

***HANDBOOK for
IMPLEMENTING a SERVICE
QUALITY PROGRAM for
TRANSIT AGENCIES***

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HANDBOOK for IMPLEMENTING a SERVICE QUALITY PROGRAM

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Organization

In support of the American Public Transportation Association's (APTA) objective to continually improve and promote quality within the transit industry, this document aims to guide the user through the implementation of a service quality program or management system. The guidelines described in this handbook will enable transit management, the project team, stakeholders, and all others involved in the implementation, to develop a quality program that is consistent with (for guidance purposes only) the International Organization for Standardization (ISO) 9001 standard, and entirely focused on enhancing the customers' perception of quality.

This handbook is organized in two chapters:

- 1- Background:
 - Introduces the basic concepts of service quality, particularly how it pertains to the industry
 - Outlines relevant research and materials from APTA, the Transit Cooperative Research Program (TCRP), and external sources; and
- 2- Steps: Introduces a basic framework for guiding an agency through the following phases of a service quality program:
 - Planning
 - Controlling
 - Sustaining.

Following these steps ensures that the project or program is consistent with the principles of ISO 9001, focused on the customer experience, and specifically tailored to address the agency's needs and objectives. A sample checklist derived from these steps is also offered at the end of this section, on page 22.

The appendix section features various tools that may be useful in an agency's efforts to implement a quality program. The tools presented are intended to serve as a starting point for each agency to develop its own techniques. They include:

- APTA Recommended Practice for Developing a Customer Service Culture
- Eight quality management principles of the ISO 9000 family
- Malcolm Baldrige Tool, "Are We Making Progress?"
- Core Measures Tables

Background

The introduction of a new management philosophy called Total Quality Management (TQM) during the second half of the 20th century challenged businesses and firms to completely refocus objectives, business processes, and organizational cultures in order to advance and sustain *quality*. This scientific approach to quality formed the basis for the first suite of International Organization for Standardization (ISO) quality assurance models, which required participating companies to accurately measure performance and integrate results with high level decision-making.

While the initial emphasis of the quality movement was focused on private sector manufacturing and retail operations, today, an increasing number of industries are participating, including public transportation. APTA aims to support ongoing efforts in the industry to improve and sustain quality, and to develop consensus-based, standard guidelines from which an agency or service provider may develop its own individual quality programs or initiatives.

As in other industries, successful transit organizations recognize the importance of achieving high quality service, and have a strong focus on achieving this goal through careful planning, process control, and a commitment to customers. As increased accountability and external demands for results become more prevalent in the industry, organizations now recognize the importance of continuous improvement frameworks. This set of guidelines aims to provide such a framework that can be adapted according to an agency's ever changing needs and objectives.

Additionally, these guidelines enable agencies to develop a quality program that is consistent with the ISO 9001 standard, which has been regarded by APTA to most closely reflect the industry's customer-service focus. ISO 9001 certification¹ has already been obtained by many suppliers to the transit industry and by several transit agencies (e.g., Utah Transit Authority, Brussels STIB, Toronto TTC's Safety Department, and Chicago CTA's Construction Management Department)². *Note:* While this publication is neither endorsed by ISO nor an attempt to substitute ISO's certification process, it is intended to serve as a resource for transit agencies that is guided by the principles of the referenced standard. See the ISO website for more information on the quality management standard, at:

http://www.iso.org/iso/iso_catalogue/management_and_leadership_standards/quality_management.htm.

¹ See http://www.iso.org/iso/iso_catalogue/management_and_leadership_standards/certification.htm for more information on ISO certification.

² "Review of Quality Programs: Final Report." PSTG Consulting & Brendon Hemily Associates

APTA Task Force

Through discussions held at the March 2005 meeting of the chairs of APTA's Bus and Paratransit committees, it was determined that the promotion and advancement of “quality service” was vital to the transit industry. The initiative was subsequently expanded by the APTA Executive Committee to include all modes of transit. A Task Force was formally established to determine how particular strategies might be developed to support this issue. It also established the following definition for quality as it pertains to the transit industry³:

Quality service is determined through the perceptions, experiences and expectations of our customers and is based on how well the service matches what is promised and communicated to the public. Quality service is also determined by how well the service adapts to the changing needs of customers and the community that the organization serves and in support of ridership growth.

To further define quality service as a function of the customer’s perspective, several “critical elements” were established, including:

- Knowledgeable, friendly, responsive employees;
- Convenience and accessibility of service;
- Reliability, safety, and security of service;
- Cleanliness / physical appearance of service;
- Effective and timely recovery when service is disrupted;
- Provision of accurate, accessible, and timely information; and
- Development of a workplace environment that values and respects its employees and their role in the delivery of quality service.

³ Quality Service Memo. APTA. September 25, 2005.

TCRP

The efforts to enhance service quality programs in transit have been made possible by inter-agency dialogue and collaborative research. APTA's approach, with the support of publications by the TCRP, encourages the development of quality in transit. A key premise that has emerged from the research is that quality programs are focused in one of two categories: 1) organizational improvement; or 2) direct service improvement⁴. Thus, an agency must distinguish *organizational quality* from specific focuses such as service quality, in establishing its "big picture" quality objectives⁵. While each initiative may be coordinated to support TQM or the organization as a whole, APTA's scope for the purposes of this handbook—consistent with the TCRP reports and Task Force recommendations—addresses service quality specifically.

Several TCRP reports highlight the need for each agency to redefine *quality* in terms that are consistent with the customers' perceptions, as opposed to terms which are driven by the management's objectives. The TCRP's *Transit Capacity and Quality of Service Manual* reiterates this focus in its baseline definition of *quality of service*: "The overall measured or perceived performance of transit service from the passenger's point of view"⁶.

However, as other TCRP research suggests, the fact that expectations are confirmed is not always sufficient for satisfaction. A set of gaps often exists in perceived quality, and are important to consider (see figure 1)⁷:

- GAP 1: Consumer expectation—management perception
- GAP 2: Management perception—service delivery
- GAP 3: Service quality specifications—service delivery
- GAP 4: Service delivery—external communications
- GAP 5: Expected service—perceived service

Often compounded by strained operating budgets and poor coordination between departments, these gaps represent a persistent challenge for many transit agencies working toward sustained *quality service*. It should become apparent that focusing on these gaps (as defined in the context of its own operating processes) will ensure that an agency consistently serves the needs and perceptions of current and potential customers.

⁴ "Review of Quality Programs: Final Report." PSTG Consulting & Brendon Hemily Associates

⁵ TCRP Report 88- A Guidebook for Developing a Transit Performance-Measurement System

⁶ TCRP Report 100- Transit Capacity and Quality of Service Manual, 2nd ed.

⁷ TCRP Report 47- A Handbook for Measuring Customer Satisfaction and Service Quality

