# A More Accurate Objective Definition of Quality: Quality Is the Degree of Positivity

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#### **Abstract**

The existing quality definition established by the authority mainly based on J. M. Juran is "quality is the degree to which a set of inherent characteristics fulfills requirements". Among them, "requirements" can be an individual's requirement and there is no positive restriction, and there are no restrictions on motivation. A high degree of meeting unreasonable requirements can also be called good quality. The judgment of the degree to which individual consumer demands are met is subjective. In this way, the quality definition of Juran can only be subjective. At least the two major shortcomings of subjectivity and lack of enthusiasm in existing quality definitions must be overcome. As long as the "requirements" in the definition of Juran's quality are limited to objective social general requirements (which are also positive requirements), the goal can be achieved. The definition of Juran's quality naturally became "quality is the degree of positivity". The new definition of quality has positive guiding significance for management theory and practice.

**Keywords:** Quality definition, Positive degree, General social requirements, Value definition, Subjectivity, Objectivity.

Concepts are the psychological sediment of human understanding of things. The definition of a concept is the expression of this psychological precipitate. In people's minds, quality is a concept used to express the quality of things. The quality of a thing is also its level of positivity (the higher the level of positivity, the better. The worse the thing, the lower its level of positivity, and even negative factors dominate). Therefore, quality is a concept used to express the degree of positivity of things. The updating of concepts and definitions is an inevitable manifestation of the progress of human understanding of things. The relationship between quality and human production, life, and exploration is extremely close. With the continuous improvement of human demands for quality of life and the deepening understanding of the connotation of quality, the old definition of quality can no longer meet the requirements. This article points out the drawbacks of the old definition of quality - subjectivity is too strong, and proposes a new definition of quality - quality is the degree of positivity.

Quality is a concept used to describe the comprehensive functional characteristics of things. Quality definition is a text used to describe the concept or essence of quality. The definition (or concept) of quality is related to human understanding of it. It takes a long time for people in the whole society to change their views on the essence of quality. That is to say, the psychological positioning of the concept of quality by humans is relatively established and constantly evolving. The viewpoint that it is difficult to find an objective definition of quality does not hold true. The reason is that value and quality are two different attributes and manifestations of things (the quality of things is closely related to their value). The objective and accurate definition of value can be found and has been used for many years. An objective definition of quality can definitely be found. The objective definition of quality found by the author is "quality is the degree of positivity". The reason why "Quality is the degree to which a set of inherent characteristics fulfills requirements " is subjective is because "requirements" are not objective, but subjective (determined by human subjective consciousness).

The concept of quality is one of the foundations of quality management theory. The development of quality management theory is inevitably accompanied by the development of quality concepts and changes in quality definitions. If the definition of quality is not accurate and comprehensive, it will inevitably affect the perfection and development of quality management theory, and affect the application of quality management theory (affecting the improvement of quality management technology).

J. M. Juran's subjective quality definition of "quality is the degree to which a set of inherent characteristics fulfills requirements" [1, 2]. This definition provides an additional explanation of "requirements." Such other instructions can be understood as: "requirements" are the "requirements" of customers; "Meet the requirements" means that the supplier meets the requirements of the demander. Here can be seen intuitively from the explanation of "requirements" in the three elements of quality in the quality management textbooks. Especially in the theory and practice of quality management, the concepts of "customer focus" and "customer is God" are reflected everywhere. Here shows that people have used the interpretation that "requirements" are customer requirements in theory and practice. The requirements specified in ISO9001: 2015 are not general social requirements [2]. Since "meeting requirements" in Juran's definition means that the seller meets the requirements of the buyer (the supplier meets the requirements of the demander), the buyer plays a leading role in the quality evaluation process. Customer requirements are individual requirements rather than general social requirements. Satisfaction is a subjective feeling, and the degree of satisfaction is the personal assessment of the demander. Therefore, the quality defined by Juran is a subjective, buyer's quality, and narrow quality. By changing the additional description

of "requirements" in Juran's quality definition into a positive "general social requirements," we can naturally get a new quality definition that quality is a positive degree, and the quality defined by it is objective, quality of mutual coordination between buying and selling, and abstract, generalized quality. Note: The general social requirements for products are both positive and accurate. It is pointed out that the quality of thing is an available attribute of something [3]. The poor quality of things is the low degree of enthusiasm, even the negative stuff.

