

# D. H. Stamatis





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Boca Raton London New York Washington, D.C.

#### Library of Congress Cataloging-in-Publication Data

Stamatis, D. H., 1947–
Principles of service quality / by D.H. Stamatis.
p. cm.
Includes bibliographical references and index.
ISBN 1-884015-83-2
1. Customer service—Quality control. I. Title.
HF5415.5.S73 1996
658.8'12—dc20

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94-46634

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## DEDICATION

In memory of my mother, Venetia



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## PREFACE

If total quality management was the ticket to success in the 1980s, then total quality service (TQS) is rapidly becoming the challenge of the 1990s. Companies that want to achieve a certain goal will be successful through a cultural transformation that produces a TQS organization. What is TQS? In its simplest form, it is a true commitment to operationalizing the concept of customer focus, establishing service performance standards, measuring performance against benchmarks, recognizing and rewarding exemplary behavior, and maintaining enthusiasm for the customer at all times. In its most complicated form, it increases sales and market share.

Smart companies will develop marketing information systems that will create a working union between sales and marketing and customer service and marketing research, the net result being superior service across the company (internal) and between suppliers and customers (external).

Too many businesses still think of quality in terms of manufactured goods instead of the products delivered by the vast and growing service sector. Management in the service industry views quality as a concept rather than a product subject to the same rigorous analysis and control taking place on the shop floor. It is estimated that only 10% of American service companies have any form of a quality improvement process in place. But quality is just as critical to the products and processes of the service industry, which accounts for approximately three-fourths of America's gross national product and nine of ten new jobs.

One of the first big challenges in improving quality is to get managers to view the business at the customer level, to develop a one-on-one mentality toward customers. They must strive to never disappoint a single customer. Businesspeople who are serious about quality service take quality as a personal responsibility and commitment. They regard their services and their companies as an extension of themselves and their own integrity and credibility, and they spread that message throughout the organization.

Real quality service, however, is not sales slogans, buzzwords, or lip service. It is a deep, organization-wide commitment to achieving the best. It starts with a personal and professional commitment by the CEO and is ingrained in the organization's culture to the point where every employee feels a strong sense of commitment. This is particularly important for companies such as large retailers, airlines, or banks with legions of front-line workers subjected to tremendous daily pressures from customers and managers. Many companies rely most on the people who are paid the least to leave the last impression with customers. The chances are slim that front-line workers will provide a satisfying experience for customers during a hassle-filled day if they do not feel there is a strong commitment to service at the top of the company. As dim as this sound, there are some practical steps a company can take to begin and maintain the process of delivering quality service:

- Commitment: Commit to improving quality and providing the resources to make improvement possible.
- **Delegate:** Designate a person or establish a unit reporting directly to the top. Look at everything as if you were dealing with customers or clients on a one-on-one basis.
- Customer information: Develop a comprehensive marketing information system through utilization of relational database management technologies.
- Internal assessment: Conduct internal assessments to determine how capable your company is of delivering quality service. Your own research will reveal employees' perceptions of how well they are doing, organizational commitment to quality, company performance standards, how employees view customers, and what they believe their customers believe.
- Action: Initiate a feedback system and use the information to adjust operations to respond to customer needs, wants, and expectations. Change procedures and even long-held policies, if necessary, and set more rigorous performance standards.

Companies that do not provide quality service not only will not compete, they will not exist. Just as true wisdom is knowing how much you do not know, true quality is knowing you can always do better. For quality service to exist and flourish, everyone in the organization must internalize the concept that quality is a journey, not a destination.

## ACKNOWLEDGMENTS

As always, writing a book is the collective effort of many people with different contributions at different times. This book is no exception.

I want to take the opportunity and thank Ms. Sena Ford and the editors of *Quality Press* for giving me permission to use some of the material for Chapter 2 on product and service.

Also, I want to extend my thanks to Mr. W. Cowles and SkillPath Publications, Inc. for permitting me to use some material from *How to Deal with Difficult People* by Paul G. Friedman in the chapter on conflict.

I want to thank my wife, Carla, and my children, Christine, Cary, Stephen, and Timothy, for putting up with me during their vacation time and, furthermore, for giving me continual encouragement and support to finish as soon as possible.

I want to thank Ms. D. Fletcher for typing several early drafts without complaining.

I want to thank Mr. R. Munro and Ms. M. Peterson for their very valuable critique and suggestions during the entire writing project.