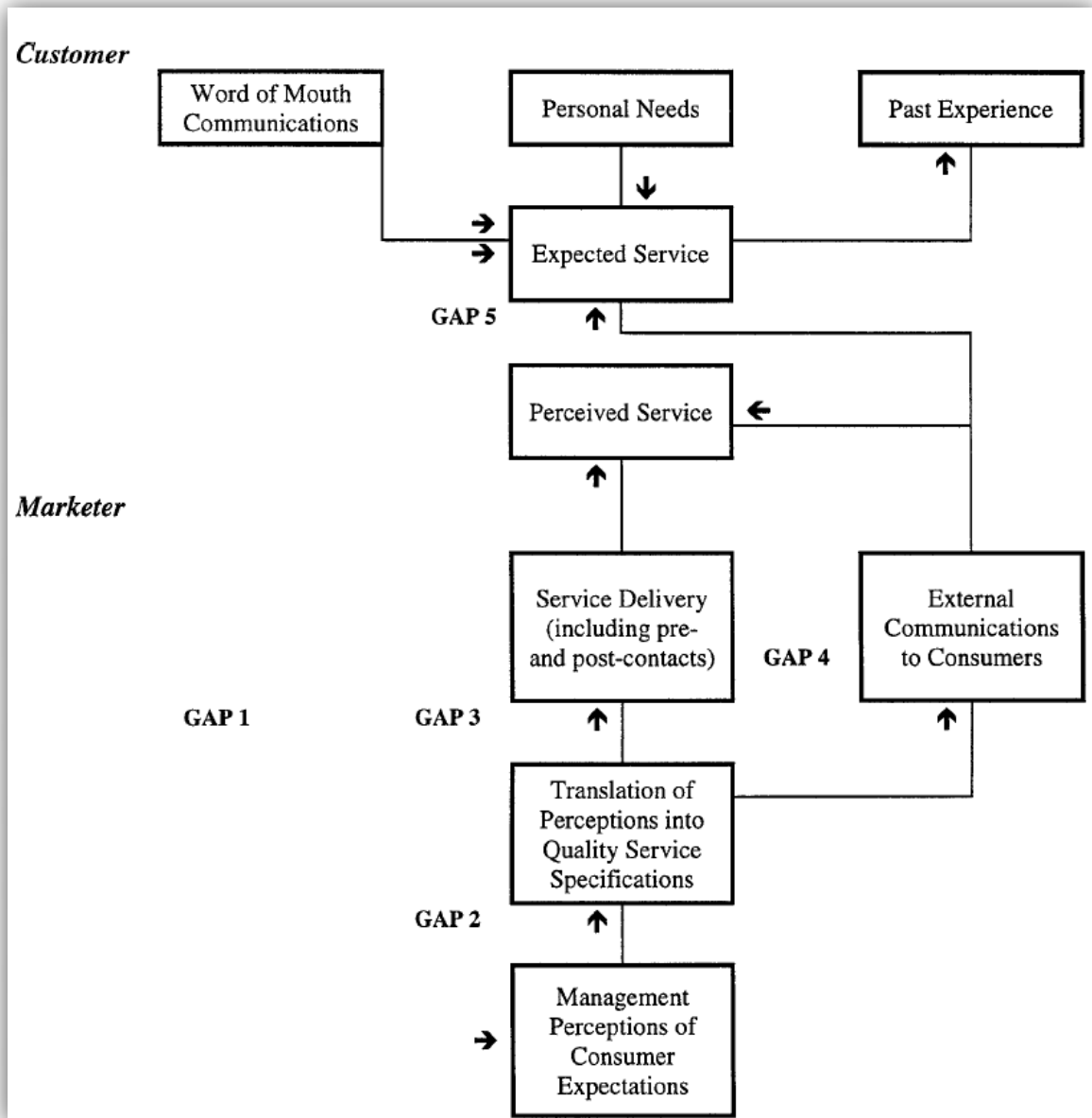


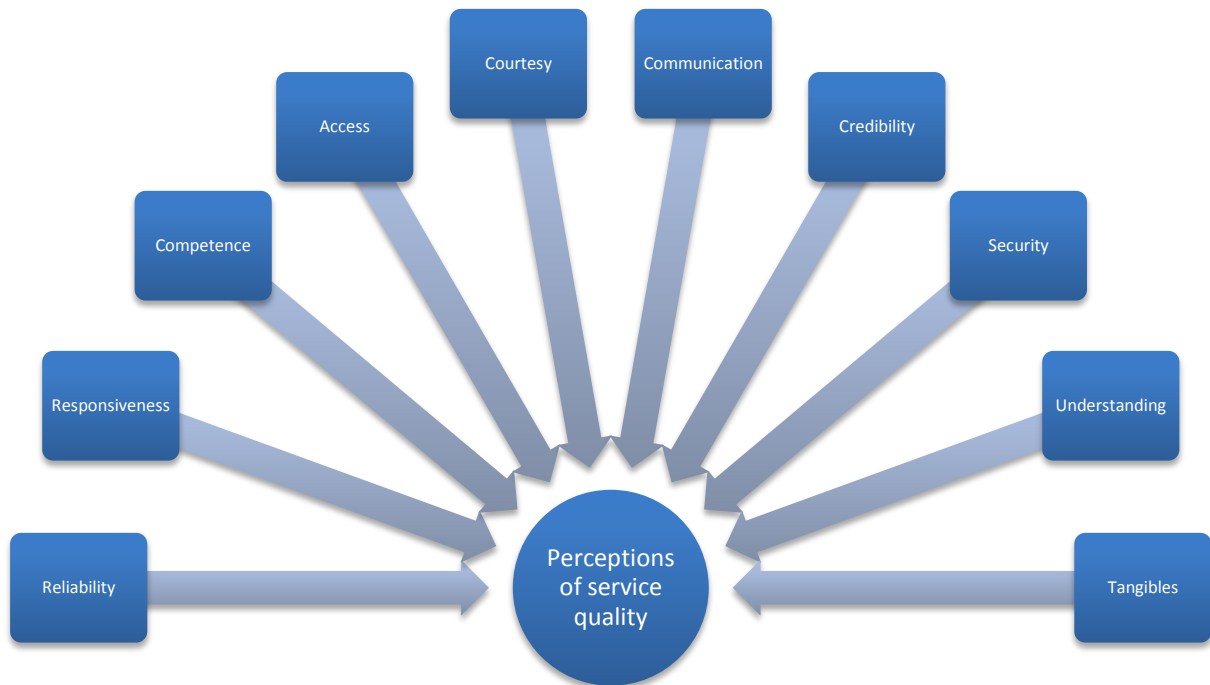
Figure 1- Typical gaps in perceived quality

Source: TCRP Report 47- A Handbook for Measuring Customer Satisfaction and Service Quality, p. 8

But identifying gaps in perceived quality is just the beginning. Each agency must also be able to pinpoint, specifically, what parts of a customer's experience are influential in shaping his/her perceptions of quality. To that end, TCRP has described ten "determinants of service quality," upon which the appropriate customer focus should be based, throughout all phases of program implementation, according to each agency's objectives and circumstances⁸:

⁸ TCRP Report 47- A Handbook for Measuring Customer Satisfaction and Service Quality

Figure 2- Ten determinants of service quality



1. **RELIABILITY** involves consistency of performance and dependability.
2. **RESPONSIVENESS** concerns the willingness or readiness of employees to provide service. It also involves timeliness of service.
3. **COMPETENCE** means possession of the required skills and knowledge to perform the service by employees.
4. **ACCESS** involves approachability and ease of contact.
5. **COURTESY** involves politeness, respect, consideration, and friendliness of contact personnel.
6. **COMMUNICATION** means keeping customers informed in language they can understand and listening to them. It may mean that the company has to adjust its language for different consumers—increasing the level of sophistication with a well-educated customer and speaking simply and plainly with a novice. For transit, it involves the dissemination of information related to service disruptions and delays.
7. **CREDIBILITY** involves trustworthiness, believability, and honesty. It involves having the customer's best interests at heart.
8. **SECURITY** is freedom from danger, risk, or doubt.
9. **UNDERSTANDING/KNOWING THE CUSTOMER** involves making the effort to understand the customer's needs.

10. TANGIBLES include the physical environment and representations of the service.

Using these determinants as criteria for shaping a customer-centric focus—in line with APTA’s definition of service quality—an agency should design and implement a quality initiative or program that fits its specific needs and objectives. The steps which follow will enable agencies to enhance quality with the customer in mind.

The following TCRP publications are relevant to the implementation of quality programs in the transit industry and are referenced in this handbook:

- Report 47- *A Handbook for Measuring Customer Satisfaction and Service Quality*;
- Report 88- *A Guidebook for Developing a Transit Performance-Measurement System*;
- Report 100- *Transit Capacity and Quality of Service Manual*; and
- Report 141- *A Methodology for Performance Measurement and Peer Comparison in the Public Transportation Industry*.

More information can be found on the Transportation Research Board’s website, at: <http://www.trb.org/Publications/Public/PubsTCRPPProjectReports.aspx>.

Steps

APTA encourages all transit agencies to work towards continual improvement in the area of service quality, with a focus on the operational environments and the services provided to customers. The guidelines described below introduce a basic framework for implementing a service quality program that is: 1) consistent with the principles of ISO 9001; 2) focused on the customers' perception of quality; and 3) specifically tailored to address the agency's needs and objectives.

Notes:

Steps are organized in three phases of program implementation: planning, controlling, and sustaining. These classifications are not intended to replace, but rather supplement, ISO's Plan-Do-Check-Act model.

For reference, relevant sections of the ISO 9001 quality management requirements are shown in brackets.

