UNDERSTANDING VALUE: THE ROLE OF CONSUMER PREFERENCES

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It is now widely believed that delivering customer value is the key to corporate success (Kotler 1995). It is imperative, therefore, that firms understand how consumers assess value. Prior research on value has not examined the role of consumer preferences in quality judgements and value formation. In this exploratory study, we attempt to test our main propositions that what consumers want in a product or service drives their perception of product quality and that it influences both perceived value and willingness to buy. Our study involves 524 student subjects in three experiments. We find strong evidence to support our propositions and confirm the influence of consumer preferences on perceived quality, perceived value and purchase intention. Since these findings are consistent across three product categories (durable, non-durable, and service), we conclude that the essential process of quality and value perception may not be sensitive to type of product.

From a managerial perspective, this study underscores the value of approaching the business from the customer's angle. It validates the soundness of techniques such as "quality function deployment" as means to incorporate the "voice of the customer" in the product design process. Firms need to formulate and communicate product attributes to target markets in terms of consumer (or customer) needs and wants. Businesses need to pay close attention to designing marketing information systems that identify and monitor consumer preferences as well as ascertain their relative importance.

INTRODUCTION

Everyone seems to want value these days. What does it mean to provide value and how do consumers infer value? These questions are becoming very critical as firms continue to work in a very competitive and dynamic market place. In addition, as Kotler (1995, p 26) suggests "in the 1970s consumers were ready to pay 'more for more' and hence luxury goods flourished. In the 1980s consumers began to demand 'more for the same' and hence the discounting era grew strong. Today's consumers are demanding 'more for less' and hence the winners will be the supervalue marketers." Hence understanding what value is and how consumers form value perceptions are critical managerial concerns. Philips et al. (1990) suggest that we are living in the decade of consumer satisfaction. Since perceived value is probably the most important precursor of consumer satisfaction, managers and researchers clearly need to study value more carefully with special emphasis on understanding the antecedents of value perceptions.

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There are several other reasons for paying more attention to value. One, Treacy and Wiersema (1993), based on a three year study of 40 companies, identify three predominant value disciplines: (i) operational excellence, (ii) customer intimacy, and (iii) product leadership. They note that each of the three value disciplines focuses on a set of customers who define value in a particular way. Their study provides compelling evidence that in order to be successful companies have to be strong in at least one value discipline and provide minimum standards along the other two disciplines. However, in order to implement these strategies successfully, firms need to first understand how consumers define value.

Two, in an independent study, Normann and Ramirez (1993) suggest that traditional thinking equates strategy with adding value and, to be successful, a company simply positions itself at the appropriate place in the value continuum. However, the fast-changing competitive environment makes the traditional approach less useful, particularly as the fundamental logic of value creation is also changing continually. Hence, Normann and Ramirez's study suggests that the challenge for companies in the nineties is not to simply confine themselves to *adding value* but to find ways of *inventing* value.

Three, Power (November 1991) suggests that value marketing means much more than price discounts and coupons. It means giving more than an improved product with added features and services at a better price. The article also suggests that in order to succeed in today's marketplace a firm needs to change the role of marketing from simply being a means to shape image to that of being a system to provide consumer value.

Unlike other marketing buzzwords, therefore, value orientation appears to reflect a permanent shift in the tastes and preferences of consumers, likely precipitated by sluggish growth in consumer incomes and increased consumer debt. Firms need to understand value as it applies to their business even to merely survive.

The primary goal of our paper is to contribute to the literature on value perceptions by answering some aspects of the questions raised earlier. Specifically, we propose a simple integrative model of value formation and design an experiment to investigate the strength of the relationship between consumer preferences and the perception of quality and value. We also examine whether higher perceived value translates into greater purchase intention. We test these relationships across different product categories.