I want to thank the editors for their continual support and suggestions to make the manuscript better.

Finally, I want to thank all my seminar participants over the years who have helped with their questions, critiques, and ideas and without whose input much of the information here would not have been possible.



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Dr. Stamatis has written over 50 articles, presented over 20 speeches, and participated in both national and international conferences on quality. He is a contributing author on three books and the sole author of four books. His consulting extends across the United States, Southeast Asia, Japan, China, India, and Europe. In addition, he has performed over 100 automotive-related audits, 25 preassessment ISO 9000 audits, and has helped Rockwell International-Switching Division in the process of ISO 9001 certification and Transamerica Leasing in the process of ISO 9002 certification

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# INTRODUCTION

In today's competitive market, no business can survive without satisfied customers. Findings from recent studies conducted by the Technical Assistance Research Program (TARP), a federal government-sponsored program, support this statement:

- Ninety-six percent of consumers who experience a problem with a smallticket product (for example, small packaged goods) do not complain to the manufacturer. (Of these, 63% will not buy again.)
- Forty-five percent of consumers who experience a problem with a smallticket service (for example, cable television or local telephone service) do not complain. (Of these, 45% will not buy again.)
- Not surprisingly, only 27% of unhappy consumers of large-ticket durable products (for example, automobiles, computers) do not complain. (Of these, 41% will not buy again.)
- Thirty-seven percent of unhappy consumers of large-ticket services (for example, insurance, loans, HMOs) do not complain. (Of these, 50% will not buy again.)

These numbers alone are significant and can make a major dent in future sales. But TARP has confirmed that negative word of mouth can create an even more formidable problem. Unhappy customers share their experience with others. A dissatisfied customer with a small problem typically tells ten other people; those with large problems tell sixteen others. Furthermore, 13% of dissatisfied customers tell their experiences to more than twenty people.

As bad as this sounds, the news is not all bad. Each customer whose small problem is satisfactorily resolved can be expected to tell five other people. Each customer whose large problem is satisfactorily resolved can be expected to tell eight other people. Of these people, some will then become new customers.

The significance of these numbers is that most customers whose complaints are satisfactorily resolved go on to buy again. These figures range from 92% of purchasers of small-ticket products to 70% of customers of large-ticket services.

Consider the following price tags on customer loyalty. The automobile industry believes that a loyal customer represents a lifetime average revenue of \$140,000. So why fight over an \$80 repair bill or a \$40 replacement part? In banking, it is estimated that the average customer represents at least \$80 a year in profit. In appliance manufacturing, brand loyalty is worth more than \$2800 over a twenty-year period. The local supermarket counts on you for \$4400 within a given year. So why quibble about some little nothing that the customer thinks is not right? People who believe in service superiority make things right—they want their customers to return and be satisfied. That is precisely the issue of total quality service.

Juran (1993, 1994) has observed that we are in the middle of a quality crisis and very few American companies have attained world-class class (less than 50 of the Fortune 500). The remaining companies are in various stages. Some have not yet started, some are starting over again, some have begun to make progress, some are well along, and others have tried, failed, and given up. Juran notes that the seeds of failure are:

- Management ineptitude on quality issues
- Preoccupation with imports
- · Quality lacks the necessary priority
- No appropriate measures
- Laissez-faire attitude
- Misguided leadership
- Unbalanced relations between headquarters and divisions

Juran's observations are quite appropriate and welcomed by everyone. However, do his observations hold true in the service industry? Yes, they do. In fact, they are more relevant than one would suspect. Consider the following:

- There is no other industry in which people skills are as important as immediate behaviors.
- There is no other industry where information has to be translated over and over again.
- There is no other industry where all employees have the responsibility and opportunity to deal effectively with the customer.
- There is no other industry where all employees must make the customer feel comfortable in the face of irate behavior.
- There is no other industry where the employee must answer the same questions over and over again with a smile, always showing concern and courtesy.
- There is no other industry where the employee must appease the irate customer so that the customer will feel satisfied.

Indeed, it is a proven fact: when treated well, shown respect, and kept informed, customers respond more favorably, complain less, are more cooperative, become loyal customers, and their perception of quality improves (TARP 1994; Petrina 1994; Bell 1994; Lyons 1994; Albrecht 1990; Albrecht 1985).

