

## MAY THE HIGH-DEGREE SATISFYING UNREASONABLE REQUIREMENT ALSO MEANS THE GOOD QUALITY: FIVE BIG FLAWS IN THE SUBJECTIVE DEFINITION OF QUALITY AND THEIR SOLUTION

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**Abstract:** J. M. Juran's subjective quality definition of "quality is degree to which a set of inherent characteristics fulfils requirements" and the account have five big inherent problems: "to disturb the language order", "to violate the objective of the standardized work", "the dependence to the subjective being too strong, to disobey the objectivity principle", "to be short of the enthusiastic limit", "to be possible to reduce the requirement through the reduction, to improve the quality", "to be possible provides the reason theoretically for the fake and shoddy manufacturer and the person whose quality is bad", "to have the suspicion of circular definition". The method to treat the wound is establishing the definition of "quality is the positive degree". This definition of quality both has guaranteed the positive connotation of J. M. Juran's quality definition and has cured the flaws of J. M. Juran's quality definition, but also has promulgated the condition of the symmetry and the connection between quality and value.

**Keywords:** Juran, subjective quality definition, inherent problems, positive, quality essence, satisfies the requirement.

### 1. INTRODUCTION

The leading magnate in the circles of world quality control: D. J. M Juran has established the quality definition is "degree to which a set of inherent characteristics fulfils requirements". This is the famous subjective quality's definition which is applying at present. According to the subjective definition, the **superior or inferior** of quality is dependent on "the satisfactory degree for the goods or service obtained by subjective perception". Because this quantity definition is proposed by D. J. M Juran, a quality control scientist of world-famous, therefore, it has been vigorously flattered by quality control workers. Only then small number of people had proposed the different view very carefully to the limit of "intrinsic property". In fact, the subjective quality definition has five flaws.

If the "requirement" in Juran's quality definition is modified to "the society's general requirements" (or contract requirement), the "inherent problems" of Juran's quality definition is in good health. But, the human who conceals the defect of the subjective quality have entrusted to "requirement" a new connotation: "the requirement" which is not any qualified only is able to be referring to "the society's general requirement that has the positive sense" (or the contract requirement). Does it like this, the language standard is disobeyed. Only then like this in the field of quality control, other places are not this, it has created the confusion of language performance. It has increased the difficulty for which people grasped the quality essence. Therefore, to entrust "requirement" without qualifying with the new

connotations to be not known to all cannot solve the serious problem of subjective quality definition.

We might definitely find such non-subjective quality definition: there are the all positive connotations of Juran's subjective quality definition, but does not have the question of language standard and these "inherent problems". This is other proof for "Juran's subjective quality definition has these inherent problems truly". If we could avoid deed of putting a lot of additional explanations on the pure "requirement", which is inconsistent with the language norms, simplify the definition of quality and greatly reduce the difficulty in understanding the meaning of quality, why not have a try? Is it necessary that still and all we should insist on the subjective definition of quality proposed by Dr. J. M. Juran?

### 2. THE INHERENT PROBLEMS OF SUBJECTIVE QUALITY DEFINITION

In the quality control theory, the customer satisfies is defined "the feeling for the degree that its requirement has been satisfied by customer". Customer's satisfaction is established on the experience of the customer to the product and the service, although the feeling object is objective, but the generating process of conclusion is the subjective process. This had decided that the Juran's quality definition of "quality is the degree that a group of intrinsic properties satisfy the requirement" is the subjective definition.

The interpretation of “requirement” in general reference books such as language dictionary are as follows: 1. to propose the concrete item or desire, and hope achieves or realizes. 2. Proposed concrete desire or condition. This is the explanation for “requirement” practiced by the common-knowledge’s normative language, and is also conventional explanation of “requirement”.

