

NEGATIVE INFORMATION AT THE POINT-OF-SALE:  
COSTS AND BENEFITS TO NEW CAR DEALERS

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ABSTRACT

Two experimental studies were conducted to examine the effects of providing negative information to new car buyers. The first addressed the substantive issue of assessing the benefits of negative information to automobile dealers and the second examined the theoretical relationships of the disconfirmation paradigm.

OVERVIEW

The domestic automobile industry has been brought to its knees by Japanese and European manufacturers. The problem generally cited is that the quality of U. S. produced automobiles is poor. Domestic cars are simply not reliable and neither the manufacturer nor the dealer is responsive to consumer problems. The poor performance and lack of responsiveness is evidenced by the recent proliferation of third party intervention programs such as AutoCAP, Better Business Bureau Arbitration and state Lemon Laws.

Faced with the loss of sales to foreign producers, the industry has responded by establishing consumer arbitration panels and by giving attention to a Consumer Satisfaction Index (CSI) as a barometer of current performance and future sales. The consumer panels are comprised of non automobile manufacturer personnel representing consumers, new car dealers, and independent technical experts. The panels meet regularly to arbitrate complaints on the manufacturer's products.

The CSI has been published by J. C. Powers & Associates since 1981. Typically, U. S. producers do not rank high on the scale; in 1986 only one of the top ten automobiles was produced in the United States. The index measures consumer satisfaction as the difference between expectation and performance (Serafin, 1987). Hence, two solutions to increase satisfaction and improve scores on the index are to improve performance or to lower the expectations. The latter alternative is appropriate in situations where a design feature of the automobile is embodied with shortcomings. The provision of information at the point-of-sale could lower expectations and hence reduce dissatisfaction with the automobile.

One consumer appeals board is routinely called upon to arbitrate complaints on a sports model with a T roof. Consumers are dissatisfied with their cars because the roof leaks. This leakage is acknowledged by the manufacturer as the owner's manual states that "seepage is likely to occur." The "seepage" is due to the roof being unstable. Extreme caution must be taken when removing and replacing the roof sections because the T section moves slightly.

Although the manufacturer acknowledges the problem and dealers are probably aware that it exists, this information is rarely passed on to the consumer at the point-of-sale. When queried on this, dealers have given two responses: [1] "it is in the owner's manual; and [2] If the customer is told, s/he will buy from a dealer who claims no knowledge of the problem." While these responses are logical and seemingly rational, is it in the dealer's long run interest not to give information to potential customers on this problem? Would the dealer benefit by providing information that

is in the owner's manual? Would this additional information lower expectations, and increase satisfaction? The purpose of this study was to demonstrate the benefits of providing information at the point-of-sale to raise satisfaction and generate repeat sales.

THEORETICAL FRAMEWORK

Advocates of consumer education have asserted that information needs are critical to purchase decisions (Maynes, 1976; Swagler, 1978; Thorelli, 1981). Consumers want and need information to enable them to make rational choices in the marketplace.

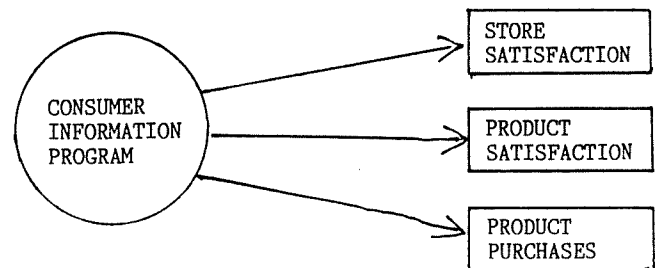
Previous research on the delivery of consumer information has indicated that additional information can yield benefits to both consumers and providers. Aaker (1982) suggested that corporate information programs would benefit the firm as they would lead to improved satisfaction, a more positive image, and new insights into consumer preference. Day (1976), in examining mandatory information programs, suggested that consumers who responded to information would have more confidence in the seller, and more satisfied with the decision process, with the product, and with the shopping environment.

Levitt (1983) suggested that for marketers to maintain their profit positions they must extend offerings of products by helping to solve buyers' problems. The provision of information by producers, and retailers is a service to help buyers' in their decision process. However, the provision of information at the point-of-sale, specifically "negative information," is difficult for merchants to comprehend.

Information, as a service, is difficult to measure. It is difficult to put a price on any service and it is equally difficult to quantify the results or response to a service and the contribution to profits (Pisharodi, 1987). While the automobile manufacturers may be cognizant of the benefits of providing information which may be negative (T roof leaks), individual dealers often fail to see the long run benefits of giving "two sided" information on an automobile. This is particularly true when the negative side concerns an option such as the T roof which is priced at \$1500.