The three quality elements corresponding to Juran's quality definition are considered "inherent characteristics," requirements, and "degree of satisfaction." Among these three elements, two ("requirements" and "satisfaction") are not the attributes of quality itself or the factors that constitute, but subjective wishes and the state they are satisfied (belonging to the category of cognition and evaluation). After adopting the new definition of "quality is a positive degree", the problems in Juran's quality definition can disappear, and the quality elements become "functional characteristics", objectivity and "positive degree."

Products serve human beings. Product quality affects the quality of the product serving human beings. Product quality is an integral part of the social purpose of production and operation. The concept of quality plays a leading role in the occurrence and development of product quality. Therefore, the scientific and reasonable definition of the quality concept should be beneficial to implementing production and operation ethics. That is, product quality should play a positive effect in guiding. The standard of quality of conduct is ethics (code of conduct). Visibly, the definition of the concept of quality must have positiveness. However, the most significant disadvantage of existing quality concepts is a lack of positiveness (depending on the existing definition of quality, a high degree of satisfaction with unreasonable requirements can also be called good quality). In other words, ethics and the ability to promote and implement a worldview and ethical management require a positive quality definition (ethical management needs the quality concept to have positiveness).

If someone wants to deny that the new definition of quality is superior to Juran's definition of quality, he (she) must deny the existence of "general social requirements," or deny that general social existence is a positive requirement.

### 1. Evolution of the Definition of Quality

The development of the quality concept goes through the following stages: First, the idea of conformance quality (quality refers to the degree of conformance to standards); Second, the concept of applicability quality (quality is suitable for customer needs); Third, the concept of broad-range quality (quality is the degree to meet the needs of customers and interested parties); The fourth is the objective and positive quality

concept proposed in this paper (see Section 1.3 for details). The first three quality concepts are subjective. Dr. Juran, the leading figure in the field of quality management in the world, and famous scholars, after careful deliberation, expressed the concept of quality in the third stage as the "degree to which a set of inherent characteristics fulfills requirements". In this paper, the current quality definitions are called Juran quality definitions.

The quality definition used now is the famous subjective quality definition. According to the subjective definition, the superior or inferior quality depends on "the satisfactory degree for the goods or service obtained by subjective perception." Because this quality definition was proposed by D. J. M Juran, a quality control scientist, it has been vigorously flattered by quality control workers. Only then a few people propose a different view very carefully to the limit of "intrinsic property." The subjective quality definition has eight flaws. The most prominent problem is that the "meeting the requirements" in Juran's definition is that the seller meets the buyer's requirements. In the process of quality evaluation, the buyer plays a leading role. Satisfaction is a subjective feeling, and the degree of satisfaction results from subjective assessment. Therefore, the quality defined by Juran is subjective buyer's quality. This is a choice suited for the concept and behavior of pursuing the maximization of private interests. If we follow the maximization of social benefits, we will undoubtedly attach importance to meeting the general requirements of society.

### 2. The Inherent Problems of Subjective Quality

In the quality control theory, the customer satisfaction is defined as "the feeling for the degree that its requirement has been satisfied by customer". Customer satisfaction is established on the experience of the customer with the product and the service. Although the feeling object is objective, the generating process of conclusion is a subjective process. The connotation and extension of Juran's definition of quality do not stipulate the positiveness of quality and that "requirement" is the general requirements of society. The requirement of individuals without enthusiasm restrictions cannot be all reasonable requirements. This situation had decided that Juran's quality definition of "quality is the degree that a group of intrinsic properties satisfy the requirement" is a subjective definition. The most prominent problem is that "fulfilling the requirements" in Juran's definition means that the seller fulfills the buyer's requirements. In the process of quality evaluation, the buyer's plays a leading role. Satisfaction is a feeling, and feeling is personal, and the assessment of the degree of satisfaction is emotional. Therefore, the quality defined by Juran is subjective buyer's quality.

