

**Efficacy and Outcome Expectations Related to Customer Complaints About
Service Experiences**

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Abstract

The social exchange between consumers and service providers in service-based operations (such as restaurants) provides an opportunity to examine complaint efficacy and outcome expectations. To further explain the cognitive influences behind complaint message production and delivery, this two-part investigation applied previous work involving self-efficacy theory within the context of consumer complaint intentions about service experiences. Specifically, it extended Makoul and Roloffs work from complaint intentions in romantic relationships to consumerism. In Study 1, existing measures of complaint efficacy and outcome expectations were redesigned and validated in a service context, indicating that the two constructs are in fact distinct, despite controversy over their conceptualization and measurement. In Study 2, the measures were revalidated and applied to a simple causal string, modeling the cognitive processing of complaint intentions in terms of the relationship among consumers' dining frequency, complaint efficacy, and outcome expectations. Results indicated that dining frequency significantly influenced complaint efficacy expectations and that efficacy expectations significantly predicted outcome expectations.

Efficacy and Outcome Expectations Related to Customer Complaints About Service Experiences

It is no mystery to service professionals that customers* perceptions of service processes are a key element that influences operational success. On a daily basis, service-based organizations deal with a variety of customers seeking a variety of services. Although each consumer may have specific needs and expectations for each service episode, it is understood that, at a minimum, their expectations of the service episode and the services sought should be met. Inevitably, consumers experience elements in a service episode that do not meet their expectations and likely lead to perceptions of dissatisfaction (East, 1996; Fomell, 1979).

When a service failure occurs, customers are faced with the option of communicating a complaint to influence the service delivery process, or terminating the service exchange without having their service expectations met in a satisfactory manner (Singh, 1988). Feelings of dissatisfaction will cause customers to first cognitively evaluate the service failure and determine which step, if any, will be taken to redress the situation (Stephens & Gwinner, 1998). Given this seemingly difficult decision, individuals wishing to communicate a complaint must be able and willing to complain in the customer service episode and, secondly, believe that their complaints will lead to adjustments that sufficiently compensate for their dissatisfaction (Fornell, 1979; Singh & Wilkes, 1996).

Social Confrontation

Although the literature on social confrontation has well examined the communication process through which individuals choose to address conflict in interpersonal relationships

(Makoul & Roloff, 1998; Newell & Stutman, 1988, 1989-90), little research has focused on consumer complaints about customer service experiences. Complaints about service experiences are a specific type of issue-driven social confrontation. Given the context in which consumer complaints arise, the specific elements of a social confrontation episode described by Newell and Stutman (1988, 1989-90) are particularly relevant to consumer complaints. When complaining, the initiation of the social confrontation episode is based on the premise that the individuals involved have expectations for specific behaviors in service episodes. When these expectations are violated in some manner, a confrontation is likely initiated to lead to an adjustment of perceptions through the affirmation of the complaint, the denial of the complaint, the negotiation of the expectations, or a change to the circumstances leading to the complaint (Newell & Stutman, 1988). In a service context all of these outcomes are possible through the complaint process.

With service-based complaints, the dissatisfying elements of the service experience lead to a number of possible initiating acts on the part of the consumer that begin and frame the confrontation episode (Newell & Stutman, 1989-90). Newell and Stutman (1989-90) describe five categories of initiating acts (hinting, seeking confirmation, blaming/accusing, emotional display, and emotional statement), but note that complaint initiation likely occurs through a sequence of negotiated interdependent actions, rather than strictly through one initiating act.

A Propensity Toward Complaint Behavior and Self-Efficacy Theory

An individual's propensity to complain about a dissatisfying service experience is contingent on the perception that he or she is able to effectively voice a complaint to redress the dissatisfying experience (self-efficacy). Complaint efficacy then leads to the perception that the

effort expended in voicing the complaint(s) will lead to a renewed sense of satisfaction (outcome expectancy). Therefore, an individual will vary in his or her response to dissatisfying experiences (self-regulation) (Bagozzi, 1992; Maddux, Norton, & Stoltenberg, 1986; Singh & Wilkes, 1996). In effect, one's ability and desire to complain about dissatisfying experiences is based principally on self-efficacy theory, where efforts or action come about through a perception of mastery or ability (Bandura, 1977) in the voicing of complaints (Makoul & Roloff, 1998).

Self-efficacy and outcome expectations have a rich history in the management- and psychology-based literature examining (a) the development of on-the-job performance (Riggs, Warka, Babasa, Betancourt, & Hooker, 1994), (b) the performance of physical and psychological rehabilitation processes (Arisohn, Bruch, & Heimberg, 1988), and (c) classroom performance (Sexton & Tuckman, 1991). In general, these investigations suggest that one's efficacy expectations in relationship to performing a specific behavior lead to specific outcome expectations for that behavior, which in turn can be related to behavioral intentions and the specific performance of behaviors (Saltzer, 1982).

Self-efficacy theory is a subset of the larger grouping of expectancy-value theories, where the propensity to engage in a specific behavior (such as communicating a complaint) is the product of the reinforcement value of an expected outcome and the expectation that specific behaviors will lead to that outcome (Bagozzi, 1992; Maddux et al., 1986; Singh & Wilkes, 1996). Many debates among researchers, however, have ensued over Bandura's (1977) conceptualization and measurement of efficacy and outcome expectations in relation to behavioral intentions and behavior change. Critics of self-efficacy theory suggest that efficacy and outcome expectations are in fact dependent and require further clarification in their measurement and application within the behavioral domain (Eastman & Marzillier, 1984).

