HIDDEN POTENTIAL AND IMPRINTS
-- A NEW THEORY OF QUALITY

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Abstract

This paper proposes a new theory of quality. It asserts that products or services do not have "innate quality" but they do have "hidden potential." Based on the concept of imprints, the new theory of quality entails new ways of seeing and assuring quality.

Keywords: New Theory of Quality, Theory of Imprints, Quality Assurance

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1. Introduction

In philosophy, there is an on-going debate about whether things have intrinsic properties. Essentialists such as Thomas Nagel and John Searle are all for intrinsicality. On the opposite side, holists such as Ludwig Wittgenstein, Daniel Dennet and Richard Rorty would like to argue that "there are no qualities, only judgments." It is unlikely that researchers and practitioners in quality management would accept the assertion such as "there are no qualities." But if they dig further, particularly taking into consideration of the second part of the assertion – "only judgments" – they may open a brave new world for quality management.

The evolution of quality concepts also resembles the above on-going philosophical debates. Starting with the early concepts such as "meet-the-specs," "fitness-for-use," etc., we have lived through numerous acronyms and buzzwords – e.g., Total Quality Control (TQC), Total Quality Management (TQM), Global Quality Management (GQM), Continuous Improvement, KAIZEN (Total Continuous Improvement), etc. We have also seen various awards programs, certification programs, improvement or innovation programs (e.g., Six-Sigma). No doubts, there will be more new kids show up in the block. Even though there have been studies showing that quality improvement can indeed enhance a company's profit as well as customer satisfaction, one still has to wonder whether all these quality programs and movements have indeed captured the essence of quality.

One common "weakness" across most of these quality concepts is an explicit or implicit attempt to quantify quality. For example, the notion of "meet-the-specs"

implies the need to quantify the "specs." There are also various measurements (i.e., quantification) for the "degrees" of fitness for use (e.g., availability, producibility, maintainability, serviceability, reliability, etc.). Even the "philosophy" of continuous improvement always leads to various types of measurements for improvements. Unfortunately, things measured are not things themselves. All these efforts devoted to measuring quality can never really discover the "essence" of quality.

To explore the "essence" of quality, we examine the quality concepts *philosophically* and develop a new theory of quality. Following the aforementioned holist philosophy of the absence of intrinsicality, we point out that products or services do not have "innate quality." (Although most discussions on quality will be equally applicable to both products and services, -- in fact, the notion of quality in this paper can and should be extended to all kinds of quality concept such as, quality of management, quality of decision, quality of life, etc. – for convenience of discussion, we will refer to the quality of products and/or services only). A product does not have innate goodness or badness in and of itself. With the theory of hidden potential and the theory of imprints, we then have a brave new perspective on the notion of quality. Unlike the "traditional" quality concepts, the new theory of quality penetrates through the "root causes" of quality and offers great promise for truly improving quality.

The paper is organized into five sections. Section 2 briefly examines some representative quality concepts via the lens of the notion of intrinsicality. Section 3 discusses the assertion concerning the absence of innate quality in products and services. It then presents two closely related theories for quality concepts: the theory of hidden potential and the theory of imprints. Section 4 discusses how to assure quality, given the above new theories of quality. Finally, Section 5 concludes the paper and suggests directions for future research.

2. Are There Intrinsic Qualities in Products and Services?

The control concept plays important roles in the early quality control (QC) and quality assurance (QA) concepts. Such notions basically aim at controlling the process so as to meet the product specifications. Statistical quality control (SQC) and quality standards (MIL-STD) are used to facilitate the controlling process. Do the product specifications (i.e., "specs"), control limits or quality standards represent product qualities and are something intrinsic to products? Intuitively, one would think so. However, "specs" are just "descriptions" rather than innate values or properties of the products.

Generally speaking, the meet-the-specs concept is a producer's point of view. Juran (1974) suggests the fitness-for-use concept which consists of two theses: (1) Quality consists of those product features which meet the needs of customers and thereby provide product satisfaction; and (2) Quality consists of freedom from deficiencies. The "fitness-for-use" concept thus is a customer's or a consumer's point of view. There have been various indices developed for measuring the "degrees" of fitness for use (e.g., availability, producibility, maintainability, serviceability, reliability, etc.). Again, these measurements are just "descriptions", rather than the "true values" or "true qualities" of products and services.

Using a "folk philosophy" approach to quality, Crosby (1992) proposes a "Completeness" concept to replace existing quality concepts such as TQM, etc.. He suggests three principles of Completeness: (1) cause employees to be successful; (2) cause suppliers to be successful; and (3) cause customers to be successful. In addition, he suggests four "ideas" for the implementation of Completeness:

(1) To treat the whole as one. That is, the systems making up the organization must be considered as a whole.

(2) To build a culture of consideration. It is essential to develop mutual trust and satisfaction among parties in the web of partners.