In brief, if the workers in the field of quality control thought that the "requirement"

to have not modified also has "togetherness," "scientific," and "rationality," which has the suspicion of "paradox." The eight mechanical damages (defects) of Juran's quality definition are as follows:

## 1<sup>st</sup>. The Dependence the Subjective Being too Strong, to Disobey the Objectivity Principle

One of the critical basic principles to which humanity appraises things is "adhere to objective and opposed subjective" Confucius (Kong Zi) said, "Don't be subjective," it warns people do not to be subjectively). But, the establishment of a subjective quality concept violates this principle.

Customer's satisfaction is defined as the "customer's perception of the degree to which the customer's requirements, have been fulfilled". Customer satisfaction is established on the experience of the product and the service (*i.e.*, subjective sensation); although, the feeling object is objective, the production process of the conclusion, is an emotional process. The problematic conclusion is that customers have lower requirements and higher quality, the higher the customer's requirements, the lower the quality. This fact, together with the subjectivity of customer requirements shows that the quality defined by Juran is subjective.

The customer's satisfactory degree is related to the customer's condition, such as knowledge and experience, income condition, habits and customs, value concept, and so on, but also is related to the surroundings (to be especially humanities environment) and the media gossip. Thus, Juran's quality definition has multiple-subjectivity: the determination of "requirement" includes the subjective judgment process; the satisfaction degree for "requirement" is one kind of subjective sensation. According to Juran's quality definition, the quality of things is dependent on the customer's subjective feeling, lacks the objective judgment standard, is determined difficulty, unified difficulty, and has a big capriciousness to valuation on quality.

### 2<sup>nd</sup>. Lacks the Direct Enthusiastic Limit

The quality definition in the quality management textbook only has "compliance" and "serviceability," but does not have "initiative." The quality definition of "Quality is the degree to fulfill requirements," looked at from the wording, has not limited the positive of "requirement." "As long as has the demand may go to satisfy," this is decided by the characteristic of capitalist society. Although there are enthusiastic limits in the additional explanation for "requirement", this is not the direct limit of "positive". According to the quality definition of Juran, meeting unreasonable requirements should also be evaluated as high-quality level. Doing this violates the language standard, and constitutes its sixth major flaw.

There isn't a direct enthusiastic limit to quality (or intrinsic property). According to the literal sense of Juran's quality definition, the high degree satisfying the unreasonable requirement is also defined as "quality is good," and the low degree satisfying the unreasonable requirement also is called as "quality is bad." To don't some hard thinking, we knew that it is very unreasonable that the quality of things is judged by utilizing the degree to satisfy unreasonable requirements.

Reasonable requirements are also called legitimate requirements. Unreasonable requirements can be divided into "too high requirements" and "too low requirements, too vulgar or have negative effects." If there is no additional explanation, the "requirement" of "not modified with attributives" will not only mean "reasonable requirement" (or positive requirement). According to the quality definition of "quality is the degree of meeting requirements", a high degree of meeting unreasonable requirements can also be called good quality. Some require taking drugs, some need looking at the audio-video product and the picture of yellow.....These requirements are unreasonable (excessive). Satisfying these unreasonable requirements is also called good service quality. This behavior is unreasonable and has a negative impact. For example, the following conditions can be called good quality: Employees who use artful words and insinuating countenance and act to meet the needs of opportunistic institutional managers can also be called good employees. Many customers have requirements for pornographic services and, or molesting female staff, and the level of meeting such requirements is high; A high degree of satisfaction of gamblers' gambling requirements can also be called good service quality. This is one of the flaws of Juran's quality definition.

## 3<sup>rd</sup>. May Reduce the Requirement and Improve the Quality, by Reducing the Price

This disadvantage is also that the price factor that affects satisfaction is excluded by the existing definition of quality, which goes against the fact.

