AN INVESTIGATION OF THE RELATIONSHIP BETWEEN LEVEL OF SATISFACTION AND PROCESSING INTENSITY

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ABSTRACT

There is some evidence that the relationships among consumer satisfaction and dissatisfaction (CS/D) constructs differ from one group to another, and few researchers have explicitly considered that within their empirical studies such differences may exist. The present research examines the extent to which processing "intensity" (conceptualized as the ongoing use of expectations in post-experience processing) is systematically associated with different levels of CS/D. This research is based on the convergence of two streams of literature: investigations of the dimensionality of CS/D and attempts to model satisfaction formation processes. Results of two empirical studies are used to address the issue of differential processing. Study 1 examines these relationships using data collected from 377 consumers of a highly-involving service, the interstate movement of household goods. Study 2 examines these relationships using data from 187 consumers of student advising services. Results indicate that while differential processing may occur, such differences are only partially congruent with the results of previous researchers.

INTRODUCTION

Researchers attempting to model consumer satisfaction/dissatisfaction (CS/D) have focused, with few exceptions, on the structural forms of satisfaction models, that is, on the relevant constructs and on the relationships between those constructs. However, there is some evidence that the relationships among CS/D constructs differ from one group to another, and few researchers have explicitly considered that within their empirical studies such differences may exist. If the relationships between constructs in satisfaction models vary systematically between subgroups, combining the subgroups into a single sample would result in misspecified models. The present study examines the extent to which "processing intensity" is systematically associated with different levels of CS/D; "processing intensity" is conceptualized as the degree to which consumers utilize constructs in their CS/D processing. In the present study there appear to be systematic differences, associated with level of CS/D, with regard to whether "expectations" are included in CS/D processing.

BACKGROUND

The present research is based on the convergence of two streams of research: investigations of the dimensionality of CS/D and attempts to model satisfaction formation processes. Each will be addressed.

The dimensionality of satisfaction has been questioned (Swan and Combs 1976; Maddox 1981) and the issue remains unresolved (Yi 1990). The primary issue is whether satisfaction is a unidimensional construct (e.g., with anchors of "completely dissatisfied" and "completely satisfied") or two separate constructs, one being "level of satisfaction" and the other being "level of dissatisfaction." The two-factor conceptualization is based on Herzberg's Two- Factor Theory (Herzberg, Mausner, and Snyderman 1959) and derives support from the observation that consumers who are asked to recall both satisfying and dissatisfying experiences recall different "levels" of phenomena for describing why they are satisfied versus dissatisfied (Maddox 1981). Thus, some researchers have found equivocal support for the two-construct conceptualization (Swan and Combs 1976; Maddox 1981; Westbrook and Newman 1978). However, an alternative explanation of these findings is possible. Briefly, it is possible that the satisfaction construct is unidimensional, but, given that satisfied and dissatisfied consumers may process differently, they remember different kinds of factors as being responsible for their ultimate level of satisfaction. Because the methods used in the studies cited required consumers to "retrace" their processing, it is not surprising that their responses were qualitatively different.

Given that satisfied and dissatisfied consumers tend to attribute their level of CS/D to different kinds of phenomena, it is somewhat surprising that those attempting to model satisfaction formation consistently combined satisfied and dissatisfied subjects during model development. In fact, few studies have addressed the issue of differential processing in satisfaction formation at all. Three important exceptions are Churchill and Surprenant (1982), Oliver and DeSarbo (1988), and Dröge and Halstead (1991).

Churchill and Surprenant (1982) found that both disconfirmation and performance influenced satisfaction for the plant in their experiment, but only performance (and not disconfirmation) influenced satisfaction for the video player. In other words, they observed differential processing based on product category. Oliver and DeSarbo (1988) explicitly addressed the issue of differential processing by performing an individual-level analysis of subjects in their stock performance experiment. Using cluster analysis, they found that "....preferences for performance and disconfirmation may be individual-specific" (p. 505), but they were unable to determine the basis for such processing "preferences." Some differences with regard to the importance of expectations were also noted.