(3) To make everything understood. Thus, communication is essential.

(4) To be complete but not finished. There is always room for improvement. Even perfection can and should be further improved upon.

The last idea – to be complete but not finished -- is compatible with what Klopp (1991) calls "Improving Perfection." He not only emphasizes the importance of continuous improvement, but also advocates an "aggressive" attitude in improving upon "perfection." Be it "completeness" or "improving perfection", quality entails continuous and never-ending re-descriptions of products and services. Again, these are descriptions, rather than intrinsic values of products and services. Klopp suggests three ingredients for the quality concept of "improving perfection": hard work, dedication, and attention to details. Although these ingredients sound nothing more than common sense, they do have deep implications for quality management. First of all, when the three are "integrated", synergistic effects can be produced. Moreover, these three factors are supported by the new theory of quality which will be discussed in next section. (It is also fair to say that these three factors support the new theory of quality).

Interestingly, the evolution of the various quality concepts or buzzwords also suggests similar re-description process. For example, the notion of "total" (as in TQC, TQM, etc.) originated from the systems concept. In the 1950s, A. V. Feigenbaum recognized the importance of a comprehensive approach to quality and thus coined the term total quality control (TQC). In Japan, TQC is renamed as companywide quality control (CWQC). In the 1980s, total quality management (TQM) replaced

TQC in the buzzword game. After all, a management process includes planning, organizing and control. QC is part of QM. Nowadays, even TQM has fallen out of favor and people would simply adopt the term total quality (TQ) (Evans and Lindsay, 2002). The aforementioned Completeness concept can be considered as an extension of the TQM concept to the whole supply chain systems. However, the Completeness concept does have deeper philosophical meaning than TQM other than the scope of their applications. Completeness consists of "a culture of consideration" among entities in the web of partners. With globalization, TQM is further extended to global quality management (GQM). GQM does pose additional issues and challenges to business management.

Strictly speaking, the improvement concept is inherent in any quality control or quality management activity. However, it did not receive its deserved attention until the notion of "continuous improvement" became popular. The term KAIZEN combines the "total" and the "continuous improvement" concepts to emphasize the importance of seeking improvements in *every aspect* of business *all the time*. More importantly, it emphasizes that no improvement is too small. Imai (1986) contrasts KAIZEN against innovation as two different approaches to quality improvement with the latter being short-term but dramatic, big steps rather than small steps, intermittent and non-incremental.

There are many other quality concepts proposed in the literature. For example, Garvin (1987) enumerates eight dimensions of quality. They are: Performance, Features, Reliability, Conformance, Durability, Serviceability, Aesthetics and Perceived Quality. Recently, the so-called "Six Sigma" program has also attracted substantial attention.

While all these quality concepts and programs may provide useful tools or

motivation for improving quality, it is doubtful whether they have indeed captured the "essence" of quality. Most, if not all, of these concepts inevitably lead to the efforts in quantifying quality and consequently the mentality of mistaking countability for accountability – "Anything that cannot be counted doesn't count." Unfortunately, the measurement of quality is not quality itself. Numbers simply cannot tell the whole story about quality. Being able to control or manage numbers does not mean being able to control or manage quality. In a nutshell, things measured are not things themselves. All the descriptions and re-descriptions suggest that there is no fixed, permanent innate quality of products and services. The new theory of quality presented in the next section can better reflect the true nature of quality and better help us manage quality – even though we literally claim there is no such thing as quality.

3. Hidden Potential and Imprints

Holists' insistence on the absence of intrinsicality can be best illuminated by Roach's (2000) suggestion that there is no innate goodness or badness about everything in this world. In the context of quality management, we can say that there is no innate goodness or badness about any product or service. Any product or service has no such quality in and of itself, independent of how different people perceive it. It is *empty* of any such quality. In other words, products or services are really *blank*, *neutral* or *empty*. They are blank, neutral or empty even to the same person during different time and at different places. Products or services that are of no use to a person would mean nothing to him or her. The person's needs, tastes, financial status, etc. are likely to change over time and space. Customers do experience products as good or bad. However, such goodness or badness does not come entirely from the

products themselves. Rather, the ways customers see or experience the products or services are largely coming from customers themselves.

The assertion that products are blank, neutral or empty implies that they have *hidden potential*. In fact, *emptiness* does not mean *nothing*. Rather, it means infinite possibilities. There will be literally infinite possible manifestations of their hidden potential. Since products and services do not have innate quality, the so-called "quality" is really a manifestation of the hidden potential. The quality will manifest according to literally an infinite number of conditions. There are indeed infinite possibilities of how customers see or experience the goodness or badness of a product.

