

# PREDICTING THE CONSUMER COMPLAINT BEHAVIORS IN FOOD SERVICE: AN EMPIRICAL TEST OF TWO ALTERNATIVE MODELS

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## ABSTRACT

Although increasing numbers of conceptual models have been proposed to predict consumers' complaining behavior, very little empirical research has been conducted to test the utility of these models. This study tested the relative utilities of the "intensity of dissatisfaction" model proposed by Landon and the "Complain/Do Nothing Decision Process" model conceptualized by Day. Students' experiences with food service at a college cafeteria were surveyed for this purpose. The results demonstrated that the "intensity of dissatisfaction" model could predict complaint behavior for food service better than the "Complain/Do Nothing Decision Process" model. This finding underscores the importance of the intensity of dissatisfaction consumers experience to predict complaint behavior. Attitude toward the act of complaining also emerged as a potentially important construct to enhance our understanding of consumer complaining behavior.

## INTRODUCTION

While it is well documented that dissatisfaction with products and services is common among consumers, a large majority of dissatisfied consumers do not complain publicly (Andreasen and Best 1977; Day 1984; Shuptrine and Wenglorz 1981). Although dealing with consumer complaints may not be a pleasant experience and may even be a headache for marketers, they actually serve as valuable communication feedback to improve their product offering to ensure satisfaction (Ross and Oliver 1984; TARP 1986). Undetected complaints may have far more serious consequences to marketers. Dissatisfied consumers may take a variety of detrimental actions such as quietly switching their loyalty (Hirshman 1970; Richins 1987) and spreading negative word of mouth (Gilly and Gelb 1982; Richins 1983). Thus, efforts to understand the processes and identify factors that affect consumers' complaining behavior have received increasing attention from researchers.

Earlier studies attempted to assess the impact of various factors on the complaint actions such as demographic characteristics (e.g., Granbois, Summers and Frazer 1977), personality (e.g., Zaichkowsky and Liefeld 1977), and beliefs and attitudes (e.g., Warland, Herrmann and Willis 1975). Frustrated with weak and equivocal results in this line of fragmented research, and increasing number of conceptual models has been proposed that integrate these diffused findings in an effort to predict consumers' complaint behavior more accurately (e.g., Blodgett and Granbois 1992; Day 1984; Richins 1979; Singh and Wilkes 1991). These models have made a contribution to enhancing our limited understanding about when consumers manifest their dissatisfaction through complaints. However, little research effort has been put forth to empirically test which model predicts consumers' complaint behavior better. Thus, the utility of most of the proposed models has yet to be validated.

This study is intended to fill this gap in current consumer complaint behavior research. More specifically, we empirically tested the relative utility of two of the well known models of predicting consumer complaining behavior: (1) the Intensity of Dissatisfaction Model proposed by Landon (1977) and (2) the "Complain/Do Nothing Decision Process" model conceptualized by Day (1984).

## TWO ALTERNATIVE EXPLANATIONS FOR COMPLAINT ACTIONS

### Intensity of Dissatisfaction Model

Landon (1977) initially conceptualized that complaining behavior was a function of dissatisfaction, importance, benefit from complaining, and personality. Among these four factors, the intensity of dissatisfaction experienced by consumers was proposed to predominantly affect the consumer's decision to take complaint actions. Landon theorized that, "It seems clear that consumers who are dissatisfied are more likely to complain than consumers who are not

dissatisfied." (p. 31). Although he acknowledged that dissatisfaction alone is not sufficient to lead to complaint behavior, he emphasized its crucial role on the consumer's complaint decision by arguing, "Nonetheless, dissatisfaction appears to be positively and significantly related to complaint behavior." (p. 31). Although this model has been rightly criticized due to its simplistic view of more complex complaint processes (see Prakash 1991 for a review), the intensity of dissatisfaction has been widely adopted by many researchers to explain complaint behavior (e.g., Bearden and Teel 1983; Richins 1983). We compared this parsimonious model with a comprehensive model described below.

### Complain/Noncomplain Decision Process Model

Day (1984) proposed a conceptual model of "Complain/Noncomplain Decision Process" by integrating other antecedents identified in extant research as illustrated in Figure 1. The model holds that although the dissatisfaction experienced by a consumer *motivates* the consumer to take complaint actions, the subsequent process that influences the consumer to decide whether to take