Contextual Applications of Self-Efficacy Theory

An important issue raised through the aforementioned debates is the context in which efficacy and outcome expectations are examined. Eastman and Marzillier (1984) identified a number of alternative explanations for Bandura's (1977) findings, suggesting that outcome expectations are embedded in efficacy expectations as defined and operationalized by Bandura (1977). According to Eastman and Marzillier (1984), the past behavior of acts for which individuals form efficacy expectations provides subjects with considerable information to predict their future behavior and outcomes for such behavior, meaning that "self-efficacy is a rational appraisal of one's likely future behavior based on previous knowledge" (p. 225). This is particularly true for heterosocial interaction because the complexities of a social situation include a greater range of possible outcomes attached to individual behavior (Arisohn et al., 1988).

In an examination of individuals' desire to withhold complaint behavior within romantic relationships, Makoul and Roloff (1998) found that efficacy and outcome expectations operated independently of each other. When conjointly examined, efficacy expectations significantly influenced individuals' reports of a propensity to withhold relational complaints, whereas outcome expectations did not. Likewise, when combined, the interaction term of efficacy and outcome expectations was not a significant predictor of propensity to withhold complaints, whereas the additive relationship was (Makoul & Roloff, 1998). Given the noted differences in the relationships between efficacy and outcome expectations among the dependent variables, it is likely that efficacy expectations and outcome expectations influence and are influenced by different elements in the complaint process.

Apparently, the conceptual clarification needed to refine self-efficacy theory in practice can come about only through contextual applications that are salient to the participants under

study (Sexton & Tuckman, 1991) and assessed through multiple measurement techniques (Maddux et al., 1986). Recently, complaint intentions within the context of romantic relationships provided for further clarification of efficacy and outcome expectancies in social relationships through context-specific measurement (cf. Makoul & Roloff, 1998). Despite the large number of investigations applying self- efficacy and outcome expectations in the realm of human behavior, it is particularly surprising that few investigations have directly applied this subset of self-efficacy theory to complaint behavior, particularly in the context of service-based complaints. Yet, a well-developed stream of research in the marketing literature uses the broader expectancy-valence framework to examine complaint behavior among consumers of durable goods and services (Singh, 1990; Singh & Wilkes, 1996; Stephens & Gwinner, 1998). To assess the viability of measuring complaint intentions surrounding service experiences, the following research question is proposed:

Research Question 1: Can independent measures of efficacy and outcome expectations be developed to gauge consumers' complaint intentions referring to restaurant-based service episodes?

Practice Makes Perfect?

A main tenet of self-efficacy theory is that individuals must first believe that they are able to perform a given behavior. This perceived ability may come from intuition in some instances, but it is more likely to come from experience (Bagozzi & Warshaw, 1990). When complaining about dissatisfying experiences, prior exposure to the complaint process is likely to reinforce behavioral dispositions with regard to future events (Singh & Wilkes, 1996). Implicit in this

argument is that those who have greater practice consuming specific services have likely been exposed to a range of service experiences (satisfactions and dissatisfactions), and they understand how the complaint process operates and the potential outcomes of the cost/benefits of communicating a complaint once dissatisfied. Although consumers' experiences with formulating complaints and relevant expectancies is an inner-directed process likely to develop with increased experience, the specific outcomes stemming from specific service complaint behaviors are contingent on the actions of others (i.e., servers or managers) and are likely to vary across service episodes. This suggests that the processing of service episodes (i.e., experience) is likely to influence individuals' future efficacy and outcome expectations (Eastman & Marzillier, 1984). As individuals engage in specific behaviors (i.e., complaints) and encounter the related outcomes (i.e., complaint resolution), the experience provides a schema for the individual to create causal attributions that link specific behaviors and anticipated outcomes (Saltzer, 1982). This suggests that prior experience will influence how individuals formulate the belief that a particular complaint will lead to a particular outcome, termed as outcome expectancies. However, the assignment of value to a particular complaint outcome is independent of efficacy and outcome expectancies (Saltzer, 1982), because consumers are likely to place value differentially for some outcomes when compared with others. Although a number of studies have shown that efficacy expectations are positively related to outcome expectations (Arisohn et al., 1988; Eastman & Marzillier, 1984; Saltzer, 1982), the relationships among experience with a service-related issue (such as complaining), efficacy, and outcome expectations have yet to be well articulated.

Sexton and Tuckman (1991) longitudinally examined efficacy and outcome expectations in the performance of math problems among college students. They found that participants'

direct experience with the task of selecting and performing math problems at varying levels of difficulty eventually influenced the participants' selection of the math problems to be performed. The participants' self-efficacy to perform math problems was defined and operationalized as possessing confidence in performing every day math tasks, confidence in math courses, and solving math problems. Outcome expectations were measured in terms of the participants' belief that they would successfully complete the task for the class credit and the degree to which they felt positive about their performance (situational expectancy). In the earlier stages of the study (i.e., the first two time periods of three), the respondents relied more heavily on their efficacy expectations rather than their specific experiential knowledge with the tasks to make their selection decisions. Initially, those with higher self-efficacy tended to select the more difficult math problem sets, before specific performance behavior could be used to aid in the selection of the math problems. Although these longitudinal findings suggested that, over time, efficacy expectations became less central in the performance of specific behaviors once a pattern of expectations based on specific performance was formed, an important distinction should be noted. The participants examined over time by Sexton and Tuckman (1991) had direct (perceived) control over the selection of the level of difficulty present in math problem set. The execution of those problems was based on each participant's individual math ability, representing a common conceptualization and operationalization in the tests of self-efficacy theory (cf. Bandura, 1977). The participants' initial selection of the problems was based on their perceived ability (efficacy) and their anticipated success based on that perceived ability (outcome expectations).

With service-based complaints, efficacy and outcome expectations should operate in the same manner for the individual. However, because the performance of the task (in this case the

complaint redress) is contingent on the actions of others, it remains unclear what role experience plays in the formation of efficacy and outcome expectations in heterosocial interaction.