The satisfaction of consumers with products or services is directly proportional to the degree to which their requirements are met. The impact of price on consumer satisfaction with products or services is an objective social phenomenon and a fact. Especially when consumers have the purchasing power that suits them, their satisfaction with a product or service is always determined by its cost-effectiveness (performance-price ratio). That is to say, the satisfaction (or degree of satisfaction) of consumers with goods is mainly determined by two factors: functional characteristics and price, rather than solely determined by inherent functional characteristics. This is for the same product or service. For the same product, the higher the cost-effectiveness, the higher the degree of meeting the requirements. The evaluation of consumer

satisfaction with the product or the degree to which the product meets consumer requirements must consider the price factor of the product. In social practice, price factors have also been considered (the cost-effectiveness ratio also affects consumer satisfaction with the product and its transactions). The definition of J. M. Juran quality is only a theoretical requirement that consumers do not consider price factors when evaluating product quality. If we insist on using the definition that "quality is the degree to which a characteristic meets the requirements", considering price factors is not a complete and accurate definition of quality. The definition of "quality is the degree of positivity" that the author will introduce (not directly considering inherent uniqueness and price, but considering factors extracted from inherent characteristics and price — positivity) can avoid the above problems.

If the quality is the degree to satisfy the requirement, then, cutting the price is possible to reduce the requirement and enhance the degree to fulfill the requirement; it was equal to that improved the quality. This definition of quality as the cost-effectiveness of a product or service is also inaccurate. It is absurd that its quality may be improved by cutting the price of identical commodities. No matter the "requirement" in Juran's definition of quality, whether it is the justified requirement, this quality definition allows to cut the price to be possible to improve the quality. Because cutting the price to be possible to reduce the requirement, it may also enhance the degree to satisfy the requirement.

So long as any kind of commodity reduces prices, the purchaser will be more; after buying goes home, though that will be more satisfied. This situation is also because the satisfying degree can be enhanced by cutting the price. According to Juran's quality definition, the quality also has been improved. But, the objective function and characteristic of the goal commodity aren't changed because of cutting the price. This consequence is the performance in Juran's subjective quality definition has flaws: the **superior or inferior** quality is also not objective. Explain the pure "requirement" to have not been modified into a justified requirement (or reasonable requirement, or contract requirement) not to be able to eliminate this kind of flaw which Juran's subjective quality definition.

# 4<sup>th</sup>. May Provide the Theoretical Reasons for the Manufacturers of Fake and Shoddy and the Persons to Have Inferior National Qualities

Anything has the question of whether quality is good; therefore, the quality is not the commodity and service in sole possession. A human also has his quality. This is a moral behavior. If the ethical behavior is also the degree to satisfy the requirement for ethical behavior, then we will have difficulty making a unified appraisal of the ethical conduct of a person. The evil person will refuse to transform taking others' high-level requirement as the reason, and the students or children will refuse to progress

splendidly through to blame the teacher's high requirement magnificently.

The subjective quality definition can provide a scientific basis for the theory of quality foundation for the persons whose national qualities are inferior, also easily making them produce the mentality of self-consolation (or perfectly justifiable). Meanwhile, it can provide the reason in the management science for the manufacturers of fake and shoddy. If the quality and the national qualities are subjective, a person of inferior national qualities may blame others' requirement in the psychology to be too high, though that is others' requirement to be too high, but is not own national qualities to be not good. If the quality is subjective, the high-degree satisfying unreasonable requirement also to call the quality to be good, that the manufacturers of fake and shoddy may also speak in a positive tone: "We have satisfied the requirement of a consumer community, the quality of the product are also good," according to the condition of "the fake products and the shoddy products have the sale." If quality is a subjective quality relative to 'requirements', even for the same product, different people will come to the conclusion that quality is different due to their different requirements.

