

CONSUMER SATISFACTION RELATED TO DISCONFIRMATION
OF EXPECTATIONS AND PRODUCT PERFORMANCE

John E. Swan
University of Alabama at Birmingham

ABSTRACT

Satisfaction has usually thought to result from disconfirmation or the fulfillment of expectations. This study tested the hypothesis that satisfaction would be related to initial expectation, disconfirmation of expectations and perceived product performance. The main finding was that in addition to disconfirmation, product performance was a predictor of satisfaction and intentions.

INTRODUCTION

The most frequently investigated paradigm that seeks to explain consumer satisfaction has been the disconfirmation paradigm. A number of studies have found support for that approach, Oliver (1977, 1980), Swan and Trawick (1981), Swan (1977), Thrikell (1980), LaTour and Peat (1980), Oliver and Bearden (1982). According to a review by Swan (1982), factors other than disconfirmation, that may influence satisfaction have been proposed and tested. However, a possible determinant of satisfaction that has received little attention is product performance. Churchill and Surprenant (1982) have found a strong empirical relationship between performance and satisfaction. The main objective of this article is to present an analysis of the role of perceived product performance and disconfirmation in the production of satisfaction. In the next section of this article, the theoretical background will be developed, followed by prior research, the method, results, discussion and conclusions.

SATISFACTION THEORY

Overview of the Satisfaction Process

The essential argument that will be developed in this section is that the psychological state of satisfaction--indifference--dissatisfaction is a product of two processes. First, the cognitive process of comparing perceived product performance to expected performance yields disconfirmation. In turn, satisfaction increases with positive disconfirmation (performance exceeds expectation) while dissatisfaction increases as negative disconfirmation becomes greater (performance below expectation) Day (1982). Second, as performance increases, the psychological or learned needs that lead to the usage of the product are better met. As needs are better met, satisfaction increases. The basic point is that satisfaction can be a function of two main variables: 1) disconfirmation and 2) product performance. Details of the theory will now be developed.

Disconfirmation - Satisfaction

This is a process approach to satisfaction based on three concepts. The first key concept, satisfaction, was drawn most closely from Day (1982, 1977). Day has written that satisfaction is: 1) a single concept which ranges continuously from extreme satisfaction to extreme dissatisfaction (hereafter the single term

satisfaction will be used to refer to the satisfaction/indifference/dissatisfaction continuum); 2) satisfaction is an affective (like/dislike) response to the use of a specific product/service at some specified point in time. Expectations, the second initial concept, are predictions made prior to usage of the product, of the level of product performance that will be obtained, Day (1982). An example would be an auto buyer who anticipates that his new automobile will give 28 miles per gallon. The third concept is disconfirmation, the users subjective comparison of his expectations to perceived product performance on the set of attributes that were salient to the user. By conventional terminology, positive disconfirmation is where perceived performance exceeds expectations, while negative disconfirmation is where performance is short of expectations.

The process whereby the concepts are related and produce satisfaction is as follows, Day (1982):

1. Prior to consumption, consumers have made either explicit or implicit comparisons between alternatives and an alternative is chosen which becomes the consumption object. The object is chosen to fill a need or want. In order to meet the need, a level of performance is necessary and is expected.
2. During consumption the performance of the object is realized and perceptions of product performance are formed.
3. Perceived product performance is compared to expectations and as performance exceeds expectations an increasingly positive emotional response, satisfaction, will occur as the baseline of expectations have been exceeded. Consumers have learned to respond positively to events that meet the consumers needs and the opposite when performance is short of expectations. The frustration arising from a blockage of goal attainment (negative disconfirmation) leads to dissatisfaction. The above is the disconfirmation hypothesis.

Satisfaction is a result of a cognitive process of the comparison of performance to expectations, Oliver (1980). As an example, an automobile owner received 30 mpg when 28 was expected and was satisfied due to the positive disconfirmation.