But, quality control theory does not use this kind of conventional explanation, and other provisions are made in this theory to the definition of “requirement”. The stipulation for “requirement” used by the theoretical textbook of quality control is as follows: The requirement is refers to “need or expectation is stated, generally implied or obligatory”. Only the human to have read the theoretical works of quality control carefully over and over again knew that the “requirement” to have not been modified has this kind of meaning to equate in the “requirement” which have been modified. Other people not very clear this kind of practice which does not conform to the language standard; it is difficulty obtained here. The quality was often related to all crowds. Therefore, the “requirement” to uses in defining the quality doesn’t to be able to use the connotation of non-acknowledged. Not only of “requirement” has the division of justified requirement and the improper requirement, but also has the division of each kind of specific requirement (e.g., material requirement, spiritual requirement, and so on). If the “requirement” to have not been augmented just is “the justified requirement” (reasonable requirement, or society’s general requirements, or standard requirement, or contract requirement), then, where the other type’s requirement in the “requirement” go in the quality control theory? Cannot give completely erases! Quality management science cancels the other contents of “requirement” completely, have the language order is harassed? In engineering, a **requirement** is a singular documented need of what a particular product or service should be or perform. It has been enough disorder.

If the “desire” to have not been modified also can only be the reasonable desire, when a lascivious person saw on the avenue the beautiful woman, he produces the desire which wants goes to bed with her to be the right standard desire, who believes?

If the “requirement” having not added any modified is “need or expectation is stated, generally implied or obligatory”, that the “requirement” to have been modified, for example, the sexual requirement is “sexual need or sexual expectation is stated, generally implied or obligatory”. If is really this, then in the world does not exist forcible rape completely, all the case of forcible rape to have settled are the falsely and unjustly repudiated. Perhaps the quality control worker will say that the requirement will be refers to “need or expectation is stated, generally implied or obligatory”, will be the explanation internal application in quality control system; and will not be suitable outside the

quality control system. Other theories may also stipulate one kind of explanation to be suitable interior for “requirement” (or other any word). Thus, the togetherness of the expectation of words and expressions has been destroyed. This is runs counter to the objective of standardized work. The quality control work belongs to the category of standardized work exactly. Obviously, the quality control theorist putt the explanation of the requirement to have not been added any to modify decided into “need or expectation is stated, generally implied or obligatory”, violates the objective of standardized work.

In brief, if the workers in field of quality control thought that the “requirement” to have not modified also has “togetherness” and “rationality”, which has the suspicion of “paradox”. That is, the inherent problems of subjective quality definition has been concealed by its vindicator using the way of which do not accord with language standard. If the J. M. Juran’s quality definition is changed into “degree to which a set of inherent characteristics fulfils contract requirements”, both the problems to violate the objective of standardized work and to disturb the language environment can be solved, but the following question in the subjective quality-definition of Juran still existed.

#### **1<sup>st</sup>. The dependence to the subjective being too strong, to disobey the objectivity principle**

The one of important basic principles to which humanity appraises thing is “adhere to objective and opposed subjective” (Kong Zi said “don’t subjective”, it warn people do not want subjectively). But, the establishment of subjective quality concept actually violates this principle.

The customer’s satisfaction is defined as “customer’s perception of the degree to which the customer’s requirements, have been fulfilled”. Customer’s satisfaction is establishing on the experience to the product and the service (i.e. subjective sensation), although the feeling object is objective, but the production process of conclusion is the subjective process.

Customer’s satisfactory degree is related with customer’s own condition, such as knowledge and experience, income condition, habits and customs, concept of value and so on, but also is related with the surroundings (to be specially humanities environment) and the media hearsay. Thus, the Juran’s quality definition has the dual subjectivities: 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 in things is dependent on decided by customer’s subjective sensation, lacks the objective judgment standard, it is determined difficulty, unified difficulty, and has the big capriciousness to valuation on quality.

## 2<sup>nd</sup>. Lacks the direct enthusiastic limit

The quality definition in quality management textbook only has “compliance” and “serviceability”, but does not have “initiative”. The quality definition of “Quality is the degree to fulfil requirements”, looked 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 is the enthusiastic limits in the additional explain for “requirement”, but, this is not direct limit of “positive”. Doing this violates the language standard, and will produce the 5<sup>th</sup> flow.

