Consumers' Quality Evaluation Process

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Abstract

A conceptual definition of quality for marketers of consumer products is offered along with a theoretical model of the quality perception process. Application examples are provided and future research needs are outlined.

Introduction

Ensuring product and service quality is a vital element in the product offering, evidenced by the fact that consumers are concerned with purchasing "high quality" goods and services (Bohr 1980; Castleberry and Resurreccion 1989). Therefore, it is not surprising that much has been written about the delivery of quality (e.g., Leonard and Sasser 1982; Rabin 1983; Zeithaml, Berry and Parasuraman 1988) and about how to "manufacture in" quality through quality control and the use of quality circles (e.g., Harris and Chaney 1969; Thompson 1982). Although its importance is indisputable, evidence indicates that many consumers are unhappy with the perceived quality they are receiving (Brown and Swartz 1989; Stanley and Robinson 1980). This suggests that viewing quality from the consumers' perception rather than only from a manufacturing perspective is essential. Such an approach necessitates a deeper understanding of what quality is, how it is evaluated by consumers, and how these perceptions are used by consumers in making purchase decisions.

Conceptual Definitions of Quality

Conceptually defining key constructs is a requisite to exploring any topic (Churchill 1979; Tull and Hawkins 1984). Although quality is a widely discussed topic in the marketing and business literature, surprisingly few authors have defined the word. A sampling of the conceptual definitions that are offered is provided in the next section, followed by a proposed definition of quality proffered by the authors.

Product quality has historically been treated as the "mirror image of price" (Curry and Riesz 1988, p. 36). This definition views quality as the tangible manifestation of price in the form of product components, labor, design, and durability. Other writers have defined quality in terms of a product's performance. Crosby stated that quality is "conformance to requirements" (1979, p. 17). Kotler seemed to echo with "the rated ability of the brand to perform its functions" (1983, p. 258). Still others have noted the time element in their definition of quality. For example, Smith described quality as "the capability of a product to perform its intended function long enough to satisfy reasonable customer expectations" (1979, p. 87).

Several authors have attempted to "define" quality by outlining its various dimensions. Garvin (1984) suggested that product quality consists of eight dimensions (e.g., performance, features), while Harris and Chaney (1969) identified two basic aspects of quality: design quality and conformance quality. These and others have noted that it is hard or impossible to fully define quality without knowing the context to which one is referring (e.g., Garvin 1984; Ginzberg 1975; Harris and Chaney 1969). Harris and Chaney stated that quality has "no meaning in any absolute sense; it is meaningful only under certain conditions in the product cycle" (1969, p. 15). Ginzberg noted that the term quality is used when referring "to so many discrete aspects of health care...that it is impossible to arrive at a definition of 'quality' that is acceptable as well as useful" (1975, p. 366).

Definitions Offered by Past Researchers

Zeithaml defined quality as "superiority or excellence"

and further defined perceived quality as "the consumer's judgement about a product's overall excellence or superiority" (1988, p. 3). This global assessment of perceived quality may resemble attitude and may change over time as a result of new information.

An extensive review of conceptual definitions for the word quality is provided by Holbrook and Corfman (1985). After classifying definitions, they developed a definition of quality within the framework of value theory (Rokeach 1973). Quality was defined as "extrinsic self-oriented passive value" (Holbrook and Corfman 1985, p. 42). Their empirical test of this conceptual definition (as independent from other forms of value) was only marginally accepted, leading to the conclusion that they "...have provided at best a partial answer to our motivating question concerning the meaning of quality" (Holbrook and Corfman 1985, p. 53).

It seems that in order to fully conceptualize quality from the consumer's standpoint, one must be concerned with the everyday use of the word (1). In fact, Wittgenstein stated that "the meaning of a word is in its use in the language" (1953, p. 20^e). It was from this direction that Day and Castleberry (1985) assessed the word quality in terms of common everyday use of the term. Conducting focus groups they found very different definitions based on whether one was referring to a good or a service, and whether one was referring to a durable or a non-durable.