Performance-Satisfaction

Why product performance may determine satisfaction has not been treated in any detail in the literature. In this paper, the author will extend, Westbrook and Reilly's (1982) value-percept disparity model to cover performance → satisfaction. Westbrook and Reilly have written that values are what a person acts to gain and are regarded by the individual as contributing to his welfare. The evaluation of a product/service consists of estimating the degree to which the consumption object enhances or threatens the consumers values. A judgment that values were enhanced yields the emotion of satisfaction while a blockage or reduction in obtaining values leads to dissatisfaction. The general point is that the extent to which a product/service meets

consumer needs or values determines satisfaction. Satisfaction will decrease as the disparity in achieving values increases.

That approach can be used to explain why satisfaction should be sensitive to salient product performance dimensions. The ability of a product to fulfill consumer needs and help realize values is directly related to performance. Relief from pain provided by a headache remedy would be an example. Satisfaction could be expected to increase directly with performance. The quicker and more complete the headache relief, the higher the performance, the higher the satisfaction.

In summary, the theoretical argument for a performance → satisfaction relationship is as follows:

1. Products are chosen in order to meet consumer needs/values.
2. The degree to which needs/values are realized depends on how well the product performs.
3. As product performance increases, needs/values are better met with increases satisfaction.
4. Thus, as product performance increases, satisfaction increases.

Another argument for expecting performance to be a partial determinant of satisfaction is that holding disconfirmation constant, higher performance should result in more satisfaction. As an example, if customer A expected his new automobile to achieve 35 miles per gallon and experienced 37, the +2 mpg (positive disconfirmation) should result in satisfaction. If customer B expected his car to reach 30 mpg and it obtained 32, B should be satisfied due to the +2 mpg. It would be reasonable to anticipate that A would have higher satisfaction than B because of the higher level of performance that A enjoyed, although both had the same degree of disconfirmation.

PRIOR RESEARCH TESTING DISCONFIRMATION, PERFORMANCE, SATISFACTION

Disconfirmation-Satisfaction

According to recent literature reviews, Oliver (1980), Woodruff, Cadotte, Jenkins (1982), Swan (1982), Day (1982), the disconfirmation paradigm has been the most frequently tested theoretical model in the satisfaction literature. The disconfirmation studies are somewhat difficult to compare as different measures and methods have been employed. However, what is important as far as this paper is concerned is that no research has been reported which strongly challenges the basic disconfirmation hypothesis. As Woodruff, et. al. (1982) have noted, current interest is centered in the details of how the process works.

Some studies have tested disconfirmation vs other possible determinants of satisfaction. Westbrook (1980) tested the proposition that satisfaction is a function of both disconfirmation and affective states (e.g., life satisfaction, consumer discontent, mood). He found that the disconfirmation was a much stronger predictor for one of the two products tested. Westbrook and Reilly (1982) found that perceptions of the extent to which respondent's needs were met, was a predictor of satisfaction. However, a disconfirmation model provided a better fit to their data. Swan and Martin (1980) have reported that a "comparison level" disconfirmation (performance minus past experience with the product) provided stronger relationships with

satisfaction than did a disconfirmation (performance minus expectation) measure. However, Swan and Martin reported measurement problems. Swan and Trawick (1981) found that both disconfirmation and a rating of the best alternative to the service, the comparison level, were significant predictors of satisfaction. In addition to the studies noted above, evidence that satisfaction is not due to disconfirmation alone has been presented by Thirkell (1980) who found that a significant proportion of new automobile buyers experienced negative disconfirmation, but were still satisfied. Thirkell's study used a large sample (N = 985) of new automobile buyers.

In summary, while the disconfirmation hypothesis has been supported, satisfaction may not be completely explained by disconfirmation and other variables, such as performance, should be tested.