The linkages between consumer information, a service, and benefits to both consumers and sellers has been implied in the literature. The primary benefits cited are increased profits and satisfaction. A conceptual model depicting these linkages is given by Figure 1.

FIGURE 1  
A conceptual model



The model was developed for a formal consumer information program and was empirically tested using nondurable goods (Carsky, 1985). The projected outcomes of the model were drawn from the body of research on CS/D. Oliver's work including Oliver, 1980, 1981; Oliver & Linda, 1981 and Oliver & Westbrook, 1980 formed the basis for the satisfaction outcomes of the model. Oliver (1980) postulated the following sequence:

satisfaction ----> post attitude ----> post intention

Oliver and others (Day, 1982; Aiello, et al., 1978) suggested that satisfaction is multistage and that satisfaction with the retail or shopping environment (enterprise) and with the product are separate but interrelated components of the complex relationships of CS/D.

The Consumer Satisfaction Index (CSI) used by the automobile industry measures satisfaction with the product (technical component) and with the dealer (retail environment). While this paper posits a relationship between the provision of information and satisfaction, the relationship between the two variables is more complex than that suggested above. The actual relationship is perhaps more closely aligned with the following sequence which describes the disconfirmation paradigm (Swan, 1982):

preattitudes ----> expectations ----> product usage and perception of performance ----> disconfirmation ----> satisfaction ----> postattitudes ----> intentions ----> word of mouth ----> repurchase

In this sequence, satisfaction is measured as an emotional emotional construct or feelings about the product, but more importantly to the producer/seller, satisfaction is measured as the intention to repurchase, the word-of-mouth, and repurchase of the product. To the purveyor of goods, these are the ultimate measures (Hunt, 1986), and to the American automobile industry this is where the cost/benefit of any endeavor is assessed.

The purpose of this study was to examine the effect of providing "negative information" to prospective buyers of new automobiles. The objective of the study was to demonstrate that the information provided as a caveat would reduce expectations thereby increasing satisfaction with overall performance and culminating in higher profits through future sales.

#### THE STUDY DESIGN

Two experimental investigations were conducted to determine whether the provision of "negative information" at the point-of-sale would be beneficial or harmful to an automobile dealer. These were designed in response to the dealers' statements that [1] if the customer is told of a leak in the T roof, s/he will buy elsewhere and [2] the probable "seepage" is mentioned in the owner's manual. The initial investigation was conducted to address the substantive issue of the effect of the information provided on consumer satisfaction and intentions to repurchase; the second was conducted to examine theoretical implications.

For each of the two studies, short questionnaires were given to students enrolled in two northeastern universities. The line of questioning followed the disconfirmation paradigm posited by Swan (1982).

Preattitudes - students were given a scenario which stated they were buying an "ideal car" which was a sporty model (the three scenarios are described below).

Expectations - students were asked to what degree leakage was expected.

Product usage and perception of performance and disconfirmation - students were asked their reaction to a small amount of leakage following a heavy rain.

Satisfaction and postattitudes - the moderating effect of the dealer's statement that the information was in the owner's manual was tested.

Intentions and word-of-mouth - the recommendation to a relative who wanted to purchase a car produced by the same auto manufacturer.

In addition, several demographic questions were asked which could moderate the "preattitudes" of the individual students. These included automobile ownership, sex, and the major field of study. For example, students who own cars might react differently because they are more aware of all the problems that can occur; and students who own import cars might respond more negatively since the scenarios were set up for a specific sporty model of a U.S. produced car. It is also possible that engineering students would respond differently from liberal arts students because they are aware of stability and stress problems in design.

#### The First Investigation

This first investigation was designed in response to the dealers' statements. It was exploratory and did not attempt to examine theoretical explanations. The design of the instrument was derived from the relationships posited by the disconfirmation paradigm. Three versions of the short questionnaire were randomly administered to 120 students enrolled in a personal finance course.

Version 1 Place yourself in the following situation. You are planning to purchase a sporty car with money you received for graduation. You have decided on a new \_\_\_\_\_ with a T roof. The dealer salesman tells you that although this is a nice sporty feature, many of them leak. He explains that because the roof isn't stable, caution must be taken when removing the sections of the roof. You would then.....