There isn’t 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 also is defined “quality is good”, and the low-degree satisfying the unreasonable requirement also is called “quality is bad”. To don’t some hard thinking, we knew that it is very unreasonable that the quality of thing is judged by utilizing the degree to satisfy unreasonable requirement.

The reasonable requirement is also called the justified requirement. But the unreasonable requirement is divided two kinds “the requirement to be too high” and “the requirement is too low (or is too vulgar)”. The quality definition of “quality self is the degree to satisfy requirement” hasn’t modified “requirement”. If doesn’t additional explain, the word of “naked” requirement will doesn’t only means “justified requirement” (reasonable requirement). According to the quality definition of “quality is the degree to satisfy requirement”, the high-degree to satisfy unreasonable requirement can be possible thought that the quality is good, the low-degree to satisfy unreasonable requirement can be possible thought that the quality is not good. It is not tally with the facts. Some people require to take drugs, some people require to look at the audio-video product and the picture of yellow.....These requirements are unreasonable. Looked from the literal sense of quality definition of “quality is satisfies the degree to satisfy requirement”, the high-degree to satisfy unreasonable requirements also can be called the quality to be good. When we think to which have not modified “requirement” just mean the reasonable requirement, it is not tally with the standardization of speech. This is the flaw of Juran’s quality definition,

## 3<sup>rd</sup>. May reduce the requirement and improve the quality, through reducing price

If the quality is the degree to satisfy requirement, then, cutting the price is possible to reduce the requirement and enhances the degree to satisfy the requirement, it was equal to that improved the quality. It is absurd that its quality may be improved by cutting the price of identical commodity.

No matter the “requirement” in Juran’s definition of quality whether is the justified requirement, this quality definition allows to cut the price to be possible to improve the quality. Because cuts the price to be possible to reduce the requirement, may also enhance the degree to satisfy the requirement.

I have repeatedly seen on the train some people are making the business in “¥10 Yuan buy three packages yun-nan smoke” (Notes: yun-nan smoke is the well-known smoke in China, its price has far exceeded 10 yuan/package). It is the false smoke to be known perfectly well, but also has many people to take out money buys, moreover the business do not fade for many years. Human who buys is takes out money voluntarily, it has indicated that the customer to this kind of false smoke is satisfied (if the satisfying degree not to achieve certain level, business will not finalize a deal). This is the typical example that the satisfying degree can be enhanced through cutting the price.

So long as any kind of commodity reduced prices, the purchaser will be more, after buying goes home, thought that will be more satisfied. This 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 goal commodity isn’t changed because of cutting the price. This is the performance that Juran’s subjective quality definition has flaw: the **superior or inferior** of quality also is not objective. Explain the pure “requirement” to have not been modified into justified requirement (or reasonable requirement, or contract requirement) not to be able to eliminate this kind of flaw of Juran’s subjective quality definition.

## 4<sup>th</sup>. May provides the theoretical reasons for the manufacturers of fake and shoddy and the persons to have inferior national qualities

Any thing 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 moral behavior is also the degree to satisfy the requirement for moral behavior, then we will difficulty make an unified appraisal with the moral behavior of a person, the unprincipled person will refuse to transform taking others high-requirement as the reason, the students or children will refuse to progress splendidly through to blame the teacher’s high-requirement magnificently.

The subjective quality definition can provide scientific basis for theory of quality foundation for the persons whose **national qualities** are inferior, also easy making them to 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, that a person of

inferior **national qualities** may blame others' requirement in the psychology to be too high, thought 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 products quality are also good", according to the condition of "the fake products and the shoddy products have the sale". If the quality is subjective quality relative to "requirement", that even if the identical commodity, the conclusion of different quality will be also obtained by different persons because of their requirement to be different.

