The Asymmetric Weighting of Service Encounters

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Abstract

The differential weightage given to negative information in impression formation has been well documented in the psychological literature. Little has been done, however, in examining the effects of extremity and valence of service encounters on consumer evaluations of the service provider as a whole. This paper attempts to explain the change in evaluation of a service provider as a function of the encounter. Encounter extremity, valence and their interaction are found to be highly significant predictors of change, but in the long term, the service firm's reputation is found to mediate any change in evaluation.

(Key Words: Service evaluation, extremity, valence, reputation,).

Introduction

With the emergence of the service economy, the attention of practitioners and researchers alike has focused on the measurement and evaluation of service quality. Attempts have been made to understand its determinants, model its formulation, and understand its structure. While considerable insight has been afforded by such attempts, our understanding of the underlying mechanism behind the consumer's evaluation of service quality is rather rudimentary, stating as it does, that evaluations are a function of the gap between expectations and perceptions.

While a considerably large literature exists in psychology on the effects of extremity and valence in impression formation, there has been a marked absence of consideration of the differential consequences of the *extremity* and *valence* of information on evaluation. By extremity, we mean "the distance from the neutral point" (Hodges, 1974), while valence refers to the "evaluative sign, favorable or unfavorable" of the product or service. This paper attempts to consider the effects of both on the service evaluation process. Our interest specifically focuses on the impact of aberrational service encounters and initial valence on service evaluation. Aberrational encounters may be seen as "out of the ordinary" or of "extremity" (Jones, et al, 1971). Accordingly, the terms abnormality, aberration and extremity have been used interchangeably throughout this paper. By initial valence, we refer to the pre-encounter attitude held by the respondent toward the service provider. Each of these factors has major implications vis-à-vis the consumer's overall judgment of the service provider. This paper, to the best of our knowledge, is the first to look at valence and extremity of the service encounter as causal mechanisms of post-encounter evaluations.

It is the contention of this paper that the consumer's evaluation of a service provided is driven by valence and the extremity of the service encounter. Utilizing a framework proposed by adaptation-level theory (Helson, 1964), we will examine the consequences of the posited gap between expectations and perceptions, propose a comprehensive rationale for our hypotheses, and investigate the rationale experimentally.

While studies have consistently shown the additional weightage accorded to negative and extreme attributes, our understanding of the reasons behind these biases is not well developed. A number of theories that attempt to explain this asymmetric weighting exist (See Skowronski and Carlston (1989) for an excellent review). We will appeal to Adaptation Level Theory (Helson, 1964) to motivate our discussion of asymmetric weighting of information.

Adaptation Level Theory (Helson, 1964) posits a *contrast effect* to act as an antecedent of integration biases. As defined by Skowronski & Carlston (1989), "A contrast effect occurs when a stimulus is perceived to be more extreme than it otherwise would be because of comparison of the stimulus with some internal standard or reference point." In the context of service evaluations, it could be said that every service encounter is compared with a "benchmark" that exists in the mind of the consumer, the comparison causing a contrast effect, which in turn drives the integration bias.

Adaptation Level Theory makes certain assumptions with regard to the underlying process of impression (evaluation) formation. *Firstly*, the perceptual anchor or the "benchmark" service quality perception is perceived to be on the positive end, and of moderate extremity. *Secondly*, a particular service encounter that differs from the preceding anchor is contrasted with it psychologically. *Lastly*, as a result of this contrast, negative encounters are judged to be further away from the anchor than positive ones, and are therefore given greater weight in the evaluation process.

Research on expectancy-contrast theories, of which Adaptation Level theory is one, has shown, however, that the contrast effect is rather short-lived. In the long run, it has been shown that assimilation, and not contrast, occurs. This condition is of vital importance, as will be shown subsequently.

Conceptual Framework

In the context of services, it is widely held that service evaluations are based in part on prior experiences or expectations (Parasuraman, Zeithaml, and Berry, 1985; Swartz & Brown, 1989). Such a priori expectations or experiences provide an anchor to aid in evaluation of a service. This a priori evaluation may be seen as analogous to the pre-existing level posited by Adaptation-level theory.