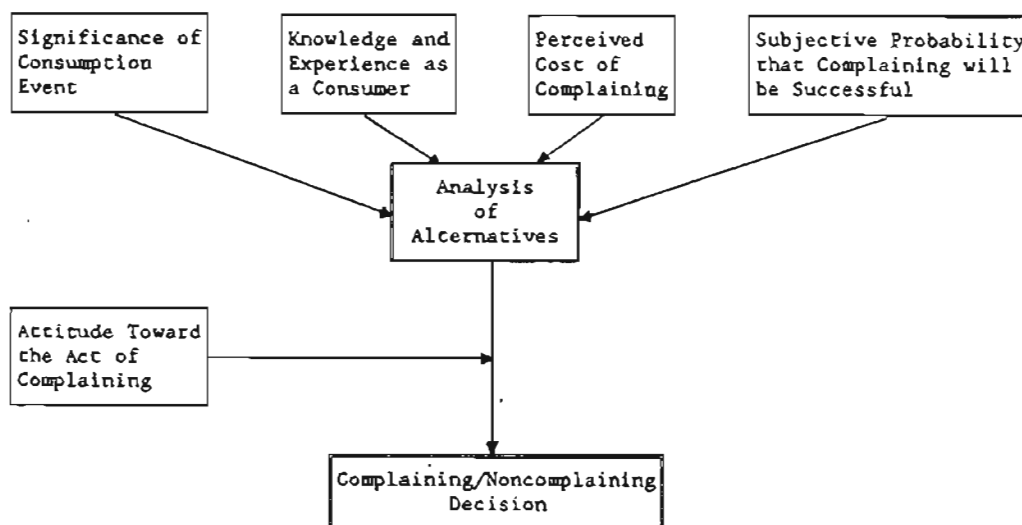
an action or not is influenced by many other factors. Some of the factors include significance of the consumption event, consumer's knowledge and experience, difficulty of seeking a complaint, chances for success in complaining, and attitude toward the act of complaining. Thus, the model proposes that the intensity of dissatisfaction felt by the consumer is not a factor in determining the complaining or noncomplaining decisions. Although Day's model lends itself readily to operationalization for empirical research, the model's ability to explain actual complaint behavior was not empirically tested.

### METHOD

#### Sample and Data Collection Procedure

Survey method was used to test the two alternative models of predicting complaint behaviors discussed in the previous section. Students' experiences with food service in a cafeteria at a college were used for this purpose. It was reasoned that the food service on campus is an important consumption experience for students who spend and consume a substantial amount of

Figure 1  
A Model of Complaining/Noncomplaining Decision Process\*



\* Adopted from Day (1984)

time and money for on-campus food services. A pilot study with a small number of students revealed that students expressed a variety of dissatisfied experiences at food facilities in their dormitories such as the inadequacy of menu variety, inconsistent service, uncleanliness, taste, and serving times.

Data of this study were collected from graduate students living in a graduate student residence hall of a large state university. Questionnaires were administered to 458 residents. Questionnaires were put in the mail boxes of the residents in the residence hall. The cover letter explained the purpose of the research as an effort to find out how they felt about the food services in the residence hall. The letter also emphasized the importance of their participation for improved food services by stating that the results of the study would be communicated to the school administration. Respondents were asked to return the survey to a specially designated mailbox in the residence hall after about a week.

One hundred and fifty one questionnaires were received (33 percent response rate). Twenty six subjects were excluded from the data analysis because they failed to complete the survey in important areas, resulting in 125 respondents. Fifty four percent of the respondents were women and 65 percent were caucasian. The mode of respondents' age was in the 21 - 25 year category. It was also noted that 51 percent of them had been living in the residence hall for 4 to 8 months, which was a sufficient time period enough for them to get familiar with, and experience the food service of the residence hall.

### Measurements

To operationalize the "intensity of dissatisfaction" model, consumer's satisfaction/dissatisfaction was measured as a global predictor variable. To operationalize the "Complain/Noncomplain Decision Process" model, significance of eating, experience of food served, difficulty of complaining, chances for success in complaining, and attitude toward the act of complaining were measured as predictor variables. For both models, complaint actions were measured as dependent variable.