Exactly what are the factors or forces which influence or determine the ways customers see or experience a product? The answer to this question lies in *the theory of imprints*. Each thought we have, each word we say (i.e., each statement we make) and each action we take will plant a "seed" in our minds. Such a seed is called an "imprint" in the mind, or simply a "mental imprint." Any planted seed is bound to grow when conditions are right. So is any mental imprint. As Roach (2000) puts it, "Our minds are like a vast repository of thousands upon thousands of mental imprints. They are queued up to take off like planes on the runway of an airport. The stronger imprints get to take off first, with fainter imprints lagging far behind but building up steam every minute they remain on the runway of the mind. Whenever we do another action toward others that plants an imprint more powerful than one of the existing ones, this imprints moves up in the queue, like a plane that the control tower has called ahead of the others" (p. 67). When the imprint plane takes off (i.e., when the impression in the mind comes up to the conscious mind), it will determine our entire perception of whatever event we are undergoing at the moment.

One may relate the theory of imprints to Freud's theory of the unconscious.

However, there is a vast difference between the two theories. For example, what Freud termed "manifest content," as opposed to the "latent content," is a story that has been censored by the defenses of the ego. The manifest content are the result of a process in which the basic urges and drives are shifted, filtered, subliminated, and altered into more socially acceptable forms. On the contrary, the theory of imprints suggests that the more active the defenses of ego, the more likely these imprints are reinforced and will be called to move up in the queue, rather than being suppressed.

Roach (2000) outlines four "laws" which governs how the imprints work:

(1) The general content of the experience forced on you by the imprint must match the general content of the original imprinting.

(2) The strength of the imprint continually expands during its time in the subconscious until it flowers and forces us to undergo some experience, be it good or bad.

(3) No experience of any kind ever happens unless the imprint that triggers it has been planted first.

(4) Once an imprint is planted in the mind, it must lead to an experience. No imprint is ever wasted.

The first law tells us that a positive action can lead only to positive results and a negative action can lead only to negative results. To achieve the goal of good quality – however it is defined – we need to identify and plant the positive imprints which will eventually lead to the result of good quality. The second law tells us that even very small or hardly intentional actions can trigger immense future results. This advice is consistent with the notion of "attention-to-details" in the aforementioned "improving perfection" concept. Even minute details can affect quality. The other two ingredients in the "improving perfection" concepts – hard work and dedication – serve as the reinforcement which nourishes the future "flowering and fruit-bearing". The third and fourth laws tell us that there are always causes for effects and vice versa.

These four laws serve as a solid foundation for quality improvement activities.

4. How to Assure Quality

If products and services have no innate quality and the ways customers see or experience the products are (largely) coming from customers themselves, can we still "control" or "assure" quality? If products have no innate quality, is there anything to be controlled? If the ways customers see or experience the products are coming from customers themselves, can quality be controlled by producers of products? Since customers do experience products as good or bad, there is definitely something called quality and something to be "controlled." However, since the ways customers see or experience the products are coming from customers themselves, the question then becomes: How can producers have any control over the ways customers see or experience the products? Intuitively, one would argue for influencing customers through advertizing or some "educational" programs to produce favorable conditions for customers to see or experience the products favorably. This may work to some extent. Unfortunately, such an approach can produce only minimal effects at best. According to the theory of imprints, the ways customers see or experience the products are largely determined by the imprints they planted previously – some or most of them were planted "long time ago." (Whether producers can have any control over the customers' past imprints is an issue to be addressed later.) Due to the forces of diversified past imprints and therefore diversified backgrounds of customers, producers can expect only limited effect from their advertizing and "educational" programs designed to influence customers – regardless what degrees of "customization" those programs are. With this said, product producers or service providers can exert some control in creating favorable conditions for customers' seeds

(imprints) to grow.

At the least (and perhaps most importantly), the producers do have "control" over their own imprints and consequently over the impacts of these imprints upon the product quality. They have to figure out which imprint that they can plant in their minds to see, later on, the products or services as they want to see. No doubt, they would like to see their products and services to be "of high quality". According to the theory of imprints, each thought we have, each word we say and each action we take, will plant seeds or imprints in our minds. In fact, these mental or physical behaviors not only plant seeds in our minds, but also create a "force" (or a "field") which will influence our future thoughts, words and actions. For example, such imprints and their "forces" will influence the ways we see the products and the ways we make the products.

To illustrate this "thesis," we will discuss the following "principles" or propositions for improving quality. These principles are for illustrative purpose, they will focus on four quality concepts discussed earlier such as meet-the-specs, fitness for use, Completeness and improving perfection.

(P1) *To produce good quality products, producers should maintain a peaceful mind, a positive attitude and right thoughts.*

Any negative thought in producers' mind would have negative impacts on their products and the process of making the products. This is due to the fact that they have planted the seeds for them to see or experience negatively their own products and the process of making the products. An agitated mind would cause the producers fail to maintain a correct perspective on their business or a "perfect" picture of their "ideal" products. A positive attitude helps the producers enhance both their self-confidence and capability in making good quality products. Any thought to cut corners or to cheat

will result in defective products.