To be sure, one of the major problems we are still experiencing today is the notion that the quality of service is okay and does not need any improvement. According to a recent survey of several countries reported in *Newsweek* (1994), quality overall indeed is still not being taken seriously. However, of the countries reported in the survey, Japan is number one, with 38.5% of the people thinking that quality is important, and the United States is third, with 34.3%. Table I.1 shows the results in a percentage format.

Typical experiences are the published stories by Kitasei (1985) and Neuman (1994). How sad that, as Kitasei writes, "every employee I dealt with implied that it was my fault the store had both my money and the china." Neuman, on the other hand, is more descriptive. She writes, "...How much longer do you think it will be?' I asked him. He looked at me as if I was a fly on his pastrami sandwich. 'There are a few cars in front of you,' he said. No smile. No apology for the delay. To make a long, loooooong [her emphasis] story short, I waited for three hours before my car was ready. Nobody told me it was ready even then..."

Bad quality service may be several things or it may be as simple as putting one poor sucker on the job to handle far too many customers. It may be that the person in charge of the service does not have the appropriate skills, attitude, or aptitude for the job. In any case, bad quality service is the result.

	Country	Percent Approval	
••••••••••••••••••••••••••••••••••••••	Japan	38.5	
	Germany	36.0	
	United States	34.3	
	England	21.9	
	France	20.6	
	Canada	18.3	
	Italy	16.0	•
	Spain	10.3	
	China	9.3	
	Taiwan	9.0	
	Mexico	6.2	
	Russia	5.8	

#### TABLE I.1 Quality Counts

Quality service is the key to attaining uncommon, unprecedented customer satisfaction—the kind of satisfaction marked by bragging customers and clients, repeat business, and increased market share and profitability.

In this book, we will address the principles that concern service quality, with special focus on the following:

- Quality from a service perspective
- Implementation of service quality
- The ingredients of service quality-teams and empowerment
- Communication
- Benchmarking
- How to deal with difficult people
- · Customer satisfaction and its measurement
- Surveys
- Appropriate tools

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# QUALITY

It has been said that quality is in the eyes of the beholder. Therefore, quality has many definitions and means different things to different people. This chapter focuses on the term *quality*. Specifically, our focus is to identify the ingredients and the strategy that service organizations must understand, internalize, and implement in order to define the term as it applies to them.

## **GENERAL OVERVIEW**

Quality has been defined in many ways over the years. However, the most common definitions are basically the following:

- 1. Conformance to requirements (Crosby 1979)
- 2. Fitness for use (Juran 1979)
- 3. Continual improvement (Deming 1982)
- 4. As defined by the customers (Ford 1984, 1990)
- 5 Loss to society (Taguchi 1987)
- 6. Six sigma (Harry and Stewart [Motorola] 1988)
- 7. Zero defects (Crosby 1979)

Certainly these definitions are acceptable. However, the question still remains: What are the ingredients of a quality system that define, plan, develop, and improve quality in order to ultimately satisfy, or even delight, the customer?

To answer this very fundamental question, we must explore and understand some basic strategies dealing with the human element in any organization. We must do so because quality begins with the single individual, regardless of position, and not the quality department, as some still think today. Let's examine these strategies, which become the prerequisites of defining quality.

### Define and Provide a Clear Objective

Companies must have a clear objective in order to be successful in defining quality. Planned, if not controlled, expansion (in every domain within the organization), timely change, and effective continual innovation will permit steady growth and respectable profits, as long as the vision and objectives of the organization are defined. In order to remain competitive, growth and profitability have to depend on internal creativity and financial powers, to be sure. This is illustrated in Figure 1.1, which shows in a graphic format the phases of

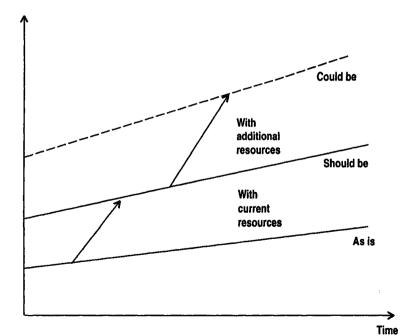


FIGURE 1.1 Phases of performance

performance. However, the objectives based on some form of customer requirements or quality are the foundations of that growth and profitability. (From the author's experience and literature research, the *only* exception to this rule is Stevens's (1991, pp. 74–76) thesis that "quality does not sell quick printing." Rather, Mr. Stevens's contention is that a good marketing plan is of importance. Mr. Stevens concludes his article by admitting that "quality is expected but it does not help to advertise it."