Planning

- 1. Define scope** – The agency must first define its scope for implementation. A transit agency may choose to focus on a division or department of its organization, as well as on suppliers and contractors. For example, the scope may focus on one of the following:

- A segment of operations (i.e. rail service);
- A project phase (i.e. engineering/construction);
- A specific entity, department, or staff group (i.e. suppliers/vendors, supervisory department, bus operators);
- A specific customer interface (i.e. fare collection, public address systems, platform safety).

The degree of focus is commensurate with overall quality objectives, allocated budget and resources, and customer/stakeholder requirements.

To accomplish this step, it may be helpful to consider *Quality of Service Factors* as offered by TCRP's *Transit Capacity and Quality of Service Manual*. These factors address many common aspects of service quality, and are quantified

relatively easily. They address two basic measures—1) availability and 2) comfort and convenience—organized in this manner⁹:

<p>AVAILABILITY FACTORS</p> <ul style="list-style-type: none">• SERVICE COVERAGE (i.e. pedestrian, bicycle, Americans with Disabilities Act (ADA) considerations, and Park-and-Ride access)• SCHEDULING• CAPACITY (i.e. peak hour availability)• INFORMATION (i.e. real-time information and general route/schedule information)
<p>COMFORT AND CONVENIENCE FACTORS</p> <ul style="list-style-type: none">• PASSENGER LOADS• RELIABILITY (on-time performance (OTP) and regularity of headways between successive vehicles)• TRAVEL TIME (the passenger's total travel time from his/her origin to final destination, including any transfers)• SAFETY AND SECURITY (i.e. real and perceived chance of getting hurt or being the victim of a crime, or encountering an irritant such as an unruly passenger)• COST (as compared to perceived direct/indirect costs of an alternative means of transportation)• APPEARANCE AND COMFORT (i.e. cleanliness, comfort onboard the vehicle, station/vehicle amenities)

For the purposes of defining the scope, it is important to use objective, measurable terms as this will ensure productivity in the *controlling* and *sustaining* phases. Whereas, it may be appropriate to consider a more subjective approach in Steps 3 and 4, so as to truly capture customers' perceptions and experiences.

2. Define stakeholders and customers – A clear definition of customers and stakeholders is necessary to accomplish later tasks such as process control, mitigation of non-conforming service, and response to customer feedback. The agency must address the following questions:

- Given the scope, who are the relevant customers, keeping in mind that the ultimate customers are transit riders (current and future)?
- What types of interfaces and experiences are important to consider when defining the customer's perspective(s)?
- In addition to customers, who exactly are the stakeholders (i.e. elected officials, taxpayers, regulatory agencies)? This is not addressed directly in

⁹ TCRP Report 100- Transit Capacity and Quality of Service Manual, 2nd ed., p. 3-3

the ISO 9001 standard but is critical for transit agencies. Combining stakeholders with customers confuses the process of determining customer requirements.

- 3. Identify customer requirements** – What quantifiable outcomes are required by customers? Given transit’s retail service business model, customers must be aggregated in some fashion. Unfortunately, transit agencies face an ongoing challenge in that it is more convenient and more common to identify and measure service efficiency and cost-effectiveness indicators, rather than customer-oriented indicators¹⁰. Therefore, a fundamental shift may be required in the agency’s data reporting and customer service practices in order to fully satisfy this step. This will require full support from each functional or department manager.

Requirements can be divided into market demand and service quality requirements. Market demand specifies requirements for service location, frequency, speed, mode, connectivity, etc. Service quality requirements specify what current customers expect to experience in terms of on-time reliability, safety, vehicle cleanliness, amenities, and staff performance [5.2]. This further reflects the breakdown of measures suggested by the TCRP report—availability and comfort/convenience factors.

The aforementioned determinants of service quality should serve as a base for defining these requirements in the most specific terms possible, as follows:

1. **RELIABILITY**- *What are the customers’ expectations with regard to the consistency and dependability of service delivery?*
2. **RESPONSIVENESS**- *What do customers expect in terms of employees’ demonstrated willingness to provide quality service in a timely manner?*
3. **COMPETENCE**- *What skills and knowledge should front-line staff possess in order to satisfy customer requirements?*
4. **ACCESS**- *How approachable is the staff when customers wish to come forward with questions or concerns?*
5. **COURTESY**- *What do customers expect in terms of employees’ politeness, consideration, and friendliness?*
6. **COMMUNICATION**- *What are the customers’ requirements with regard to all forms of communication, i.e. public address announcements, route/schedule information, safety awareness information, printed media, and front-line staff interaction? How might the specific requirements of some groups of customers (i.e. non-native speakers) need to be reflected in order to truly capture the customer base?*
7. **CREDIBILITY**- *What do customers expect in terms of trustworthiness, believability, and honesty? In what ways do they perceive the agency having the customers’ best interests at heart?*

¹⁰ TCRP Report 88- A Guidebook for Developing a Transit Performance-Measurement System

8. SECURITY- *To what degree do customers expect to be free from danger, risk, or doubt? What visible and/or perceived elements of system security are reflected in these requirements?*
9. UNDERSTANDING/KNOWING THE CUSTOMER- *What efforts by the agency do customers expect in terms of getting to know their needs? How are the specific needs of various groups of customers represented?*
10. TANGIBLES- *What do customers expect in terms of the physical environment and quality of service received?*

When a list of customer requirements is translated to specific elements within the desired scope (step 1), the agency may find it necessary to break it down according to service modes, staff positions, or operational departments. For example, according to the *APTA Recommended Practice for Developing and Maintaining a Customer Service Culture*, customers can expect bus operators, a particular position within a specific mode, to be¹¹:

- Respectful
- Polite
- Positive
- Knowledgeable (system, routes, fares, payment options, attractions, travel directions)
- Able to provide service to customers with disabilities
- Able to handle angry customers
- Able to handle conflict avoidance/resolution
- Able to make manual announcements
- Able to assist customers in emergency situations
- Able to keep the bus clean

Figure 3 illustrates how the ten determinants of service quality can be used to identify specific customer requirements with regard to the established scope or specific element of operations, i.e. bus operator staff. A similar technique could be employed in step 4- *Identify Stakeholder Requirements*.

¹¹ APTA Recommended Practice for Developing and Maintaining a Customer Service Culture. APTA-BTS-BO-RP-004-09