Performance-Satisfaction

Only one study has been specifically designed to test for a performance - satisfaction relationship. Churchill and Surprenant (1982) employed a role-playing experiment in which subjects were recruited in a shopping mall. Expectations were manipulated by providing information about product quality prior to "usage" (exposure to) of the two products (a hybrid plant and a video disc player, VDP). Product performance was manipulated by using plants that varied in terms of size, number of blossoms, number of stems and levels of distortion of the sound and picture for the VDP. A major thrust of their study was an analysis of disconfirmation vs performance as predictors of satisfaction. For the plants, expectations, performance, and disconfirmation determined satisfaction with disconfirmation having the largest impact among the three independent variables. For the VDP only performance had an impact. The authors speculated that for durable goods performance determines satisfaction while performance and disconfirmation produce satisfaction for nondurables. Another possibility suggested by Churchill and Surprenant is that since respondents did not actually use the products, the external validity of the study can be questioned. Three other studies hint at a performance - satisfaction relationship. Bart (1980) posited that as performance increases, the comparison of actual to ideal performance becomes more favorable and satisfaction increases. That proposition was tested in a role playing experiment in which the subject's rating of actual to ideal performance and disconfirmation were both significantly related to satisfaction. The interaction between performance and disconfirmation was also significant. Another study that found a significant relationship between performance and satisfaction was Chaiy and Saxton's (1982) analysis of overall satisfaction with orthodontic treatment. In a study of 70 patients, they found that some "performance" dimensions (e.g., orthodontist conduct, improvement in speech) were related to satisfaction, but others were not. Their study did not include disconfirmation as a predictor of satisfaction. Also, possibly relevant to performance - satisfaction was an experiment by LaTour and Peat (1980) in which twelve experimental groups experienced different levels of perceived product performance. LaTour and Peat did not test for a performance-satisfaction relationship, however, their data made it possible for the present author to conduct such an analysis. Two different measures of performance (streaking, film) of a cleaner were both significantly correlated (rank correlation = .66, .69, $p < .05$) with satisfaction.

HYPOTHESES AND RESEARCH QUESTIONS TESTED

Both theoretical and empirical work suggests that performance and disconfirmation should be predictors of satisfaction. However, prior research that has included both disconfirmation and performance is limited to the role-playing experiment by Churchill and Surprenant (1982). The essential purpose of this article is to report on a study that included both disconfirmation and performance in a setting where consumers paid for and used the service (food in a restaurant). The following hypotheses were tested:

- H1. As disconfirmation becomes more positive, satisfaction increases.
- H2. As performance increases, satisfaction increases.
- H3. As performance increases, disconfirmation becomes more positive.
- H4. As performance and positive disconfirmation increases, satisfaction increases.
- H5. As performance, positive disconfirmation and satisfaction increases, intentions to revisit increase.
- H6. As initial expectation increases, satisfaction increases.

The theoretical background for the first four hypothesis has been given above. The fifth hypothesis is based on the idea that since increasing satisfaction signifies increasingly positive affect, intentions should be directly related to satisfaction. Research has found a satisfaction → intentions linkage, Oliver (1980), Swan and Trawick (1981), Swan, Darden, and Trawick (1983). Better performance and more positive disconfirmation are both favorable outcomes and could be expected to result in intentions to repurchase.

The last hypothesis (H6) was included in order to test Oliver's (1980) finding and argument that initial expectation is a partial determinant of satisfaction. Briefly, Oliver (1980) has argued that expectation forms part of the individuals predecision adaptation level. Satisfaction is an additive combination of: 1) post-decision deviations from the adaptation level, e.g. disconfirmation, and 2) initial expectations, the adaptation level.

In addition to the hypotheses, two research questions were explored:

- Q1: Is disconfirmation, performance or expectation a stronger predictor of satisfaction?
- Q2: What is the relative strength of performance vs disconfirmation vs satisfaction as predictors of intentions?

Research questions were used because the literature did not suggest hypotheses.

METHOD

Setting

This study was done in a restaurant where participating customers completed a self-administered questionnaire. The management characterized the

restaurant as superior in food and service to fast-food places, but not as fancy as a "white tablecloth" restaurant.

Questionnaire Administration

A questionnaire was developed that: First asked customers to rate what they expected (attribute level expectations) the food and service to be like on two service attributes (serving time, waiter attentive to customer) and five food attributes (food served hot, amount of food, quality of food, amount for cost, quality for cost). This before part of the questionnaire was completed by customers directly after their order had been taken, but before receiving their main course. Second, after the customer had completed the main course, the after part of the questionnaire was used to obtain the customer's evaluation of the food and service on the same seven attributes, and to measure satisfaction, disconfirmation and intentions. The attributes tested had been suggested by restaurant management.