# 5<sup>th</sup>. The Refining of "from Special to General" And "from concrete to abstract" Have not been Completed

"Meet the standard requirements" refers to the individual requirements decomposed by product characteristics, which are not generally the overall performance requirements of the product. From individual technical requirements to overall performance requirements, a refinement is also required. From individual needs (special requirements) to general social requirements, abstract processing (including statistics) is required. Juran's quality definition focuses on the unique requirements of various customers or the relative requirements of individuals in a narrow sense. The abstraction of human's reasonable and comprehensive requirements is the general requirements of society. Even industry standards, national standards, or international standards are still specific and special requirements, rather than abstract social general requirements. Various specific special requirements can be distilled into general requirements. It is not only objective, scientific, but also positive and coordinated. The general requirements of nature are also objective, scientific and coordinated. For "requirements", Juran did not complete the process of induction, and abstraction from unique to general, from local to overall, thus lacking positiveness, objectivity, and coordination.

People have different requirements for the functional characteristics of different products, but there are common and abstract requirements. It is the requirement for the level of positivity towards things that will be discussed later (very similar to the requirement for the level of positivity towards things). The existing definition of quality does not specify the essential and abstract requirements for the functional characteristics of things.

### 6th. Quality Defined by Juran Is Relative Buyer's Quality

The definition of Juran quality determines that the level of quality of a product or service is determined by two factors: the characteristics of the product and the "relative requirements" of the buyer. Believing that the buyer is satisfied means good quality, while the buyer is dissatisfied means poor quality. This is the buyer's quality. However, the objective reality is that when products are produced or services are implemented, their functions and characteristics are objectively unrelated to human consciousness and not determined by the buyer's consciousness. The latter factor is subjective. "The fulfilling requirements" in Juran's quality definition means that the seller fulfills the requirements of the buyer (it is not directly pointed out in the description that it is the requirement that both parties can reach an agreement. The reader cannot see that it is a reasonable requirement). The "requirements" in Juran's quality definition are the requirements of the buyer. Therefore, the quality under this definition is "buyer's quality" (the quality is determined by the buyer). The weight difference between the buyer and the seller is more significant than that in the "buyer's market." Different people have different requirements for the same thing. The price also affects the buyer's requirements for quality. Therefore, the quality in the old definition of quality is subjective and relative. Different people at different times, under different environments and at different prices, the requirements for the same thing are different, and the degree of satisfaction is different. According to Juran's definition, the quality is different. If there are no polar restrictions on quality, buyer quality is a defect in the definition of quality. Only meeting the general requirements of society is an objective and absolute requirement and value. Besides, Juran's definition of quality decides that we can judge the satisfaction of the exchanged object according to the price of the object to be used, to determine the quality. In a word, the old definition of quality was based on relative quality. Because the judgment of the degree of satisfaction of the requirements was "each does things in their way" and the subjective factors played a prominent role, the quality of the judgment was not objective and not unified (there was no unified and objective standard for the "requirements" needed to judge the quality). Compared with the new definition of "quality is positive," this disadvantage of the old definition of quality is clearer (because the positive degree of things is the objective effect of things as well as its positive effect, and it is not a matter of human will. Both parties reach an agreement on the degree of enthusiasm. The quality definition of a positive degree is no longer the buyer's quality).

# 7<sup>th</sup>. It Is not Suitable for the Quality of Behavior and It does not Suitable for the Needs of Ethical Management

This shortcoming is determined by the lack of enthusiasm and coordination. The definition of quality without positive connotation is that the quality of behavior cannot meet the needs of ethical management. The reason was as follows. The behavior following social ethics must be a positive ideological behavior. Things lacking enthusiasm can hardly meet the needs of following ethics. If there is no enthusiasm in the connotation of the definition of behavior quality, the definition of quality means that there is no enthusiasm requirement and restriction on behavior. The quality of a behavior depends on its scientificness, rationality, and fairness. Its core is high moral and technical level. Positiveness is the soul of science, rationality and justice. Human behavior is not determined by a set of solid characteristics, but by the ideology of the decision. People's ideology can be changed at any time, not fixed. Ethical management requires the output of highly motivated employees (behaviors), products, and services.