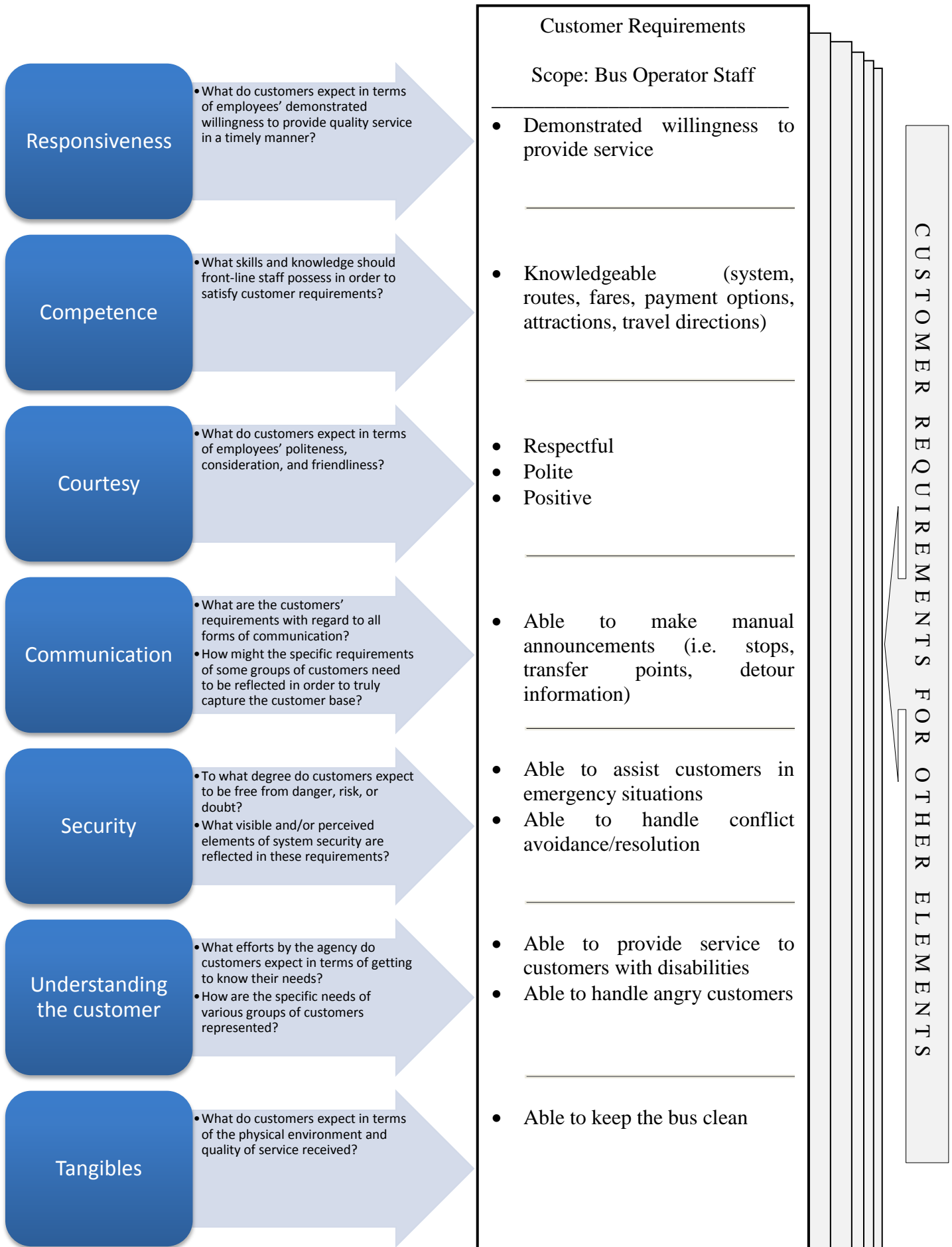


Figure 3- Using the ten determinants of service quality to identify customer requirements within a defined scope

Obviously, because the expectations above relate to one's interaction with a specific contact position, the bus operator, they pertain to comfort and convenience factors more than availability factors. The availability factor "capacity," for instance (see step 1), would not be included in the customer's perception of the bus operator's delivery of service, and thus would not be reflected in customer expectations for that specific element. However, when considering all interrelated processes that ultimately lead to the delivery of service, the agency must not ignore the fact that internal activities (such as operator training, route planning, dispatch, etc.) are often just as critical as external activities and are sometimes the root causes of subsequent nonconformities. Internal activities are primarily concerned with *efficiency* while external activities—with direct customer interaction—require attention to *effectiveness*. All too often, workers involved in internal operations do not understand how their performance affects the customers they do not see. The success of the process depends on everyone—involved in internal as well as external activities—understanding how they add value to the customer's experience.

A list such as this can be used to measure whether the agency is meeting the key requirements of service quality. The customer's perceptions of service quality translate to tangible, objective requirements by which the program can be measured and controlled in later phases of program implementation.

- 4. Identify stakeholder requirements** – Transit agencies' stakeholders set out specific requirements in terms of federal, state and local laws and ordinances, permit requirements, inter-local agreements and other directives. While these formal requirements are not addressed in the ISO 9001 standard, they are comparable to the "regulatory and other" component of the ISO 14001 environmental standard. It is critical for transit agencies to identify stakeholder requirements and include them in their system controls and monitoring. Agencies may also need to include informal stakeholder requirements if they have a significant impact on the agency's resources or effectiveness.
- 5. Establish objectives** – Given customer and stakeholder requirements, the agency must determine what specific, measurable objectives and standards must be set to achieve quality service outcomes. These objectives must be formalized, communicated through all departments, consistently measured and evaluated, and directed by the earlier-defined requirements [5.4].

To obtain a uniform approach toward the achievement of these objectives, they must originate with, and be delivered by, upper management. The general manager or equivalent should set the core principles for the agency regarding what the program should entail. Other members of the senior staff should also participate in order to show buy-in and increase awareness of the program¹².

¹² APTA Recommended Practice for Developing and Maintaining a Customer Service Culture. APTA-BTS-BO-RP-004-09

Controlling

- 6. Establish process control** – Controlled processes comprise the engine of the quality management system. This is where most of the time and effort in building the quality management system or initiative is spent. By performing a rigorous process review; duplication, non-value-added work, and non-compliant elements are identified and resolved.

One effective method of process review and quality control is customer satisfaction surveys. Customer surveys help transit agencies identify the quality of service factors that are of greatest importance to their customers. They can also be beneficial to the *sustaining* phase of the quality program, by helping to prioritize future initiatives, measure the degree of success of past initiatives, and track changes in service quality over time.

TCRP Report 47- *Measuring Customer Satisfaction and Service Quality* reviews the effectiveness and applicability of several quantitative analytical techniques. Methods currently used in the industry include the “impact score” method and “quadrant analysis” (explained in detail in the TCRP Report). Regardless of the techniques used, an agency should strive to develop a survey (and subsequent control processes) that is uniquely relevant to its services and customers, using input from all levels of staff and departments, as well as from the general public.

Below are examples of service attributes that could be rated as part of a survey, with each attribute rated on a 1 to 5 or 1 to 10 scale (some items may not apply to all systems)¹³:

- Absence of graffiti
- Absence of offensive odors
- Accessibility to persons with disabilities
- Availability of handrails or grab bars
- Availability of monthly discount passes
- Availability of schedule information
- Availability of schedules/maps at stops
- Availability of seats on train/bus
- Availability of shelter and benches at stops
- Cleanliness of interior, seats, windows
- Cleanliness of stations/stops
- Cleanliness of train/bus exterior
- Clear and timely announcements of stops
- Comfort of seats on train/bus
- Connecting bus service to main bus stops
- Cost effectiveness, affordability, and value
- Cost of making transfers
- Display of customer service number
- Ease of opening doors when getting on/off
- Ease of paying fare, purchasing tokens

¹³ TCRP Report 100- Transit Capacity and Quality of Service Manual, 2nd ed., p.3-24

- Explanations and announcements of delays
- Fairness/consistency of fare structure
- Freedom from nuisance behaviors of riders
- Frequency of delays from breakdowns/emergencies
- Frequency of service on weekends
- Frequent service so that wait times are short
- Friendly, courteous, quick service from personnel
- Having station/stop near one's destination
- Having station/stop near one's home
- Hours of service during weekdays
- Number of transfer points outside downtown
- Physical condition of stations/stops
- Physical condition of vehicles and infrastructure
- Posted minutes to next train/bus at stations/stops
- Quietness of the vehicles and system
- Reliable trains/buses that come on schedule
- Route/direction information visible on trains/buses
- Safe and competent drivers/conductors
- Safety from crime at stations/stops
- Safety from crime on trains/buses
- Short wait time for transfers
- Signs/information in Spanish as well as English
- Smoothness of ride and stops
- Station/stop names visible from train/bus
- Temperature on train/bus is comfortable
- Train/bus traveling at a safe speed
- Trains/buses are not overcrowded
- Transit personnel who know the system

Regardless of the method employed for data collection, the agency must identify all primary processes (internal as well as external) involved in delivering services to its customers. Typically, these processes include: equipment procurement; service/route planning; operator training; complaint resolution; fare collection; public alerts/announcements; lost and found; and route schedule/map distribution. These processes—either directly or indirectly—affect the customers' perceptions of the quality of service.

When a list of processes is generated, the agency must ask: how do these primary processes interrelate? What are the smaller components of each process? It may become necessary to focus on a segment of service operations or "quality of service factor" such as that which was defined in the scope (step 1).

For each process and component, the agency should describe and control the workflow in the following manner:

- Identify the process outcome.
- Identify the process customer (not necessarily the same as a service customer, or patron).

- Identify the process inputs.
- Establish a process objective based on customer and management requirements. The process objective is different from the aforementioned, overarching quality system objectives. The process objective is the outcome of each particular process which, if not met, prevents the process customer from performing their work. While not an exact duplicate, it should reflect the customer/stakeholder requirements identified in steps 3 and 4.
- Prepare a process flow chart that shows the tasks, decisions, inputs, interim and final outputs, failure points, monitoring and measurement, documents or other controls employed in the process, records generated by the process, continuous improvement and corrective action loops. Similar to decision trees and event trees in the fields of risk management and project management, the intent is to uncover relationships of mini-processes or decisions in reaching a defined output (in this case, an element of perceived service).
- Implement the process tasks, measures, outputs, records, etc. as described in the process flow chart.
- Record failures or nonconformities.