Sample of Customers

The sampling units were parties composed of people who were seated at the same table. The respondents were all members of the sampled parties from age 15 and up. Selection of parties was according to seating zone. The restaurant was divided into four zones, with the zone randomly selected prior to a site visit and only those patrons who were seated at tables in that particular zone participated in the study. Each party seated in the study zone were asked to fill out a questionnaire after their order had been taken, with a free non-alcoholic beverage offered for each respondent. The participants were informed that an additional questionnaire should be filled out after completion of their meal.

A total of 346 people representing 163 parties participated in the study. This paper is based on a group of 243 respondents; the other respondents received different questions that were designed for purposes beyond the scope of this paper. There were only nine people who declined to participate, resulting in a response rate of nearly 98 percent.

The study started with a site visit on Thursday, August 30, 1979, and ended on October 12. Data collection began at 6:00 p.m. and continued until 10:00 p.m. on week nights (Monday - Thursday) and until 12:00 p.m. on Friday and Saturday nights. The sixteen night visits included nine week night visits, and five Friday-night visits and two Saturday night visits.

Measurement

The measurement of the variables will be described by presenting representative items from the questionnaire.

Expectation was measured (pre-questionnaire) using the customer's anticipated level of performance for five attributes of the food and two for service. A typical question was:

PLEASE CHECK (✓) HOW YOU EXPECT
THE FOOD & SERVICE WILL BE.

QUALITY OF FOOD WILL BE:

- _____ Excellent
- _____ Extremely Good
- _____ Very Good
- _____ Good
- _____ Slightly Good
- _____ Fair
- _____ Poor

In order to provide a single measure of expectation, the food (service) items were summed to form an index. The food attributes did sum to form an index of adequate reliability ($\alpha = .70$). However, the two service items of 1) serving time (how long it would take for the main course to be served) and 2) waiter attentiveness (waiter would periodically check to see if customer wanted anything) were essentially independent of each other ($r = .02$, Table 1). In the analysis, both dimensions of service were used as measures of expectation and also performance. Performance was measured as the mean after score on the same attributes as expectation. A representative item was:

PLEASE TELL US HOW THE QUALITY OF THE FOOD WAS:

- | | | | | |
|-------|-------|----------------|-----------|-----------|
| POOR | FAIR | SLIGHTLY GOOD | GOOD | VERY GOOD |
| :___: | :___: | :___: | :___: | :___: |
| | | EXTREMELY GOOD | EXCELLENT | |
| | | :___: | :___: | |

Satisfaction with food was the sum of items A and B, disconfirmation was Item C, intentions was item D below; similar questions were used for service items:

THE FOOD WAS:

	YES!	YES	Yes	?	no	NO	NO!
A. VERY UNSATISFACTORY.....	7	6	5	4	3	2	1
B. EXTREMELY PLEASING TO ME.....	7	6	5	4	3	2	1
C. MUCH BETTER THAN I EXPECTED....	7	6	5	4	3	2	1
D. FOR THE FOOD I WOULD COME TO THIS RESTAURANT AGAIN.....	7	6	5	4	3	2	1

Reliability coefficients for the multi-item measures ranged from .53 for satisfaction to .79 for performance. The reliabilities of those items appeared adequate. In the case of service, only the satisfaction index, had acceptable reliability (.71). The two service dimensions (time, waiter attention) were retained as single item measures for both performance and expectations.

Analysis

The bivariate relationships were tested using simple correlation, while the relationships involving multiple predictors were analyzed using regression.

RESULTS

Test of Bivariate Hypotheses

Tests of the bivariate hypotheses using both the food and service data can be conducted using the correlations given in Table 1. The simple correlations show that performance and disconfirmation were both strongly related to satisfaction. Food showed a higher performance to satisfaction correlation than disconfirmation to satisfaction correlation with the opposite for service, (Table 1). The data suggests that both disconfirmation and performance are strong correlates of satisfaction and support H1 and H2.

