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Four psychological theories are considered in determining the effects of disconfirmed expectations on perceived product performance and consumer satisfaction. Results reveal that too great a gap between high consumer expectations and actual product performance may cause a less favorable evaluation of a product than a somewhat lower level of disparity.

CONSUMER DISSATISFACTION

It seems incongruous that consumerism could have become such a powerful prevailing force when the marketing concept, i.e., “customer satisfaction at a profit,” has been so highly publicized as a successful business credo since the early 1950’s. To date, most of what has been written about the consumer movement, its underlying causes, and the appropriate response for business has been based on little more than speculation. To really understand the underlying reasons for consumerism, one must follow Alderson’s edict to set up falsifiable propositions or testable hypotheses concerning the problems, then obtain empirical evidence to support or refute these hypotheses [1]. Today’s consumerism is such a complex force—so interrelated with other ecological, social, political, ethical, economic, and technological problems—that, at this stage, it can be studied empirically only one step at a time. Probably the most fundamental question being raised about consumerism is: What are the sources of consumer dissatisfaction?

No satisfactory literal definition has yet been developed for consumer satisfaction or dissatisfaction in the literature of marketing. The Random House Dictionary states: “dissatisfaction results from contemplating what falls short of one’s wishes or expectations.” Consumer dissatisfaction, then, might be measured by the degree of disparity between expectations and perceived product performance.

There is much conflicting evidence in the journals of psychology regarding the effects on individuals of disconfirmed expectancies, and this critical question for designing promotional mixes has been virtually ignored in the marketing literature. Only two experiments (with conflicting results) have been published to date [4, 19]. There may be significant policy implications for quality control, price, promotion, and other elements of the marketing mix depending upon whether consumer expectations are too high, product performances too low, or promotional messages misplaced, i.e., aimed at generating an inappropriate level of expectations. Corporate promotional mixes may be creating unrealistic expectations for products which result in consumer dissatisfaction upon purchase and use of the products. Buskirk and Rothe go so far as to say: “It is this sense of frustration and bitterness on the part of consumers who have been promised much and have realized less, that may properly be called the driving force behind consumerism” [3, p. 62].

THEORETICAL MODELS

In predicting the effects on product evaluation and customer satisfaction of disparity between expectations and actual or objective product performance, at least four psychological theories may be considered, namely: (1) cognitive dissonance (assimilation), (2) contrast, (3) generalized negativity, and (4) assimilation-contrast. Dissonance or assimilation theory posits that any discrepancy between expectations and product performance will be minimized or assimilated by the consumer’s adjusting his perception of the product to be more consistent (less dissonant) with his expectations.

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Contrast theory assumes that the customer will magnify the difference between the product received and the product expected; i.e., if the objective performance of the product fails to meet his expectations, the customer will evaluate the product less favorably than if he had no prior expectations for it. Contrast is thus the converse of assimilation.

The generalized negativity thesis is that any discrepancy between expectations and reality results in a generalized negative hedonic state, causing the product to receive a more unfavorable rating than if it had coincided with expectations. Even if the product's performance exceeds the customer's expectations, it will be perceived as less satisfying than its objective performance would justify.

Finally, the assimilation-contrast approach maintains that there are zones or latitudes of acceptance and rejection in consumer perceptions. If the discrepancy between expectations and product performance is sufficiently small to fall into the consumer's latitude of acceptance, he will tend to assimilate the difference by rating the product more in line with expectations than its objective performance justifies. However, if the discrepancy between expectations and actual product performance is so large that it falls into the zone of rejection, then a contrast effect comes into play and the consumer magnifies the perceived disparity between the product and his expectations for it.

Which theory is correct? What is the effect on consumer product perception and satisfaction when expectancies are disconfirmed? To answer this question, it is necessary to review these theories in more depth.

Cognitive Dissonance (Assimilation)

An unconfirmed expectancy, according to Festinger's theory of cognitive dissonance, creates a state of dissonance or "psychological discomfort" because the outcome contradicts the consumer's original hypothesis [13]. The theory suggests that an individual has cognitive elements (or "knowledges") about his past behavior, his beliefs and attitudes, and his environments [20]. Consumers continually receive various kinds of product information from their own experience, associates, advertisements, and salesmen. These bits of information are cognitions which consumers like to have consistent with one another [15]. When an individual receives two ideas which are psychologically dissonant, he attempts to reduce this mental discomfort by changing or distorting one or both of the cognitions to make them more consonant. The stronger the cognitive dissonance, the more motivated he is to reduce dissonance by changing the cognitive element [2].