Dröge and Halstead (1991), in a field study of recent carpet purchasers, found that "complainers" and "non-complainers" processed differently. Specifically, they found that non-complainers were more "disconfirmation-influenced" while complainers were more "expectations-influenced." They attributed this result for non-complainers to Oliver's (1981) suggestion that expectations usually decay over time. On the other hand, complainers were more likely to have engaged in extensive cognitive processing related to their negative experiences with their carpeting, and thus the normal decay of expectations would have been inhibited. Subsequent to the Dröge and Halstead (1991) study, research addressing the association of satisfaction processing and level of CS/D has not been published.

Dissonance theory (Festinger 1957) provides one possible explanation of a relationship between CS/D level and amount (or intensity) of processing. Dissatisfied consumers may experience dissonance since the cognition "I am dissatisfied with X" is inconsistent with the cognition "I freely chose to purchase X." Dissonance results in some level of psychological discomfort which the subject tries to reduce. The consumer is motivated to reduce the dissonance by reexamining constructs in each dissonant relationship and so continues processing. Satisfied consumers have no reason to continue processing once they are satisfied. In some sense, they have achieved closure and are ready to move on.

Research Objectives

The objective of this research is to replicate the findings of Dröge and Halstead (1991) in additional field settings to determine whether the association between level of CS/D and processing intensity is a more general phenomenon. Another objective of the research is to address more exactly the processing differences of satisfied versus dissatisfied consumers. In the Dröge and Halstead (1991) study, complainers were compared with non-complainers. While it can be reasonably assumed that most complainers are dissatisfied, it is clear that many people who are dissatisfied do not complain (e.g., TARP 1979). Thus, the non-complainer group in the Dröge and Halstead (1991) study probably contains both satisfied and dissatisfied consumers. It is unclear to what extent this may have confounded their results.

It is hypothesized that dissatisfied consumers process more extensively than do satisfied consumers. Satisfied consumers do not feel the need to rethink or analyze the factors which are responsible for their largely positive state, probably because there has been "closure" on the process. On the other hand, dissatisfied consumers do not reach closure as easily. They are in a negative affective state and seek to understand why, perhaps because they need to rationalize their feelings (Maddox 1981), or perhaps because they want to avoid being dissatisfied in the future, or perhaps because dissatisfaction somehow "amplifies" their "sensitivity" to the process (Westbrook and Newman 1978). Whatever the motivational source of this increased processing, it is hypothesized to occur among dissatisfied consumers.

STUDY 1

To address these research objectives, we studied consumers of a highly involving service: interstate movement of household belongings. This industry is characterized by wide variance in customer satisfaction and relatively low repeat purchase. For the entire sample, overall satisfaction was modeled as depending upon customer satisfaction with specific attributes of the moving experience. Overall satisfaction then influences word-of-mouth intentions. It should be noted that, given the long repurchase cycles in this industry, firms are generally more concerned with word-of-mouth than repeat purchase intentions.

The study population consisted of households completing interstate moves within the continental United States within a three-month period. A telephone survey was conducted with 530 consumers who completed an interstate move during the study period. The analysis conducted here is based on the 377 respondents.

Five point scales were used to measure retrieved expectations ("What level of service did you expect?"), performance ("What level of service did you receive?"), and disconfirmation (Did the company meet your expectations?"). A five-point satisfaction scale was anchored by "Extremely Dissatisfied" (1) and "Extremely Satisfied" (5). The word-of-mouth question was: "If asked, would you recommend this company to others," using a five-point scale anchored by "No" and "Extremely Likely," with "Somewhat Likely" as a midpoint. Note that, consistent with Dröge and Halstead (1991), retrieved expectations rather than expectations were included.

The manifestation of increased processing among dissatisfied consumers was expected to be evident in stronger correlations between retrieved expectations and other key variables. To address the research question, a two-group LISREL analysis comparing satisfied and dissatisfied respondents was planned. To split the sample into two groups, responses to the single, five-point overall satisfaction question were used. The 153 respondents who selected the scale midpoint (3) were eliminated from further analysis, resulting in a total sample of 377.