As predicted by H3, performance and disconfirmation were positively correlated for both food and the two measures of service performance.

Finally, initial expectations were not related to satisfaction for food or service, H6.

Tests of multiple predictors of Satisfaction or Intentions

The fourth hypothesis anticipated that satisfaction would increase as performance and disconfirmation becomes more positive. Those predictors plus initial expectation were regressed on satisfaction for food (Table 2) and service (Table 3). Food satisfaction was explained primarily by performance, Beta = .52, see Table 2, which was the only statistically significant predictor. Service satisfaction was the result of disconfirmation and one performance dimension (waiter's attention), with disconfirmation as the most important predictor. Initial expectations were not related to satisfaction for either food or service.

Intentions (H5), to revisit the restaurant because of the food was predicted by both performance and satisfaction (Table 2). Service intentions were predicted primarily by satisfaction, however, performance (waiter's attention) and expectation (service time) were also significant predictors (Table 3).

Table 1
Correlation of Variables

Part I: Food						
	1 Sat	2 Dsc	3 Per	4 Exp	5 Int	
1. Satisfaction (Sat)	--	.33*** ^a	.55***	-.02	.62***	
2. Disconfirmation (Dsc)		--	.48***	.11	.34***	
3. Performance (Per)			--	.13*	.61***	
4. Expectation (Exp)				--	.09	
5. Intentions (Int)					--	

Part II: Service							
	1 Sat	2 Dsc	3 PerT	4 PerT	5 ExpT	6 ExpA	7 Int
1. Sat	--	.71*** ^a	.51***	.13*	-.03	.02	.50***
2. Dsc		--	.33***	.24***	-.04	.02	.42***
3. Per-Attention			--	.08	-.02	.21***	.40***
4. Per-Time				--	.11	-.09	.16**
5. Exp-Time					--	.02	-.13*
6. Exp-Attention						--	.02
7. Int							--

***p < .001
**p < .01
*p < .05
^aPearson correlations

Table 2
Regression of Food Satisfaction, Intentions on Predictors

Predictor	Criterion	
	Satisfaction	Intentions
Disconfirmation	.09	.02
Performance	.52***	.37***
Expectation	-.10	.04
Satisfaction	--	.41***
Adjusted R ^a	.30	.48
F	31.4	49.2
P(F)	< .001	< .001
Degrees of Freedom	3,206	4,205

***p < .001

Table 3

Regression of Service Satisfaction, Intentions on Predictors

Predictor	Criterion	
	Satisfaction	Intentions
Disconfirmation	.61***	.10
Performance: Time	-.04	.11
Attention	.32***	.18*
Expectation: Time	.01	-.12*
Attention	-.07	.02
Satisfaction	--	.33***
Adjusted R ^a	.58	.29
F	58.9	15.2
P(F)	<.001	<.001
Degrees of Freedom	5,203	6,206

***p <.001

**p <.01

*p <.05

DISCUSSION

Implications for Modeling Satisfaction

In this section, some theoretical implications of the findings concerning initial expectations, performance and disconfirmation as determinates of satisfaction or intentions will be discussed. Expectations will be considered first.

Oliver (1980) has proposed and found some evidence that satisfaction is an additive combination of initial expectations and disconfirmation. No effect of initial expectations on satisfaction was found in this study using either simple correlation or regression. Conceptually, initial expectations could be related to satisfaction because expectations anticipate how favorable or unfavorable the consumer anticipates the consumption experience will be. If disconfirmation is held constant, then high initial expectations should yield more satisfaction, due to the very favorable consumption experience, then low expectations. The result would be a positive expectation → satisfaction relationship. It is possible that in some situations satisfaction is dominated by disconfirmation and/or performance, so that initial expectations are not related to satisfaction. In all of the simple correlations, disconfirmation was independent of initial expectations.