### Predictor Variables

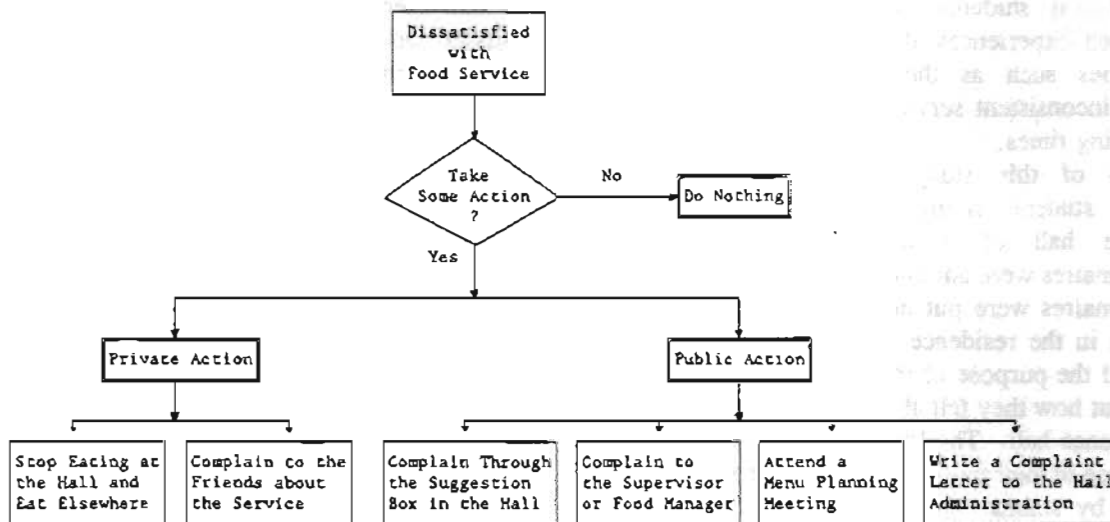
Consistent with previous research, the intensity of dissatisfaction was assessed as a global measure by a question: "How satisfied are you with the food service in the residence hall?" (Oliver and Bearden 1983; Oliver and Linda 1981). Subjects responded on a 6 point semantic differential scale that was anchored at "highly satisfied" and "highly dissatisfied."

Significance of eating, difficulty of complaining, chances of success in complaining (subjective probability that complaining will be successful), experience as a consumer and attitude toward the act of complaining were operationalized based on the measurement instruments proposed by Day (1984). Each of them was measured based on multi-item measures of a 5 point Likert scale that was anchored at "strongly disagree" and "strongly agree."

### Dependent Variable

It has been criticized that complaint behavior has been oversimplified and treated as unidimensional as a dependent variable (Prakash 1991). To overcome these problems, an operational measure of complaint behavior was developed to include a wider range of alternative actions residents might take after the residents experience unsatisfactory food consumption. The alternative complaint actions were identified based on depth interviews with three randomly selected students at the residence hall. Then, the complaint actions were classified into the private and public complaint alternatives in increasing intensity as illustrated in Figure 2. This approach was consistent with prior studies that investigated consumer reactions to marketplace dissatisfaction (Bearden and Teel 1983; Day, Grabicke, Schaeztle, and Staubach 1981; Day and Landon 1977). Finally, the construct was operationalized as a Guttman scale in an effort to reflect increasing intensity (from private to public actions) of possible complaint actions as Bearden and Teel (1983) did. "Take no action" was assigned zero and various complaint actions as illustrated in Figure 2 received 1 to 6 from private actions to public actions, respectively. Thus a single index of complaint activity was constructed to represent

Figure 2  
Consumer Complaint Behavior with the Food Service\*



\* Based on Day, Grabicke, Schaeztle, and Staubach (1981) and Day and Landon (1977).

diverse complaining behaviors of different intensity.

## RESULTS

### Refinement of Measures

Before analyzing the data, multi-item measures were refined by an iterative process as suggested by Churchill (1979). First the coefficient alpha of each of the scales was calculated. The items that were mainly responsible for low coefficient alpha of each scale were eliminated, then new alphas were calculated. The process was repeated until a satisfactory coefficient was achieved. The values of coefficients ranged from .57 to .77 with an average of .68. For early stages of basic research, reliabilities of .50 to .60 are suggested to suffice (Nunnally 1967). The results are summarized in Table 1.

### Analysis

For each of the predictor variables, individual scale items were summed to compose an index. Pairwise correlations between various predictor variables and the dependent variable revealed that

only two predictor variables were significantly correlated with complaining behavior. These were (1) the intensity of dissatisfaction ( $r = 0.37$ ,  $p < 0.001$ ) and (2) the attitude toward the act of complaining ( $r = 0.22$ ,  $p = 0.006$ ).

The relative influences of the model's predictive component(s) on the respondent's complaint behavior were examined by simple and multiple regression analyses. The results of regression analyses are summarized in Table 2.

Significant results were found for regressing the complaint behavior on the intensity of dissatisfaction ( $F = 20.11$ ,  $df = 1/123$ ,  $p < 0.001$ ). The proportions of variation in complaint behavior explained by the global dissatisfaction measure were 14 percent (Model 1).