To address these issues, two additional research questions are presented using restaurant patrons' service experiences as a frame of reference. The relationship among dining frequency, efficacy expectations, and outcome expectations will be examined to describe to what extent dining experience influences efficacy and outcome expectations. Additionally, the extent to which efficacy expectations influence outcome expectations will be examined.

Research Question 2: What relationship does dining frequency have to complaint-based efficacy expectations and outcome expectations?

Research Question 3: What is the relationship between complaint-based efficacy expectations and complaint-based outcome expectations?

In sum, the goal of this investigation is threefold. First, it will develop, test, and validate survey items that measure efficacy expectations and outcome expectations in regard to customers' complaints in the customer-server exchange process (Research Question 1). Second, it will identify the relationship between exposure to the service process (dining frequency) and how it influences both efficacy and outcome expectations (Research Question 2). Finally, it will examine the relationship between complaint efficacy and outcome expectations in a service-based context (Research Question 3). In Study 1, Makoul and Roloff's (1998) measures of complaint efficacy and outcome expectations will be examined in reference to restaurant service experiences and tested for content adequacy and construct validity. In Study 2, the measures'

construct validity will be confirmed, and the relationships among dining frequency, complaint efficacy, and outcome expectations will be examined among a sample of restaurant patrons.

Study 1 Methods

Participants and Procedure

One hundred and one business college sophomores enrolled in a human resource management class were surveyed for this study. The participants could be described as approximately 55% male ($n = 55$) and 46% female ($n = 46$), between the ages of 19 and 27 ($M = 20.57$, $SD = 1.6$, median = 20). The participants were assured strict anonymity in their responses.

Measurement

SCALE DEVELOPMENT

Because a primary goal of this investigation was to develop instruments to measure perceptions of complaint behavior in service organizations, all of the items used to conduct this study were redesigned specifically for this investigation. To develop the content for the questionnaire items, the complaint-based items presented by Makoul and Roloff (1998) were adapted to represent complaint efficacy expectations and outcome expectations with regard to a dining experience, based on their original six efficacy expectation items and five outcome expectation items. For content validation purposes, each participant was asked to rate the content of the six efficacy items and the five outcome items against the definitions for each construct.

Applying the ANOVA approach to content adequacy specified by Hinkin and Tracey (1999), each participant was presented with two sets of the 11 items each with a definition on the top of the page. Respondents were asked to rate each item for agreement with the given

definition on the top of the page. Based on Bandura's (1977) self-efficacy theory, one definition was generated for efficacy expectations and one for outcome expectations. The definitions presented are as follows:

Efficacy Expectation: The belief that one is able to effectively produce a complaint or state dissatisfaction with a service or service processes in a way that is clear in purpose to the recipient of the complaint (i.e., server or manager).

Outcome Expectation: The perception that a complaint or stated dissatisfaction with a service or service processes will influence the behavior, actions, or outcomes of the service process (i.e., server behavior, service processes, or output).

Given these two definitions, the participants rated each of the 11 items twice in comparison with the two definitions provided. The ratings were conducted using a five-item Likert-type metric indicating the extent to which the participants believed each item matched the definition presented (*Highly agree, agree, neutral, disagree, and highly disagree*). Two versions of the questionnaire were presented to the participants with the items and definitions presented in a different sequence to mitigate concerns over item- definition ordering effects. Two questions asked in reverse form (i.e., agreement with the item represents a negative response) were recoded for alignment with the items presented in positive form.

ANOVA Content Validation

EXPLORATORY FACTOR ANALYSIS

As indicated by Hinkin and Tracey (1999), the first step in the ANOVA content validation process is to conduct exploratory factor analysis with the items. Principal components analysis with varimax rotation was applied to the data using SPSS version 8.0, specifying two

factors. This combination of factor analytic techniques was selected to maximize the amount of variance explained by the variables through the formation of uncorrelated linear combinations of the variables, given the proposed linear independence of the latent variables (Ford, MacCallum, & Tait, 1986; Norusis, 1993). Factor and item retention were based on (a) an examination of a plot of the variance associated with each factor (scree test), in that distinct breaks in the plots be used to separate the tenable factors from the untenable; (b) items not displaying notable cross-loadings with other factors; and (c) items exhibiting factor loadings above .40. As noted by Ford and colleagues (1986), the criteria selected by any researcher in terms of factor specification and item retention tend to be subjective, but should provide a variety of decision points to maximize the final solution's utility in current and future research efforts. Ultimately, the emergent factor structure and the retained items were examined for theoretical and conceptual clarity.

ITEM-MEAN COMPARISONS

To support the item retention and deletion decisions normally resulting from factor analysis, a variation of the ANOVA approach to content validation was applied to the same data (cf. Hinkin & Tracey, 1999). This technique assesses content validity by comparing an item's mean rating on one conceptual dimension to its mean rating on another conceptual dimension, allowing for an item's mean rating on its a priori proposed construct to be statistically contrasted against its mean rating on alternative constructs (Hinkin & Tracey, 1999). Although Hinkin and Tracey (1999) applied one-way ANOVA to their ratings of multiple constructs, these data were examined using paired- sample *t* tests, given that only two constructs were examined.

With this technique, when the mean of an item is statistically higher on its proposed construct, the ANOVA method (or comparable *t* tests) provides additional support for item

retention decisions beyond factor analysis. This technique is applied here to support decisions reached through traditional exploratory factor analyses, not supercede them. In fact, the ANOVA approach to content validation, when coupled with factor analytic techniques, provides researchers a set of subjective judgment tools (i.e., traditional retention criteria) and a set of statistical criteria on which to base item retention decisions (Hinkin & Tracey, 1999).