Some significant, but weak positive, expectations-performance relationships were found. The effect of expectations may be directly related to performance, which in turn, determines satisfaction.

The main rationale for this paper was to analyze both performance and disconfirmation effects on satisfaction. The results suggest that models of the satisfaction process should include disconfirmation and performance as predictors of satisfaction. Disconfirmation can be an important element in the process, however, performance may also be a significant predictor of satisfaction. In addition, performance along with satisfaction were correlates of intentions. The essential point is that satisfaction as well as favorable intentions increase as performance increases.

Two major limitations of this field study are that: 1) regression and correlation measure only association, not cause and effect and 2) the independent variables were intercorrelated to a moderate or strong degree (see Limitations section for discussion). Intercorrelated predictors reduce the stability of regression analysis. Performance and disconfirmation are very likely to be positively correlated in any field study. An experimental approach is needed and has, in fact, been provided by Churchill and Surprenant (1982). The main findings of both the experiment and this study are congruent: satisfaction is directly related to performance and positive disconfirmation.

As unresolved issue for future research is that for some "products" (a non-durable in Churchill and Surprenant (1982) service in this study) disconfirmation is the most important predictor while for others performance is the only (Churchill and Surprenant, video disc player) or the most important correlate (food) of satisfaction. A key question is why performance was the strongest correlate for satisfaction with food, while disconfirmation had the highest correlation for service. One possibility is the degree to which the outcomes of using the product/service are relatively clear and unambiguous to the user. In the case of clear outcomes, performance may be the most important variable in determining satisfaction. The reason for this is that performance is more salient than disconfirmation. In this study, food may have had less ambiguous outcomes (amount, hot/cold, etc.) than the service dimension (waiter's attentiveness) that most strongly influenced satisfaction. Relatively ambiguous outcomes may make performance less certain to judge than disconfirmation, so disconfirmation is the more important variable in determining satisfaction. This ex-post explanation should be tested in future research, especially because Churchill and Surprenant found the opposite. Satisfaction was determined by performance for the subjective outcome object, a video disk player. Satisfaction was related to both disconfirmation and performance for the objective performance product, a house plant.

Managerial Implications

Implications that follow from this and related studies suggest a two-step process for the marketing manager who wishes to increase consumer satisfaction in order to gain a competitive advantage; 1) determine the satisfaction model; 2) work on the determinant or determinants of satisfaction that will have the highest benefit/cost ratio.

The present line of research suggests three basic models and appropriate actions to increase satisfaction:

1. performance → satisfaction raise performance
2. disconfirmation → satisfaction raise performance and/or lower expectations
3. disconfirmation and performance → satisfaction raise performance and/or lower expectations

If satisfaction is determined only by performance, then quality control will be the key to holding current levels of satisfaction and performance improvement will be necessary if satisfaction is to be increased.

If the satisfaction with the product is a function of disconfirmation, then the marketing manager has two interesting possibilities. The first is to raise performance, which will produce greater positive disconfirmation. This may not be technically or economically feasible. Also, as performance increases, expectations could be expected to rise, so the relative amount of positive disconfirmation would decrease. If such is the case for a product, a second alternative, lowering expectations may be attractive. A major problem may be how to lower expectations while keeping expectations high enough so the consumers will purchase the marketers offer. Ross and Kraft (1983) have found the expectations of product quality was lower for a generic than national brand canned food product. They argued that the generic strategy has been successful because consumers traded lower price for lower, but acceptable quality. Perhaps generics are an example of adjusting expectations to product performance.

Because lowering expectations sounds like such an inappropriate managerial recommendation, I will offer an example from my personal experience. A seafood restaurant seems to make a practice of providing more than expected, by setting low initial expectations. The menu states that an entree has a certain number of shrimp. I have observed that when the food arrives, the number of shrimp exceeds what was specified. This may possibly be successful because expectations are not set low in a manner that would decrease initial patronage.