As applied to marketing, if there is a disparity between expectations for a product and the objective performance of that product, the consumer is stimulated to reduce the psychological tension generated by changing his perception of the product to bring it more into line with his expectations. Therefore, if this proposition is true, the promotional mix for a product should substantially lead expectations above product performance to obtain a higher consumer evaluation or perception of the company's product. This concept, illustrated in Figure 1 by the dotted line, shows that perceived product performance is always between objective performance and expectations, except when all three coincide. Considerable controversy and some dissatisfaction with the theory of cognitive dissonance have developed in recent years due to the accumulation of an increasing amount of contradictory evidence [8, 12, 17, 21]. One major criticism is that the theory assumes that the individual, instead of learning from his purchasing mistakes, actually increases the probability of making them again through his efforts to reduce post-purchase dissonance by justification and rationalization of his decisions [9].

Contrast

Even in the studies supporting assimilation theory, some individuals tend to shift their attitudes and evaluations away from expectations aroused by communications if inconsistent with reality [16]. When expectations are not matched by actual product performance, contrast theory presumes that the surprise effect or contrast between expectations and outcome will cause the consumer to exaggerate or magnify the disparity.

Contrast theory would predict consumer product perceptions as shown by the dashed line in Figure 1. This theory suggests that slight understatement of the product's qualities in advertising might lead to higher customer satisfaction with the company's product. Of course, the advertisement could not so understate the product's qualities that customers bypass it for another brand. Several studies lend support to the possible success of this promotional strategy [10, 14, 16, 22, 23, 24]. One of the two marketing studies reported to date provided some support for contrast theory albeit findings were divided into support of assimilation theory as
well [5]. In attempting to reconcile the difference between assimilation theory and contrast theory, Cardozo introduced another variable, shopping effort, into the decision process. Specifically, he found that customer product evaluation or satisfaction is lower when the decision process. Specifically, he found that customer product evaluation or satisfaction is lower when the product does not measure up to expectations, but satisfaction rises as effort expended to obtain the product increases. Unfortunately, Cardozo's results may have been affected by a methodological error since his experimental subjects rated the product (ballpoint pens) based on expectations generated from leafing through either high (average price was $1.95) or low (average price was $.39) price product catalogs. Subsequent evaluations on a scale of 0 to 100 as compared to the products in the catalog were not comparable since individual subject rating criteria shifted depending upon the catalog assigned [4, p. 246]. For example, a rating of 50 in the high-expectation condition indicated average quality for a $1.95 pen, but this same rating would also indicate average quality for a $.39 pen in the low-expectation condition.

Generalized Negativity

A classic study of the consequences of unconfirmed expectations was conducted by Carlsmith and Aronson [7]. In a test of their hypothesis that any disconfirmation of an expected result will be perceived as less pleasant or less satisfying than if the expectancy had been confirmed, they asked individuals to taste bitter and sweet solutions, manipulated their expectations regarding the tastes, and measured the ratings under the various conditions. It was assumed that bitter was an unpleasant taste and sweet was a pleasant taste for the majority of subjects. The Carlsmith and Aronson findings seem to suggest opposing theories. When the sweet solution was expected and the bitter solution tasted, a disconfirmed expectancy resulted in a rating of more bitter which would support contrast theory. On the other hand, when the bitter solution was expected but the sweet solution came up, a disconfirmed expectancy resulted in a rating of less sweet or assimilation toward the expected taste in support of assimilation theory. Carlsmith and Aronson explain this apparent conflict by arguing that any disconfirmed expectancy results in a hedonically negative state which is generalized to objects in the environment. Thus, one can make the following prediction: If a customer expects a particular performance from a product but a different performance occurs, he will judge the product to be less pleasant than if he had no previous expectancy.

The Carlsmith and Aronson explanation implies that promotional claims aimed at target customers should seek to create expectations which are consistent with actual product performance. In Figure 1, the theory of generalized negativity is depicted by the line of alternating dots and dashes. Note that only when expectations and product performance coincide is the consumer's evaluation of the product as favorable as its objective performance.

Assimilation-Contrast

A final theory for consideration in attempting to predict the effects on consumer satisfaction of disparities between expectations and objective product performance is assimilation-contrast. As its name implies, it combines the theories of assimilation and contrast. Work by Hovland, Harvey, and Sherif provides support for the contention that product performance differing only slightly from one's expectations tends to result in displacement of product perceptions toward expectations.