### 5<sup>th</sup>. The Juran's quality definition is suspected of the circular definition

The broadest definition of quality is "Whatever the customer perceives good quality to be". If "requirement" is "need or expectation is stated, generally implied or obligatory", then such "requirement" has three kinds of explanations: First, is justified requirement to the function and the usable of things; second, is the justified requirement to thing's quality; third, is the contract requirement to the intrinsic property of a thing group. The essence of these three kinds of explanation is the same, only their indications are different. They are the requirement to thing's quality, "quality is the satisfaction degree to quality requirement" is the circular definition (it has used quality concept when defined quality). This is caused by the additional explanation which he pours the new connotation into the pure "requirement". To the Juran's quality definition, putting the new connotation not to conform to the language standard into the "requirement" which hasn't qualified, this is "help it to completion is Xiao He, ruin it also is Xiao He".

### 3. SOLUTION

Since have seen the fatal weakness of subjective quality definition, we should use the objective quality definition. Although my work is the concrete inspection of product quality, but I thought that I have the responsibility to overcome the flaws in existing quality definition, so that I can anticipate people to produce the correct idea of quality. After massive contrasts and ponderation, I have proposed the quality definition of "quality is thing's general attribute" in a paper (Tu R. S. 2007). Although this article has published in the magazine of *Supervision And Choice* and has obtained the high praise, but, I repeatedly and carefully examined this quantity definition. Finally I realized that the thing's attribute has the divides of positive and disappears extremely, the quality definition must

indicate that quality is the positive attribute of its carrier, an accurately express the connotations of "compliance", "serviceability", "abstractness", "objectivity" and "positive".

The Juran's quality definition to which the additional explanation for "requirement" has not been added is not only subjective, but also lacks the enthusiastic connotation which the quality should have. The Juran's definition of quality cannot express the denotation of "to satisfy unreasonable requirement isn't called quality to be good". Having mentioned in the preceding paragraph, the "requirement" has been specified by the theoretical textbook of quality management as following: The requirement is "need or expectation is stated, generally implied or obligatory". In the theoretical textbook of quality management, "requirement" is clearly designed to indicate the reasonable requirement for the function characteristic of things. Thus, Juran's definition of quality is "quality is the degree to which a set of intrinsic properties fulfils the contract requirement". "Contract" includes "the joint pledge" and "private Contract". In quality contract, "joint pledge" is majority. The pledge requirement is the reasonable requirement, "the degree to satisfy reasonable requirement" is the "positive degree".

The original intention of Juran's quality definition is: quality is the positive degree of a set of intrinsic characteristics. "Intrinsic characteristics" is expanded into "all characteristics". Thus, the more accurate quality definition is "quality is positive degree", is the measurement to the positive degree of things. The definition of "quality is positive degree" had reflected intuitively the difference and the relation between quality and value (quality and value are the different measurements for thing's positive; quality has value, value is the relativity quantify expression of quality, quality depend on value) (Tu R. S. 2008), in formally, it also is extremely symmetrical with the value definition of "value is positive action". "High-degree to fulfill unreasonable requirement" can be ruled out side of "quality was good" by the quality definition of "quality is positive degree". It is the same as Juran's quality definition, "High-degree to fulfill reasonable requirement" also can be regard as the quality to be good. To be the same as thing's "positive action", the thing's "positive degree" is also one objective condition, and to fulfill reasonable requirement is certainly positive. "Thing's positive degree" is the society general appraises and the measurement to "thing's positive action". The positive of one kind of thing relative to another kind of thing is objective (for example, the positive of water relative to living things), only then the understanding to it is subjective. Along with deeply probe in understanding, the humanity's understanding for thing positive will approach its real objective condition. Obviously, the quality defines of "quality is positive degree" has overcome the two big shortcomings of "subjectivity" and "deficient positive

limit” in Juran’s quality definition successfully, and the desirable connotation expressed by it is the same with Juran’s quality definition completely, there are the connotation of “compliance”, “serviceability”,

“abstractness”, “objectivity” and “positive”.

There has been such quality definition of “quality is positive degree”, many troublesome in Juran’s quality definition have been avoided, why we don’t apply it?

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