LIMITATIONS

The results of this study should be considered within the context of some important limitations that were not noted above: 1) The results could have been influenced by social desirability as patrons were asked to rate the food in the restaurant. This affect may have been weak. Increasing interaction (before and after measures taken vs an after only group) with the interviewer did not influence satisfaction (Swan, Trawick and Carroll 1981). Also, the analysis concerned not the absolute level of the variables, but their interrelationships. An earlier analysis of the data did show that a high proportion of respondents

reported that some attributes of the restaurant was not "good enough" (Swan and Trawick 1983) so the respondents were critical; 2) The internal consistency of three indicators were below .70. The two low reliability service attributes (performance, expectations) were not combined to form an index. However, food satisfaction with a relatively low reliability, $\alpha = .53$, was used; 3) disconfirmation was measured by a single item indicator because the questionnaire had to be as short as possible due to the setting.

Finally, potentially the most important limitation is a possible confounding of the measures of performance with satisfaction. The problem can be presented by using the two items used to measure service performance:

1. Waiter Attention: Waiter/waitress checked to see if everything was alright: "very often," "often" to "not at all" (six point scale).
2. Service Time: Waiter/waitress brought the food, main course in about: 5, 10, 15, 20, 25, 30, 40, or 50 minutes.

The time measurement of performance did not include any sort of evaluative component and was probably a measure that was independent of satisfaction. However, attention may have involved an evaluative element as "often" may also mean "satisfactory." In a similar fashion, the food performance items may have included evaluation. If the problem just mentioned existed, then the performance → satisfaction relationship may have been a circular argument. The data in Table 1 can be used to analyze this limitation. The nonevaluative time measure of performance significantly correlated with satisfaction which supports the central theme of this paper. However, the magnitude of the correlation (.13) was much less than the evaluate performance, attention, to satisfaction correlation of .51. This limitation suggests a need for future research. A major problem would be obtaining performance measures that are both relevant to the consumer and free of evaluation. The Churchill and Suprenant (1982) study has the same basic limitation.

SUMMARY

This study found that consumer satisfaction was determined by both disconfirmation and product performance. As performance exceeded expectations and positive disconfirmation increased, satisfaction increased. Satisfaction was also directly related to performance. Intentions to repatronize the restaurant in the future increased directly with satisfaction and performance.

REFERENCES

- Bart, Barbara D., "The Effect of Performance Level and Discrepancy From Expectations on Customer Store Evaluations." Unpublished Ph.D. Dissertation: Athens, University of Georgia, 1980.
- Chaivy, Seoil and Saxton, Mary Jane, "Consumer Satisfaction with Orthodontic Treatment," in H. Keith Hunt and Ralph L. Day, eds., Conceptual and Empirical Contributions To Consumer Satisfaction and Complaining Behavior. Bloomington: Division of Research, School of Business, Indiana University, 1982, pp. 82-86.