# 8<sup>th</sup>. Not Applicable to Behavior Quality, Work Quality, Organization Quality and Other Major Quality Concepts

The quality of behavior is determined by people's subjective consciousness, knowledge and ability. People's ideology is not a set of inherent characteristics, but changeable (highly elastic) non-material factors. The quality of people's work is also mainly determined by people's subjective consciousness. Two people with the same knowledge and ability can output different behavior quality just because of other ideologies. Organizations (especially service organizations and management organizations) are also controlled by people, and do not have a set of fixed characteristics. Even if people's knowledge, technology and ability belong to their inherent characteristics, impact using them has a great relationship with their subjective initiative. Subjective initiative, and the degree and impact of coordination and cooperation between people do not belong to inherent characteristics. The qualities not determined by a set of intrinsic characteristics do not meet Juran's quality definition.

#### 3. Solution

For good product quality, human beings have a conventional psychological positioning ofaccepted through common practice: good functionality, convenient use, durability, and satisfaction with its performance. The feeling of being fully functional, convenient

to use, durable, and satisfied with its performance is the positive effect it has. If the qualitative feelings of these positive effects are semi quantitatively divided into several levels, these semi quantitative levels (i.e. quantitative levels) are the degree of positivity. From this perspective, quality is the degree of positivity. It is symmetrical and complementary to the value definition of "value is a positive effect".

Value is a social concept. Marx said that value is the amount of society necessary work. The amount of socially necessary labor is an objective social statistic value. Quality is also a social concept. Therefore, the "requirements" in the definition of quality should be the general requirements of society (organization). The general requirements of society must be the positive requirements of human consensus. By adding the connotation of enthusiasm based on the three elements of Juran's quality, we can get the statement that "quality is the degree to which a group of inherent characteristics meets the general requirements (or reasonable requirements) of society." The general requirements of society are objective. The degree of meeting positive requirements (*i.e.*, general social requirements) is the degree of positivity. With the words "positive degree," the words "general social requirements" can be omitted. It can be seen that while increasing the connotation of positiveness, it also increases the connotation of objectivity. By reorganizing the language, we understand that "quality is the positive degree of a set of inherent characteristics."

Compared with the definition of value, it is not difficult to see the reason expressed as follows. The positive role of things is the value of things in contrast the value of things is a functional feature not transferred by human consciousness (that is, objective functional characteristics — attributes). The value and quality of things are two aspects of the characteristics of items (two parallel manifestations). The positivity of an item has nothing to do with its additional characteristics, such as price, delivery date, and environment. Therefore, "a group of solid properties" can be omitted. In this way, "quality is the positive degree of a group of inherent characteristics" can be simplified as "quality is the positive degree." This definition of quality is exceptionally symmetrical with the definition that value has a positive effect. It also reflects its parallel relationship.

The general requirements of society are objective requirements that are not transferred by human consciousness. The degree of meeting the "general social requirements" is the degree of enthusiasm. The quality determined by it is the abstract and generalized (this is similar to the abstract value definition that value is positive effect). It can be seen that quality defined in terms of positive degree has the connotation of "conformity," "applicability," "abstraction," "objectivity," "coordination," and "positiveness." The first two are Julan quality definitions. Many

shortcomings of Juran's quality definition have been overcome. We cannot restrict individuals and institutions from putting forward their different requirements. However, for the same thing, these individual requirements must fluctuate around the baseline of general social requirements.

### 4. Analysis of the Significance of the New Definition of Quality

To sum up, the meaning of changing the definition of quality to "quality is positive degree" is in the following areas. First, it reflected the content of objective, positiveness, and coordination. Second, it is very similar to the definition of value. The correct expression of "the quality of things is an inherent characteristic of things" is adopted. The definition of value is that value has a positive effect. Quality is the degree of positivity, and value is the positive effect, which is extremely symmetrical. Quality and value are both the reflection of things' enthusiasm. Only the value reflected by quality is primitive and rough. In this way, both quality and value are reflections of the value of things. The value of quality description focuses on quantitative expression, while the value of value definition description focuses on qualitative expression. Third, the new definition of quality is more necessary to meet the needs of ethical management. Can provide fresh ideas for theory and practice [5,6] to meet customer requirements.