Results and Discussion

Given that the sample was split into groups based on responses to the satisfaction question, it was expected that there would be very little variance in satisfaction (in each group) to be explained by the model. Therefore, the dependent variable of interest for the analysis was WOM; that is, the antecedent variables were modeled as influencing WOM directly rather than indirectly through satisfaction.

An analysis of the distribution of each relevant variable revealed severe violations of the assumption of normality for "retrieved expectations," a key variable in the study. Therefore, it was necessary to conduct a nonparametric analysis of the data.

Table 1 presents the Spearman correlation coefficients for each pair of relevant variables for both groups. Note that the relationships presented in the top half of Table 1 are consistent with the satisfaction literature in general. In the bottom half of Table 1, the relationships involving "retrieved expectations" are summarized. Note that the correlations between retrieved expectations and the other variables are all nonsignificant for the satisfied group, while they are higher and significant in two of the three pairs for the dissatisfied group.

Table 1
Results of Study 1
Spearman Correlation Coefficients

	Satisfied Respondents (n=290)	Dissatisfied Respondents (n=87)
Disconfirmation - Word-of-Mouth	.58	.47
Performance - Word-of-Mouth	.56	.56
Performance - Disconfirmation	.70	.65
Expectations - Word-of-Mouth	.00 (n.s.)	-.13 (n.s.)
Expectations - Disconfirmation	.03 (n.s.)	-.16
Expectations - Performance	.03 (n.s.)	-.23

Though significant in two of the three pairs, the magnitude of correlations is extremely low indicating that retrieved expectations are only weakly related to disconfirmation and performance. However, these results are consistent with the findings of Dröge and Halstead (1991), that is, they are consistent with the notion that dissatisfied consumers are more likely than satisfied consumers to continue processing their consumption experience and thus inhibit the normal "decay" of expectations.

STUDY 2

Given the results of Droge and Halstead (1991) and the weak support provided in study 1, the question arises of whether differential processing by satisfied versus dissatisfied consumers is evident immediately following the experience or only becomes evident over time. To address this question, a second study was undertaken.

The second study involved 183 recipients of a moderately involving service, student advising services at a large midwestern university. Students are required to meet with an advisor at least once per year, so it is likely that all student participants had at least some personal experience with advising services. Participants were instructed to schedule their appointment as usual and not indicate that they were involved in the study. Just prior to their appointment, students stopped by the research office and completed a pre-appointment questionnaire. Immediately after the appointment, students returned to the research office and completed a post-appointment questionnaire. Students received extra course credit for participating in the study.

Both the pre- and post-appointment questionnaires were extensively pretested and revised. Expectations, performance, disconfirmation and satisfaction were each measured for ten attributes of advising services. Word of mouth was measured using a single item. Note that in this study, actual expectations (not retrieved expectations) were used.

Correlation coefficients were calculated so that study 2 results could be compared with study 1 results. In addition, covariance structure analysis (LISREL VIII) was used to estimate path

coefficients of a two-group model comparing high satisfaction and low satisfaction consumers. Once again, those responding at the center of the satisfaction scale were omitted from the analysis, leaving an effective sample size of 182 (out of 273 total respondents).

Results and Discussion

Table 2 shows the Pearson correlation coefficients for pairs of relevant variables for both the satisfied and dissatisfied respondents. In addition, significant differences between the two groups (computed using Fisher's Z transformation) is indicated in the last column.

Table 2
Results of Study 2
Pearson's Correlation Coefficients

	Satisfied Respondents (n=119)	Dissatisfied Respondents (n=81)	Sig. Diff.
Disconfirmation - Word-of-Mouth	.17	.33	NO
Performance - Word-of-Mouth	.37	.51	NO
Performance - Disconfirmation	.31	.49	YES
Expectations - Word-of-Mouth	.41	.56	YES
Expectations - Disconfirmation	.00 (n.s.)	.27	YES
Expectations - Performance	.58	.51	NO

As in study 1, there are some differences between the correlation coefficients of the two groups, though the pattern is somewhat different. Specifically, two of the three coefficients involving expectations are significantly different from zero for the satisfied respondents (compared to none in study 1). However, as was true in study 1, two of the three coefficients for dissatisfied respondents are significantly higher than the corresponding coefficients for satisfied respondents, indicating that expectations may play a greater role in the postconsumption processing of dissatisfied versus satisfied subjects. Again, these results provide some support for the differential processing

hypothesis.