Study 1 Results and Discussion

Exploratory Factor Analysis

The initial principal components analyses yielded a two-factor solution. The scree test identified two notable breaks in the plot of the eigenvalues. The first break identified one factor, and the second break identified the other. Efficacy expectation item EE6 (“I have no trouble reminding my server about something that he or she forgot to bring to me.”) was removed due to a factor loading below .40 on its a priori construct. The remaining 10 items created a final two-factor solution explaining 49.44% of the variance and resulted in a 5-item representation of efficacy expectations from the 6 original items and a 5-item representation of outcome expectations from the 5 original items.

The exploratory factor analyses identified a set of items that sufficiently represented each hypothesized construct. These initial analyses provided a foundation for further examination and tests of these constructs. All of the original questionnaire items are presented in Table 1 along with the factor loadings, the eigenvalues, and the percentage of variance explained for each factor.

Content Validation

To complete the item validity assessments, the mean rating scores for each item on the efficacy and outcome expectations scales were calculated. Two scores were computed for the six efficacy expectation items, one for the a priori matching definition and one for the alternative definition. Two scores also were computed for the five outcome expectation items in the same manner. Each item's pairs of ratings were then compared using a paired sample *t* test (see Table 1). Results of these analyses only differed slightly from those of the exploratory factor analysis.

Item EE6 was rated higher on its a priori dimension compared with its counterpart rated on the alternative dimension, but highlights specific measurement concerns in need of further clarification. Although the factor loadings for item EE6 in Table 1 were low in each case (.15 and -.11 for Factor 1 and Factor 2, respectively), the item-mean comparisons revealed a significant mean score difference for item EE6 on the efficacy expectations dimension ($M = 4.16$), when compared with the mean score of EE6 rated against the outcome expectation dimension ($M = 3.76$).

Given the factor analysis results reported above, the item should be excluded from the measurement model, yet the mean comparisons suggest that the item was significantly identified more closely with the a priori dimension rather than the alternative dimension. A possible explanation for this discrepancy is that item EE6 addressed a specific aspect of the service experience (i.e., server oversight), whereas items EE1 ("It is very easy for me to initiate a discussion with my server about some part of the dining experience that was not pleasing to me.") through EE5 ("I have no trouble asking my server to stop doing things that dissatisfy me.") assessed the general characteristics of a service experience, making the precise content of EE6 inconsistent with the more general items (EE1 through EE5). Because item EE6 addresses

complaint efficacy, it is notably more specific than the other efficacy expectation items, yet remains conceptually different from the alternative dimension, hence making the significant item-mean differences in the rating of the content plausible. Given the conceptual specification error, it is reasonable for EE6 to align with the definition of efficacy expectations in the item-mean comparisons, but it was too specific to properly load with the other efficacy items through the exploratory factor analysis. Therefore, item EE6 should be excluded from the measurement of complaint efficacy expectations, because it did not pass the two-stage process of content validation.

The results of these analyses add to claims of construct validity for the retained items because the rejected item (EE6) was not theoretically consistent with the construct of interest, and therefore did not pass the two-stage tests of content validation. The two-stage approach to content validation employed here provided an assessment of the items' interrelationships and suggested that the two 5-item scales be retained from the original 11 items, consistent with 10 of Makoul and Roloffs (1998) 11 items measuring complaint efficacy ($\alpha = .81$) and outcome expectations ($\alpha = .66$). The item-mean comparisons for both sets of variables are presented in Table 1 alongside the factor loadings from the exploratory factor analysis.

Study 2 Methods

Participants and Procedure

Two-hundred and twenty college freshmen enrolled in a food and beverage management course at a large northeastern university were surveyed for this study. The participants could be described as approximately 51% male ($n = 111$) and 49% female ($n = 109$), between the ages of 16 and 30 ($M = 18.81$, $SD = 1.73$, median = 18). The behavioral portion of this inquiry (i.e.,

dining behavior) was based on the participants' lunchtime meal consumption. The lunchtime meal period was selected because it was believed to be the dining experience this respondent group is most likely to experience outside the home or the dormitory. Survey measures evaluated participants' dining frequency, complaint efficacy expectations, and complaint outcome expectations in a cross-sectional design.

To provide a context for their dining behavior, the participants were also asked to report what type of restaurant they most commonly patronize for lunchtime meals. Twenty-four percent reported "quick-service" restaurants (e.g., McDonald's), 1% reported buffet service restaurants, 52% reported limited-service restaurants (e.g., a sandwich shop), 20% reported full-service restaurants, and 3% did not provide information for this inquiry. Several different types of restaurants were reported and indicate that the respondents patronize a variety of restaurant types for their lunchtime meal. To ensure that the categories representing dining behavior were appropriately applied in this investigation, the five dining categories (i.e., quick service, buffet service, limited service, full-service chain and full-service independent) were examined across both the efficacy and outcome expectation variables. Using one-way ANOVA with dining category as the independent variable and efficacy and outcome expectations as the dependent variables, the categories were examined to detect any significant influences from dining category on the dependent measures. Results indicated no significant effects for the comparisons of both the dining type by efficacy expectations analyses, $F(4, 206) = 2.34, p = .06, \eta^2 = .002$, and dining type by outcome expectations analyses, $F(4,204) = .87, p = .49, \eta^2 = .0002$) using pairwise deletion. Because the dining type by efficacy expectation analyses were nearly significant at the $p = .05$ level, post hoc Tukey honestly significant difference tests were conducted to determine if any particular dining category was responsible for the noted effects.

The post hoc analyses revealed no significant differences across the five categories for the dining type by efficacy expectations. These analyses suggest that it is appropriate to examine efficacy and outcome expectations across the five dining categories represented by these respondents.

Survey Measurement

DINING FREQUENCY

To assess the participants' dining frequency, a single question was presented: "How many times per week, on average, do you dine out for lunch?" The participants reported that they dined out 2.46 times on average per week ($SD = 1.92$, mode = 2), ranging from 0 to 7 occasions. This variable was used as an exogenous variable in two simple causal strings.