It is important that the definition of quality for the service organization account for all the main ingredients for which the organization is known (Figure 1.1, *as is*) and identify (Figure 1.1, *as could be*) and totally support them. It must be noted that in order to do this, sometimes paradigms must shift and the culture must be renewed.

### Initiate or Redefine the Culture

Initiating or redefining the corporate culture is aimed not at problem solving, but at improving basic conditions within the organization, so that all employees can work more successfully. A typical redefinition of culture and expectations is shown in Table 1.1. The goal of this new culture is to foster a spirit of commitment within the entire organization that will further the corporate aims contained in the company's basic principles and management guidelines. This is demonstrated through Table 1.2. This goal should be encapsulated in the definition of quality.

Ethics
Translate values into actions
Are changing
Are situationally determined
Are concerned with justice
Are highly specific
Are stated behaviorally
Are judged as present or absent
Set limits for appropriate behavior

When we are about to initiate and/or redefine the culture of the organization, much thought must be given to the values and ethics within the organization. The two are not the same. For example:

IABLE 1.1 IYPICUI KEGEI	kedeliniion ol cuiure and Expecialions	diions
Category	Previous	Future
1. Jobs and people	Functional, narrow scope, management controlled	Service/service task forces, shorter cycle time, ownership, reduced inventory, employment stability, job flexibility
<ol> <li>Technology and workplace layout</li> </ol>	Product trends: management driven	Continuous flow, work-space-need oriented, perfection of processes
3. Role of manager	Plan, organize, motivate, control	Lead continual improvement, develop people, visionary—commit- ted to total organization
4. Information and communication	Downward, limited, need-to- know	Greater sharing of needed information, integrated databases, con- tinued emphasis on personal communication
5. Reward system	Pay by job and longevity, few team incentives	Reward for performance, improve performance appraisal system link to pay, gainsharing for group involvement/rewards
6. Organization and structure	Authoritarian: top to bottom	Organization-project matrix oriented, fewer layers of management, suppliers as extensions of internal flows
7. Personnel policies and symbols	Hierarchy: status symbols	Reinforce core values, fewer procedures, enhancement of presentecism program
8. Recruitment, selection, orientation, and training	Skills and knowledge	Behavior, ability, skills, long-term needs

TABLE 1.1 Typical Redefinition of Culture and Expectations

Characteristic	Control	Commitment
1. Trust	People are untrustworthy, irresponsible	People are inherently responsible, committed to quality
2. Motivation	People work for pay; carrots and sticks apply	People are motivated by work itself, achieve- ment, recognition, growth; responsibly respond to "ownership"
3. Results	Achieved via controlling behavior through policies and procedures; use of checks and balances	Achieved via (1) very high performance goals, (2) supportive relationships, (3) teamwork, (4) positive climate
4. Organization of work	Broken down into narrow elements; jobs specialized, individualized; coordinated and controlled with hierarchies	Integrated functions through teams; teams linked vertically and horizontally
5. Management-worker relationships	Arms-length; different goals; status reinforced with perks; adversarial, win-lose group-to- group; fear useful; people expendable	All employees share common destinies; people are most precious resources; open, problem- solving atmosphere; core values reinforced
6. Priority and focus	Financial performance achieved by cost and schedule via compliance with procedure;	Quality to the customer is foremost; this results in cost and schedule performance, which pro-

TABLE 1.2 Assumptions of a Control versus a Commitment Company

duces superior financial results

"good enough" quality achieved by specifications and inspection The attitude and behavior of each individual are integral to establishing cooperation within the company. High morale, enthusiasm for a job well done, punctuality, loyalty, and diligence on behalf of both the company and the employee build mutual cooperation. A corporate culture is more likely to change if there is harmony between the company and the employees. To facilitate this change, it is imperative that the culture of the organization do everything in its power to communicate throughout that quality is nothing less than the ticket to both current and future prosperity. One can actually see this in the word *quality* as an acronym:

#### QUALITY =

## QUality is the Act for Liberty and Income Through the Years

Indeed, quality is an initiative that allows freedom—without fear—for both the organization and the people in the organization to take charge of continual improvement, so that they both can prosper. Maybe that is what P. Crosby meant when he said that "quality is free." To be sure, this is easier said than done. How, then, can the organization make sure that the appropriate culture is developed, so that quality can become a way of doing business? The following are some suggestions:

- 1. Be friendly. A friendly atmosphere between managers, employees, and customers will do wonders toward quality service. For example, a smile may be the difference between success and failure. Friendliness facilitates communication, and communication allows for an exchange of ideas, concerns, issues, and so on.
- 2. Keep everyone informed. Information generates knowledge, and knowledge generates sound decisions. Therefore, the communication channels in the entire organization should be open at all times for both vertical and horizontal hierarchies. Furthermore, the communication must be both top-bottom and bottom-up. The voice of the customer must be heard at all times by everyone.
- 3. Keep together through mutual cooperation, consideration, and openness. Focus on win-win situations as opposed to win-lose situations. With a win-win attitude, both parties learn to compromise at an optimum, whereas with a win-lose attitude, one of the parties is looking to take advantage of the other. The first is built on trust and honesty; the second is based on mistrust.
- 4. Make decisions based on facts, not opinions. Decisions should be made based on quantifiable data instead of opinion or hearsay. Be a datadriven organization.

- 5. Keep procedures simple and nonbureaucratic. Use the KISS (keep it simple and short) principle as often as possible. Long and bureaucratic procedures are complicated and difficult to implement. They present major communication problems in both sending and receiving messages.
- 6. Manage by example. Quality is not the responsibility of one individual or even one department; it is the business of every employee. All employees need to have exacting and fastidious attitudes about their job functions. All employees must want to produce quality service not because they are told to, but for their own self-worth. These attitudes need to be present in management discussions, in the work that takes place, and all across the company's boundaries, including the customer service department.

These requirements are incumbent upon management. Management must set an example of courtesy and consideration. Managerial leadership derives from competence. All managers in quality service organizations should have a good understanding of how to operate all of the organization's services and know how their basic features and benefits work, so that they can set up clear objectives for individual tasks and provide the necessary motivation. In service industries, it is of paramount importance that all managers make the effort to encourage staff members to find creative solutions to problems. Delegate, empower, and do the right things. Biemesderfer (1994) presents a very good example of this.

## **Consistent Communication**

Listening is very important throughout the company. Listen to both employees and customers to attain a clear understanding of goals, objectives, priorities, and satisfaction. Consistent communication helps everyone understand that their individual contribution can make a difference. The organization must develop an open forum for routine company-wide communication through either regular meetings or newsletters. Cultivate openness and eliminate fear of asking appropriate questions.

Listening to the customer provides an accurate perception of the product or service to be provided. With a clear understanding of service capabilities and/ or individual performance, neither party will be disappointed in the end result. The better the communication between the customer and the company, the higher the degree of success and customer satisfaction.

## Institute Education and Training

Training is important for everyone. The better an employee is trained, the better his or her performance will be. The better trained the customer is, the more

#### Organizational Development

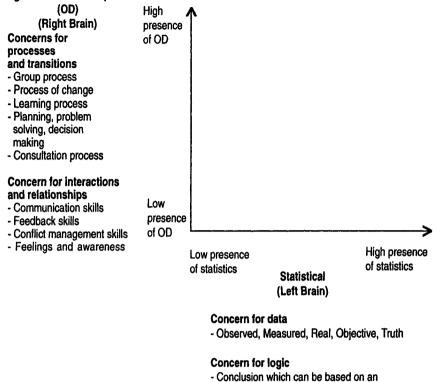


FIGURE 1.2 Overall training perspective

reliable the service will be. In service, it is imperative that skill and education work together. When that happens, the organization stays on the leading edge and maintains a congruency of quality all across the organization.

accurate analysis of the data

As important as education and training are, they must always be kept with two perspectives in mind. The first is the organizational development side and the second is the statistical side. No organization is at 50–50. It is management's responsibility to define the optimum for the organization. An example of this perspective is shown in Figure 1.2.

### **Promote Continual Improvement**

Continual improvement quality programs place the customer first. These programs are called *customer-based* because the elements that constitute quality

are ever-changing. Changes in both definitions and policies may be necessary, especially in light of the ISO 9000 standards. The term *continual* as opposed to continuous is used here to denote that improvement is always the focus. It does not matter if a plateau is reached or the improvement is very small. Continuous, on the other hand, is not a realistic goal because the implication is always improvement—something that is not possible.