Next, a multiple regression model was tested in which the complaint behavior was regressed on the attitude toward the act of complaining, the experience as a consumer, the significance of eating, the difficulty of seeking a complaint, and the chances for success in complaining (Model 2). Although the model was significant ( $F = 7.18$ ,  $df = 5/119$ ,  $p < .01$ ), the proportion of variance in the criterion variable explained by a linear combination of these five predictors was only 5 percent ( $R^2 = 0.05$ ). It should be also noted that

Table 1  
Reliability of Multi-Item Measures

Measured Construct	Number of Items	Inter-Item Correlation		Reliability Coefficient ( $\alpha$ )
		Means	Variance	
Significance of eating	5	0.42	0.01	0.77
Experience as a consumer	4	0.25	0.02	0.57
Difficulty in complaining	4	0.30	0.02	0.63
Chances of success in complaining	4	0.34	0.01	0.67
Attitude toward the act of complaining	5	0.37	0.01	0.75

Table 2  
Summary of Regression Analysis

Model	R <sup>2</sup>
1. 0.76IDS**	0.14
2. 0.15ATT* - 0.02EXP + 0.03SIG - 0.03DIF + 0.01PRB	0.05
3. 0.17ATT**	0.05
4. 0.72IDS*** + 0.14ATT*	0.18

\*  $p \leq 0.05$ , \*\*  $p \leq 0.01$ , \*\*\*  $p \leq 0.001$   
The regression coefficients were standardized.

Dependent Variable: Complaining behavior

Predictor  
Variables: IDS: Intensity of dissatisfaction  
ATT: Attitude toward the act of complaining  
EXP: Experience of food served  
SIG: Significance of eating  
DIF: Difficulty of seeking complaining  
PRB: Chances for success in complaining

only attitude toward the act of complaining was significant ( $p < 0.05$ ) as a predictor variable. Analysis of correlation matrix of predictor variables indicated that multicollinearity might be a problem. To examine whether this posed a serious problem or not, all predictors except for attitude toward the act of complaining were dropped from the model as suggested by Pindyck and Rubinfeld (1981). The result from this simple regression analysis revealed that the regression coefficient of the attitude toward the act of complaining and its standard error were not significantly different from those of the multiple

regression model. Thus, it was concluded that multicollinearity did not pose a problem in this study. It should be also noted that this single predictor model (Model 3) explained the same amount (5%) of variation in complaining behavior ( $F = 6.88$ ,  $df = 1/123$ ,  $p = 0.01$ ) as the full model.

Finally, to assess whether the attitude toward the act of complaining would be useful as an additional predictor, the complaint behavior was regressed on both the intensity of dissatisfaction and the attitude toward the act of complaining (Model 4). Extra-sums-of-squares test (Darlington 1968; Draper and Smith 1966) indicated that the addition of the attitude toward the act of complaining in the model as another predictor increased the explained variance in the complaint behavior significantly when compared with the intensity of dissatisfaction as a single predictor ( $R^2s = .14$  and  $.18$ ,  $F = 5.51$ ,  $df = 1/122$ ,  $p < 0.05$ ).

## DISCUSSION

This study empirically tested the utility of two alternative models that were proposed to predict consumer complaining behavior. The results demonstrated that the intensity of dissatisfaction assessed by a single global measure could predict complaint behavior for food service better than the "Complain/Do Nothing Decision Process" model. This finding underscores that the intensity of dissatisfaction consumers experience plays a crucial role in determining consumers' complaining behavior, even though the dissatisfaction alone may not constitute the sufficient condition for complaining.

Although the "Complain/Do Nothing Decision Process" model was not supported by the data, it does not necessarily discredit the utility of the model. Rather, it may suggest that the relationships between the predictor variables and complaining behavior are more complex than were originally proposed by Day (1984). For example, the predictor variables may interact to influence the complaining behavior. How these variables interact with one another needs to be investigated systematically in future research. Then the refined model can be tested by using a structural equation modeling method such as LISREL (Joreskog and

Sorbom 1989) with a sufficiently large sample size.

Another notable finding of this study is that the attitude toward the act of complaining is a potentially important variable to predict consumers' complaining behavior. It is quite intuitive that consumers who are favorably predisposed toward seeking redress will be more likely to complain. Although researchers have already suggested that attitude toward the act of complaining may influence consumers' complaint action (Day 1984; Day and Landon 1977; Robinson 1978), little empirical support was previously reported. Richins (1980) only found a significant relationship between attitude toward complaining and intention to complain. The fact that the construct *per se* did not account for a large proportion of the variance of complaining behavior is not surprising considering the generally weak relationship between attitude and behavior reported in attitude research. Future research should investigate the role of this variable as a mediating variable as suggested by Day (1984) or as a moderating variable suggested by Prakash (1991) in determining consumer complaint behavior. The results of this single study should be taken cautiously. The sample used in this study is hardly representative of the average consumer. The graduate student is more educated and more sophisticated than the ordinary consumer. Thus, the results of this study need to be cross-validated within and across populations and products through future research.

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