EFFICACY EXPECTATIONS AND OUTCOME EXPECTATIONS

As in Study 1, efficacy expectations were defined as the belief that one is able to effectively produce a complaint or state dissatisfaction with a service or service process in a way that is clear in purpose to the recipient of the complaint (i.e., server or manager). Outcome expectations were defined as one's perception that a complaint or stated dissatisfaction with a service or service process will influence the behavior, actions, or outcomes of the service process (i.e., server behavior or service processes). Based on the complaint efficacy and outcome measures presented by Makoul and Roloff (1998), and the findings of Study 1, efficacy expectations and outcome expectations were each measured using five items. The respondents were asked to indicate their level of agreement with each statement on a five-item Likert-type scale (*strongly agree* = 5, *agree* = 4, *neutral* = 3, *disagree* = 2, *strongly disagree* = 1).

Analyses

CONFIRMATORY FACTOR ANALYSIS

Confirmatory factor analysis was applied to test the unidimensionality of the scales. Confirmatory factor analysis creates a direct solution that tests a priori hypotheses about the existence of factors and the nature of their linear combinations (Nunnally & Bernstein, 1994). The confirmatory factor analysis method employed was ordinary least squares, multiple groups analysis (Hunter & Cohen, 1969), with the goal of identifying a priori specified scale items that are appropriately related to their specified constructs. Tests of internal consistency and parallelism were applied to the proposed measurement model derived in Study 1 to reassess its fit.

INTERNAL CONSISTENCY

With tests of internal consistency (item homogeneity), the individual scale variables are examined for deviation from a particular factor. It is hypothesized that the items from a single construct cluster together in a linear fashion as indicators of the specified underlying latent construct. If a factor is internally consistent, an individual's response to one item in the factor (on the scale) should be similar to all other responses the individual makes to all other items hypothesized to be a part of the factor. If the items are internally consistent, they will satisfy the parameters established by the Spearman product rule (Spearman, 1904). To test for unidimensionality using the Spearman product rule, a matrix of predicted correlations is computed based on the factor loadings. This matrix is then compared with the observed matrix (i.e., the matrix formed by the scale items). A factor is deemed internally consistent per the Spearman product rule if the deviations between the predicted and observed matrix are not

significant considering measurement error. The recommended approach to assess the goodness of fit with multiple groups analyses is to examine the residuals, and determine with X^2 analyses if the observed residuals are less than what could be expected by chance alone at the selected level of significance (in this case, $p = .05$).

PARALLELISM

With tests of parallelism (item heterogeneity), all items within a particular factor should correlate in a similar (parallel) fashion with the items from other factors. The test for parallelism is a test of external consistency and is needed to support tests of internal consistency. As with tests of internal consistency, the Spearman product rule is applied to assess deviations between the observed and predicted correlation matrices. Parallelism is a very stringent statistical requirement and is difficult to achieve fully at the $p = .05$ significance level. Tests of parallelism aid in the identification of scale items that may be multicollinear or demonstrate a significantly varied pattern of correlation with other measures rather than a flat structure as required.

The reliability and dimensionality of the efficacy and outcome expectation measures were assessed with PACKET version 1.0 confirmatory factor analysis tests (Hamilton & Hunter, 1988). Scales were examined based on the criteria that a robust construct meet the requirements of (a) each retained scale item demonstrates its highest factor loading on the specified principal factor, and (b) each scale produces a nonsignificant chi-square for the sum of squared error (*SSE*) in terms of scale item homogeneity and heterogeneity (Hunter & Gerbing, 1982). Individual scale items not meeting these criteria were excluded from further analyses.

PATH ANALYSIS

Following tests of factor analysis, two casual strings will be examined using least squares static path analysis (Hunter & Hamilton, 1995) to examine the modeled direct and indirect effects of variables based on the proposed research questions. Path analysis does not establish causal relations with certainty but is used for quantitative interpretations of potential causal relationships (Borchgrevink & Boster, 1998). In this case, dining frequency was treated as the exogenous variable in both models. In the first model, efficacy expectations and outcome expectations were treated as the endogenous variables, with efficacy expectations presented as a mediator of the relationship between dining frequency and outcome expectations. In the second model, the relationships between dining frequency and efficacy expectations and dining frequency and outcome expectations were examined with no path specified between efficacy and outcome expectations. The path models were assessed for fit based on the recommendations that (a) global chi-square tests for the sum of squared error for the model be nonsignificant, and (b) each path linkage in the model be tested for significance by calculating a confidence interval around the observed path coefficient.

Study 2 Results and Discussion

Confirmatory Factor Analyses

The factor analyses yielded two internally consistent factors as hypothesized. However, one item from the efficacy expectations scale (EE4 [“It is very easy for me to ask my server to change his or her service-related behavior.”]) violated the homogeneity assumption, with two items in the scale (EE2 [“It is very easy for me to tell my server about a part of the dining experience that concerns me.”] and EE5) showing significant error deviations greater than what

would be expected by chance at the $p < .05$ level ($r_{error} = .11$ and $r_{error} = .22$ for items EE2 and EE5, respectively). Following the removal of EE4, the remaining four-item efficacy expectations scale produced a solution with a nonsignificant sum of squared errors, $X^2(6) = .13, p > .05, SSE < .001$. The outcome expectation scale produced a five-item internally consistent scale as presented with an insignificant sum of squared errors, $X^2(10) = 2.85, p > .05, SSE < .013$.

The tests of confirmatory factor analysis indicated that the two final scales met the requirement of internal consistency and produced reliable factors. The indicators were consistently correlated, and the error produced in comparison to the predicted interitem correlations fell within expected confidence interval limits $p < .05$ (Hunter & Gerbing, 1982). Lastly, the sum of squared errors for tests of parallelism of the efficacy and outcome expectation scales were also nonsignificant, $X^2(20) = 14.62, p > .05, SSE = .068$, further confirming the scales' construct validity.

