is established for all the scales.
Table 4.3 Correlations of TQM success with other scales

<table>
<thead>
<tr>
<th>Construct</th>
<th>TQM Success</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous Improvement</td>
<td>0.805*</td>
</tr>
<tr>
<td>Customer Focus</td>
<td>0.832*</td>
</tr>
<tr>
<td>Human Resources</td>
<td>0.716*</td>
</tr>
<tr>
<td>Organizational Structure</td>
<td>0.733*</td>
</tr>
<tr>
<td>Policy and Strategy</td>
<td>0.805*</td>
</tr>
<tr>
<td>Systems and Processes</td>
<td>0.832*</td>
</tr>
<tr>
<td>Tangibles</td>
<td>0.716*</td>
</tr>
<tr>
<td>Top Management Commitment</td>
<td>0.733*</td>
</tr>
</tbody>
</table>

* P<0.01

Table 4.4 Regression analysis of TQM Success with other scales

<table>
<thead>
<tr>
<th>R</th>
<th>R²</th>
<th>Adjusted R²</th>
<th>F</th>
<th>SIG</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.922</td>
<td>0.850</td>
<td>0.841</td>
<td>95.329</td>
<td>.000</td>
</tr>
</tbody>
</table>

4.8 VALIDATED INSTRUMENT AND ITS KEY OPERATING ELEMENTS

The instrument designed in the study has been subjected to various validation tests. Out of 94 items 70 items were retained in the instrument. The items retained and deleted in the study under each dimension are given in the sections 4.8.1 to 4.8.9.
4.8.1 Policy and Strategy

✓ The following 8 items are retained after validation:

PAS1. TQM is approached as a larger function and quality implementation methodology is designed in the institution.

PAS2. Policy and ideals are framed to achieve goals.

PAS3. There is a plan of actions for implementing quality in all departments and in all their branches.

PAS4. Quality standards are prescribed for each function of institution.

PAS6. Performance of institution is regularly measured during TQM implementation.

PAS7. The institution has automation in areas of operations.

PAS8. The institution has electronic services like ATM, internet account operations etc.

PAS9. Latest technology and software is constantly identified and used for services.

• The following item is deleted after validation:

PAS5. Information system for measuring the degree of quality implementation is developed.
4.8.2 Top Management Commitment

- The following 10 items are retained after validation:

TMC1. Top management shows commitment in Quality Implementation by providing necessary finance, manpower, technology, training etc.

TMC2. Enthusiasm is observed on the part of Managers for implementing Quality in operations.

TMC4. The management recognizes employees trade unions (registered with Governments) and considers their issues regarding remunerations, perquisites etc.

TMC5. There is a constant drive at managerial level and workforce for improving quality in operations of the institution.

TMC7. Service quality culture like empathy, responsiveness, assurance etc. is followed.

TMC8. Decision making is decentralized for avoiding delay.

TMC9. There is a quick processing and decision making on the customer’s applications for finances and other matters.

TMC10. Managers, supervisors, other employees sit together to take group decisions whenever necessary, for improving service quality.

TMC11. The institution has partnership with suppliers (sub contractors/service providers) for quality improvement.

TMC13. The periodical review meetings are conducted with suppliers (sub contractors/service providers/customers) for quality improvement.
• The following 3 items are deleted after validation:

TMC3. There is an effective communication at all levels of employees for implementing quality in their functions.

TMC6. Team work culture prevails in functioning of institution.

TMC12. The institution has partnership with customers in the efforts for quality improvement

4.8.3 Organizational Structure

✓ The following 6 items are retained after validation:

OS2. There is an agile structure which provides quick and easy function in areas of operations

OS3. Quality groups with managers are created in the institution for quality implementation.

OS4. The levels in hierarchy are just adequate for supervision and control.

OS6. The bigger units (where customers and business are large), are divided into smaller units for ensuring personalized and quality service.

OS7. The institution takes into environmental factor (nature of place, people etc.) for offering quality services.

OS8. The institution is flexible to change/reposition Organizational Structure as per requirement for improving quality in its functions
The following 3 items are deleted after validation:

**OS1.** The hierarchical levels enable smooth implementation of quality in the organization.

**OS5.** Special cells with expertise (like software) are provided to solve technical snag, if any, within the institution.

**OS9.** Revamping of the administrative systems is done, wherever required, to improve productivity, efficiency and effectiveness.

### 4.8.4 Human Resources

- The following 8 items are retained after validation:

**HR1.** Intelligence, competence and potential of staff are assessed before recruitment.

**HR4.** Periodical self assessment and performance appraisal of employees are done.

**HR5.** All employees participate and involve in quality implementation.

**HR6.** Employees are empowered in solving small problems faced if any, in day to day operations.

**HR7.** Potential of employees at all levels are used for Quality implementation.

**HR8.** Employees are encouraged to be creative in contributing to quality operations.

**HR9.** Rewards and incentives are given to employees who contribute much for improving quality in operations.

**HR10.** Remuneration is given as a function of results.
- The following 2 items are deleted after validation:

**HR2.** Education and training are provided by the TQM experts to staff recruited.

**HR3.** Periodical Quality council/committee meetings for TQM implementation are conducted.

**4.8.5 Tangibles**

- The following 9 items are retained after validation:

**TAN1.** Location and Building premises of the institution are convenient for customers.

**TAN2.** Premises are adequately secured by safe vaults and security personnel.

**TAN4.** Digital display is provided to ensure proper queuing and timely services at the counters.

**TAN5.** Audio equipments are available to call out customers for services.

**TAN7.** Communication materials like pamphlets are available at the premises, about various services offered by the institution.