(P2) *To produce products that "meet the specs," producers should maintain a simple and focused mind.*

A simple mind means freedom from delusive and wandering thoughts. It is easier to have a focused mind if one is able to keep his mind simple. A focused mind is a requisite for consistency in performance. Producers with focused minds will be able to not only make products which meet the specs, but also achieve high degree of robustness (Taguchi and Clausing, 1990). It should be noted that (P1) is a prerequisite for (P2). That is, one cannot have a focused mind unless he maintains a peaceful mind, a positive attitude and right thoughts. This proposition is supported by the notion of "mindfulness" in the organization science literature (e.g., Langer 1997; Weick et al., 1999 and Weick and Sutcliffe (2006).

(P3) *To achieve "fitness for use," producers should maintain a generous mind and always be constructive and helpful.*

Producers should always be considerate and generous. In designing and making products, producers should constantly seek ways to enhance the welfare of customers. They should always ask themselves what would be best for customers rather than best for the producers themselves. They should always be in a mental state of trying to help customers. Cost reduction should be attempted only if it will benefit customers. Otherwise, cost savings would often be achieved at the expense of customers' welfare. On the other hand, customers can always see or feel the producers' generosity and thoughtfulness through the products. They can see or feel the producers' attention to details, dedication, etc. through the products.

(P4) *To achieve "Completeness," producers should cultivate an attitude of "compassion" to all parties in the web of partnership.*

This principle can be further elaborated to incorporate the "three principles" and

"four ideas" of Completeness as mentioned in the previous section. However, all these "principles" and "ideas" can be summarized as the "principle of compassion." The intent to "cause employees, suppliers and customers to be successful" is the manifestation of compassion. On the other hand, a partnership can be defined as a dynamic interaction between leadership and followership. Passionate leadership and considerate followership are two important ingredients for a successful partnership. The interaction between passionate leadership and considerate followership can simply be called a "compassionate partnership."

(P5) *To be able to "improve perfection," producers should follow all the above principles and to have a good understanding of the principles of hidden potential and mental imprints.*

This proposition is, in fact the "integrative" principle which summarizes the previous four, just like the notion of "Improving Perfection" which can be considered integrating other quality concepts such as meet-the-specs, fitness-for-use, Completeness, etc.

The above five principles are in the context of how producers can "control" or improve the quality of their products. Now, back to the question of whether producers have "control" over how customers see or experience the products, given that the ways customers see or experience the products are (largely) coming from customers themselves. The answer to the question is a resounding "Yes!" As mentioned earlier, people's thoughts, words and actions will not only plant seeds or imprints in their minds, but also create a force or field which will exert influence upon the environments. Thus, producers can "transmit" the forces of their thoughts, words, actions and therefore the forces of their planted imprints to the products and consequently to their customers. In the earlier discussion on the five "principles" of quality improvement (P1 through P5), we have briefly touched upon how customers

can see and feel the producers' generosity, thoughtfulness, compassion, attention to details, dedication, etc. through the products. Recently substantial attention has been given to the studies on the concepts of *chi* and *shih – chi* as "a vital force possessed by individuals or social systems in the communication process" and *shih* as "strategic position or advantage" as defined by Chung and Busby (2002) – and their impacts on organizational communication and management activities (e.g., Ames 1984, Chung 1995, Chung, et al. 2003, Morgan 1997). The effects of producers' imprints are likely to be transmitted as *chi* to customers through products. Such impacts are likely to become a stronger *shih* than those produced by advertisements or the so-called "educational campaigns" designed to influence customers.

It should be noted that we do not completely deny the value of advertisements and educational campaigns. In many cases, customers or consumers of products and services need to train or educate themselves to appreciate quality. The educational programs or advertisement campaigns can plant positive imprints on customers, strengthen the forces of imprints, and create favorable conditions for the imprints to sprout, to grow, to blossom and to bear fruits.

5. Conclusions

The new theory of quality presented in this paper may sound bold, radical or revolutionary. However, it is not intended for replacing all existing quality concepts. Rather, it can complement and facilitate the existing quality management practices. It can also support a firm's strategic planning activities.

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products themselves. Rather, the ways customers see or experience the products or services are largely coming from customers themselves. Their past thoughts and behaviors will plant a "seed" in their minds. Such a seed (called an "imprint" or "mental imprint") will grow when conditions are right. Because of this theory of imprints, we are able to "control" the quality. We suggest several principles for assuring quality under the new theory of quality.

Obviously, further research need to investigate how this new theory complement and facilitate the traditional quality concepts and practices in a more concrete ways. The principles suggested in this paper only signal more hidden potentials for the new theory. Particularly, with the new theory, we would be able to escape the straitjacket of quality as measurements (only).

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