Our study is important from both managerial and research perspectives. Managerially, understanding how value perceptions are formed will enable firms to do more thorough market analysis, product planning and segmentation and, thereby, contribute to greater consumer satisfaction and loyalty (Zeithaml 1988, Treacy and Wiersema 1993). Also, clearer understanding of the antecedents of value would enable firms to better develop new products and pricing strategies (Mazumdar 1993, Christopher 1982, Kortge and Okonkwo 1993).

Our study adds to the stream of research on value perception along two dimensions. One, our approach looks at value perceptions for more than one product category. Researchers have acknowledged the need to investigate value perceptions and quality perceptions across more product categories (Chang and Wildt 1994, Lichtenstein and Burton 1989) but to our knowledge no study has specifically carried out an investigation.

Two, traditional research on value perceptions tends to focus more on the *transactional value component* (i.e., "good deal" aspects) as opposed to the *acquistional value component*, i.e., "intrinsic worth" aspects (Yadav and Monroe 1993). Our study focuses more on the latter component. Specifically, we test for the first time whether perceived quality is moderated by attribute preferences of consumers, in an experimental setting. We also examine if perceived value and purchase intentions are affected by attribute preferences of consumers.

The rest of the paper is organized as follows. Section two reviews the literature while section three briefly defines terms, describes our conceptualization and derives the key propositions of the study. Section four describes the experimental design and the measures employed. Section five summarizes the findings, implications and limitations of the study, and identifies some areas for future research.

LITERATURE REVIEW

The literature on value is intimately connected with two related streams of work namely: (i) the research on how consumers perceive price and quality and their relationship to value perceptions and (ii) the research on how consumers perceive value based on these price and quality perceptions. The former stream has received much more attention that the latter stream. We briefly review the work in each of these areas in the following paragraphs. First we discuss the price/quality perception research stream and then the value perception research.

Research on Price/Quality Perception

Monroe and Krishnan (1985) were among the first to suggest a comprehensive model relating objective price to perceived price. They posit that perceived price affects perceived sacrifice and perceived quality and suggest that these perceptions in turn affect perceived value. Finally, they relate perceived value to willingness to buy. The details of their model includes intrinsic and extrinsic attributes and these are conceptualized as affecting perceived sacrifice.

Zeithaml's (1988) model includes brand and store names as the specific extrinsic cues that affect both quality and value. Dodds, Monroe and Grewal (1991) conduct an empirical evaluation of the model proposed by Zeithamal. The main contribution of this study is that they explicitly investigate the role of external cues on value perceptions, which is discussed later. In addition, these authors test several hypotheses concerning the external cues and their relationship to price and quality.

Rao and Monroe (1989) in their meta analysis summarize the results of the approximately thirty empirical studies done prior to 1988. Their principal conclusions are as follows: (i) multiple and consistent cues have a stronger effect on perceived quality than single cues, and (ii) when buyers infer a positive relationship between price and quality they use some reference brand to compare prices. These results suggest that when external cues are present it is important that they be consistent in order to provide a facilitating influence on quality perceptions. The second result reinforces the idea of consumers using a reference price while evaluating actual prices and suggests consumers may compare other attributes also. This comparison, in turn, directly affects quality perceptions. Most of the results of the Dodds, et al. (1991) study support the main conclusions of the Rao and Monroe (1989) meta analysis.

Research on Value Perception

Compared to the earlier stream of work, research in this area is rather limited. There are very few empirical studies explicitly addressing the issue of how value perceptions are formed. Our search yielded only three studies: Hauser and Urban (1986), Dodds, Monroe and Grewal (1991) and, more recently, Chang and Wildt (1994). We address the key issues examined by these studies next.

Hauser and Urban (1986) contend that consumers appear to use two buying strategies for durable goods: a value priority approach where value is approximated as the utility per dollar or net value approach where value is approximated as the utility minus price. Their central goal was to determine which of the above two strategies dominated. Their results did support the idea that consumers do rank the alternatives prior to buying but the results did not come out clearly in favor of the value priority strategy or the net value strategy. It is important to note that the two strategies suggested by Hauser and Urban imply tradeoffs similar to two of the four consumer based definitions of value identified by Zeithaml (1988).

