Perceived Quality Levels and their Relation to Involvement, Satisfaction, and Purchase Intentions

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This study investigated the effect of various perceived quality levels on product involvement, overall satisfaction and purchase intentions. The research involved a survey of 204 students at a Greek university. The results show that perceived perceptions of product quality were significantly related to all the variables under investigation. However, perceived quality explained more of the variance in overall satisfaction than in product involvement and purchase intentions.

Keywords*:* purchase intentions, satisfaction, product involvement, perceived product quality

Introduction

Perceived product quality is perhaps one of the most important constructs in marketing. In recent years, perceived quality has been the subject of considerable interest by both practitioners and researchers, mainly in services marketing (Cronin & Taylor, 1992; Parasuraman, Zeithaml & Berry 1996). However, work that integrates the role of perceived product quality within the context of other marketing variables like product involvement, consumer satisfaction and purchase intentions has received less attention. Moreover, the relationships between these constructs for goods rather than services have not been studied extensively in marketing.

Perceived quality has attracted the interest of practitioners and researchers because of a belief in its beneficial effects on marketing performance. Indeed, the belief that high perceived quality leads to repeated purchases is the bedrock of any business. Thus a better understanding of the relationship between perceived product quality and product involvement, consumer satisfaction and purchase intentions may help academics develop a model of consumer decision making for goods. It may also provide practitioners with indications as to where best to devote marketing attention and scarce corporate resources.

This study intends to contribute to the development of a conceptual framework that integrates perceived product quality, involvement, satisfaction and purchase intentions. Specifically, the study investigates the relation between differences in quality perceptions and product involvement, consumer satisfaction and purchase intentions. It reviews the literature on these four constructs and outlines the expected relationships. Appropriate measures are identified and research is carried out among sport shoes consumers. Implications for theory development and management are discussed, limitations of the study are noted and possible areas for further research are indicated.

Hypotheses

While quality is a multidimensional concept that cannot be easily defined or measured, a distinction can be made between objective quality and perceived quality. Objective quality refers to the actual technical excellence of the product that can be verified and measured (Monroe & Krishman 1985). In contrast, perceived quality is the consumer's judgment about a product's overall excellence or superiority (Zeithaml 1988). Perceived product quality is a global assessment ranging from "bad" to "good", characterized by a high abstraction level and refers to a specific consumption setting.

The importance of perceived quality derives from its beneficial impact on purchase intentions, although contradictory research findings have been reported in the literature. Some scholars support a positive direct effect of perceived quality on purchase intentions (Carman 1990; Boulding, Staelin & Zeithaml 1993; Parasuraman et al. 1996), others report only an indirect

effect through satisfaction (Cronin & Taylor 1992; Sweeney, Soutar, & Johnson 1999) and yet others argue that both relationships exist (Tsiotsou 2006). However, it is of note that the dual effect (direct and indirect) of perceived product quality on purchase intentions has been found for goods, while the single effects (direct or indirect) have been reported from studies focused on services.

Although perceived quality is generally treated as a post-purchase construct (Holbrook & Corfman 1985; Roest & Pieters 1997), some scholars (Rust & Oliver 1994) support the notion that perceived quality is both a pre- and post-purchase construct, as they argue that a previous product experience is not needed to assess quality. Whether an interaction, a direct and/or indirect effect exists between perceived product quality and purchase intentions, marketing scholars agree that a relationship between these two constructs exists. Thus, it is hypothesized that:

H1: Consumers perceiving a product being of high quality have higher intentions to purchase the product than consumers perceiving a product being of low quality.

Often, the terms perceived quality and satisfaction have been used interchangeably, especially among practitioners. However, Rust and Oliver (1994) proposed that perceived quality and satisfaction differ in two ways: perceived quality is a more specific concept based on product and service features, whilst satisfaction can result from any dimension (e.g. loyalty, expectations). In addition, perceived quality can be controlled to a certain degree by a company whilst satisfaction can not. Thus, it is suggested that "when perceived quality and satisfaction are regarded as overall assessments, perceived quality is understood as an antecedent of satisfaction and therefore precedes it" (Llusar, Zornoza & Tena 2001, p.721).

The research findings reported by Caruana (2002) and Tsiotsou (2006) verify the preceding role of perceived quality and suggest a direct effect of perceived quality on consumer satisfaction. Thus, it is expected that the higher the perceived quality of a product, the higher the consumer satisfaction. There is no agreement however, on whether there is an interaction effect between perceived quality and satisfaction. For some researchers no interaction effect exists between the two concepts (Llusar, Zornoza & Tena 2001) whereas others have reported an interaction effect between satisfaction and perceived quality on purchase intentions (Taylor & Baker 1994). Because marketing research reports that perceived quality is an important input to consumer satisfaction it was hypothesized that:

H2: Consumers perceiving a product being of high quality are more satisfied with the product than consumers perceiving a product being of low quality.