TABLE 1  
Action taken with negative information

Response (n = 44)	Number	Percent
Buy the T roof car from the dealer	9	20.0%
Buy the car without the T roof	27	60.0
Buy the car from another dealer	2	0.4
Buy another brand of sporty car	6	13.3

As shown, the majority stated that they would not buy the car with the T roof, but would buy the car from this dealer. This response could lead a dealer to believe that s/he has lost \$45,000 (\$1500 X 27) in sales. However, only a small proportion (0.04%) indicated they would buy from another dealer.

Version 2 Place yourself in the following situation. You are planning to purchase a sporty car with money you received for graduation. You really want a \_\_\_\_\_ with a T roof, but two of your friends have warned you that T roofs often leak. When you asked the dealer salesman about this problem, he assured you that he had never in his 12 years of selling \_\_\_\_\_ heard of this. You would then .....

TABLE 2  
Action taken with performance problem denied

Response (n = 38)	Number	Percent
Order the car with the T roof	3	7.7%
Order the car without the T roof	13	33.3
Ask a second dealer who explains the problem of leakage	22	59.0

Both groups were asked about their expectations on the leakage if they purchased the car with the T roof.....

TABLE 3  
Expectations for leakage

Response (n = 83)	Number	Percent
There would be no leakage if careful	15	18.1%
There would be no leakage because of the plant where car was assembled	3	3.6
A little moisture might occur during a heavy rain	50	60.2
There would be heavy leakage w/ rain	25	18.1

These responses indicate the expectation level regarding leakage if the customer was informed. Differences between the two groups ( $X^2 = 6.847$ ,  $df = 3$ ,  $p = .078$ ) approached significance. In the majority of cases a small amount of moisture was expected. An equal number believed there would be no leakage (if careful) or there would be heavy leakage. This is obviously due to differences in perceptions of respondents. Either they might have judged the sales-person to be overreacting (no leakage if careful); or, conversely, perceived that s/he was underestimating the problem.

Both groups were queried on their reaction if the car had been purchased from a dealer who had not heard of the problem and leakage did occur.

TABLE 4  
Dissatisfaction with leakage: dealer denied the problem

Response (n = 83)	Number	Percent
Angry and dissatisfied	66	79.0%
Somewhat dissatisfied	16	19.0
Neither satisfied nor dissatisfied	1	1.2
Generally satisfied because the car performed well	---	---

Both groups expressed strong dissatisfaction ( $X^2 = 3.206$ ,  $df = 2$ ,  $p = .201$ ) to the failure to be informed of the problem.

These two groups along with those who received a third version of the questionnaire were asked how they would feel if the car had been purchased from a dealer who warned them and they had experienced leakage.

TABLE 5  
Dissatisfaction with leakage: dealer warned of problem

Response (n = 119)	Number	Percent
Angry and dissatisfied	7	5.2%
Somewhat dissatisfied	50	48.7
Neither satisfied nor dissatisfied	32	26.7
Generally satisfied with the car	22	18.5

The responses to these two questions illustrate the differences in satisfaction resulting from providing or withholding information. It is easily observed that significantly fewer consumers were strongly dissatisfied with the car purchased after the dealer warned them about the problem.

Version 3 Place yourself in the following situation. For graduation your wealthy uncle has offered to buy you your ideal car. You selected a 1986 \_\_\_\_\_ with a T roof. One month after you began driving the new car you were caught in a rainstorm. The roof leaked a little. How would you feel?

TABLE 6  
Experienced leakage without prior knowledge

Response (n = 36)	Number	Percent
Extremely angry and dissatisfied	7	19.4%
Dissatisfied and want a replacement	4	11.1
Confident the dealer could fix it	23	63.9
Neither satisfied nor dissatisfied since it was a small leak	2	5.6

In this case where no mention was made of the problem at the time of sale, respondents were asked how they would react to being told that the owner's manual indicates that "seepage might occur." Responses to knowing that the information was in the manual were:

TABLE 7  
Response to being informed the owner's manual warns of leakage with T roof

Response (n = 36)	Number	Percent
Angry because you were not informed	23	63.9%
Dissatisfied but confident that Ford will compensate you	2	5.6
Somewhat dissatisfied	6	16.7
Neither satisfied nor dissatisfied	5	13.9

This group was asked their reactions to the dealer warning of the problem at the point-of-purchase.