The main contribution of the Dodds, Monroe and Grewal (1991) study is that they explicitly investigate the role of external cues on value perceptions. Their key hypothesis concerns the link between price and perceived value. They posit that when price increases from a lower-priced model to a higher-priced model, then (i) the relationship between price and perceived quality will be positive, and (ii) the relationship between price and perceived value and between price and willingness to pay will by quadratic (both being inverted Us). In other words they seem to suggest that when price increases from a lower priced model to a higher-priced model, buyers' perception of value will first increase and then decrease. However, their results do not appear to support this key contention. They find a simple negative relationship between higher prices and perceived value and suggest that one possible reason for the lack of curvilinear relationship could be the insufficient price points at the extremes of the continuum. The major conclusion emerging from their study is the notion that there could be a non-linear relationship between price and perceived value.

Chang and Wildt (1994) investigate the role of a large number of related variables using a single data set. Specifically their study looks at the links between price, product attributes, perceived quality, value and purchase intention. Their main conclusions are: (i) perceived price is positively influenced by objective price and negatively by internal reference price, (ii) there is a positive price-perceived quality relationship and this relationship is moderated by the presence of substantial additional product information, (iii) a tradeoff between perceived quality and perceived price leads to value which in turn is positively related to purchase intention, and (iv) these relationships may be moderated by product type.

To summarize, the results of the research till now indicate (i) that consumers use perceived price and perceive quality to infer perceived value, (ii) that external cues play an important role in the formation of these perceptions, (iii) that the relationship between perceived value and price could be curvilinear, (iv) that only the tradeoff based approach to value has been explicitly tested but that study is equivocal about the functional form, and (v) that almost all the value perception studies confine themselves to consumer durables.

DEFINITIONS, MODEL AND RESEARCH QUESTIONS

In this section, we first review definitions of the key terms value and quality, then state our interpretation of the terms. Next, we present a simple model of how consumers assess value and highlight the research questions this study attempts to address.

Review of Definitions

Definitions of Value: Research on value has had a very muddled track record and researchers seem to use the term value interchangeably with the concepts of quality and price (Rockefeller 1986). This practice is probably one reason we do not have a clear definition of what constitutes value and how it differs from quality. The confusion has been probably acerbated because (i) value is a complex equation (Chain Store Age 1985), (ii) value is highly personal and idiosyncratic (Zeithaml 1988), and (iii) managers are confronted with a multitude of similar sounding words (e.g., value in use, value analysis and use value) but with markedly different meanings (Reddy 1991).

In her pioneering study on value, Zeithaml (1988) identifies four recurrent themes associated with value namely: (i) value is low price, (ii) value is whatever I want in a product, (iii) value is the quality that I get for the price I pay, and (iv) value is what I get for what I pay.

She further proposes that these four expressions can be captured by one overall definition: *"perceived value is the consumer's overall assessment of the utility of a product based on perceptions of what is received and what is given"* (Zeithaml 1988, p 14). This tradeoff approach has also been adopted by Monroe (1991) and Dodds (1991). Holbrook adopts an axiological approach and defines value as an interactive, relativistic preference experience (Holbrook & Corfman 1985, p 40). His definition emphasizes several key elements concerning value perceptions viz. that value involves a preference, value depends on the subject and object, value is comparative and situation specific and that value is experience based. The Zeithaml (1988) definition and the Holbrook definition are similar in the sense that both stress consumer satisfaction but the latter suggests a stronger product, situation and experience orientation than the former. Our perspective is consistent with both approaches. We conceive value essentially as a tradeoff between perceived quality and perceived price which may be consumer, product and time specific.