- Churchill, Gilbert A., Jr. and Surprenant, Carol, "An Investigation Into The Determinants of Consumer Satisfaction," Journal of Marketing Research, 14 (November 1982), pp. 491-504.
- Day, Ralph H., "The Next Step: Commonly Accepted Constructs for Satisfaction Research," International Fare in Consumer Satisfaction and Complaining Behavior, R. L. Day and H. Keith Hunt, Eds., Dept. of Marketing, School of Business, Indiana University, Bloomington, 1982, 113-117.
- Day, Ralph H., "Extending the Concept of Consumer Satisfaction," Advances in Consumer Research, W. D. Perreault, Jr., ed., Association for Consumer Research, 4, (1977), 149-154.
- LaTour, Stephen A. and Peat, Nancy, "The Role of Situationally-Produced Expectations, Others' Experiences, and Prior Experience in Determining Consumer Satisfaction," in Jerry C. Olson, ed., Advances in Consumer Research, 6, (Ann Arbor: Association for Consumer Research), 1980, 588-592.
- Oliver, Richard L., "Effect of Expectation and Disconfirmation on Post-exposure Product Evaluations: An Alternative Interpretation," Journal of Applied Psychology, 1977, 62, (4), 480-486.
- Oliver, Richard L., "A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions," Journal of Marketing Research, 17 (November 1980), 460-469.
- Oliver, Richard L. and Bearden, William O., "The Role of Involvement In Satisfaction Process, in Advances In Consumer Research, R. P. Bagozzi and A. M. Tybout, eds., Association for Consumer Research, Ann Arbor, 1982.
- Ross, Robert H. and Kraft, Frederick B., "Creating Low Consumer Product Expectations," Journal of Business Research, 99 (1), 1983, pp. 1-9.
- Swan, John E., "Consumer Satisfaction With a Retail Store Related to the Fulfillment of Expectations on an Initial Shopping Trip," in Consumer Satisfaction, Dissatisfaction and Complaining Behavior, Ralph L. Day, ed., (Bloomington, Indiana, School of Business, Indiana University, 1977), 10-17.
- Swan, John E., "Consumer Satisfaction Research and Theory: Current Status and Future Directions," International Fare In Consumer Satisfaction and Complaining Behavior, R. L. Day and H. Keith Hunt, eds., Dept. of Marketing, School of Business, Indiana University, Bloomington, 1982, 124-129.
- Swan John E., Darden, William R. and Trawick, I. Fredrick, "Testing A Path Analysis Model of Preshopping Image, Postshopping Satisfaction and Patronage Intentions," William R. Darden, Kent B. Monroe and William R. Dillon, Research Methods and Causal Modeling in Marketing (1983) (Chicago: American Marketing Association), 170-173.
- Swan, John E. and Martin, Warren S., "Testing Comparison Level and Predictive Expectations Models of Satisfaction," Advances In Consumer Research Vol. 8, Kent B. Monroe, Ed., Association for Consumer Research, 1981, 77-82.
- Swan, John E. and Trawick, I. Fredrick, "Disconfirmation of Expectations and Satisfaction With a Retail Service," Journal of Retailing 57 (Fall, 1981), 49-67.
- Swan, John E., and Trawick, I. Fredrick, "Satisfaction, Disconfirmation, and Comparison of Alternatives," in Conceptual and Empirical Contributions to Consumer Satisfaction and Complaining Behavior, H. K. Hunt and R. L. Day, eds., Department of Marketing, School of Business, Indiana University, Bloomington, 1981.
- Swan, John E., and Trawick, I. Fredrick, "Patronage Satisfaction and Fulfillment of Desired, Predictive Expectation: Theory and Application," Retail Patronage Theory, 1981 Workshop Proceedings, R. H. Lusch and W. R. Darden, Norman, Oklahoma: Center for Economic and Management Research, School of Business, University of Oklahoma, 1981.
- Swan, John E. and Trawick, I. Fredrick, "The Patronage Assessment of Satisfaction System: Concepts Measurements and Applications," in Darden, William R. and Lusch, Robert F. Patronage Behavior and Retail Management, New York: North-Holland, (1983), 363-376.
- Swan, John E., Trawick, I. Fredrick, and Carroll, Maxwell G. "Effect of Participation in Marketing Research on Consumer Attitudes Toward Research and Satisfaction with a Service," Journal of Marketing Research 18 (August, 1981), 356-363.
- Thirkell, Peter C., "Consumer Expectations Disconfirmation and Satisfaction," Unpublished Doctoral Dissertation, London, University of Western Ontario, 1980.
- Westbrook, Robert A., "Intrapersonal Affective Influences on Consumer Satisfaction With Products," Journal of Consumer Research, 7 (June 1980), 49-53.
- Westbrook, Robert A. and Reilly, Michael D., "Value-Percept Disparity: An Alternative To The Disconfirmation of Expectation Theory Of Consumer Satisfaction," in Advances in Consumer Research, R. P. Bagozzi and A. M. Tybout, eds., Association for Consumer Research, Ann Arbor, 1982.
- Woodruff, Robert B., Cadotte, Ernest R. and Jenkins, Roger L., "Charting A Path for CS/D Research," International Fare In Consumer Satisfaction and Complaining Behavior, R. L. Day and H. Keith Hunt, eds., Department of Marketing, School of Business, Indiana University, Bloomington, 1982, 118-123.