The phenomenon of central interest in this study is the difference, if any, in evaluation of a specific service encounter as a function of its extremity. More specifically, it is my contention that, as the degree of perceived aberration in the service encounter increases, so does the difference in evaluation. Thus, it is posited that a patron who encounters a "neutral" service encounter (characterized by service attributes that meet expectations, but do not surpass or disappoint) will indicate no change in the pre and post service encounter evaluations. On the other hand, someone who undergoes a service experience marked by significant deviation from the "neutral" (one which surpasses or disappoints considerably) will evaluate the service offering from the firm significantly different from its earlier level.

More specifically, what we propose is that, as the extremity of the service encounter increases, the "stimulus" (service encounter) is perceived to be further away from the pre-existing reference point, and the latter is shifted accordingly in order to "adapt" to the new stimulus.

Specific Hypotheses

The hypothesis of interest may thus be stated as:

- **H_1: The weightage given to a particular service encounter will be greater, the greater the extremity of the encounter.**

Jones, et al (1971) state: "When behavior departs from expectation, how much weight should be assigned to each source of information?" Their findings suggest that, given a certain extremity, the difference in evaluation arising from a negatively valenced encounter would be greater than that arising from a positively valenced one. The relationship is thus seen to be mediated by the valence of the aberration. Accordingly,

- **H_2: Negatively valenced information will be weighted more than positively valenced information of the same magnitude.**

Thus, the issue under investigation is the disparate weighting given to encounters as a result of their extremity and valence. Thirty nine subjects were asked to indicate their pre-encounter evaluations of a fast food franchise they patronized. On a subsequent occasion, each subject was then assigned randomly to one of six possible service encounters, and ratings were solicited on the service quality provided in the encounter.

Method

To determine whether asymmetric weighting of service encounters occurred as a result of the extremity and valence of the encounter, two separate studies were undertaken, with 39 and 34 subjects respectively. Subjects were asked to indicate their satisfaction with a service encounter in a fast food restaurant, the only difference between experiments being the time between subsequent administration of the quality measurement instrument.

The experiment was undertaken on a random sample of 39 undergraduate and doctoral students, as well as departmental staff. The subjects were told that their opinions of fast food restaurants were sought.

Stage 1: Each subject was first administered a questionnaire measuring his or her pre-encounter service quality evaluations. Written directions were provided, and respondents were told that the purpose of the above mentioned questionnaire was to obtain their opinions about fast food franchises. The second stage of the study was conducted immediately in the first study, and after a gap of one week in the second case, to determine whether the contrast effect was as short-lived as thought in the literature.

Stage 2: After the collection of the first questionnaire from each respondent, a second questionnaire was administered to each. This questionnaire included the stimulus and the dependent measures. Once again, written instructions were provided to each subject to answer the questions. The completed questionnaires were then collected, and the subjects were debriefed with regard to the aims of the experiment. None of the subjects had been aware of the hypotheses being tested.

Independent Variables

Two independent variables and one covariate were considered for this study; the manipulated variables were: Extremity of the encounter (marginal, medium and large in the first study; marginal and large in the second case), and encounter valence (Positive versus negative). The measured covariate was prior valence (ranging along a continuum). Both extremity as well as encounter valence were manipulated simultaneously.

SERVQUAL, a multiple item scale, was administered to all the subjects in two stages to elicit evaluations. SERVQUAL is based on an evaluation of the following pertinent service dimensions:

1. **Tangibles**: Physical facilities, equipment, and appearance of personnel.
2. **Reliability**: Ability to perform the promised service dependably and accurately.
3. **Responsiveness**: Willingness to help customers and provide prompt service.
4. **Assurance**: Knowledge and courtesy of employees and their ability to inspire trust and confidence.
5. **Empathy**: Caring, individualized attention the firm provides its customers.