Definitions of Quality: Quality has also had "multitude and often muddled definitions" (Reeves and Bednar 1994, p 419). For example, Abbot (1955) and Feigenbaum (1951) associate quality with value, Crosby (1979) and Gilmore (1972) define quality as conformance to specifications/requirements and Gronroos (1983) and Parasuraman, Zeithaml and Berry (1985) conceptualize quality as meeting or exceeding consumer expectations. As Holbrook and Corfman (1985) point out "marketing applications have tended to view product quality as a perceived attribute rather than an overall evaluative judgement, thereby skirting the issue of what determines quality perceptions themselves" (p 38). Reeves and Bednar (1994) provide a comprehensive review of the several definitions of quality and also compare the strengths and weaknesses of the different definitions. They conclude that a complex multi-dimensional construct like quality probably cannot be and probably should not be constrained by a single definition. They suggest that the challenge is to come up with a definition that is comparable, cumulative and pertinent to the conceptual framework.

Since research suggests quality is the single most important factor affecting the long run profitability of companies (Buzzel and Gale 1985), it is useful to look at the way some of the major companies define quality. Skinner (1994, p 25) points out that IBM defines quality as "meeting the requirements of our customers both inside and outside the organization," and that for Boeing quality means "providing a product that satisfies the needs of the customer...makes the needs of the customer paramount." There is also evidence that firms incorporate the "voice of the customer" in the product development process by first ascertaining customer needs and translating them into design attributes (Griffin & Hauser 1993). The relative importance of these needs and customer satisfaction perceptions of competing brands/products are also important inputs in this process.

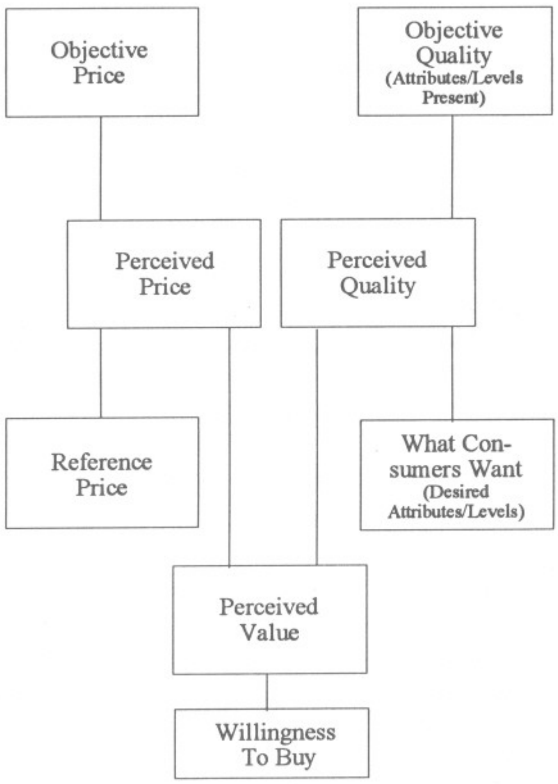
The above discussion suggests that any definition of quality should have a strong consumer focus, constitute an overall multidimensional judgement and should focus on the antecedents of quality perceptions to be useful. In keeping with these objectives we conceive perceived quality to be a concept that is primarily driven by a comparison of objective product attributes with the needs and wants of the consumer.

Model and Research Questions

In order to clearly delineate the study objectives, we present our model of value formation (Figure 1). As can be readily seen, we define value as a tradeoff between perceived quality and perceived price, as has been suggested by several others (e.g., Zeithaml 1988, Monroe 1990, p. 54, Dodds 1991, Chang & Wildt 1994). Like Hauser & Urban(1986), we look at both functional forms of measuring value, i.e., as a ratio as well as a difference.

FIGURE 1

A Model of Value Perception and Purchase Intention



We assume that perceived price is a function of objective price and reference price. In other words, we suggest that consumers judge a price to be high or low relative to a reference price. This is not controversial either, with several empirical studies confirming the moderating role of reference prices in consumer price perception and choice (e.g., Winer 1986, Lattin & Bucklin 1989, Jacobson & Obermiller 1990, Kalwani, et al. 1990, Mahew & Winer 1992, Rajendran & Tellis 1994).