Supporting the findings from Study 1, the results suggest that the measurement model as presented is a sufficient representation of efficacy expectations and outcome expectations in regard to complaint behavior. Item-level descriptive statistics and correlations are reported in Table 2, and the final factor loadings and the scales' reliabilities (Cronbach's alpha) are reported in Table 3.

Path Analysis

The models of the relationships between dining frequency, efficacy expectations, and outcome expectations were subsequently tested with the final factors resulting from the confirmatory factor analyses. The descriptive statistics and correlations for the final scales are presented in Table 4.

Path analyses revealed that the first model produced a good fit to the data, $X^2 (1) = 1.68$, $p = .20$ (see Figure 1). The path linkage from dining frequency to efficacy expectations was significant ($\beta = .29$, $p < .01$), and the path coefficient from efficacy expectations to outcome expectations was consistent ($\beta = .28$, $p < .01$). When compared to the data, the model produced a nonsignificant chi-square statistic, indicating that the model and the data did not notably differ, and sampling error analyses revealed no significant deviations in the model.

The second path model was tested to assess the joint effect of dining frequency on efficacy expectations and outcome expectations. Path analyses revealed that this alternative model did not adequately fit the data, $X^2 (1) = 5.06$, $p = .024$ (see Figure 2). These test results indicate that dining frequency was significantly related to efficacy expectations as noted in Figure 1 ($\beta = .29$, $p < .01$) but not significantly related to outcome expectations ($\beta = -.07$, $p > .05$).

The path models as presented suggest that dining frequency is a significant influence on individuals' belief that they can effectively formulate complaints and that complaint efficacy expectations significantly influence perceived complaint outcomes. Additionally, no notable correlation was observed between dining frequency and complaint outcome expectations ($r = -.07$), suggesting that efficacy expectations fully mediate the relationship between dining frequency and perceived outcomes of complaints.

To further assess the relationship between dining frequency and outcome expectations as presented in Research Question 2, an additional set of analyses was performed on the data to examine the incremental explanatory contribution that efficacy and outcome expectations made to dining frequency. In the preceding analyses, dining frequency was treated as an exogenous influence in the path models. In the subsequent stepwise regression analyses, dining frequency

was treated as a dependent variable. Given the simple linear relationships being considered, this approach was selected to examine the partial and joint contributions of both expectation variables on dining frequency, rather than the reverse. To conduct these analyses, dining frequency was entered into a stepwise regression equation with efficacy expectations added on the first step and outcome expectations added on the second step. On the first step, efficacy expectations significantly predicted dining frequency (standardized $\beta = .26$, $p < .001$, adjusted $R^2 = .06$), and on the second step, with the addition of outcome expectations into the equation, the adjusted R^2 increased to $.07$, but the change in adjusted R^2 was not statistically significant ($\Delta R^2 = .01$, $p = .10$). Although the contribution of efficacy expectations increased slightly through the addition of outcome expectations into the equation (standardized $\beta = .28$, $p < .001$, partial $r = .28$), outcome expectations acted as a negative influence in the equation (standardized $\beta = -.11$, $p < .10$, partial $r = -.12$). Taken together, the analyses suggest that the path model presented as Figure 1 best represents the data among these respondents.

General Discussion

The social exchange between consumers and service providers in service-based operations (such as restaurants) provided for a unique opportunity to examine complaint efficacy and expectations. This investigation applied previous work involving self-efficacy theory and complaint intentions within the context of interpersonal relationships to the context of consumer complaint intentions concerning service experiences. Specifically, this two-part investigation extended the work of Makoul and Roloff (1998) from the realm of complaints intentions within romantic relationships to the domain of consumerism. The much-disputed contention that efficacy expectations and outcome expectations are indeed separate constructs is further

supported and identifies the different role each construct plays in relationship to individuals' cognitive processing of complaint intentions within the context of service experiences. As noted earlier, the value of this work lies in the application of these theories to a specific context.

Three notable findings emerged from this investigation. In response to Research Question 1, the complaint-based measures of efficacy and outcome expectations were redesigned and validated in the context of service complaint intentions through the use of two independent samples. The reported multistep validation process indicated that Makoul and Roloff's (1998) measures were sufficiently suited to this purpose with only minor modifications. Of their original 11 items, 9 were retained in the final measurement model. The application of the content validation and factor analyses revealed consistent results across both samples, and the reliabilities of the measures were acceptable. It should be noted, however, that the outcome expectation measure produced consistently lower reliabilities when compared to the efficacy expectation measure. This may be a result of the separation of complaint intentions and a specific complaint object or service experience. In this case, the participants were not asked to refer to a specific service episode when completing their questionnaires. Making a connection to specific service experiences will likely improve the measure's reliability.

Second, it was demonstrated that the cognitive processing of complaint intentions about service experiences is influenced by one's global dining experience. This finding is consistent with Singh and Wilkes's (1996) research suggesting that past experience moderately and significantly influences consumers' voice-based complaint response estimates. In the current study, those consumers who indicated greater dining frequency demonstrated higher levels of complaint efficacy expectations, indicating a greater level of personal confidence in their ability to produce an effective complaint. Although the noted path relationship was moderate ($P = .29$),

it was significant at the $p < .01$ level, suggesting that, at a minimum, consumers' experience with dining is an important element in further understanding complaint intentions. Of equal importance, however, is the finding from the analyses surrounding Figure 2 that revealed a weak relationship between dining frequency and outcome expectations. One could argue that as individuals gain more experience in dining, they not only gain experience in formulating complaints but also gain experience in observing the outcomes and tying them together. In this case, however, dining experience was weakly and negatively related to outcome expectations. A possible explanation for these findings is that individuals' experience with dining does increase their perceptions that they can influence the service exchange through their complaints (outcomes), but they must first believe they can formulate a complaint that is likely to lead to an expected outcome or remedy. Consequently, a single study provides insufficient empirical evidence to definitively state that dining frequency does not influence outcome expectations in some manner. It should be noted that other investigations have found dissimilar relationships among dependent variables when tested with both efficacy and outcome expectancies (cf. Makoul & Roloff, 1998). Future investigations should continue to carefully examine the relationships reported here.