TABLE 8  
Action if negative information had been provided

Response (n = 36)	Number	Percent
Buy the car from the dealer who warned of the problem	10	27.6%
Buy the car without the T roof	16	44.4
Buy from the dealer who gave no information on the problem	1	2.8
Buy another brand of sporty car	9	25.0

These responses were somewhat similar to those given Version 1. However, a larger portion indicated they would buy a different sporty car. These responses confirm the finding of the Version 1 question in that consumers have confidence in the dealer who warns of a problem or presents "negative information."

The last item queried all students on their intentions and recommendations. It was designed to measure the long range consequences of providing or withholding negative information. The question: "Later in the year your sister decided to purchase a new car. She wanted a \_\_\_\_\_ (sedan model) and asked your advice." Recommendations were as follows:

TABLE 9  
Recommendations or word-of-mouth

Response (n = 119)	Number	Percent
Buy the car from the dealer who warned you	94	78.3%
Buy the car from the dealer who gave no information - but is convenient to her home	3	2.5
Buy a different make of car	22	18.3

There were no differences among the three groups on this question ( $X^2 = 1.94$ ,  $df = 4$ ,  $p = .745$ ). The results of this last question overwhelmingly suggest that it would be in the long run interest of an automobile dealer to provide negative information.

As the questionnaire identified a specific model and make of domestically produced automobile, demographic and attitudinal influences on the responses were assessed. It was expected that students who owned cars might respond differently than those who did not and that those who owned imported cars would react negatively to the scenario using a domestically produced car. Chi-square tests indicated no differences in responses due to these factors. Additionally, chi-square tests found no differences in responses due to sex or major field of study.

The results of this first investigation indicated that consumers would respond negatively to finding that the owner's manual stated that leakage could occur in cars with a T roof - if the dealer had not also provided this information. The results also indicated that it would be in the dealer's long run interest to provide this information as 78.8% of the respondents indicated that they would recommend others to buy from the warning dealer.

#### The Second Investigation

The second investigation was designed to answer the theoretical questions and to test the relationship between the provision of the "negative information" and the established constructs of the disconfirmation paradigm posited by Swan, et al. (1982).

The short questionnaire was administered to 124 students at the beginning of an undergraduate marketing course. The three versions of the instrument differed only in terms of the information given by the dealer: the dealer warned of the leakage; the dealer denied the problem; the dealer gave no information. The remaining questions were identical in each of the three versions.

The version of the test (TEST) specified the information condition or treatment variable. Preattitudes were assessed by the type of car to be purchased (BUYTYPE) in response to the information given. Expectation of leakage (EXPECT) was measured along with the level of dissatisfaction when actual leakage (LEAK) did occur. The latter measure and negative reactions to being informed that the owner's manual (MANUAL) warned of leakage were used to measure dis/satisfaction and post attitudes. Intentions were measured by recommendations (RECOMM) to a close relative for a new car purchase.

The data were analyzed to examine the relationships among the variables of the disconfirmation paradigm and to determine the extent to which the negative information would lower expectations thereby reducing dissatisfaction and influence the intention to repurchase and word-of-mouth. Parametric tests were conduct-

ed to examine the theoretical implications of providing negative information. Nonparametric chi-square tests were run to assess similarity of results to the initial investigation and to further explore the theoretical relationships.

Multiple regression was used to examine the theoretical considerations of the provision of negative information on intentions to repurchase. The Pearson product moment correlation coefficients for the variables defined above are given in Table 10.

TABLE 10  
Pearson Correlation Coefficients for Negative Information on the T roof

	BUYTYPE	EXPECT	LEAK	MANUAL	RECOMM
TEST	.338***	.159	.120	.318***	.287**
BUYTYPE		.059	.137	.269**	.192
EXPECT			.240*	.089	.100
LEAK				.424***	.151
MANUAL					.246**

\*p < .05  
\*\*p < .005  
\*\*\*p < .0005

The full regression equation to predict intentions to purchase, the ultimate measure of satisfaction, is illustrated by the following:

$$Y' = a + \text{TEST } b_1 + \text{BUYTYPE } b_2 + \text{EXPECT } b_3 + \text{LEAK } b_4 + \text{Manual } b_5 \quad (1)$$

The full model was statistically significant ( $p < .0001$ ) with 23.6% of the variance explained. However, only three of the predictors were statistically significant, and a restricted model including only TEST, BUYTYPE and MANUAL was also statistically significant and explained nearly the same proportion of variance. The results of the analyses are shown in Table 11.