We have deliberately avoided the possible linkage between price and perceived quality to keep the model simple and because the price/quality issue does not arise in the current study. Likewise, brand and store image issues have also been avoided in this study. While many of the linkages have been studied in the literature, (e.g., Chang and Wildt 1994) no study has (to our knowledge) examined the linkage between consumer preferences and perceived quality. This is the key rationale for the study.

Influence of Consumer Preferences

The particular focus of the current study is the role of consumer preferences in consumer perceptions of quality and value. We turn to these issues next.

Perceived Quality: We conceive perceived quality as being influenced by consumer wants and expectations. This is clearly what we should expect if we subscribe to the marketing concept. As presented in our discussion of quality definitions earlier, the integral nature of consumer needs and wants to consumer quality perceptions appears to be supported theoretically, practically and conceptually. Despite the apparent confusion around the meaning of quality, Reeves and Bednar (1994) argue that "the most pervasive definition of quality currently in use is the extent to which a product or service meets and/or exceeds a customer's expectations." Griffin and Hauser (1993) find strong correlations between attributes considered important by consumers and their evaluation of product concepts, though that is not the main focus of their study. Hence, we expect that meeting consumer preferences (through presence of "desired" attributes) will positively influence quality perceptions.

Perceived Value: Our definition of value as a tradeoff (as most prior studies have done) suggests a positive influence of perceived quality and a negative influence of perceived price on perceived value. If the effects of perceived price are neutralized, as we attempt to do in this study, there is a direct positive link between perceived quality and perceived value. As we anticipate perceived quality to be influenced by consumer preferences, we also expect that meeting consumer preferences will influence perceived value positively.

Purchase Intention: Our model assumes that perceived value positively affects willingness to buy. Again, this assumption is in line with the suggestions and findings of others (e.g., Monroe & Krishnan 1985, p. 211, Zeithaml 1988, Monroe 1990, p. 46, Dodds 1991, Chang & Wildt 1994). In our case, therefore, this implies a positive relationship between meeting (or incorporating) consumer preferences and purchase intention. Griffin and Hauser (1993), however, find weak correlation between attributes of products chosen (i.e., "revealed" preferences) and attributes deemed important by consumers, and suggest the anomalous result is due to possible multicollinearity among the attributes employed. In the present instance, we are looking at purchase intention and not choices. We are also not dealing with a multitude of variables simultaneously. Further, we are controlling the environment so that configuring a product closer to "desired" attributes, if the model is true, should result in higher perceived quality and perceived value. Hence, we expect that meeting consumer preferences will positively affect purchase intention.

Stability of Pattern: Chang & Wildt (1994) find that the strength of relationships among constructs in their model is different for PCs and apartments. They suggest that there is a "product difference" in the magnitude of relative influence of one construct on another. We concede that there are probably differences by product (or by product type) in the *magnitudes* of influence but we have no a priori or theoretical grounds to believe that the *pattern* of influence among the constructs in the value perception process varies by product. Hence, our "null" expectation is that the pattern of influence in the value perception process is the same for all three products studied.

In summary, the main research questions this study addresses, and the related "propositions" this study tests, are stated below.

1. Do consumer preferences (or "desired" attributes) influence perceived quality?
   Proposition 1 (P1) Perceived quality will be positively influenced by the presence of desired attributes, other conditions being the same.
2. Do consumer preferences (through perceived quality) drive value judgements and willingness to buy?
   Proposition 2 (P2) Other conditions being the same, presence of desired attributes will influence perceived value positively.
   Proposition 3 (P3) Other conditions being the same, presence of desired attributes will have a positive impact on willingness to buy.
3. Are these relationships uniform over product categories?
   Proposition 4 (P4) The pattern of influence of presence of desired attributes on perceived quality, value and purchase liklihood is invariant over product category.