Finally, this investigation provided further clarification of the relationship between efficacy expectations and outcome expectations. The constructs were deemed distinct through factor analysis, supporting the call for investigations of this *type* (Eastman & Marzillier, 1984; Fincham & Bradburry, 1987; Maddux et al., 1986). With the addition of the dining frequency variable to the analyses, discriminant validity also was demonstrated. Efficacy expectations notably mediated the effect of dining frequency ($r = .29, p < .01$) and outcome expectations ($r = .28, p < .01$), suggesting a progression of linear influence among the variables. An enhanced

understanding of the relationship among these variables greatly contributes to self-efficacy theory's application in the behavioral domain, specifically in application to complaint intentions within the context of service episodes.

Limitations

This investigation used a cross-sectional design. With cross-sectional designs, the measured effects are based on instantaneous and simultaneous impact among the variables (Judge & Watanabe, 1993), making it possible that a longitudinal influence among the variables may be more descriptive of the respondents' perceptions of complaint intentions. Given Sexton and Tuckman's (1991) longitudinal work in this area, it would appear prudent to measure complaint intentions longitudinally to examine the developmental process that unfolds through experience with complaints in service-based contexts. However, longitudinal work examining episode-specific service experiences is difficult, because they are short-lived by nature.

Additionally, only self-report questionnaires were administered to the respondents in this study. Therefore, it is possible that the data suffer from the problem of common method variance (Campbell & Fiske, 1959). Despite the collection of both objective (dining frequency) and affective data from the participants, the noted pattern of responses may have been a function of the method in which the data were collected, rather than true differences in their perceptions and attitudes (Doty & Glick, 1998; Williams, Cote, & Buckley, 1989). Future investigations should include multiple measurement techniques to avoid potential problems over common method variance.

Although parsimony is a desirable characteristic in most research investigations, the simple causal strings presented here likely exclude some important antecedents and consequents.

This investigation focused specifically on the cognitive process behind complaint formation, but did not address other possible cognitive influences such as personality or disposition that may affect the development of complaint intentions. Likewise, the consumers' perceptions of a specific event or service failure were not considered.

The only behavioral element assessed in the current study was dining frequency for the lunchtime meal on a weekly basis. As a result of this operationalization, a number of different service types were included in the sample (e.g., quick, limited, and full service). The unique contextual application of this study relies on the fact that dining experiences are typically consumed and evaluated in a single episode. By including experiences with limited- and quick-service styles in this study, the interpretation of the results becomes more complicated. With the measure used in this study, there is no way to gauge whether the respondents completely consumed and evaluated their meals in a single episode and base their efficacy and outcome expectations on those types of experiences solely. To ensure that complaint efficacy and outcome expectations are correctly represented through dining frequency, the emphasis in measurement should be placed on full service dining experiences that span all meal periods, not just the lunchtime meal. This focus should provide a more precise measurement of complaint intentions in service-based experiences that are initiated and completed in a single episode.

In addition to assessing consumers' dining frequency, individual reactions to elements of specific service episodes, such as the nature of a dissatisfying experience, the severity of the service failure, the focus of a voiced complaint (if any), and subsequent organizational responses to voiced complaints, should be considered in future research. Many of these issues have been raised in the marketing literature, but have yet to be systematically applied and tested in the

realm of hospitality-based services such as restaurants and hotels. These additional variables are likely to enhance our understanding of the communication of complaints within service episodes.

Conclusion and Implications for Future Research

Given the findings from this investigation, the next logical step would be to apply this cognitive framework of complaint intentions to consumers' actual service experiences. Recent investigations into complaint behavior (Singh & Wilkes, 1996) and service failure (Hoffman & Chung, 1999) have used the critical incident technique (CIT) to capture individuals' event-specific perceptions of service experiences. The CIT approach allows researchers to gather information about specific events or activities from respondents and relate the noted experiences to other behavioral, perceptual, or attitudinal responses. Future research should consider this approach to capture additional behaviors relevant to complaint intentions based within the context of service experiences. In so doing, the framework uncovered here could be tested using consumers' particular service experiences examining not only outcome expectancies but also specific service episode outcomes and behaviors related to their complaint behavior.

Additionally, several psychological variables are likely to influence consumers' propensity or desire to complain. Personality characteristics such as assertiveness (Arisohn et al., 1988) or other "Big Five" personality traits such as extroversion, neuroticism, or openness (McCrae & Costa, 1987) have been shown to be related to individual behavioral characteristics. It is likely that personality or disposition may influence the way consumers process and deal with dissatisfying service experiences. Assessing additional psychological variables in regard to complaint intentions is an important next step.

This investigation extended the well-studied psychological phenomenon of self-efficacy into a new context. The examination of complaint intentions and social confrontation in service episodes appears to be a relatively important area of inquiry given the service-based nature of our economy. Developing a better understanding of how consumers formulate and communicate complaints about service experiences is a task well suited to scholars of communication and organizations.

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Table 1. Results of the Principal Components Factor Analyses and Mean Ratings From the Content Adequacy Assessment From Study 1.