Reference [4] indicates the value of quality, while reference [7] discusses the law of quality exchange that determined by the value of quality. This is the theoretical basis for the new definition of quality with positivity and quality as the degree of positivity. The significance of the new definition of quality is also closely related to the value of quality and the existence of quality exchange laws.

Quality is the positive degree, which still includes "inherent characteristics," "requirements," and "satisfaction degree." There is only a default in text expression. It can only be defaulted in a text expression. General requirements of society are scientific, reasonable, and most representative expectations or needs in human society (it is also an objective and abstract requirement). The degree of meeting the general requirements of society is the positive degree. It can be seen that the contents of "requirements" and "degree of satisfaction" are implied in the new quality definition. The things that meet the general requirements of society are the quality carriers and their general attributes, which are the objects and their attributes that we investigate. In other words, any "quality" has its attribution. That is, the quality is preceded by a restrictive attribute. But it can be defaulted generally. The "requirements" and "degree of satisfaction" in Juran's quality definition are not the general attributes of things, but the subjective requirements and evaluation of people. "Requirements" and "degree of satisfaction" cannot be called quality elements (they are the keywords in Juran's

definition of quality).

The value definition of "value is positive effect" omits the attribute that modifies value — "thing" (specifically, it is the carrier of value or the object or thing to be investigated). The complete statement is "the value of things is their positive effect." The situation of "quality is positive degree" was completely the same with it: the attribute of the object to be examined or the object to be examined was omitted, and the complete expression was "the quality of the object to be examined is the positive degree of the attribute of the object to be examined." It is not difficult to find that the quality and value of things are all measures or evaluations determined by the attributes of the object under investigation. Quality is the positive degree, which can be expressed as that quality is the degree (big or small) of positive effect. With this in mind, quality is a graded value, and a rough quantitative way of value. Quality is directly proportional to value: the better the quality, the higher the value. Quality is a quantity of strength and cannot be summed. Value is an extensive quantity, which can be summed.

As mentioned above, based on the connotation of Juran's definition of quality, a new definition of quality adds enthusiasm, objectivity, coordination and abstraction. The connotation of adopting new quality definition is richer. It can end the situation where the quality of products is determined by the buyer's subjective feeling (even the quality of behavior is evaluated by the objective degree of enthusiasm).

The quality elements under the new definition of quality are "attribute," "objectivity," and "positive degree." The details are as follows:

## 1 Attribute (inherent characteristics)

As mentioned in the previous section, the positive degree of things can only be the positive degree of their inherent characteristics. Additional characteristics, such as price and delivery speed are not attributes of things and do not affect the enthusiasm of the object under investigation (the reason is that, just like value is the result of social statistics, the positive degree of things is also the result of statistics and abstraction of the whole society, which is objective and can only be determined by the inherent characteristics of the object being investigated). No matter how it is defined, the determinant of the quality of a thing is its attributes (or inherent characteristics). Among the quality elements under the new definition of quality, the requirements for "inherent characteristics" or "attributes" still exist (and are general requirements of the objective society). The positive degree of things is the result of the comparison between the attributes of things and the general requirements of society. When expressed in words, the words "general social requirements", "inherent characteristics" or "attributes" can be omitted. Omission or default is the default of implied things

rather than the absence of implied things.

### 2 Objectivity

The requirements for the attributes (features) of things are the general requirements of society and are also objective. The positive degree of the inherent characteristics (features) of something is obtained by comparing the attributes (features) of things with the general requirements of society, which is objective. These situations are precisely the same as the value elements of the positive effect of something. Although the definition of positive degree is not directly expressed in words of "objectivity," the quality it defines implies objectivity and is an objective quality. It can be seen that the definition of positive degree overcomes the most significant disadvantage of Juran's definition of quality — subjectivity.

### **3** Positive Degree

The positive degree and positive effect are the key factors that can reflect the popularity of things. They all belong to the objective characteristics or inherent functions or attributes of things. The definition of "positive degree" directly and accurately indicates that quality must have positive elements. The level of "positive degree" of things is also the level of quality of things. In practice, the supplier and the demander generally stipulate the lower limit of the positive degree.