STUDY DESIGN & MEASURES

The study comprises a set of three between-subjects experiments, each involving a different product type. The subjects were 524 business majors at two mid-western universities. These experiments were conducted sequentially over a period of about a year, approximately 4 months apart. Each subject participated in only one of the three experiments. There are three experimental conditions (product attribute configurations or levels) in each experiment. Subjects were assigned to conditions randomly.

Table 1 summarizes key aspects of the study design. Three products are studied; car, cable tv and pizza to reflect three different product categories. Three configurations of attributes are considered for each product. One of the configurations is manipulated to be the "desired" configuration in respect of each product. Care is taken to ensure that the "level" of the desired configuration is different in each of the three experiments, i.e., it varies from the top of the line configuration in one experiment to the basic configuration in another.

TABLE 1

Characteristics of Studies

CHARACT-ERISTIC	STUDY 1	STUDY 2	STUDY 3
Product	Car [Favorite Brand Purchased from Preferred Dealer]	Cable Tv [Provided by Apartment Complex Owner for a Monthly Fee]	Pizza [Purchased Late at Night from a Pizzeria in a College Town]
Configurations [Target Prices]	Base [$16,900] Mid-line [$17,950] Luxury [$19,000]	Basic [$10] Enhanced [$20] Premium [$30]	Favorite [$6.60] 1 Additional [$7.20] 2 Additional [$7.80]
"Desired" Configuration	Luxury Trim	Enhanced Package	Favorite Topping
Reference Price	Cost of Car and Options from Dealer Same as Target Prices	Price If Obtained from Cable Co. Directly Same as Target Prices	Prices for Pizza and Toppings in the Area Same as Target Prices

Reference prices are also made available (via the "scenario") to respondents such that their effect on perceived prices would be minimized. In effect, reference price effects are "neutralized" by making reference prices the same as the objective (target) prices. Since comparison prices provided are identical to the objective prices, we assume that perceived prices in this study are the same as objective prices.

Subjects were told prior to distributing the scenario that the study is about perceptions and that there are no right or wrong answers. Each subject is presented with a scenario that describes a shopping situation for a particular configuration of a product (a typical scenario is provided as illustration in Figure 2). Then each subject is asked to indicate his/her willingness to buy that particular product and to furnish his/her reservation price for it in the spaces provided. About ten minutes are provided for the task. After completion of the task, the subjects are debriefed about the nature of the study.

Figure 2
Example of Scenario

Situation

Assume you are in the market for a car and would like one fully loaded with all the options. Further, assume that you can afford a car costing up to $20,000 before taxes, license and fees. You have done your research and have decided to visit a nearby dealership which carries the make of car you now prefer.

The dealer subscribes to the "one price" philosophy, i.e., all prices are fixed at manufacturer set levels and there is no price negotiation. Moreover, this philosophy extends even to options. Whether you buy one option or a package of options, you pay a fixed sum for each option (i.e., there are no option - package discounts, you pay exactly the same when you buy a package as when you buy them separately). This applies both to options installed at the factory as well as to dealer installed options. Further, this one price policy means that irrespective of who (i.e., factory or dealer) installed the option, you pay the same price. This is supported by providing identical warranties on options installed at the factory or the dealership. There is no difference in the quality of items installed by the factory or the dealership. There is no additional inconvenience to you (inordinate delay) on account of having the dealer install the options wanted.

You are now in the dealer's showroom and see that the prices of options you are interested in are as follows:

Stereo system (upgrade-6 speaker+CD)	--$450
Air Conditioning	--$800
Cruise Control	--$250
Antilock Braking System (ABS)	--$600

The "base" car, in the bodystyle you prefer, comes standard with all power options (brakes, steering, mirrors, doors), a basic cassette stereo (4 speaker), full instrumentation and key safety features (4-wheel disc brakes, airbags). It is priced at $16,900 (the "no haggle" price).