Proposed Definition

Given this wide range of definitions, an obvious dilemma is the identification of a conceptual definition of quality that is most appropriate for marketers. From the standpoint of a consumer's perception of quality, the following conceptual definition is offered:

A belief about the degree of excellence of a good or service that is derived by examining, consciously and/or unconsciously, relevant cues that are appropriate and available, and made within the context of prior experience, relative alternatives, evaluative criteria, and/or expectations.

This definition was developed after considering the focus group results of Day and Castleberry (1985) and viewing them in the context of the EKB model (Engel and Blackwell 1982). The proposed definition offers several benefits over many of the definitions discussed earlier. Note that the proposed definition conceptualizes quality perceptions rather than quality per se. Our focus as marketers is often not on manufacturing processes (e.g., quality improvement programs that result in fewer defects, etc.) since the processes em-

ployed in the manufacture of goods is many times outside the domain of marketing managers, but rather in how consumers perceive the quality of our product. Thus, our investigation, and thus this definition, begins when the consumer enters the picture and begins to form some perception (see also Jacoby and Olson 1985; Jacoby, Olson and Haddock 1973; Zeithaml 1988 for further discussions of the need to analyze quality from this perspective).

Beyond this demarcation, the proposed definition provides a tight conceptual basis while allowing for the many differences among consumers in the marketplace. First, it implies that each consumer can have a different perception about the quality of one single good or service. The perception depends upon the cues used and the context of the perception. Second, what "quality" means to one consumer can vary depending on the product, cues, and the situation. Third, quality is not viewed as a dichotomous variable, but rather it exists on a continuum. Fourth, quality perceptions can be formed before, during, or after the purchase or use of the product.

To fully understand the essence of the proposed definition, several additional points must be addressed. The definition does not imply that a quality perception will always be evoked. For those consumers who do form quality perceptions, the examination may involve conscious processing (e.g., reading *Consumer Reports* rating of quality), nonconscious processing (i.e., form quality perceptions without realizing how the conclusion was formed) or both. Next, the definition implies that less than perfect information is available, since it states that only "appropriate and available" cues will be utilized. "Appropriate" refers to the appropriateness of the cue in the mind of the consumer, while in fact, the consumer may use some cues that other judges might find inappropriate. The proposed definition also implies that quality perceptions, when formed, are always relative to something else (i.e., the "degree of excellence"). They may be formed relative to many things, including but not limited to past experience with the same product, past experience with a similar product, competing brands or service providers, etc.

The Quality Evaluation Process

When discussing the evaluation and perception process, it is important to keep in mind that all consumers do not evaluate the quality of all products and services. The degree of involvement with the purchase seems to dictate if quality will be evaluated. Goods and services that are low in involvement for a particular person in a particular situation generally do not invoke

an extensive quality evaluation process, while high involvement goods and services tend to be associated with at least some degree of quality evaluation (Day and Castleberry 1985).

When Evaluation Occurs

One critical issue to resolve is when the quality evaluation and perception process actually takes place. Economists comprise the largest group of contributors to understanding this topic, and even they have come to no consensus. Some economists presume quality is a search attribute; thus quality perceptions are formed before the purchase. Others, however, suppose quality is an experience attribute, so perceptions of quality are only formed after purchase (Hey and McKenna 1981). Wilde (1981) considers the possibility that quality may be either an experience attribute or a search attribute, given specific situations (e.g., the higher the price of the product, the more likely quality is to be a search attribute). Thus his conclusion was that quality may be observed either prior to or after purchase. If one adopts the conceptual definition of quality and the terminology provided by this article, quality perceptions can occur before, during or after the purchase/use of a product.

How Evaluation Occurs

Of the many issues regarding quality, the literature suggests that consumer researchers seem to have been most interested in how consumers evaluate quality. More specifically, researchers have focused on the cue or cues that consumers use in their evaluation of quality. To fully understand these cue studies, it is necessary to first review the theoretical foundations for the evaluation process.

Olshavsky and Miller (1971) proposed the use of disconfirmation of expectation theory to explain quality perceptions that are formed after product use. This theory states that each person develops pretrial expectations for a brand that are influenced by price as well as other marketing variables. Each person compares his expectations with the actual outcome of using the brand (Oliver 1980).