The controlled processes must include objective measures to prevent the delivery of service that does not conform to established objectives and standards [4.2, 7.2, 7.3, 7.4, 7.5, 7.6]. See Figure 4 for an example of how an agency might organize key requirements and measures for individual processes.

Successful process control has tremendous returns for the transit agency in both quality and efficiency outcomes. When based on the information gathered during the planning phase (i.e. customers/stakeholders, requirements, and objectives), process control effectively targets specific elements of service delivery which need improvement, and provides a framework for taking corrective action.

Sample Chart for Organizing Process Requirements and Key Measures

Process	Key Requirements	Key Measures	x
Customer Information			
Customer Information Telephone Service	Accurate information Courteous Minimal customer wait time	-Service knowledge of staff -Call monitoring by supervisors -Customer responses on surveys -Average wait time and call duration -Number of lost calls	
Customer Service Center/ Kiosk (Walk-In)	Accurate information Courteous Minimal customer wait time Accessible location Availability of maps/schedules.	-Service knowledge of staff -Observations by supervisors -Average wait time and service time -Customer responses on surveys -Monitoring availability and accuracy of information materials	
Transit Agency Web-Site	User-friendly Accurate, current information	-Number of web-site log-ins -Customer responses on surveys -Monitoring availability and accuracy of information provided	
Bus/ Rail Transit Trip			
Customer Experience On Board Vehicle	Friendliness of operator Schedule reliability Accurate, clear information Safety and comfort	-Service knowledge of operators -On-time performance -Customer responses on surveys -In-service monitoring by supervisors -Cleanliness of bus -Operator appearance -Data on customer injuries/ complaints	
Fare Collection Equipment	User-friendly station equipment Easy to locate equipment User-friendly vehicle equipment	-Monitoring customer time required to use equipment -Data on equipment reliability (down-time) -Customer responses on surveys	
Complaint Handling			
Management of Customer Complaints	Courteous Responsive	-Data on types/ numbers of complaints and time to respond to customer	

Figure 4 – Sample chart of example process requirements and key measures

Sustaining

- 7. Management Review- *Measure, Analyze, and Improve*** – In support of the individual process improvements focused on program scope, customer/stakeholder requirements, and objectives (Step 6), the agency must conduct and record periodic top-level reviews and refinements of the encompassing quality management system [5.6]. As a form of internal audit, this process must determine whether the programs do in fact: 1) comply with the scope, 2) address identified requirements, and 3) achieve the agency’s quality objectives.

Striking a balance is critical to realizing big-picture objectives of the overall quality management system. The goal is to provide services whose elements are internally consistent and directed at meeting the needs of its customers. Too much or too little emphasis on one component will lead to problems and poor customer perceptions. For example, too much emphasis on procedures might result in timely and efficient service, but might also diminish efforts toward enhancing the customer experience. Too much emphasis on behavior might provide a friendly and personable environment at the expense of slow, inconsistent, or illogical service.

The end result is that the quality management system continually improves, and its influence over daily service operations is sustained. In conjunction with this type of review, the agency should implement the following:

- Internal Audit – The agency must conduct and record periodic audits of all elements of the quality management system. Audited components should include: program scope statement, process flowcharts or diagrams, status of quality objectives, status of preventive and corrective actions, follow-up actions from previous management reviews, and new improvements or refinements to the quality management system.
- Monitoring and measurement of processes – The agency must periodically analyze the process control mechanisms (see Step 6- Establish Process Control) for completeness and accuracy. The included processes should represent a variety of departments and/or elements of the customer experience, as defined in Step 3. Every effort should be made to fairly represent the entire spectrum of processes, regardless of complexity or visibility to the public.
- Monitoring of service delivery – In addition to measuring the outputs of each primary process, the agency must also measure its delivery of service based on the dimensions specified by objectives. Here, the agency measures its day-to-day performance in regard to meeting customer/stakeholder requirements. Useful indicators include: customer

feedback, GPS/AVL data, complaint records, driver/operator records, and documented follow-up/re-training stemming from accidents and incidents.

Through this type of comprehensive review, data from monitoring activities, internal audits, customer feedback, and documented nonconformities are analyzed to determine needed refinements to the agency's processes and the quality management system. In many cases, returning the program or project to the *controlling* phase is necessary to continue to refine processes and ultimately achieve enhanced customer service [8.1, 8.2, 8.3, 8.4, 8.5].

Ultimately it is the responsibility of top management to regularly assess the health of the total quality management program and instantly recognize failures. ISO 9001 [5.2] specifies that "top management shall ensure that customer requirements are determined and are met with the aim of enhancing customer satisfaction."

Sample Checklist

Pre-planning considerations

- Identify quality objectives in two distinct categories (“big picture” organizational quality, and *service* quality) and prepare to focus on the customer’s perceptions of quality. The steps in this handbook address service quality.
- Identify gaps in perceived quality and prepare to show in a process flow chart how these gaps can be addressed.
- Considering the “determinants of service quality,” evaluate how this list can be customized to fit the agency’s circumstances, and identify priority areas to be further defined in Planning stages.

Planning

- Define a project scope that is appropriate given the agency’s circumstances and objectives. It may be necessary to focus on a specific segment, mode, department, facility, or customer interface.
- In determining scope, consider the “Quality of Service Factors” in the distinct areas of *Availability* and *Comfort and Convenience*.
- Use objective, measurable goals and terms when defining scope.
- Given the scope, define who the relevant customers are and what types of interfaces and experiences are important to evaluate.
- Given the identified customers and stakeholders, identify quantifiable outcomes that are required.
- Consider that a fundamental shift in the agency’s culture and processes may be required, in that a previous focus may have been cost-effectiveness rather than customer-oriented indicators. If such a shift must occur, reexamine previous steps to ensure that this new perspective is consistently applied.
- Consider how planning or operational requirements may differ from customer requirements.
- Use the “determinants of service quality” to define specific customer requirements in each area. Consult operations staff, as well as a sample of customers directly, to come up with a list of requirements with regard to the defined scope.

- Break down customer requirements to very specific levels, i.e. consider that customers expect bus operators to be respectful, polite, positive, knowledgeable, etc.
- If applicable, identify stakeholder requirements in terms of laws, regulations, etc., especially if they have a significant impact on the agency's resources or effectiveness in certain areas.
- Given customer and stakeholder requirements, determine specific objectives and goals by which the achievement of quality service will be measured. Use benchmarks, historical data, customer satisfaction surveys, and other resources.
- Quality objectives must be formalized, communicated through all departments, and consistently measured and evaluated, as well as be fully endorsed, and delivered, by upper management.

Controlling

- Establish process control by performing a thorough review of current processes, evaluating effectiveness, eliminating non-value-added work, and resolving non-compliant elements.
- Identify all primary processes (internal as well as external) involved in delivering services to customers. Evaluate how these processes interrelate, focusing on all processes pertaining to whichever element that was defined in the scope.
- For each process, identify process outcome, process customer, and process inputs, using a flow chart or other means to graphically display all components and relationships.
- Use customer satisfaction surveys and other forms of input (internal and external) to identify weaknesses in processes and sub-processes.
- Focus on all processes which either directly or indirectly affect the customer's perceptions of the quality of service. For each one, identify a process objective, which is the outcome of each individual process which, if not met, prevents or negatively affects the performance of subsequent work. Refer to the process flow chart.
- Record failures and nonconformities, with the intent of controlling and improving individual elements of service delivery.

Sustaining

- Apart from process improvements, perform periodic top-level reviews of the quality management system. This process must determine whether the programs

do in fact comply with the scope, address identified requirements, and achieve the agency's quality objectives. With these goals in mind, implement an internal audit process, checking such elements as: scope statement, process flowcharts, status of quality objectives, preventive and corrective actions, follow-up actions from previous reviews, and new improvements or refinements.

- Monitor process control mechanisms for completeness and accuracy. The processes which are examined should include a balance of departments, elements, and factors as defined in Step 3. Every effort should be made to represent the entire spectrum of processes, regardless of complexity or visibility to the public.
- Monitor actual service delivery and performance. Use such tools as customer satisfaction surveys or feedback, complaints, driver/operator records, and training/re-training records.
- Based on the data collected, determine which areas require refinement and return those projects or areas to the *controlling* phase.
- Ultimately it is up to management to regularly assess the health of the total quality management program. Create procedures and checks to ensure that top management stays involved. Share the format and procedures with mid-level managers as well as the Board of Directors, riders advisory councils, and community groups.