Decision

On the day you visit the dealership, unfortunately, you find there is only one car of the bodystyle and color of your choice. It happens to be a "base" car without any dealer installed options.

a. How likely are you to buy that car for $16,900 (before options)? (Circle a number)

Definitely Not		Probably Not		Undecided		Probably	Definitely	
1	2	3	4	5	6	7	8	9

b. What is the maximum amount you would pay for that car?

We measure perceived value as the difference between perceived quality and perceived price (and as their ratio). Since, in this study, we utilize a neutral reference price, we use target price in lieu of perceived price in measuring perceived value. We interpret perceived quality as the worth of the offer and measure it as reservation price. Willingness to buy is measured on a 9-point purchase likelihood scale.

In sum, in this study we are interested in examining whether presence of "desired" attributes affects quality perception and, in turn, value perception and willingness to buy. We specify the desired attributes, manipulate attribute configurations, and obtain responses on perceived quality (as reservation price) and willingness to buy (as purchase likelihood). We assess perceived value as a trade off between perceived quality and perceived price and measure it as (reservation price - target price) and as (reservation price ÷ target price).

RESULTS & CONCLUSION

Tables 2, 3 and 4 present the results of the three experiments involving the three different product categories. The first (top) panel furnishes the basic data, the configurations with their sample sizes, the means on the purchase intention score and the reservation price for each configuration. The second (middle) panel presents the differences between configurations in mean purchase intention scores and in mean reservation prices. The panel also indicates that the differences are statistically significant. The third (bottom) panel computes perceived value as a difference between average reservation price and target price. The ratio of reservation price to target price is also presented as an alternative way to measure perceived value.

TABLE 2

Experiment 1
Product : Car

FORM	AVG. PUR. INTN.	AVG. RES. PRICE ($)
BASE (N=57)	4.298	15,713
MID (N=62)	4.935	17,180
TOP (N=61) *	6.279	18,630

* DESIRED CONFIGURATION

DIFFERENCE	AVG. PUR. INTN.	AVG. RES. PRICE ($)
MID - BASE	0.637	1,467
TOP - MID	1.344 *	1,450
TOP - BASE	1.981 *	2,917

* SIGNIFICANT (p<0.05)

FORM	TAR. PRICE ($)	RES - TAR ($)	RES / TAR
BASE	16,900	-1,187	0.930
MID	17,950	-700	0.957
TOP	19,000	-370	0.981

TABLE 3

Experiment 2
Product : Cable TV

FORM	AVG. PUR. INTN.	AVG. RES. PRICE ($)
BASIC (N=57)	4.316	8.614
ENHCD (N=58) *	6.069	19.724
PREM (N= 57)	4.140	23.474

* DESIRED CONFIGURATION

DIFFERENCE	AVG. PUR. INTN.	AVG. RES. PRICE ($)
ENCHCD - BASIC	1.753 *	11.110
PREM - ENHCD	-1.929 *	3.750
PREM - BASIC	-0.176	14.860

* SIGNIFICANT (p<0.05)

FORM	TAR. PRICE ($)	RES - TAR ($)	RES/TAR
BASIC	10	-1.386	0.861
ENHCD	20	-0.276	0.986
PREM	30	-6.526	0.782

TABLE 4

Experiment 3
Product : Pizza

FORM	AVG. PUR. INTN.	AVG. RES. PRICE ($)
FAVRT (N=60) *	8.433	7.872
FAV+1 (N=56)	8.107	8.450
FAV+2 (N=56)	7.911	8.452

* DESIRED CONFIGURATION

DIFFERENCE	AVG. PUR. INTN.	AVG. RES. PRICE ($)
FAV+1 - FAVRT	-0.326	0.578
FAV+2 - FAV+1	-0.196	0.002
FAV+2 - FAVRT	-0.522 *	0.580

* SIGNIFICANT (p<0.05)

