Volume	6	Support and Development
Chapter	03	Quality and Processes
Section	02	Quality Concepts
Key Word Tags		Employee Involvement

QUALITY PRINCIPLES

File No. 6.030202 | 2017-06-01

Quick Summary: Some fundamental quality principles need to be embraced by all company elements.

Abstract:

A few basic principles can help any size company implement a highly effective quality program that can quickly become part of the company's culture and be embraced by all employees. The principles require a remarkably small level of resources but require a large and continuous commitment by all.

This article appears to be in direct conflict with the article in this series, "*Quality Is Not a Principle.*" The premise of that article is that quality is not one of the seven core principles identified and discussed in this collection of articles. Instead, [high] quality results from specific actions taken by individuals and is implicit and integral to all seven business principles. There are, however, some basic quality principles that are foundational for quality programs in all organizations. The following is a list of twelve of those principles.

1. A large, separate Quality organization is the mark of a failed program. All employees at all levels in all functions must think of quality issues and programs as part of their basic job responsibilities. The few individuals in THE Quality organization should only act as trainers and coaches. They may also be responsible for rolling up individual department metrics to provide an overall quality dashboard.

2. Even in the smallest organizations, someone must be designated as THE Quality Manager and be responsible for resolving all quality-related issues. The individual may have other responsibilities but be able to consciously "wear the quality hat" and clearly differentiate their roles.

3. The individuals responsible for the overall company quality programs should report directly to the CEO to ensure that no conscious or unconscious filtering of quality issues occurs within the company's structure.

4. Although sales and customer service organizations will be responsible for external (paying) customers and all issues that may surface, the Quality Manager must be ultimately responsible for any unresolved issues AS DETERMINED BY THE CUSTOMER.

5. Quality programs cannot be viewed as a "management" activity. Instead, everyone must be involved in the programs. In fact, responsibility for quality-related activities should be delegated to the lowest possible level in the organization.

6. Focus must be placed on future improvements and not establishing past blame for failures. Quality "reviews" should spend minimal time on past performance and most time on future and tactical plans to reach written and quantitative goals.

7. Quality goals must be set by the customer; not the company or competitors. The company must embrace the concept that quality is determined by meeting or exceeding the expectations of the customer. It is not based on "parts per billion" performance or exceeding internal or external benchmarks. The articles in this series, "*Customer Expectations*" and "*A Simple Definition of a Defect*" discuss the concept that a defect is any negative deviation from a customer's expectations. All quality programs need to embrace this simple but highly demanding concept. Obviously, to meet this goal, the quality program must be externally focused and include near-constant feedback from customers.

8. The initial performance of the product or service sets the standard in the customer's mind. As many have said, "There can be no substitute for doing it right the first time." All of us have experienced disappointment with initial out-of-box failures and the long-lasting impression they create. This issue must be considered while following the currently popular "lean startup" and agile development models. Perhaps an expanded version of this consideration would be, "It is acceptable to limit what you are doing, but do what you do right the first time and every time thereafter."

9. Quality programs must focus on the customer and not the plaque. More specifically, quality programs should pursue compliance and certification of standards as they are directly applicable to meeting customer quality expectations. For smaller companies, certain aspects of many quality standards would burden the company and not materially improve their performance. A better approach is to select and comply with specific elements from several applicable standards. As an example, a high technology company that supplies both hardware and software should consider some of the requirements in ISO 9000, the Software Engineering Institute's Capability Maturity Model, and DoD's Technical Readiness Level assessment system. Those companies and others should also review and attempt to comply with the Malcolm Baldrige National Quality Award requirements. Retaining consultants or other outside experts to actually pursue certification is not necessary. Instead, the company should review the individual requirements and consciously decide which are applicable and practical and which are not. The decision not to pursue a specific quality objective or requirement must be based on its lack of impact on the customer and not on its degree of difficulty.

10. Testing only measures the level of quality; it does not assure it. If 1,000 test cases are completed and passed, there is no guarantee that one new test case will be passed. Similarly, "burning in" a product for 48 hours does not guarantee failure won't occur after the 49th hour. Testing is the first step in identifying and eliminating a defect's root cause. However, the analysis cannot stop there. Next, an effort should be made to determine how the root cause crept into the system. The goal must be not to place blame but to prevent similar future occurrences.

11. Incremental quality improvements can be made by optimizing existing methods and processes and, perhaps, raising awareness of the importantance of quality. However, making marked

improvements such as ten times improvement (adding a zero such as going from 99.9% to 99.999) will most likely require fundamental changes in the process, not merely refinements.

12. High quality is not a goal but a relentless pursuit that must be continually increased to meet customer expectations and ever-increasing competition.

With these twelve principles in mind, a company of any size can develop and institute a quality program that will quickly become part of their culture and set the stage for the consistent long-term ability to meet customer expectations.