Another relationship proposed in this paper is that between perceived product quality and product involvement. Involvement has been defined as "a person's perceived relevance of the object based on inherent needs, values, and interests" (Zaichkowsky 1985, p.342) and more recently as "a motivational and goal directed emotional state that determines the personal relevance of a purchase decision to a buyer" (Brennan & Mavondo 2000, p.132). Involvement has been divided into product involvement and brand-decision involvement. Brand-decision involvement is the interest taken in making the brand selection whereas product involvement refers to the interest a consumer finds in a product class (Zaichkowsky 1985).

Marketing researchers have used product involvement for segmentation purposes because it is related to consumer behavior (Warrington & Shim 2000). Involvement has been related to information processing and search behavior (Bloch, Sherrell & Ridgway 1986), to brand loyalty and brand commitment (Beatty & Kahle 1988; Knox 2003), money spent and buying frequency (Shim & Kotsiopulos 1993). Furthermore, it has been found to have a direct effect on the level of satisfaction (Richins & Bloch 1991; Tsiotsou 2006), and to be a mediator between mood and shopping intentions (Swinyard 1993). However, the relationship between product involvement and perceived product quality has not been studied adequately in marketing.

There have been some studies which have indirectly linked involvement to perceived quality through various cues (Zaichkowsky 1988). Research has suggested that involvement affects the way quality cues operate. For example, low-involvement consumers are more inclined to adopt price as a cue whereas high-involvement consumers in addition to price, consider a variety of cues (Zaichkowsky 1988). However, there has been little to connect involvement and perceived quality directly. Tsiotsou (2006) found a direct relationship between these two constructs and reports product involvement is a significant predictor of perceived product quality.

Another recent study on wine drinkers, suggests that there are differences in the way drinkers at varying involvement levels approach the quality of the product. High-involvement drinkers differ from low-involvement drinkers in the conceptualization of product quality and in the importance of certain product attribute (Charters & Pettigrew 2006). Thus, it is expected that:

H3: Consumers perceiving a product being of high quality are more involved with the product than consumers perceiving a product being of low quality.

In summary, there are a range of differing opinions about the relationships between the various constructs outlined above, and these need to be resolved. This study is an attempt to contribute to this process. The purpose of the study was to investigate the relationship between perceived quality and consumer's product involvement, overall satisfaction, and purchase intentions. Specifically, the objective was to examine how different levels of perceived product quality relate to consumer's level of involvement, satisfaction and purchase intentions.

Method

The particular focus of the research is on university students and sports shoes. A study conducted by Hsu, Wu and Tien (2003) reported that university students attributed a symbolic value to sport shoes related to their lifestyle and showed a high degree of involvement with the product. This would therefore seem an ideal group to use to explore the relationships between perceived quality, involvement, satisfaction and purchase intention. Thus, an anonymous questionnaire was given to 226 university students in Athens, Greece. The response rate was 92%.

Instrument

The questionnaire consisted of four parts (Table 1). Part I included four questions related to sport shoes (use, time of use, frequency, importance of attributes).

Table 1: Items of the Study Questionnaire

Part I	Use of Sport Shoes	Scale
Q1: Do you wear sport shoes?		YES NO
Q2: When do you wear sport shoes? (*during exercise, all day long, when you walk, at work*)		YES NO
Q3: How often do you wear sport shoes?		(1=very rarely, 5= very often)
Q4: What are the most important attributes taken into account when buying sport shoes? (*Quality, Fashionable, Anatomic, color, design, Cheap*)		(1=not important, 5= very important)
Part II	Perceived Quality, Satisfaction, Purchase Intentions	Scale
Q1: How would you evaluate the quality of your sport shoes?		(1=very bad, 7=very good)
Q2: Overall, are you satisfied with your sport shoes?		(1=very dissatisfied, 7=very satisfied)
Q3: Will you buy sport shoes of the same brand?		yes, no, maybe, do not know
Part III	Personal Involvement Inventory (7 point bi-polar scale)	
important - unimportant		
irrelevant - relevant		
means a lot – means nothing		
worthless - valuable		
interesting - boring		
unexciting to me - exciting		
unappealing to me - appealing		
not needed - needed		
mundane - fascinating		
uninvolving - involving		
Part IV	Demographics	
Q1: Gender		
Q2: Age		
Q3: Education		
Q4: Marital status		

Part II consisted of three items. The first item measured perceived product quality (7 point scale; 1 = very bad quality, 7 = very good quality). The second item referred to overall satisfaction (7 point scale; 1 = very dissatisfied, 7 very satisfied) and the third item asked about purchase intentions.