	Loadings		Mean Ratings ^{a, b}	
	Factor 1	Factor 2	A Priori Dimension	Alternative Dimension
Efficacy expectation (EE) items				
EE1: It is very easy for me to initiate a discussion with my server about some part of the dining experience that was not pleasing to me.	.71	.16	4.04	3.25
EE2: It is very easy for me to tell my server about a part of the dining experience that concerns me.	.73	.03	3.98	2.00
EE3: I have no trouble expressing my opinions to a server about any part of a dining experience.	.78	.02	3.97	2.02
EE4: It is very easy for me to ask my server to change his or her service-related behavior.	.81	.02	3.56	3.24
EE5: I have no trouble asking my server to stop doing things that dissatisfy me.	.71	.13	3.70	1.94
EE6: I have no trouble reminding my server about something that he or she forgot to bring to me.	.15	-.11	4.16	3.76
Outcome expectation (OE) items				
OE1: Talking to my server about concerns with my service experience usually leads to improvements in the service process.	.19	.68	4.24	3.50
OE2: When I complain to a server they usually address my complaint in a satisfactory manner.	.12	.50	3.89	3.56
OE3: Even when I remind a server about a specific problem I have with service in a dining experience he or she avoids dealing with it (r).	-.29	.52	3.72	2.44
OE4: No matter what I say or do my server continues to do things as he or she chooses (r).	-.32	.66	3.80	2.33
OE5: My server would do anything to improve my dining experience.	.14	.47	4.11	3.38
Eigenvalue	3.63	2.31		
Percentage of variance explained	30.21	19.23		

Note. $N = 101$ using listwise deletion, “(r)” denotes items asked in reverse form so that a positive response to the item indicates a negative affective response.

a. Paired differences were calculated by subtracting each item’s mean adequacy rating on its a priori specified dimension from the mean adequacy rating on the alternative dimension. With this method, the item is deemed content valid if the means of the items on the a priori specified construct is significantly higher.

b. Item means presented in boldface were determined to be significantly higher at the $p < .05$ level on the a priori specified dimension in comparison with the rating in the alternative dimension.

Table 2. Study 2 Item-Level Correlations and Descriptive Statistics.

	<i>M</i>	<i>SD</i>	EE1	EE2	EE3	EE4	EE5	OE1	OE2	OE3	OE4	OE5
EE1	3.14	1.04	—									
EE2	3.34	0.96	.68	—								
EE3	3.27	1.06	.53	.62	—							
EE4	2.18	0.89	.41	.46	.49	—						
EE5	2.65	0.14	.32	.42	.32	.63	—					
OE1	3.43	0.81	.23	.19	.12	.21	.15	—				
OE2	3.55	0.74	.13	.10	.07	.11	.01	.22	—			
OE3	3.53	0.61	.09	.09	.06	.06	.04	.27	.33	—		
OE4	3.66	0.79	.14	.12	.11	.13	.09	.16	.30	.52	—	
OE5	3.11	0.73	.04	.08	.09	.08	.02	.18	.22	.29	.28	—

Note. $N = 214$ using listwise deletion. EE = efficacy expectation, OE = outcome expectation.

Table 3. Results From Confirmatory Factor Analyses Using Study 2 Data.

	Factor 1	Factor 2
Efficacy Expectations 1	.75	.24
Efficacy Expectations 2	.90	.19
Efficacy Expectations 3	.70	.17
Efficacy Expectations 5	.45	.12
Outcome Expectations 1	.22	.39
Outcome Expectations 2	.11	.50
Outcome Expectations 3	.10	.73
Outcome Expectations 4	.16	.62
Outcome Expectations 5	.08	.44
Cronbach's alpha	.79	.66

Table 4. Scale-Level Descriptive Statistics and Correlations for Study 2

Variable	<i>M</i>	<i>SD</i>	Dining Frequency	Efficacy Expectations	Outcome Expectations
Dining frequency	2.46	1.92	—	.29	-.07
Efficacy expectations	3.11	0.81	.26	—	.28
Outcome expectations	3.46	0.48	-.06	.20	—

Note. $N = 211$ using listwise deletion. Correlations in the upper triangle have been corrected for attenuation due to error of measurement.

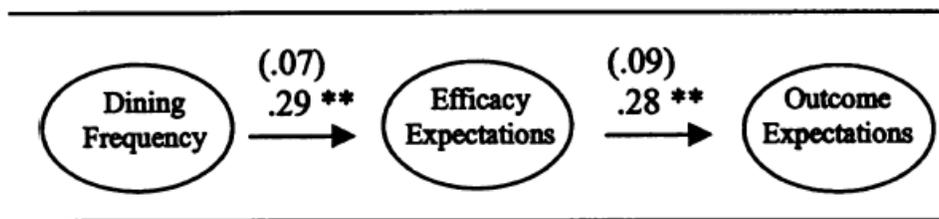


Figure 1. Test of the Model of Complaint Formation Behavior

Note. Standard errors are in parentheses. $N = 211$ using listwise deletion.

** $p < .01$.

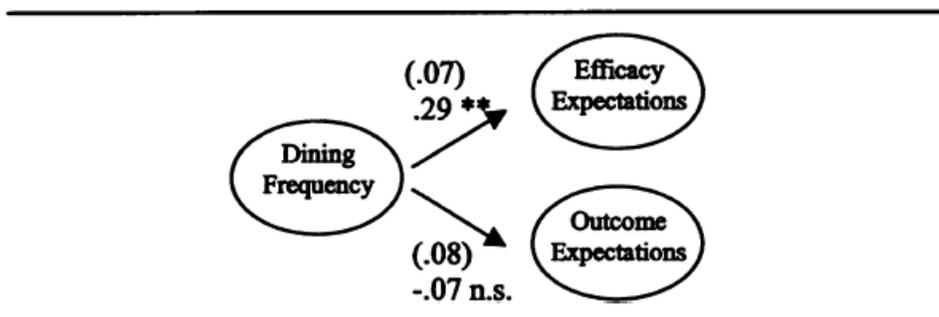


Figure 2. Test of the Alternative Model of Complaint Formation Behavior

Note. Standard errors are in parentheses, n.s. = not significant. $N = 211$ using listwise deletion.

** $p < .01$.