Appendices

Appendix A: APTA Recommended Practice for Developing a Customer Service Culture,

Published December 31, 2009, APTA Bus Operations Working Group

Abstract: This *Recommended Practice* will assist transit agencies in developing and maintaining a customer service culture within the transit agency that is attainable and focused on all transit employees and the communities they serve.

Keywords: customer service, curriculum, training

Summary: This *Recommended Practice* suggests guidelines for developing, promoting and evaluating customer service training for employees. Descriptive summaries of customer service programs, including the syllabus/agenda, implementation plan and evaluation strategy are included.

Scope and purpose: This document provides guidance to operating agencies in the deployment of customer service training, including curriculum development, a promotional and implementation plan and an evaluation strategy.

Summary of Recommendations:

- Promote a customer service program
- Ensure that a defined, consistent customer service message exists for the entire agency.
- Identify specific customer service issues your training department can address.
- Internal customers (employees) are as important as external customers.
- Share best practices among employees in an ongoing fashion.
- Evaluate the customer service program at different levels within your agency
- Recognize employees for exemplary customer service skills
- Define a curriculum for a customer service training program with specific steps
- Select the most appropriate training method for your agency
- Evaluate the program after training to ensure that employees understand the message and skills that were taught
- Conduct rated observation rides

1. Customer service training integration

1.1 Promoting a customer service program

Ensure that a defined, consistent customer service message exists for the entire agency. This message, contained in the agency's mission statement is promoted and disseminated from the top down.

Upper management should provide full support (tools, resources and budget) to implement and sustain the customer service program. It also issues the directive to develop a comprehensive customer service plan.

1.1.1 Curriculum development

Training specialists should identify what customer service issues the training department can address. They should identify the employee skills required at different levels of the organization. This information would determine various levels of training (i.e. refresher and remedial training).

1.1.2 Sustaining the message (motivation)

Management's role is to keep the customer service message in focus and to reinforce the idea that customer service includes all the agency's customers. Internal customers (employees) are as important as external customers. This message is sustained through the following:

- ongoing communication and updates,
- incentive programs that reward excellence, and
- a theme-based approach.

1.1.3 Knowledge-based sharing

The agency should consider how it can informally share best practices among employees in an ongoing fashion. This can increase buy-in from stakeholders.

1.1.4 Program evaluation

The customer service program should be evaluated at different levels: post training, against agency customer service data, and so on. Upper management needs to continuously evaluate the program against the current environment. Consider whether the program still meets the agency's needs or whether it needs to be changed updated or enhanced.

1.2 Distributing the message

The customer service program's message must originate with upper management. The general manager or equivalent should set the core principles for the agency regarding what the program should entail. Other members of the senior staff should participate to show buy-in and increase awareness of the importance of the program.

One important part of getting the word out is recognizing frontline employees for their efforts. This can be based on the recommendation of a supervisor, a good customer service record, commendations, positive customer comments, good attendance or low accident rates. Employees and customer also can be invited to nominate employees for recognition.

Recognition can include company paraphernalia such as patches or pins; recognition in public or team meetings; a mention in the agency newsletter; or financial incentives such as gift cards.

1.3 Defining the curriculum

A curriculum for a customer service training program should incorporate the following general principles:

Make it your own. Ensure a positive customer experience for the customer by treating them with respect and courtesy and by being flexible within the established rules and Standard Operating Procedures.

Everything matters. Employees should be encouraged to pay attention to the smallest details. In order to deliver quality, the agency has to deliver it at all levels. Any compromises can relax “quality awareness” throughout the organization.

Surprise and delight. Delight customers and go beyond their expectations. Employees should look for ways to give something to the customer that they never anticipated.

Embrace resistance. The agency should accept all feedback, both positive and negative, and use the negative feedback to find ways for the agency to improve. The agency should consider all feedback important. Rather than ignore it, management should respond constructively and calmly, explaining its position on the issue. Accepting and responding to feedback should be built into the core principles of the company.

Leave your mark. The agency should be involved and contribute to the community in which it resides. (i.e. community service projects)

1.3.1 “The Starbucks Experience”

These principles, adapted from the Starbucks Corporation as described in “The Starbucks Experience” are applicable to any successful organization.

Step 1: Conduct needs assessment.

This step is necessary because the work population shifts and changes over time.

Methodology:

- pre-survey for all transit employees
- management buy-in and commitment

Step 2: Establish training goals.

The purpose of this step is:

to demonstrate the interconnectivity of each transit employee and how each person impacts the organization and the community;

to understand that customer service principles are ongoing life application skills;
and
to positively contribute to the agency's desired customer service culture.

Step 3: Define the target audience.

This includes all of the following:

- executive
- middle management
- administrative
- operational
 - supervisors
 - dispatchers
 - operators
 - call center staff
 - sales staff
- maintenance
 - supervisors
 - mechanics/technicians
 - custodial or service personnel

Step 4: Develop and design the curriculum.

Subject areas should include, but are not limited to:

- communication
- conflict resolution
- effective listening skills
- giving and receiving feedback
- respect
- cooperation
- empathy
- accountability

Recommended training methods:

- lead by example (facilitator, guest speakers)
- role plays, exercises, games
- scenarios
- group discussion/participation
- practice

1.4 Distributing the training message

Each agency should choose the most appropriate methods from among the following:

- instructor-led
- video messages
- e-learning/CBT/Web-based
- e-mail blog
- virtual environments
- posters
- announcements
- newsletters
- radio messages
- hyper alerts
- prerecorded announcements
- floor safety meeting
- health and safety fairs
- wellness programs
- mentor programs/peer reviews
- cross-training
- integrating the customer service message into other existing programs

Trainers should rate the performance of participants through hands-on practice, such as role playing. The agency should continue to market the program after training is over to keep employees focused on customer service.

2. Evaluating the training

Evaluate the program after training to ensure that employees understand the message and skills that were taught. Supervisors should observe and rate employee performance for an extended time after training.

Management also can look at data related to ridership (complaints and recommendations) and evaluate the cost of the training program versus the gains achieved. The results can be compared with those of other transit properties. Another evaluation method is to use a “mystery rider,” who interacts with frontline employees and then reports on the service provided.

2.1 Learner evaluation form

- Learning objectives (II)

- Instructor (I)

- Did the instructor treat me like an adult?
- What was the instructor’s level of expertise?
- Was the instructor inspiring and motivating?
- Did the instructor encourage participation?
- Did the instructor foster interaction?
- Did the instructor make the subject matter relevant and realistic?
- Was the instructor’s presentation well-structured, organized and focused?

- Training materials rating (I)
 - videos/scenarios
 - student reference manuals
 - procedures/standard operating procedures
 - pocket cards/“lest we forget”
 - posters
 - PowerPoint slides
- Exercise rating (I)
 - Were the exercises relevant to the training objective?
 - Were the exercises realistic?
 - Were the instructions and directions clear?
- Logistics (I)
 - schedule of training/length of training
 - classroom climate
 - acoustics
 - equipment
 - seating
 - location (noise, transportation, parking)
 - recommendations/suggestions (I)
 - overall impressions (I)

2.2 Instructor’s view

- Conduct rated observation rides
 - rated instructor-led practice (II & III)
 - rated line-instructor practice (II & III)
 - mystery riders (customers) (III)
 - ADA monitors (III)
 - use employees (first management type) (III)
 - managers (morning and afternoon rushes) (III)
 - audits (III)
- Written confirmations (signature sheet)
 - based on the learning objectives (II)
- Written exams (II)
- Data
 - customer complaints (IV)
 - commendations (IV)
 - written exam results (II)
 - number of incidents (IV)
 - number of operator help/assistance calls to dispatch/supervisors (IV)

ridership (IV)
customer satisfaction surveys (IV)

3. Customer service expectations of bus operators

Bus Customers expect drivers to be:

- respectful
- polite
- positive
- knowledgeable (of system, routes, fares, payment options, attractions, travel directions)
- able to provide service to customers with disabilities
- able to handle angry customers
- able to handle conflict avoidance/resolution
- able to make manual announcements
- able to assist customers in emergency situations
- able to keep the bus clean

The expectations are similar for all other transit employees. They are expected to be:

- respectful
- polite
- positive
- knowledgeable of transit operations
- able to handle conflict avoidance and resolution

Appendix B: Leading practices of process management

James R. Evans and William M. Lindsay (2008). Pp. 335-340

Leading Practices

Process management requires a disciplined effort involving all managers and workers in an organization. Companies that are recognized world leaders in performance excellence and customer satisfaction share some common practices.