Further distinguishing continual improvement from other programs is the fact that there are no quotas. Management and employees work together. Everyone pitches in wherever and whenever needed, eliminating the "not my job" mentality. Quality must be a way of life rather than a project. It must be instituted throughout the entire organization as a philosophy rather than a deadend opportunity. It must be always looked upon as a dynamic evolution rather than a static project waiting to expire.

## THE GURUS' DEFINITION

While the preceding are very generic strategies to define the term quality in a given service organization, the literature provides a variety of options. Some examples of defining both quality and the implementation of total quality service in different sectors of the service industry are provided in Chapter 4. The most common ones are based on the theories of:

- 1. Juran: Juran's quality improvement strategy stresses project-by-project implementation and the breakthrough sequence. He warns against taking shortcuts from symptom to solution without finding and removing the cause. Juran also provides several problem-solving tools in addition to statistical process control (SPC). With his definition of quality as fitness for use, he is strongly oriented toward meeting customer expectations. His philosophy is summarized in Table 1.3.
- 2. Crosby: Crosby's approach gives attention to transforming the quality culture. He is able to involve everyone in the organization in the process by stressing individual conformance to requirements. His fourteen steps provide management a blueprint and an easy-to-understand approach for management to launch the journey toward world-class quality. His approach is a top-down process. Crosby's fourteen points are summarized in Table 1.3.
- 3. **Deming:** Deming's strategy is based on statistical tools. It tends to be a bottom-up process. The emphasis of the strategy seems to be on con-

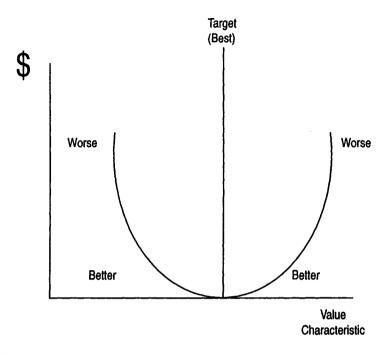


FIGURE 1.3 The loss function

tinual improvement and measurement. (Deming does not recognize the cost of customer dissatisfaction because, as he says, it is impossible to measure). Deming's strategy is to look at the process to remove the variation, because most of the variation (92%) is management controllable. He is a strong believer in empowering the workers to solve problems, provided management gives them the appropriate tools. Deming's fourteen points are summarized in Table 1.3.

4. Taguchi: Taguchi's strategy is focused in the loss function, which defines any deviation from the target as a loss that someone will pay. Taguchi's strategy is somewhat difficult for the novice; however, it provides specific guidelines for improvement and cost considerations, especially in the service industry. His philosophy is summarized in Table 1.3, and the loss function curve is illustrated in Figure 1.3.

None of the specific definitions of the gurus is all-inclusive. None is perfect. Rather, each definition is an attempt by one of the gurus to demonstrate that everyone needs an operational definition of quality. An operational definition is a description in quantifiable terms of what to measure and the steps to follow in

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TABLE 1.3 Comparis	TABLE 1.3 Comparison of the Four Major Quality Philosophies	Quality Philosophies	
Juran's Philosophy	Crosby's Philosophy	Deming's Philosophy	Taguchi's Philosophy
<ol> <li>Assign priority to projects</li> <li>Pareto analysis of symptoms</li> <li>Theorize on causes of symptom</li> <li>Test theories, collect and analyze data</li> <li>Narrow list of theories</li> <li>Design experiment(s)</li> <li>Approve design, provide authority</li> <li>Propose remedies</li> <li>Test remedy</li> </ol>	<ol> <li>Management commitment</li> <li>Quality improve- ment team</li> <li>Quality improve- ment team</li> <li>Quality improve- measurement</li> <li>Cost of quality evaluation</li> <li>Corrective action</li> <li>Corrective action</li> <li>Zero defects</li> <li>Quality education</li> <li>Error cause</li> <li>Recognition</li> <li>Quality councils</li> <li>Do it all over again</li> </ol>	<ol> <li>Create constancy of purpose for improvement of product and service</li> <li>Adopt the new philosophy of refusing to allow defects</li> <li>Cease dependence on mass inspection and rely only on statistical control</li> <li>Require suppliers to provide statistical evidence of quality</li> <li>Constantly and forever improve production and service</li> <li>Train all employees the proper tools to do the job right</li> <li>Encourage communication and productivity</li> <li>Encourage different departments to work together on problem solving</li> <li>Eliminate posters and slogans that do not teach specific improvement methods</li> <li>Use statistical methods to contin- uously improve quality and</li> </ol>	<ol> <li>An important dimension of the quality of a product/service is the total loss generated by that producer to society</li> <li>In a competitive environment, continual quality improvement and cost reduction are necessary for staying in business</li> <li>Continual quality improvement includes continuous reduction in the variation of product perform- ance characteristics about their target values</li> <li>The customer's loss due to a service's performance variation is approximately proportional to the square of the deviation of the performance characteristic from its target value</li> <li>The final quality and cost of a product/service are determined to a large extent by the engineering designs of the product/service</li> </ol>
institute remedy		productivity	and its process