Olson (1972) developed a theory of the quality perception process. The predictive value of a cue (PV) is defined as the degree to which a consumer associates that cue with product quality, and the confidence value of the cue (CV) is the degree to which a person is confident in his ability to judge that cue (Olson 1972; Olson and Jacoby 1973). According to the theory, PV and CV interact such that the cue will be used in judging product quality only when the cue has both high

PV and high CV.

More recently, Olshavsky (1985) reinvestigated preference formation strategies for perceived quality. In addition to the traditional "decision making" strategy (i.e., complex information processing), he suggested that consumers may also use price as an index of quality or follow the recommendation of a friend. Olshavsky identified several factors that help determine a consumer's strategy, including consumer factors (e.g., importance of the product to the consumer) and environmental factors (e.g., type and amount of information available).

Using focus groups and in-depth interviews with executives of major service organizations, Parasuraman, Zeithaml and Berry (1984) developed a conceptual model that views perceived service quality as the degree to which perceived service is similar to expected service. Key determinants of expected service were identified as word of mouth communications, personal needs, past experiences, and ten key aspects of the service itself.

Zeithaml (1988) proposed a means-end model relating price, quality and value. Perceived quality was hypothesized to be a function of reputation, intrinsic attributes and perceived monetary price. While helpful in identifying factors that influence a consumer's perceptions of quality, the model did not explicitly address the issue of post choice evaluations and any resultant feedback loops into the process.

Many studies have investigated the effect of various cues on quality perceptions and the consequential choice behavior. Several reviews (Olson 1972, 1977; Purwar 1981; Monroe and Krishnan 1985) assess these single- and multi-cue studies. What these authors found was a fragmented, nongeneralizable collage. Even for the most widely researched topic of price-perceived quality, "...we have not been able to identify conceptually or empirically when buyers will infer product quality on the basis of price" (Monroe and Krishnan 1985, p. 229). The biggest obstacles appear to be the lack of a common conceptual definition and theoretical framework. Added to these are methodological flaws and inconsistency of measures across studies (2).

Proposed Model and Applications

In an effort to provide more thorough understanding of the process consumers use in developing quality perceptions, a proposed conceptual and theoretical framework is outlined in Figure 1. The framework proposed is not intended to be a complete consumer behavior model (such as the EKB or Howard-Sheth

models). Many important facets of consumer behavior (e.g., problem recognition, unanticipated circumstances, etc.) are intentionally left out to facilitate simplicity. Rather, it is hoped that one can view relationships in the model while concurrently recognizing their placement in more general consumer behavior models.

An important facet of this model is that it recognizes that quality perceptions are not formed in every case. Thus marketers should not expect all consumers to have a quality perception of their products. Also, the model encompasses both low and high involvement situations and is therefore applicable to a wide variety of consumer products. In a low involvement situation, much of what the model displays might be carried out subconsciously or occur rather infrequently (e.g., when choosing a new brand).

The model starts with information stored in memory about prior experiences of the quality of the good or service along with a "tendency" to prefer a certain process (heuristic) to form quality perceptions in this situation. The heuristic preferred is probably a function of the product category as well as the amount of time available and perhaps the number of alternative products available (Johnson 1988). Based on the "preferred" process, the consumer begins to use either a single-cue or multi-cue process.

In the multi-cue process, the consumer evaluates several cues in developing a quality perception. Information about one or more cues that is missing or unavailable may be inferred by the consumer (Dick, Chakravarti and Biehal 1990). For instance, a consumer anticipating the purchase of canned tuna may wish to evaluate the ecological responsibility of the manufacturer as a cue. Lacking any available information, the consumer may infer that, since one brand's label does not mention "dolphin safe," the brand does not meet this criterion.

Some situations may call for a single-cue heuristic. Examples of a single cue might include price or the recommendation of a friend (Jacobson and Aaker 1987; Lichtenstein and Butron 1989; Olshavsky 1985; Roa and Monroe 1989; Urbany, Bearden and Weilbaker 1988). Another single cue might be simply the use of quality perception information stored from a prior purchase or use. For marketers, then, an important task becomes the identification of cues which might be used singly. While the single cue for some low involvement goods such as pencils or tissue may be price, quite different single-cue analyses would certainly be used for other products, e.g., consumers deciding on lunch may look only at speed of service, consumers purchasing pet

vitamins may consider only the recommendation of their veterinarian, etc.