The LISREL two-group analysis results are summarized in Figure 1. Throughout the figure, the top pair of numbers for each path refer to the satisfied subsample while the bottom pair of numbers refer to the dissatisfied sample. The first number in each pair is the standardized path coefficient while the

second number is the t-value for the path. Of course, the model as presented is fully saturated, so typical fit statistics are meaningless. However, in a version of the model without the direct path from performance to WOM, both the G.F.I. and the C.F.I. were equal to .99, with a chi-square of 4.65 (p = .098).

Note that the corresponding paths for each group are equal throughout the model except for the expectations - disconfirmation path (significant and negative for the satisfied group, not significant for the dissatisfied group), and the expectations - WOM path (significantly larger for the dissatisfied group). Differences in path coefficients were determined using chi-square difference tests. The

effects of expectations on performance are virtually identical for both groups, while the effects of performance on WOM are equal and only marginally significant. Though expectations are more strongly related to disconfirmation for satisfied subjects, these effects of expectations are not carried through to WOM due to the nonsignificance of the disconfirmation - WOM path. The expectations - WOM path is positive for both groups, but significantly stronger for the dissatisfied group. The total effects of expectations on WOM is stronger for the dissatisfied group than for the satisfied group.

Given the time between the advising encounter and administration of the post-appointment questionnaire, it would not have been surprising to find no differential effects of expectations on word-of-mouth, if such differential effects are due solely to the "decay of expectations" hypothesis. The finding of some differential effect immediately after the encounter indicates that the decay of expectations occurs extremely quickly or that expectations play a different role even in short

Figure 1
Results of Study 2
LISREL Two-Group Analysis Path Coefficients
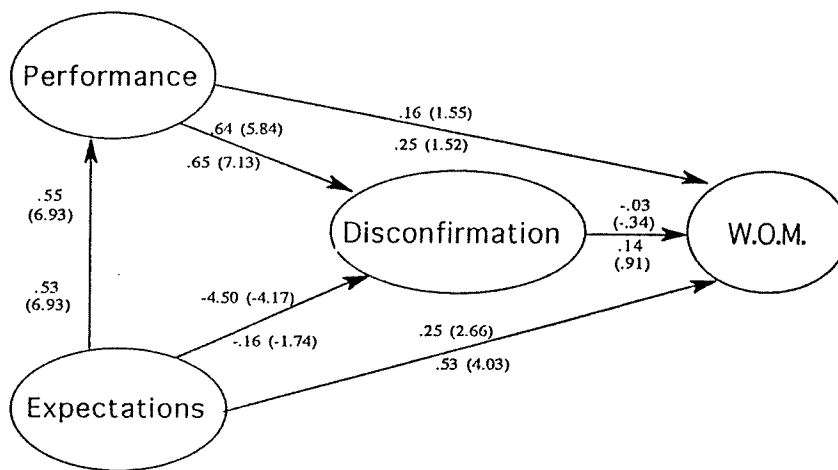
	Perf.	Discon.	WOM
Satisfied	.32	.25	.19
Dissatisfied	.27	.43	.39

term post-consumption processing for dissatisfied versus satisfied consumers. Additional research will be necessary to investigate this phenomenon further. It appears, though, that the general findings here are consistent with the conclusions of Dröge and Halstead that dissatisfied consumers may be more expectations driven.

Inconsistent with the findings of study 1 is the sign of the expectations - WOM path for dissatisfied subjects. In this study, the sign is positive, indicating that higher expectations are associated with more positive WOM, whereas in study 1, the sign was negative. The reason for this finding is unclear and represents another area of study for future investigation.

IMPLICATIONS

The demonstration of differential processing implies the need for using models of greater complexity, and/or for developing a contingency processing model. In addition, it calls into question findings from previous research, as suggested by Dröge and Halstead (1991): " .... past research may have masked differences in the fundamental interrelationships among these key constructs, leading to contradictory results across studies" (p. 319).

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