<table>
<thead>
<tr>
<th>Conditions</th>
<th>None</th>
<th>Very low</th>
<th>Low</th>
<th>Accurate</th>
<th>High</th>
<th>Very high</th>
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</thead>
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<td>Low</td>
<td>On</td>
<td>High</td>
<td>Very high</td>
</tr>
<tr>
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<td>High</td>
<td>On</td>
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<td>Very low</td>
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<tr>
<td>C3</td>
<td>Standard</td>
<td>Very high</td>
<td>Low</td>
<td>On</td>
<td>High</td>
<td>Very low</td>
</tr>
</tbody>
</table>

Table 1

PREDICTION MATRIX FOR HYPOTHESES

\( T_1 \) (with take-measure)

- Null hypothesis
- Assimilation
- Contrast
- Generalized negativity
- Assimilation-contrast

\( T_2 \) (without take-measure)

- Null hypothesis
- Assimilation
- Contrast
- Generalized negativity
- Assimilation-contrast

\( a \) Conditions consist of various levels of expectancies generated by product information.

\( b \) Treatments consist of the presence or absence of a "take-measure" in the form of a questionnaire regarding expectancies generated following receipt of product information.
(assimilation effect), while large variances between one's expectations and actual product performance tend to be exaggerated (contrast effect) [16]. The theory assumes that individuals have ranges or latitudes of acceptance, rejection, and neutrality. Whether assimilation or contrast effects develop is a function of the relative disparity between expectations and actual product performance.

Assimilation-contrast theory suggests that promotional messages should create expectations for the product as high as possible without creating a level of disparity between expectations and objective performance which falls outside the consumer's range of acceptance. In accord with assimilation-contrast theory, consumer perceptions of product performance would take the form of the S-shaped curve in Figure 1.

**HYPOTHESES**

In order to discover which, if any, of the above outlined theories best describes the true relationships between these important consumer variables, five hypotheses were tested, as follows:

1. **Null Hypothesis**—product perceptions are not significantly different for various levels of expectations.
2. **Assimilation**—product perceptions will vary directly with the level of expectations.
3. **Contrast**—product perceptions will vary inversely with the level of expectations.
4. **Generalized Negativity**—product perceptions will always be negative when there is disparity between expectations and actual product performance, and the degree of negativity will vary directly with the amount of disparity.
5. **Assimilation-Contrast**—product perceptions will vary directly with expectations over a range around actual performance, but above and below this threshold, product perceptions will vary inversely with the level of expectations.

**METHODOLOGY**

A $2 \times 6$ factorial research design was used to test the five hypotheses. Manipulation of the independent variable (expectations) was accomplished by randomly assigning subjects to one of five different levels of persuasive product information, or no product information. As verified in pretesting, condition one (C1) substantially understated the product's features, C2 slightly understated the features, C3 described the product accurately, C4 slightly overstated the quality of the product's features, and C5 substantially overstated its features. Subjects (Ss) in C6 were given no product information, but instead they received a communication unrelated to the experiment. In addition, a "take-measure" in the form of a self-administered questionnaire was given, after presentation of product information but before seeing the product, to half the Ss in each condition to ensure that expectations were being created in the desired direction and intensity. The basic experimental design and prediction matrix for the experiment hypotheses are provided in Table 1.

Evaluations of identical, unmarked ballpoint pens selling at retail for about $1.00 each were obtained in group administration from 144 students enrolled in an undergraduate marketing course. To increase involvement, Ss were told that they could keep the particular pen randomly assigned them for evaluation, whether it turned out to be one of the expensive pens or not. Ss were permitted to inspect and test the product for the same length of time, then record their reactions on a modified logarithmic product rating scale anchored in dollars and cents distributed in small ranges from $.04 to $64.00, as illustrated in Figure 2. (To facilitate analysis, these ratings were later converted to integers by sequentially numbering the rows of the product rating scale.) Ss rated the ballpoint pen on 15 visual features and performance characteristics. The unweighted mean of these ratings by each S constituted the first dependent variable. The second dependent variable consisted of an overall rating by Ss on the pen's combined characteristics. This was a weighted mean since each S was able to assign certain product features more weight...
than others in determining his overall evaluation. Lastly, Ss estimated the ballpoint pen's price to obtain the third dependent variable.

RESULTS

The mean responses by condition and treatment for the experiment are presented in Table 2. Manipulation of the independent variable (product information) created expectations in the desired direction with significant differences of intensity. Mean scores for the dependent variables (product ratings) show product perceptions are in the direction of expectations until manipulation at the "very high" level, which caused a reversal and downturn in product ratings for all three measurement variables.

On each dependent variable, Ss gave the product a more favorable evaluation when it was accurately described in C3 than when no product information was provided in C0. Duncan's New Multiple Range Test [11] revealed that there was a significant difference at the .01 level between mean scores for C3 and C0. Results of the one-way analysis of variance (treatment variable collapsed since Ss were not sensitized by the "take-measure") indicated that Ss responded with significant differences in their evaluations or perceptions of the product depending upon their level of expectations, as can be seen in Table 3.