This model also allows for switching between single-cue and multi-cue heuristics. Thus, a consumer might start with a single-cue heuristic, find it incapable of providing sufficient quality-connoting information, and switch to a multi-cue heuristic. A consumer initially choosing to use price as a single-cue determinant of the quality of video recording equipment may find that many brands are priced within close proximity of each other and feel the need to gather more information than was originally intended.

Conversely, a consumer might begin with a multi-cue process, find it too time consuming or costly to complete, and switch to a single-cue process. Brucks and Schurr (1990) found evidence that a consumer reduces information search when he has the option of bargaining. For instance, a consumer planning to purchase a new automobile may initially plan to consider the recommendations of friends, reviews published in *Consumer Reports*, and the results of "dealer cost reports" available from his insurance agency. After discovering the price of ordering multiple cost reports is more than anticipated and finding that the local library does not carry back issues of *Consumer Reports*, the consumer may choose to consider only his friends' recommendations if he is confident in his ability to bargain with the automobile salesman.

As a result of either a single-cue or multi-cue process, the consumer may form a quality perception prior to making a purchase. Of course, the model allows for a situation in which no pre-purchase quality evaluation occurs. Alternative evaluation then occurs followed by choice (see Engel and Blackwell 1985, etc. for more explanation on these processes). After the purchase, the consumer has two choices: to conduct post-purchase quality evaluation or not. Thus one might find a consumer saying, "Since I regularly buy Crest toothpaste, I must think it is high in quality." Even if there is no explicit evaluation at this point, information from the pre-purchase quality perception process (if conducted) and the choice process is probably recorded in memory for future use.

A consumer may decide to conduct a post-purchase quality evaluation process under circumstances when he is either satisfied or dissatisfied with the product. Though totally satisfied with the product, the consumer may initiate the evaluation to provide "objective" information on quality and on the best heuristic to use in future quality evaluation processes. When the consumer experiences dissatisfaction, he may or may not conduct

a post-purchase quality evaluation.

The model depicts that after a post-purchase quality evaluation occurs (if indeed it does occur), the consumer may develop (consciously or not) insights into his own quality perception process. The result is that salient cue or cues are recognized as such and stored in memory for future decisions involving this and perhaps other products. For example, a consumer may have used the single cue of price as an indicator of quality, purchased a high price brand, experienced dissatisfaction, conducted a post-purchase evaluation, found that a friend's recommendation would have been much more useful in evaluating quality, and thus recognize that friends' evaluations might be a salient single cue strategy in future quality evaluation of this product class. The double line in Figure 1 shows this feedback loop to memory.

An important consideration when viewing the model in Figure 1 is the effect of the environment on the entire process. The figure lists several of the environmental factors (based on past studies) that can drastically alter the path a consumer chooses to take. A person evaluating the quality of furniture may be influenced heavily by the presence of a "significant other" and by the degree of involvement and risk associated with the particular product (cf., purchase of a coffee table vs. purchase of a bed for a first child).

Conclusions

Before examining quality, the marketer should conceptually define the term and present that definition when the work is published. Sound operational definitions and measures of quality need to be developed, refined, validated, and proven reliable. The proposed conceptual and theoretical model (Figure 1) provides a framework for marketers to use. The model helps marketers better understand the quality perception process that consumers go through. And, as with any aspect of consumer behavior, a better understanding equips the marketer with information that can be used when developing marketing strategy.

Programmatic studies that explore linkages and associations discovered over a range of product categories, customer types, usage situations, cultures, etc. are necessary to validate the model. Researchers interested in conducting this type of research should be aware of criticisms of past studies made by Olson (1972, 1973), Purwar (1981) and Monroe and Krishnan (1985) and seek to avoid such methodological and theoretical flaws.

Suggestions for Future Research

As with any conceptual model, the framework provided by the authors has potential for aiding practitioners. To fully realize this potential, however, empirical validation of the model is necessary. This section outlines various aspects of the model for investigation and some potential means for the investigation.