Part III measured the respondents' involvement with sport shoes. The revised version of the Personal Involvement Inventory (PII) developed by Zaichkowsky (1985, 1994) was used to measure involvement with sport shoes. The Personal Involvement Inventory (PII) has a reported reliability of 0.90 and has been extensively used in the marketing literature to measure consumer involvement with products, advertising, and purchase decisions (Goldsmith & Emmert 1991). Part IV gathered demographic data.

Sample

The sample consisted of 128 females (63%) and 76 males (37%), with a range in age from 17 to 45 years (mean = 21.64, median = 21). Most of them were first time students (90%) whereas 10% already held a bachelor's degree. The majority of the respondents were single (93%).

From the sample of 204 subjects, 197 (96.56%) wore sports shoes. The majority wore them very often (47.1%) or often (21.2%); 67.9% wore sport shoes all day long and 17.3% only during exercise. Good quality (32.2%), innovative design (23.6%) and anatomic manufacturing (15.1%) were cited as the main attributes taken into account when buying sport shoes.

Analysis

Preliminary inspection suggested that assumptions made in using the MANOVA (independence of observations, equality of variance-covariance matrices for the independent variable and normality of the dependent variables) were not compromised to any significant extent. Furthermore, using Stevens (1992) sample size recommendations for MANOVA, the size of the groups (low=60, medium=74, and high=63) was considered more than adequate for running a 3-group MANOVA (power = 0.90 at α=0.05).

Results

One-way Multivariate Analysis of Variance (MANOVA) was used to uncover group differences across multiple variables in a design with one factor (perceived quality). The MANOVA was used to investigate the effect of different perceived quality levels on satisfaction, involvement and purchase intentions. The independent variable, perceived sports shoe quality, was used to classify respondents as low, medium, and high quality (with group sizes 60, 74 and 63 respectively). The dependent variables of the study were product involvement, overall satisfaction and purchase intentions. The results of the MANOVA are presented on Table 2.

Table 2: Mean Ratings for the Dependent Variables in Each Perceived Quality Group[a]

	Perceived Sport Shoe Quality Level		
Variable	Low	Medium	High
Purchase Intentions	2.15 (1.039)	2.65 (0.711)	2.94 (0.246)
Overall Satisfaction	5.02 (0.813)	5.88 (0.661)	6.54 (0.563)
Involvement	4.26 (1.049)	5.11 (0.951)	5.57 (0.962)

[a] Table contains means and (in parentheses) standard deviations.

Follow-up Analyses of Variance (ANOVAs) and pair-wise comparisons using the Tukey test were conducted to determine if any differences existed within the groups in the dependent variables. The null hypothesis of no differences was rejected (Wilk's Λ=0.499, p=0.000). Thus, the overall MANOVA results show that the three groups based on perceived quality differ overall in terms of their involvement, overall satisfaction, and purchase intentions.

Univariate F-tests were run for all sets of groups on the dependent variables to determine where the differences existed (Table 3). Significant differences between groups on each dependent variable were detected (p=0.00). The eta squares (η^2) of the univariate F-tests indicated that perceived sport shoes quality explained more of the variance in overall satisfaction (0.441), than in product involvement (0.225) and purchase intentions (0.157).

Table 3: ANOVA Results for the Dependent Variables

Variable	F	Significance	ETA Square
Purchase Intentions	18.081	0.000	0.157
Overall Satisfaction	76.701	0.000	0.441
Involvement	28.228	0.000	0.225

To protect against family-wise error, group contrasts for all the dependent variables were tested using the Tukey procedure. Pair-wise multiple comparison tests tested each pair of perceived quality groups to identify similarities and differences. All the contrasts were significant at the 0.05 level except one (medium vs. high perceived quality group on purchase intentions) - see Table 4.

Table 4: Perceived Sport Shoes Quality Contrasts

Contrast	Estimate (Standard Error)	95% Interval
Purchase Intentions		
Low vs. High	-0.79[a] (0.132)	-1.10, -0.47
Medium vs. High	-0.29 (0.126)	-0.58, 0.01
Low vs. Medium	-0.50[a] (0.127)	-0.80, -0.20
Overall Satisfaction		
Low vs. High	-1.52[a] (0.123)	-1.81, -1.23
Medium vs. High	-0.66[a] (0.117)	-0.14, -0.38
Low vs. Medium	-0.86[a] (0.119)	-1.14, -0.58
Involvement		
Low vs. High	-1.32[a] (0.178)	-1.74, -0.90
Medium vs. High	-0.46[a] (0.169)	-0.86, -0.06
Low vs. Medium	-0.86[a] (0.171)	-1.26, -0.45

[a] The mean difference is significant at the 0.05 level.

Discussion

The main objective of the study was to investigate the effect of perceived product quality on product involvement, consumers' overall satisfaction, and purchase intentions. This investigation confirmed previous findings on the important role of perceived product quality on consumer behavior, and lead to the identification of the effects that different levels of perceived quality have on involvement, overall satisfaction and purchase intentions.