1. *They define and document important value creation and support processes and manage them carefully.*
2. *They translate customer requirements into product and service design requirements early in the design process, taking into account linkages between product design requirements and manufacturing or service process requirements, supplier capabilities, and legal and environmental issues.*
3. *They ensure that quality is built into products and services and use appropriate engineering and quantitative tools and approaches during the development process.*
4. *They manage the product development process to enhance cross-functional communication, reduce product development time, and ensure trouble-free introduction of products and services.*
5. *They define performance requirements for suppliers, ensure that requirements are met, and develop partnering relationships with key suppliers and other organizations.*
6. *They control the quality and operational performance of key processes and use systematic methods to identify significant variations in operational performance and output quality, determine root causes, make corrections, and verify results.*
7. *They continuously improve processes to achieve better quality, cycle time, and overall operational performance.*
8. *They innovate to achieve breakthrough performance using such approaches as benchmarking and reengineering.*
9. *They plan and ensure continuity of operations in the event of an emergency.*

Appendix C: Eight quality management principles of the ISO 9000 family

Source: “Quality Management Principles” International Organization for Standardization (ISO) website

http://www.iso.org/iso/iso_catalogue/management_standards/quality_management/qmp.htm

Principle 1: Customer focus

Organizations depend on their customers and therefore should understand current and future customer needs, should meet customer requirements and strive to exceed customer expectations.

Key benefits:

- Increased revenue and market share obtained through flexible and fast responses to market opportunities.
- Increased effectiveness in the use of the organization's resources to enhance customer satisfaction.
- Improved customer loyalty leading to repeat business.

Applying the principle of customer focus typically leads to:

- Researching and understanding customer needs and expectations.
- Ensuring that the objectives of the organization are linked to customer needs and expectations.
- Communicating customer needs and expectations throughout the organization.
- Measuring customer satisfaction and acting on the results.
- Systematically managing customer relationships.
- Ensuring a balanced approach between satisfying customers and other interested parties (such as owners, employees, suppliers, financiers, local communities and society as a whole).

Principle 2: Leadership

Leaders establish unity of purpose and direction of the organization. They should create and maintain the internal environment in which people can become fully involved in achieving the organization's objectives.

Key benefits:

- People will understand and be motivated towards the organization's goals and objectives.
- Activities are evaluated, aligned and implemented in a unified way.
- Miscommunication between levels of an organization will be minimized.

Applying the principle of leadership typically leads to:

- Considering the needs of all interested parties including customers, owners, employees, suppliers, financiers, local communities and society as a whole.
- Establishing a clear vision of the organization's future.
- Setting challenging goals and targets.
- Creating and sustaining shared values, fairness and ethical role models at all levels of the organization.
- Establishing trust and eliminating fear.
- Providing people with the required resources, training and freedom to act with responsibility and accountability.
- Inspiring, encouraging and recognizing people's contributions.

Principle 3: Involvement of people

People at all levels are the essence of an organization and their full involvement enables their abilities to be used for the organization's benefit.

Key benefits:

- Motivated, committed and involved people within the organization.
- Innovation and creativity in furthering the organization's objectives.
- People being accountable for their own performance.
- People eager to participate in and contribute to continual improvement.

Applying the principle of involvement of people typically leads to:

- People understanding the importance of their contribution and role in the organization.
- People identifying constraints to their performance.
- People accepting ownership of problems and their responsibility for solving them.
- People evaluating their performance against their personal goals and objectives.
- People actively seeking opportunities to enhance their competence, knowledge and experience.
- People freely sharing knowledge and experience.
- People openly discussing problems and issues.

Principle 4: Process approach

A desired result is achieved more efficiently when activities and related resources are managed as a process.

Key benefits:

- Lower costs and shorter cycle times through effective use of resources.
- Improved, consistent and predictable results.
- Focused and prioritized improvement opportunities.

Applying the principle of process approach typically leads to:

- Systematically defining the activities necessary to obtain a desired result.
- Establishing clear responsibility and accountability for managing key activities.
- Analysing and measuring of the capability of key activities.
- Identifying the interfaces of key activities within and between the functions of the organization.
- Focusing on the factors such as resources, methods, and materials that will improve key activities of the organization.
- Evaluating risks, consequences and impacts of activities on customers, suppliers and other interested parties.

Principle 5: System approach to management

Identifying, understanding and managing interrelated processes as a system contributes to the organization's effectiveness and efficiency in achieving its objectives.

Key benefits:

- Integration and alignment of the processes that will best achieve the desired results.
- Ability to focus effort on the key processes.
- Providing confidence to interested parties as to the consistency, effectiveness and efficiency of the organization.

Applying the principle of system approach to management typically leads to:

- Structuring a system to achieve the organization's objectives in the most effective and efficient way.
- Understanding the interdependencies between the processes of the system.
- Structured approaches that harmonize and integrate processes.
- Providing a better understanding of the roles and responsibilities necessary for achieving common objectives and thereby reducing cross-functional barriers.
- Understanding organizational capabilities and establishing resource constraints prior to action.
- Targeting and defining how specific activities within a system should operate.
- Continually improving the system through measurement and evaluation.

Principle 6: Continual improvement

Continual improvement of the organization's overall performance should be a permanent objective of the organization.

Key benefits:

- Performance advantage through improved organizational capabilities.
- Alignment of improvement activities at all levels to an organization's strategic intent.

- Flexibility to react quickly to opportunities.

Applying the principle of continual improvement typically leads to:

- Employing a consistent organization-wide approach to continual improvement of the organization's performance.
- Providing people with training in the methods and tools of continual improvement.
- Making continual improvement of products, processes and systems an objective for every individual in the organization.
- Establishing goals to guide, and measures to track, continual improvement.
- Recognizing and acknowledging improvements.

Principle 7: Factual approach to decision making

Effective decisions are based on the analysis of data and information

Key benefits:

- Informed decisions.
- An increased ability to demonstrate the effectiveness of past decisions through reference to factual records.
- Increased ability to review, challenge and change opinions and decisions.

Applying the principle of factual approach to decision making typically leads to:

- Ensuring that data and information are sufficiently accurate and reliable.
- Making data accessible to those who need it.
- Analysing data and information using valid methods.
- Making decisions and taking action based on factual analysis, balanced with experience and intuition.

Principle 8: Mutually beneficial supplier relationships

An organization and its suppliers are interdependent and a mutually beneficial relationship enhances the ability of both to create value

Key benefits:

- Increased ability to create value for both parties.
- Flexibility and speed of joint responses to changing market or customer needs and expectations.
- Optimization of costs and resources.

Applying the principles of mutually beneficial supplier relationships typically leads to:

- Establishing relationships that balance short-term gains with long-term considerations.
- Pooling of expertise and resources with partners.
- Identifying and selecting key suppliers.
- Clear and open communication.

- Sharing information and future plans.
- Establishing joint development and improvement activities.
- Inspiring, encouraging and recognizing improvements and achievements by suppliers.

Appendix D: Malcolm Baldrige Tool, “Are We Making Progress?”

Source: Baldrige National Quality Program

http://www.baldrige.nist.gov/PDF_files/Progress.pdf

A Message to Leaders

In today’s environment, if you are standing still, you are falling behind. Making the right decisions at the right time is critical. Following through on those decisions is challenging. In a survey of a broad cross section of CEOs, the Malcolm Baldrige Foundation learned that CEOs believed deploying strategy is three times more difficult than developing strategy. If deployment is so challenging, the questions are, *Are you making progress? How do you know?*

- Are your values, vision, mission, and plans being deployed? How do you know?
- Are they understood and supported by your leadership team? How do you know?
- Are they understood and supported by all members of your workforce? How do you know?
- Are your communications effective? How do you know?
- Is the message being well received? How do you know?

“Are We Making Progress?” and the companion document, “Are We Making Progress as Leaders?” are designed to help you know. They provide compatible tools for you to see if your perceptions agree with those of your workforce. They will help you focus your improvement and communication efforts on areas needing the most attention. For organizations that have been using the Baldrige Criteria for Performance Excellence, the questionnaires are conveniently organized by the seven Criteria Categories. For those that have not, these questionnaires identify opportunities for improvement and direct you to more detailed questions in the Criteria. These questions may help you identify some key ideas for making improvements and recognizing opportunities for innovation.