The research results of the concept of quality have important guiding significance for improving the theory and methods of quality management. According to the definition of quality as positivity, improving quality means increasing the positivity of a product or service. Improve performance at your own cost.

### 5. Conclusion and Explanation

The solution presented in Section 3 expresses the conclusion of this article: the definition of quality as the degree of positivity is more accurate, comprehensive, rich in internal connotations, concise in expression, and more objective than the definition of quality as the degree to which a set of inherent characteristics meet the requirements. The definition of quality as the degree of positivity is based on the emphasis on functional characteristics and the positivity of "requirements" on the basis of "quality is the degree to which XXX meets the requirements". If there is a problem with the definition of quality as positivity, then the problem with the original definition of quality is even greater.

There is both a difference and a connection between positive effects and levels of positivity. Positive effects are a concept at the economic level. The level of positivity is a concept at the ethical (philosophical), managerial, and sociological levels. Considering Marx's definition of value, it can be inferred that the positive effect of a

commodity is the sum of the positive effects of various means of production necessary for its production (socially necessary), which is absolute. The degree of positivity is the result of comparing the objective functional characteristics of a product with the positive functional characteristics expected by society, and is relative. Positive effects can be reflected through price (which can be quantified), while different levels of positivity can be reflected through a single price (quantity can only be semi quantitative). The positive effect and degree of positivity have the same core — the positivity of things.

#### 6. Discussion and Outlook

The advantage of the definition of that quality is a positive degree has been mentioned above. The competition between the new quality definition and Juran's quality definition is also a competition between the following contents: general social requirements versus individual customer requirements, degree of enthusiasm versus satisfaction; 安定 and generalized quality (abstract quality) versus special quality (concrete quality). But the key is the competition between general social requirements and customer requirements. If someone wanted to deny these advantages, he had to deny that the nature of "social general requirements" or "the attribute of things meeting social general requirements" was objective. In the above groups of confrontation, the former concept corresponds to the new quality definition, and the latter concept corresponds to the old quality definition. The results of the competition need to be discussed.

As you know, the relationship between apples and fruits is between concrete and abstract ("fruit" is an abstract concept from apples, pears, dates, peaches, plums, and other different fruits). The general requirements of society are objective and abstract. According to the positive degree of things or the degree to which they meet the general requirements of society, the quality obtained must be abstract (similar to the value defined by using positive effects). The quality defined by the degree of enthusiasm is an abstract quality or general quality. Juran's definition of quality and its interpretation of requirements determine that it is a specific and narrow definition of quality (i.e., description of part quality, batch quality, and quality element). For product quality, we often use the concept of "batch quality." There should also be the concept of "one piece product quality" (abbreviated as location quality). Described in mathematical or philosophical language, the components of quality are called "quality elements" or "quality meta." The concepts of abstract quality, broad quality, narrow quality, quality element, buyer's quality, general requirements of society, degree of enthusiasm, etc., appearing in this paper must be discussed in depth. The influence of the definition of positive degree on quality concept (quality awareness) and quality management practice is left to the readers for discussion.

The value or importance defined by the socially necessary labor volume cannot exclude the value of defective products, invalid or failed products, and the value of raw materials and labor wasted and consumed in the production process. Marx also stipulated that products not participating in the exchange had no value. The value defined by using positive effects has nothing to do with whether the finished product participates in the exchange. The value defined by the positive effect is only the practical value of the finished product, regardless of whether the product participates in the exchange. A product with a degree lower than the lower limit of the general social requirements has no use value for its intended purpose, but it can retain part of its use value by changing its use. It can be seen that the value defined by socially necessary labor volume is inconsistent with the value defined by the positive effect. The quality defined by the positive degree is symmetrical and parallel to the value defined by positive effect. The existence of the lower limit of social general requirements affects the judgment of the value defined by positive effect (however, it does not affect the value defined by socially necessary labor volume). The definition of quality as a positive degree makes the relationship between quality and value closer, and quality has a more significant impact on value, which is worth studying.

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