The preference of a heuristic and the selection of cues are among the first issues that require further research to be fully understood. Olson's (1972) PV-CV theoretical framework provides one avenue that could be explored. That is, consumers choose cues which have a high predictive value and a high confidence value. While Olson hypothesized the interactive effect, one should certainly explore the extent to which either the predictive value or the confidence value takes precedence in certain situations. Also, researchers should explore the usefulness of other multi-cue preference formation heuristics such as compensatory and noncompensatory models (see Bettman 1979).

Other important research questions include why a consumer would use only one cue (see Olshavsky 1985), the extent to which certain cues are used frequently as a single cue (e.g., price), and how a consumer uses that cue to develop quality perceptions. The switching process also raises significant queries. One would want to know, for instance, when a change would likely occur and why. In addition, the investigation should attempt to identify what the consumer does with the "discarded" cue information. Exactly what information is stored in memory and how it is used later is a topic for exploration.

Several theoretical frameworks are available within which to explore the evaluation that occurs after dissatisfaction. As discussed previously, Olshavsky and Miller (1971) proposed the use of disconfirmation of expectations theory. A more complete test of the theory is needed to explore how post-purchase evaluations of quality occur as well as when, how and why a consumer would compare these to their prior expectations.

Another framework that is appealing in this regard is Festinger's (1957) theory of cognitive dissonance. If a consumer is dissatisfied with the performance of the product, he might try to resolve that dissonance through a post-purchase quality evaluation. As one method of resolution (under a cognitive dissonance framework), consumers might rationalize away many of their frustrations simply to reduce the dissonance.

Attribution theory (see Bem 1968 and Folkes 1984)

provides a possible theoretical basis to explore the situation in which one had not conducted a pre-choice evaluation of quality. Researchers should certainly explore the conditions under which a consumer who has not evaluated quality prior to purchase is likely to evaluate it after purchase.

As one explores the topic of post-purchase quality evaluation, several research questions are eminent. Which theory provides the most useful information in understanding the consumer process at this stage? It appears that one important factor is whether pre-purchase quality evaluations were formed (e.g., use disconfirmation of expectations theory) or not formed (e.g., use attribution theory). Also, can these theories be combined? Under what conditions will this post-purchase evaluation take place? How does it occur (i.e., single-cue vs. multi-cue processes), and how soon after purchase or usage does it occur?

Research is needed to explore the "cue salience" process including an investigation of how it occurs, how soon it occurs, etc. Yet another area for future research is simply to expand this list of potential environmental factors.

A final, quite more ambitious task, is to determine what effects these factors have on consumers' methods of quality perception formation. For example, one would like to understand the effect of environmental factors on the choice of whether to conduct pre-purchase quality evaluations, the choice of a single-cue or multi-cue heuristic, the decision to switch heuristics, whether to conduct a post-purchase quality evaluation, the nature and extent of the cue salience process, etc. A particularly difficult aspect of such an investigation is that the researcher will find such relationships quite person-product-situation-specific. However, some general effects might be uncovered.

Once a better understanding of the quality evaluation and perception process is cultivated, researchers can begin exploring more complicated issues. For example, in group decision making does this evaluation process differ depending upon the functions performed by the individual (i.e., information gatherer, influencer, decision-maker, purchasing agent, or user)? Is the process radically different for a final consumer than for an industrial buyer? Do consumers evaluate the quality of "common" goods and services differently than "aesthetic" goods and services (cf. laundry detergent vs. an art gallery exhibit or a concert)? Although these types of issues represent apropos areas of investigation for consumer researchers, no studies were found that explore them. Several authors have identified the need

for a better understanding of service quality specifically (e.g., Bitner 1990; Brown and Swartz 1989; Zeithaml, Berry and Parasuraman 1988). These represent good research ideas for future programmatic efforts.

Notes

1. Holbrook and Corfman did explore this viewpoint initially in their paper (p.35), but they did not use it as a foundation for their definition.
2. For detailed discussions of these studies and their concurrent flaws, readers should refer to the reviews cited. Monroe and Krishnan (1985) provide an exceptional review that may provide insights for consumer marketers.

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