It is never too soon to start improving openness and communication. Ask the members of your workforce their opinions. They will appreciate the opportunity—and the organization will benefit from their responses!

AN ASSESSMENT TOOL FROM THE BALDRIGE NATIONAL QUALITY PROGRAM...

Response choices to the following questions are: *Strongly Disagree*, *Disagree*, *Undecided*, *Agree*, and *Strongly Agree*

CATEGORY 1: LEADERSHIP

1a. I know my organization’s mission (what it is trying to accomplish).

1b. I know my organization’s vision (where it is trying to go in the future).

- 1c. My senior (top) leaders use our organization's values to guide us.
- 1d. My senior leaders create a work environment that helps me do my job.
- 1e. My organization's leaders share information about the organization.
- 1f. My organization asks what I think.

CATEGORY 2: STRATEGIC PLANNING'

- 2a. As it plans for the future, my organization asks for my ideas.
- 2b. My organization encourages totally new ideas (innovation).
- 2c. I know the parts of my organization's plans that will affect me and my work.
- 2d. I know how to tell if we are making progress on my work group's part of the plan.
- 2e. My organization is flexible and can make changes quickly when needed.

CATEGORY 3: CUSTOMER AND MARKET FOCUS

Note: Your customers are the people who use the products of your work.

- 3a. I know who my most important customers are.
- 3b. I regularly ask my customers what they need and want.
- 3c. I ask if my customers are satisfied or dissatisfied with my work.
- 3d I am allowed to make decisions to solve problems for my customers.
- 3e I also know who my organization's most important customers are.

CATEGORY 4: MEASUREMENT, ANALYSIS, AND KNOWLEDGE MANAGEMENT

- 4a. I know how to measure the quality of my work.
- 4b. I can use this information to make changes that will improve my work.
- 4c. I know how the measures I use in my work fit into the organization's overall measures of improvement.
- 4d. I get all the important information I need to do my work.

4e. I know how my organization as a whole is doing.

CATEGORY 5: WORKFORCE FOCUS

5a. The people I work with cooperate and work as a team.

5b. My bosses encourage me to develop my job skills so I can advance in my career.

5c. I am recognized for my work.

5d. I have a safe workplace.

5e. My bosses and my organization care about me.

5f. I am committed to my organization's success.

CATEGORY 6: PROCESS MANAGEMENT

6a. I can get everything I need to do my job.

6b. We have good processes for doing our work.

6c. I have control over my work processes.

6d. We are prepared to handle an emergency.

CATEGORY 7: RESULTS

7a. My work products meet all requirements.

7b. My customers are satisfied with my work.

7c. I know how well my organization is doing financially.

7d. My organization has the right people and skills to do its work.

7e. My organization removes things that get in the way of progress.

7f. My organization obeys laws and regulations.

7g. My organization practices high standards and ethics.

7h. My organization helps me help my community.

7i. My organization is a good place to work.

Appendix E: Core Measures Tables

TCRP Research Results Digest #56 “A Summary of TCRP Report 88: A Guidebook for Developing a Transit Performance-Measurement System, pp. 22-23

CORE MEASURES

Although the guidebook recommends that agencies tailor their performance-measurement program to their specific agency goals and objectives—to make sure that the agency can determine how successful it is at meeting those objectives—the guidebook recognizes that not all agencies may wish to go through this process. As a result, Chapter 4 of the guidebook provides a recommended set of core performance measures tailored to different-sized agencies. The number of measures recommended, and the complexity of those measures, increases as agency size increases, reflecting greater resources available to larger agencies. However, all of the programs comprehensively assess an agency’s customer, community, and financial performance.

FIXED-ROUTE MEASURES

The larger the transit agency, the greater the number of issues to deal with, but the greater the number of resources available to it. Tables 1 through 7 present recommended measures for the following transit agency sizes:

- Large (over 1 million population);
- Medium (200,000 to 1 million population);
- Small (50,000 to 200,000 population); and
- Under 50,000 population, providing

fixed-route service.

The number and complexity of the measures increases as the system size increases. The measures provided for larger systems represent measures that all systems, at a minimum, would ideally measure to cover all perspectives of their performance. The smaller systems have fewer measures listed because they often do not have the resources to measure as much as might be desired.

The guidebook recommends that agencies begin with a small program and expand it over time. As a result, most agencies would not want to try to implement all of the listed measures at once. Instead, as agencies gain experience with performance measurement, the full complement of core measures and other measures specific to agency goals or objectives can be provided.

The following tables address these aspects of transit service:

- Service availability: Table 1.
- Service delivery: Table 2.
- Safety and security: Table 3.
- Community impact: Table 4.
- Maintenance: Table 5.
- Financial performance: Table 6.
- Agency administration: Table 7.

Table 1. Core Fixed-Route Service Availability Measures

Large	Medium	Small	Under 50,000
Service coverage		Route coverage	
Frequency			
Hours of Service			
Stop Accessibility			

Table 2. Core Fixed-Route Service Delivery Measures

Large	Medium	Small	Under 50,000
Missed trips			
Complaint rate			
Route directness			
On-time performance			
Customer response time			
Passenger load			
Reliability factor			
Transit-auto travel time			
Number of fare media sales outlets			
Customer satisfaction			
Headway regularity			
Passenger environment			
Customer loyalty			

Table 3. Core Fixed-Route Safety and Security Measures

Large	Medium	Small	Under 50,000
Accident rate			
Number of incidents of vandalism			
Crime rate			
Number of vehicles with specified safety devices			
Passenger safety			
Ratio of police officers to transit vehicles			

Table 4. Core Fixed-Route Community Input Measures

Large	Medium	Small	Under 50,000
Personal economic impact			
Demographics			
Communications			
Mobility			
Service equity			
Community economic impact			
Environmental impact			
Visual impact			

Table 5. Core Fixed-Route Maintenance Measures

Large	Medium	Small	Under 50,000
Road calls			
Average spare ratio vs. scheduled spare ratio			
Fleet cleaning			
Maintenance work orders: model vs. fleet			
Average life of vehicle components			
Average age of vehicle components			
Mean vehicle age			
Maintenance program effectiveness			
Fleet maintenance performance			

Table 6. Core Fixed-Route Financial Performance Measures

Large	Medium	Small	Under 50,000
Ridership			
Productivity			
Cost-effectiveness			
Cost-efficiency			
Energy consumption			
Risk management			

Table 7. Core Fixed-Route Agency Administration Measures

Large	Medium	Small	Under 50,000
Percent positive drug/alcohol tests			
Employee productivity			
Employee relations			
Employee work days lost due to injury			
Administrative performance			

Appendix F: Why customer satisfaction efforts fail

James R. Evans and William M. Lindsay (2008). P. 187

Determining and using customer satisfaction information should be viewed as a key business process. Just going through the motions can often lead to failure. A. Blanton Godfrey suggests several reasons why customer satisfaction efforts fail to produce useful results.

1. *Poor measurement schemes.* Just tracking the percentage of “satisfied and very satisfied” customers on a 5-point Likert scale provides little actionable information. Many surveys provide biased results because few dissatisfied customers respond, or the surveys lack adequate sample sizes or randomization. Survey designers need appropriate understanding of statistical concepts.
2. *Failure to identify appropriate quality dimensions.* Many surveys address issues the company thinks are important, not what customers think. This error results from a lack of capturing reliable information about customer needs and expectations.
3. *Failure to weigh dimensions appropriately.* Even if organizations measure the right things, they may not understand which dimensions are important. As a result, they spend too much effort on dimensions with the lowest scores that may not be important to the customers. Use of techniques such as importance-performance analysis can help focus attention to the key dimensions.
4. *Lack of comparison with leading competitors.* Quality and perception of quality is relative. Without appropriate comparative data, competitors may be improving much faster than an organization realizes.
5. *Failure to measure potential and former customers.* Without an understanding of why noncustomers do not do business with a company or, more importantly, why customers leave, an organization risks losing market share to competitors and may be headed for demise.
6. *Confusing loyalty with satisfaction.* These two concepts are different. Customer retention and loyalty provide an indication of the organization’s future.

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