Accordingly, when manipulating the valence and extremity of the service encounter, the elements on each of the above dimensions were varied in accordance with the desired manipulation. It should be emphasized that great care was taken to maintain the uniformity of each encounter

other than the desired manipulations, so that there were no confounding factors present in the stimuli.

Prior valence, the covariate, was measured by tabulating the data collected from the first questionnaire.

The two independent variables could be represented as a 2 (Encounter valence) x 3 (Extremity of encounter) experimental design in the first study, and as a 2x2 experimental design in the second case. Subjects were randomly assigned to each of the 6 (4) treatment conditions. Given the nature of the manipulations and the consequent possibility of introducing a testing effect by providing starkly contrasting service encounters, a **between subject design** was employed.

Manipulation Checks

Careful examination of the experimental setup reveals the success of the manipulations to be of vital importance to the success of the experiment. Accordingly, manipulation checks were undertaken to ensure that subjects' perceptions of the manipulations were in conformance with the design. For example, was a marginally aberrant negatively valenced manipulation seen as such by the subject? More importantly, were high extremity encounters seen as being different only in valence, when manipulated as such? Responses to the items of questionnaire two indicated that our manipulations were successful.

Product Selection (Pretest)

When providing the service industry to be considered by the respondents, care should be taken to be cognizant of the following factors. An industry must be chosen such that the a priori valences are not too extreme, in order to allow effect of negative/positive manipulation. Secondly, familiarity with the specific industry is a must, as we are soliciting evaluations on the assumption that respondents have had experience with the particular offering. A pretest was undertaken to ensure the above issues, and fast food services were found to be suitable.

Dependent Variable

The dependent variable of interest is the weighting given to differentially valenced encounters of varying extremity. Subjects were asked to respond to questions about their opinions on all five dimensions of service after exposure to a randomly assigned treatment condition. Differential weighting was operationalized in terms of the difference in evaluation arising from exposure to the service encounter. Items in both questionnaires consisted of a series of questions to which responses were solicited on a seven-point Strongly Agree-Strongly Disagree Likert Scale. The complete battery of questions consisted of a 22-item instrument, termed SERVQUAL, first proposed by Parasuraman, Zeithaml, and Berry (1988). SERVQUAL has been extensively used in a variety of situations since its inception, and has been accepted as a reliable service evaluation instrument, considering as it does, both expectations as well as perceptions of service quality.

Questionnaire two is exactly the same as questionnaire one, with the exception of the addition of manipulation checks. This was done so that a priori service evaluations could be compared with post-encounter evaluations. Large differences would indicate asymmetric weightage to each kind of encounter.

Results

While examining the results, it is critical to recognize the fact that the sample size is very small for the purposes of analysis (39 and 34 subjects respectively). Thus each treatment cell has very few subjects. Nevertheless, examination of the proposed model indicates conformance with the theory. As such, the following results should be

thought of as preliminary, and interpreted with a view to ascertain general conformance of the model with theory, rather than the strength of the coefficients per se. It is remarkable, however, that extremity, valence and the valence-extremity interaction are highly significant in the first study, in light of the small sample size.

Study 1

The first study indicates that extremity (F=6.04, p=0.0064), valence (F=11.13, p=0.0023) and their interaction (F=8.35, p=0.0014) are all highly significant factors causing a change in evaluation. The interaction of extremity and valence is significant, encouraging us to believe that our stated hypotheses regarding the need to consider both extremity and valence is validated.

Hypothesis 1 stated that the weightage given to a particular service encounter will be greater, the greater the extremity of the encounter. Examination of the model indicates that the hypothesis is not rejected (F=6.04, p>F=0.0064). Therefore, it may be inferred that extremity is a significant causal factor of a change in evaluation.

An examination of the valence of the encounter indicated that there was a highly significant effect of valence (F=11.13, p>F=0.0023) on weightage given to the encounter. Therefore, Hypothesis 3 cannot be rejected at the 0.001 level.