### Table 2

<table>
<thead>
<tr>
<th>Manipulation</th>
<th>C1 Very low</th>
<th>C4 Low</th>
<th>C5 None</th>
<th>C6 Accurate</th>
<th>C7 High</th>
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<td></td>
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<td>10.38</td>
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* Dependent variable A = Product features, B = Combined characteristics, C = Price.
* Treatment 1 = Take-measure; Treatment 2 = No take-measure.
* Treatment variable collapsed.

### CONCLUSIONS

The experiment revealed that there is a point beyond which consumers will not accept increasing disparity between product claims and actual performance, at least for certain relatively simple or easily understood products. When this threshold of rejection is reached, consumers will perceive the product less favorably than at a slightly lower level of expectations. More complex products, where there is considerable ambiguity and uncertainty in making judgments, may yield different results as consumers may tend to be more dependent on the information provided them. Olshavsky and Miller investigated the effects on product evaluations of both overstatement and understatement of product quality for a reel-type tape recorder and found assimilation theory supported in each case [19].

**Product Commitment**

Contrast effects did not appear in C1, "very low" expectations. This result may be partially explained by "floor effects" which prevented manipulation of expectations far enough below the relatively low cost item (a dollar ballpoint pen) to cause sufficient surprise or exhilaration upon seeing and trying the product. Due to insufficient commitment to low-priced products, it simply may not be possible to obtain contrast effects at very low expectation levels. Freedman has shown that personal involvement or commitment to the product is a determinant of the level of disparity necessary to produce maximum perceptual change [14]. With strong
commitment, even a small disparity between expectations and product performance may fall outside the consumer's range of acceptance.

The failure of an upturn to occur in C1 at the low end of the range of expectations is not sufficiently relevant to marketers to merit much discussion since no advertiser would drastically disparage his product if he wished to stimulate a high volume of sales. Though repeat purchasing rates might be high, once consumers tried the product, no such negative promotional strategy would be likely to achieve the desired initial trial rate.

Amount of Information

Ratings in C3 were consistently higher than ratings in C0, thus another important conclusion from the experiment is that a more favorable evaluation is obtained when a product is accurately described than when little or no product information is provided. This finding supports Cardozo's suggestion that the mere processing of information may lead to a more favorable evaluation of the product, not only because customers have greater knowledge on which to base evaluation, but also because the processing of information about products constitutes a form of commitment to the products [6]. It would appear that marketers who provide more relevant information about their products will generate higher evaluations and customer satisfaction for their products than those marketers who depend on persuasive message content that provides only minimal information. Of course, the amount of information customers may willingly process without boredom or confusion no doubt varies widely among individuals and products. But, since consumers perceive selectively in some organized fashion, it is probably better to provide too much product information than too little. One study found that when marketers provide insufficient product information for consumers, they merely encourage or force consumers to seek information about the product from other sources, such as friends, associates, independent rating organizations, consumer groups, government agencies, and competitors [18].

IMPLICATIONS FOR MARKETING

Results of the experiment have important implications for positioning the level of promotional claims. Assuming that consumer dissatisfaction is a function of the disparity between expectations and perceived product performance, unrealistic consumer expectations generated by excessive promotional exaggeration can result in consumer dissatisfaction. Since consumer expectations apparently affect satisfaction with a product, the marketer who wishes to understand and favorably influence customer satisfaction with his offering may be able to do so by understanding and influencing customer expectations. That is, if consumer expectations are a function of promotion, and customer satisfaction is a function of unrealistic expectancies among consumers may stem partly from widespread faith in the achievements and possibilities of research and technology, resulting in the feeling that products can and should be made to perform flawlessly. As history demonstrates, standards and performance expectations for all categories of products (from automobiles to clothing) tend to steadily rise and people become increasingly less tolerant of product deficiencies.

Enlightened company executives might profitably re-assess the often implicit sales-oriented view that the higher the level of consumer product expectations stimulated by promotion the better because the primary objective of the promotional mix is to sell the product. This attitude can be contagious among competing companies. However, the accumulation of consumer dissatisfaction may eventually erupt in a demand for more consumer protection legislation, resulting in a more restrictive marketing environment.

FUTURE RESEARCH

As indicated by the Olshavsky and Miller findings, the applicability of the different theories of expectations may vary across product classes [19]. More research needs to be conducted with a variety of products and services. Disconfirmation of expectations for products for which consumers make deep personal and financial commitments may have substantially different effects on consumer perceptions of performance than less personal, lower cost, and less ego-related goods. A logical extension of the present study and previously reported experiments is consideration of time. Does the consumer become more objective in evaluating products he has purchased as he gathers information and feedback from various sources, or does he become more committed to
products over time and thus more satisfied with extended usage? It might also be important to determine if significant differences between consumer reactions to expectations—performance disparity can be attributed to psychographic variables.

REFERENCES


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