TABLE 11  
Multiple regression analysis of disconfirmation variables on recommendation for purchase. (n = 121)

Independent Variable	b	t	p	R <sup>2</sup>	F
TEST	.342	3.84	.0002	.236	7.15*
BUYTYPE	.146	2.02	.04		
MANUAL	-.328	-4.05	.0001		
LEAK	-.046	-0.55	.583		
EXPECT	-.005	-0.07	.942		
Constant	1.595				
TEST	.345	3.99	.0001	.233	11.98*
BUYTYPE	.144	1.57	.046		
MANUAL	-.348	-4.71	.0001		
Constant	1.494				

\*p < .0001

Thus, based on this data set the restricted regression model is:

$$Y' = a + \text{TEST } b_1 + \text{BUYTYPE } b_2 + \text{MANUAL } b_3 \quad (2)$$

These results did not support the theoretical considerations implicit in the disconfirmation para-

digm. Neither expected nor actual performance moderated the intentions (RECOMMEND) in this situation. However, the correlation between these two variables was statistically significant ( $p < .05$ ) indicating a relationship

between expectation and performance. The high correlation between the two direct measures of satisfaction (LEAK and MANUAL) suggests that the anger or dissatisfaction due to leakage occurring was exacerbated by being told the information was in the manual. The latter was perhaps a stronger "dissatisfier" and hence more readily associated with the recommendation.

The chi-square tests permit examination of the relationships where the normality of distribution and homogeneity of variance has not been ascertained (Huck, 1974). Although parametric tests are more powerful, their robustness may have precluded the identification of the paradigmatic relationships which may have been present though undetected. Results of the chi-square tests are presented in Table 13.

TABLE 13

Chi-square for negative information effects on satisfaction and intentions or word-of-mouth ( $n = 123$ )

Test	$\chi^2$	df	p
TEST X EXPECT	16.301	6	.012
TEST X LEAK	53.836	6	.000
LEAK X RECOMM	23.810	6	.001
TEST X RECOMM	35.146	4	.000

These results show a statistically significant relationship between the information condition and expectations as well as between the information condition and level of dis/satisfaction with actual performance. Descriptive statistics on this data set as well as on the initial investigation indicated that those who did not receive the negative information were more dissatisfied. Dis/satisfaction level as a result of actual performance (leakage) was identified as a statistically significant moderator of intentions (recommendations) by this analysis.

The information condition was strongly identified as an influencer on recommendations in this investigation. This was not found in the initial study where 78% of the respondents indicated that they would recommend buying a car from the dealer who warned of leakage without respect to the information condition specified in the experiment. This difference might be due to the nature of the samples. The test was administered to the first group at the end of a consumer finance course wherein students had been given instruction on the importance of information prior to purchase. The test was administered to the second group at the beginning of an introductory undergraduate marketing course. The responses of the latter group are probably more representative of the population.

#### CONCLUSIONS AND IMPLICATIONS

The study examined the costs and benefits of providing negative information to new car buyers at the point-of-sale. Substantively, the investigation sought to measure the effect of the information provided on consumer satisfaction and intention to repurchase. Theoretical considerations focused on testing the relationships between the provision of negative information and the established constructs of the disconfirmation paradigm.

The substantive questions of the study were answered

by the findings of the first investigation and validated by the second. Respondents to the experimental inquiry were found to be less dissatisfied with a performance problem if they had been given information on the potential problem at the point-of-sale. If the negative information was found in the owner's manual after experiencing the problem, the dissatisfaction was intensified. Intentions to repurchase were affected by the information disclosure. In both investigations, respondents indicated that they would recommend buying a car from the dealer who warned of the problem. Hence, The dealer who withholds the negative information may gain an initial sale, but is less likely to gain future sales.

Information was shown to be a significant predictor for intentions to repurchase, the ultimate measure of satisfaction (Hunt, 1986). The type of information given at the point-of-sale, the action taken (BUYTYPE), and being later informed that information was in the manual (MANUAL) were the only significant predictors of intention to repurchase identified by the regression analysis.

Expectations were not moderated by information as was anticipated. It appears that rival hypotheses might have been operating. In both investigations responses were split between those who appeared to believe the dealer who warned of the problem was overreacting and those who believed s/he was underreaction. Dis/satisfaction with performance was associated with expectations, but the impact of this dissatisfaction on intentions to re-purchase is uncertain. The chi-square test found it to be significant, but the parametric tests did not.

The failure of expectations and satisfaction with performance (leakage) to be significant predictors of repurchase might have been due to the overriding influence of the information disclosures. If this assertion is correct, the importance of giving information at the point-of-sale, whether negative or positive, cannot be underestimated.

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