6. Performance variation can be reduced by exploiting the non- linear effects of the product or	process parameters on the performance characteristics	Note: Taguchi distills his philosophy	down to the loss function, which	recognizes that any deviation from	the nominal (target) is costly and	somebody pays for it				
<ol> <li>12. Eliminate all barriers to pride in workmanship</li> <li>13. Provide ongoing retraining to keep</li> </ol>	pace with changing products, methods, etc.	14. Clearly define top management's permanent commitment to quality	•	Note: Deming distills these fourteen	points into the following model: Plan-	Do-Check (Study)-Act. This model (1)	symbolizes the problem analysis process	and quality improvement cycle and (2)	provides focus on defect correction as	well as defect prevention.
<i>Note:</i> Crosby distills these fourteen points to four absolutes:	1. Definition of quality	Conformance to requirements	2. System	Prevention	3. Performance	standard	Zero defects	4. Measurement	Cost of quality	
12. Control at new level	<i>Note:</i> Items 1–8 define the journey	from symptom to cause and items 9–12	define the journey	from cause to remedy.	Juran distills his	philosophy in the	famous trilogy which	identifies: (1) plan,	(2) control, (3)	improve

order to consistently measure it. The purpose of this measurement is to determine the actual performance of the process.

## FUNCTIONAL CHARACTERISTICS OF THE TERM "QUALITY"

Each of the gurus in the field of quality presents positive and negative points. No definition is perfect. Therefore, each service organization must define quality based on its own objectives, expectations, culture, and customers. In fact, it is not unusual for an organization to combine the best points and create its own definition of quality. This combination is based primarily on three points:

- Quality characteristics, which are the characteristics of the output of a process that are important to the customer. Quality characteristics require knowledge about the customer in every respect.
- Key quality characteristics, which are the most important quality characteristics. Key quality characteristics must be operationally defined by combining knowledge of the customer with knowledge of the process.
- Key process variables, which are the components of the process that have a cause-and-effect relationship of sufficient magnitude with the key quality characteristics such that manipulation and control of the key process variables will reduce variation of the key quality characteristics and/or change their level to either a quality or a key quality characteristic.

In defining quality service, there are additional characteristics to be accounted for. Garvin (1988), for example, identified eight dimensions of quality, with each dimension contributing to a set of requirements. In quality service, it is paramount that those dimensions be accounted for and planned in the service process. However, regardless of how the organization defines and/or derives its definition of quality in service, it must be understood by everyone that quality service must incorporate as many of the dimensions as possible. The dimensions in a modified version are:

- Function: The primary required performance of the service
- Features: The expected performance (bells and whistles of the service)
- Conformance: The satisfaction based on requirements that have been set
- Reliability: The confidence of the service in relationship to time

- Serviceability: The ability to service if something goes wrong
- Aesthetics: The experience itself as it relates to the senses
- Perception: The reputation of the quality

To be sure, Garvin's dimensions have become the *de facto* requirements in service. However, in addition to these dimensions and characteristics, it is important to recognize that in order for service to be effective and efficient, the following additional characteristics *must* be present:

- Be accessible
- Provide prompt personal attention
- Offer expertise
- Provide leading technology
- Depend on subjective satisfaction
- Provide for cost effectiveness

The acronym **COMFORT** helps to ensure that these assumptions are accounted for. It stands for:

Caring Observant Mindful Friendly Obliging Responsible Tactful

This is addressed in greater detail in Chapter 7 on customer satisfaction.

## REFERENCES

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