The multivariate analysis of variance (MANOVA) results showed that the three groups based on perceived quality (low, medium and high) all differed significantly from each other with regard to purchase intentions, overall satisfaction and involvement. Thus, the three hypotheses of the study were confirmed and perceived product quality was able to discriminate between the three groups.

The group-mean scores indicate that overall satisfaction, product involvement and purchase intentions are low in the low perceived quality group and high in the high perceived quality group. Thus, consumers who perceive the quality of their sport shoes as low are less involved and satisfied with them whereas they report less intention for buying them in the future. However, consumers perceiving the quality of their sport shoes to be of high quality report higher involvement and satisfaction with them and higher intentions to buy them again.

The ANOVA results indicate that the differences between groups on each dependent variable are significant. However, the biggest difference was detected in satisfaction. Perceived quality explained 44% of the variance in satisfaction confirming the close relationship between the two construct reported in previous studies (Llusar, Zornoza & Tena 2001; Caruana 2002; Tsiotsou 2006). The second biggest difference was detected in product involvement (explained variance 0.225) followed by purchase intentions (explained variance 0.157).

Pair-wise comparisons between perceived quality groups (low vs. high, medium vs. high, low vs. medium) in purchase intentions, product involvement and overall satisfaction showed that all groups were different with one exception: the medium and high perceived quality groups did not differ significantly from each other in terms of purchase intention. Thus, consumers, perceiving the quality of their sport shoes being of medium or high do not differ significantly in their purchase intentions. This finding indicates that a threshold might exist in perceived quality. When perceived quality passes this threshold, consumers will have the same (higher) intentions to buy a product regardless of their satisfaction and involvement level with it.

The results on sport shoes (frequency of use and important attributes) indicated that sport shoe is a frequently used product that has become an everyday and all day long worn shoe. Quality and design are the two most important factors that are taken into account by young consumers when buying sport shoes.

Perceived product quality is an important issue in the development and implementation of marketing strategies aimed at brand image building and increasing market share. To build long-term relationships with consumers, marketers must ensure that the perceived quality of their products among consumers is high and remains so. Thus, when developing marketing strategies, marketers have to take into consideration perceived quality and every factor associated with the construct. Knowledge of how service quality is related to satisfaction, purchase intentions and product involvement might enable marketing managers to develop

more effective marketing mixes, as product quality is more under the control of the business. Because perceived quality is a subjective judgment, marketing managers need to use possible cues or attributes that are related to quality. For example, external cues such as price, brand name, warranties, and objective quality information have been found to be related to perceived product quality and consumer's product evaluations (Rao & Monroe 1989; Dodds, Monroe & Grewal 1991; Dodds 2002). This suggests that promotional activities and advertising messages should be designed so that they emphasize such product attributes and cues that will enhance consumers perceived product quality. Moreover, retailers need to be aware of the product attributes and external cues associated with perceived quality. Since quality is so important to sport shoes consumers, retailers should include in their merchandise branded products that are considered by consumers as high quality brands.

Perceived product quality could be also used by marketers as a segmentation criterion in order to identify homogeneous groups of consumers. The basis selected for segmenting a market is a key factor in providing a firm with a strategic advantage over its competitors. The results of the study indicate that consumers with different perceptions of quality (low, medium, high) differ also in their level of satisfaction, product involvement and purchase intentions. Thus, the most profitable, reachable segments could be targeted in order to achieve marketing goals and respond to competition challenges. Moreover, perceived product quality could assist managers in positioning their products in the consumers' perceptional map and differentiate them from competitor brands.

Finally, sport shoes manufacturers should focus on the quality, design and anatomy, and marketing managers should emphasize these attributes in their communications and promotional activities in order to retain their consumers, attract new ones, and increase profitability.

Limitations and Future Research

All research has its limitations and this study is no exception. This research is limited to a single product class (sport shoes) and consumer group (university students), so the effect of perceived product quality needs to be investigated in other products and consumer groups before generalizations can be made. The sample size is not large but adequate for the type of analysis undertaken.

Despite these limitations, the author believes that the present study indicates a promising direction for further research in product quality perceptions. More research is necessary in studying the role of perceived quality in goods. Perhaps more emphasis on the distinctive characteristics of perceived quality in different product categories will enable marketing academics and practitioners to study and manage perceived quality and related constructs (e.g., perceived value, loyalty, product involvement, satisfaction, and purchase intentions) more thoroughly. Furthermore, it is possible that other variables are also important to the purchase decision making process. Thus, the effects of external cues (e.g., price, brand name, warranties) and information sources (e.g., internet, ads, and friends) on perceived quality, overall satisfaction, product involvement and purchase intention should be investigated.

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