Study 2

The results of study 2 clearly indicate the need to be cognizant of the short term effects of assimilation and contrast. While discussing the results of this study, it should be emphasized that nothing was changed in the method of administration other than the time allowed to elapse between consecutive administrations of the SERVQUAL instrument, and the number of levels of extremity. In the first study, extremity consisted of three levels, while in the latter, there were two levels. Changes as a result of the number of levels of treatment, if any, would tend to be *overemphasized* by this change.

Examination of the results of study 2 indicate a phenomenal change in the levels of significance as a result of the increased time period between administrations. Whereas Study 1 found all three, extremity, valence, and their interaction to be highly significant, Study 2 indicates *none* of them to be so. However, there is an interesting change in significance level for the covariate of pre-encounter valence in this case. The prior evaluation held by respondents tended to be significant at the 0.0001 level (F=14.3, p=0.0008), indicating that *in the long run, patrons tend to evaluate a service provider on the strength of their prior beliefs about its service provision capabilities.* This is a rather significant finding, given that post-encounter evaluations are so significantly driven by the encounter itself!

Discussion

The main focus of this study was the examination of valence and extremity of service encounters with a view to explain the weightage given to a particular encounter. Our study found extremity, valence and their interaction to be highly significant predictors of the weightage given to an encounter. This is in conformance with earlier studies (Hodges, 1974; Jones, et al. 1971) that found a combined effect of valence and extremity on impression formation. The results from the model indicate that a negatively valenced highly extreme encounter is given the most weightage by respondents, while positively valenced marginally extreme encounters are given the least weightage. Accordingly, it may be said that a consideration of both the valence as well as the extremity is of vital importance when considering the impression formation in the mind of the consumer.

However, such changes in evaluation are operational only in the short run. Over time, the only factor affecting evaluation was found to be pre-encounter evaluations.

Our findings with regard to extremity and valence have significant managerial implications. On the basis of our study, we may emphasize to service providers the importance of considering extremity and valence as factors that the consumer uses to form impressions of services provided. Moreover, the greater impact of negative encounters suggests that more careful attention must be paid to ensure that negative encounters do not occur, rather than ensuring the occurrence of positive encounters. In other words, a positive encounter does not make up for a negative encounter of the same magnitude.

Significantly enough, though, a ray of hope for service providers lies in the long run reputation of the firm. If a firm has a good reputation of providing high quality service, a single encounter's incidence may not affect that reputation.

Our research looked at changes in evaluation after manipulation of all five dimensions of services consistently. The implicit assumption made was that each dimension of service is equally important. Future research should address this assumption and investigate whether the assumption holds or not. Another area of research would be the investigation of learning effects of consumers. More specifically, how many bad encounters would it take to reduce the long term reputation of the firm? A third area worthy of investigation would be the understanding of causal factors of shifts in the reference point. Future research should address the issue of causal factors behind changes in evaluation.

Our contribution has been toward a better understanding of the service evaluation process. The findings from this study indicate the importance of both valence and extremity in consumer evaluations of service quality. We thus pave the way for a more detailed look at both constructs.

REFERENCES

Helson, H. (1964): *Adaptation Level Theory*, New York: Harper.

Hodges, B. H. (1974): "Effect of Valence on Relative Weighting in Impression Formation" *Journal of Personality and Social Psychology*, 30, 378-381.

Jones, E. E., Worchel, S., Goethals, G. R., & Grumet, J. F. (1971): "Prior Expectancy and Behavioral Extremity as Determinants of Attitude Attribution" *Journal of Experimental Social Psychology*, 7, 59-80.

Parasuraman, A., Zeithaml, V. , & Berry, L. L. (1985): "A Conceptual Model of Service Quality and its implications for Future Research" *Journal of Marketing*, 49, 41-50.

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(1988): "SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality" *Journal of Retailing*, 64, 12-40.

Skowronski, J. J., & Carlston, D. E. (1989): "Negativity and Extremity Biases in Impression Formation: A Review of Explanations" *Psychological Bulletin*, 105, 131-142.

Swartz, T.A., & Brown, S. W. (1989): "Consumer and Provider Expectations in Evaluating Professional Service Quality" *Journal of the Academy of Marketing Science*, 17 (2), 189-95.

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