FORM	TAR. PRICE ($)	RES - TAR ($)	RES / TAR
FAVRT	6.60	1.272	1.193
FAV+1	7.20	1.250	1.174
FAV+2	7.80	0.652	1.084

Table 2 summarizes the results of the first experiment involving a consumer durable (car). The 'desired' configuration was the top of the line "luxury" version. The top panel clearly shows that there is a dramatic increase in the average purchase intention score for the luxury configuration. This is further borne out in panel two which shows that the average purchase intention score for the luxury version is significantly higher than the scores for the "mid-level" and "base" versions of the car. Panel three shows that as one moves from the base version towards the luxury version (the desired version) perception of value (measured as a difference or as a ratio) improves steadily.

Table 3 presents results of the second experiment that deals with a service (cable tv). The 'desired' configuration was the "enhanced" package. Again one sees from the top panel that the average purchase intention score is much higher for the enhanced package than for the "basic" and "premium" packages. The middle panel reveals that these differences are statistically significant. Again, the bottom panel shows that both measures of perceived value are highest for the enhanced package (the 'desired' configuration).

Table 4 shows the results of the third experiment which employs a consumer non-durable (pizza). The 'desired' configuration, in this case, was the pizza with the favorite topping. The top panel shows that the purchase intention score was highest for that configuration. The middle panel, however, reveals that the difference in purchase intention scores between the favorite topping configuration and those involving one or two additional toppings is statistically significant only for the two additional toppings case, suggestive of a possible zone of indifference. As before, the bottom panel shows that perceived value is highest for the pizza with the favorite topping.

To summarize, the results clearly suggest that perceived quality is strongly influenced by consumer desired attributes of products, supporting P1. Perceived value, whether measured as a difference or as a ratio, is highest for the configuration of the product that matches consumer wants. This supports P2 strongly. Further, there is little doubt that presence of desired attributes (through perceived value) influences purchase intention positively, supporting P3. Moreover, this pattern of positive impact of desired attributes on perceived quality, value and purchase intention is observed in all three experiments involving different products, lending support to P4.

However, we need to be cautious in interpreting the results. Though we attempt to minimize them through our procedures, our study is subject to all the usual limitations that using student subjects and artificial conditions may give rise to. Other ways of classifying products (for example, as search, experience and credence goods) may reveal differences in how people perceive value. We may also need to test the model for robustness using different methods (e.g., using causal modeling procedures) and employing alternative measures. The current study only provides baseline results that suggest that the model proposed is a fair approximation to the actual process.

From a managerial perspective, this study underscores the value of approaching the business from the customer's angle. It validates the soundness of techniques such as "quality function deployment," illustrated so lucidly by Hauser and Clausing (1988), as a means to incorporate the "voice of the customer" in the product design process. It may not be sufficient to merely interpret product features in terms of consumer benefits, as so many promotional efforts seem to do. Product attributes need to be *formulated and communicated* to target markets in terms of consumer (or customer) needs and wants. If consumer value orientation is here to stay, as is being suggested, it is clear that businesses need to pay even closer attention to designing marketing information systems that not only identify and monitor consumer preferences but also *ascertain their relative importance*. The latter may prove to be a challenge as Griffin & Hauser (1993) point out.

In terms of future research, there appear to be four promising avenues. First, the findings should be confirmed through a study that elicits consumer preferences and uses them as desired configurations rather than, in a sense, experimentally imposing them on subjects. This may need customized stimuli and, to be tractable, given the wide variety of individual preferences, the study may have to employ a computer-aided design. Second, there is considerable scope for enriching the model to take into account other influences (e.g., the budget, brand and store image, price-perceived quality linkage etc.) so as to more realistically represent the process. Third, there is opportunity to explore the "why" and "how" aspects of the process (in contrast, this study dealt more with the "whether" and "what" aspects) to better explain the value formation process. Finally, there is the possibility of incorporating the notion of perceived value into individual level choice models employing scanner data to see if fit and/or understanding of "real world" consumer choice is improved.

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