**TAN8.** Visual / electronic displays about products/services are put up in premises.

**TAN9.** Enquiry counter like ‘May I help you’ is put up for providing necessary information.

**TAN11.** Hospitable and competent staff is provided to offer services in May I help you counter.
TAN12. Personalized assistance is extended to senior citizens, like giving forms, assisting to fill up etc.

- The following 3 items are deleted after validation:

TAN3. The environment and facilities inside the institution are comfortable for customers.

TAN6. Sophisticated equipment is available to ensure fast, accurate, secured operations.

TAN10. Dress and uniform code is maintained for employees.

4.8.6 Systems and Processes

✓ The following 8 items are retained after validation:

SAP1. Estimation and analysis of costs, is done for implementing quality systems.

SAP2. Cost of prevention of mistakes/failures in operations and cost of rectification of them are analyzed.

SAP4. Systems and procedures are adopted for prevention of defects/mistakes in operations and improvement of quality in services.

SAP5. Timely corrective measures are taken up by the supervisors, in case of any deviation from set standards.

SAP7. Compliance to quality system procedures, by the institution are audited every quarter internally by Quality groups.

SAP8. Services like bill payment and other commitments to customers are kept promptly.

SAP9. Failures in services are analyzed to improve reliability.
SAP10. Incorporating and streamlining the reliable systems in operations.

- The following 2 items are deleted after validation:

SAP3. Wasteful costs for activities which do not contribute to Quality are eliminated.

SAP6. Quality systems and procedures are standardized and documented by the institution.

4.8.7 Continuous Improvement

✓ The following 7 items are retained after validation:

CI2. The World Class banks and financial institutions operating similar services are identified and their practices are studied.

CI3. Data on the practices followed by leaders in the field is periodically collected and reviewed.

CI4. The practices of the institution are compared with practices of World Class Banks / financial institutions.

CI5. Recalibrating and adopting best practices in operations.

CI6. A continuous benchmarking is done by the institution for Continuous Improvement in their operations.

CI7. Funds for Quality improvement are provided in annual budget of Company.

CI8. Resource allocation is made department wise, branch wise, for TQM implementation.
The following 2 items are deleted after validation:

CI1. The competitors operating similar services in the state/country are identified and studied by the institution.

CI9. Utilization of funds allotted is monitored constantly to avoid waste and wrong use of funds allotted.

4.8.8 Customer Focus

✓ The following 8 items are retained after validation:

CUF1. Customers’ expectations and demands for improving service quality in the institution are identified, through customer feedback forms.

CUF2. The complaints from the customers are redressed quickly, by front line executives or by a Grievance Redress Cell in the institution.

CUF3. Products and services are offered at institution’s affordable reduced cost.

CUF4. The institution meets Government objectives for weaker sections and takes up community services.

CUF5. Customer relationship is strengthened by periodical communication through letters.

CUF7. The old and loyal customers are given due recognition and complimented and given concessions in service charges.

CUF10. The existing customers are mobilized to add new customers to the institution.

CUF11. Incentives are extended to existing customers who bring new customers.
The following 3 items are deleted after validation:

CUF6. Customer relationship is enhanced by personalized visits and services, when required

CUF8. Marketing of institution’s products and services are done through mass media.

CUF9. Marketing is done through marketing personnel.

4.8.9 Indicators for measuring Success of TQM implementation

✓ The following 6 items are retained after validation:

QMS 1 Reduction in average number of complaints received by institution from customers.

QMS 4 Reduction in number of cases pending against institution in various courts.

QMS 6 Decrease in labor turnover of the institution.

QMS 8 Increase in level of customer satisfaction according to survey made by the institution.

QMS 9 Increase in level of employee satisfaction according to survey made by the institution.

QMS 10 Increase in business turnover of the institution.

The following 5 items are deleted after validation:

QMS 2 Reduction in average number of complaints received from agencies.
QMS3  Reduction in complaints appearing in news items like “Letters to Editor”

QMS5  Decrease in number of complaints / cases filed by employees against institution.

QMS7  Percentage increase in customer base.

QMS11 Increase in profitability of the institution.

4.9 CONCLUSION

Based on the variables identified in the study, a TQM model has been developed.

Using 94 operating elements, an instrument for eliciting data has been designed. Using the instrument a preliminary survey has been conducted and results are discussed in this chapter. Content validity, construct validity, criterion-related validity and reliability tests were conducted and the instrument designed for measuring the TQM level in the financial institutions has been validated for final use. Out of 94 operating elements, only 70 items were retained in the instrument for conducting the final study. The results of the final survey are discussed in the next two chapters.