

**The Effects of Employee-Initiated Peripheral Service Failures  
on Customers' Satisfaction with the Service Organization**

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## (ABSTRACT)

This dissertation investigates how satisfaction with a service employee affects customers' overall satisfaction with a service organization following an employee-initiated service failure. Specifically, this research examines how the severity of a peripheral service failure (how the service is delivered), quality of past core service performance (basic benefits of service), and existence of past peripheral service failures impact the extent to which customers' satisfaction with an employee transfers to evaluations of the service organization.

Dimensions of attribution theory are explored as a process mediating the effects of these variables on satisfaction with the employee and organization. This dissertation extends attribution theory by differentiating controllability attributions at both the employee and organizational levels, as well as introducing attributions of globality (universal across the organization versus employee or situation-specific) to marketing. Distinctions between employee and organizational-level attributions may clarify the process by which customer evaluations of employees affect organizations.

The study used an experimental role-playing methodology to test the proposed conceptual model. Four-hundred forty-five (445) air travelers comprised the sample. The design for this study varied the severity of the current peripheral service failure (less severe, more severe, and no-failure), existence of past peripheral service failures (existing and not existing), and quality of past core service performance (excellent and average). Structural equation modeling using Lisrel 8.20 was used to test the proposed hypotheses.

Overall, the results show that the severity of the peripheral service failure and aspects of past service history influence the attributions that customers make following peripheral service failures. These attributions, in turn, have a significant impact on customers' satisfaction with the employee and the organization. The findings also indicate that the severity of the current peripheral failure can spill over and negatively affect customers' satisfaction with the core service component. Furthermore, the results show that both aspects of customers' past service experience with an organization (existence of past peripheral service failures, quality of past core service performance) directly impact customers' overall satisfaction with the organization.

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## Chapter 1

### INTRODUCTION

Competent employees are essential to the success of any organization. Highly qualified employees are especially critical to service organizations where the product is a performance and employees are the cast-members (Grove and Fisk 1983; Lovelock 1981; Berry 1980; Grove, Fisk, and Bitner 1992). As with any production dominated by human performers, the quality of performance can vary from encounter to encounter (Berry 1980; Levitt 1981). Regardless of organizational attempts to eliminate such variation, customers will inevitably experience performance from employees that fails to meet their expectations. Service marketers must understand how and to what extent customer satisfaction with service personnel impact evaluations of organizations. The primary objective of this research, therefore, is to understand how customers' satisfaction with service employees affects their satisfaction with organizations.

The prevailing view in the services marketing literature suggests that employees *are* the organization in the minds of customers (Berry and Parasuraman 1991; Berry 1995; Zeithaml and Bitner 1996). Support for this perspective comes from the fact that for many services a customer's only contact with an organization is through interactions with its employees. This view of service organizations suggests that customers' evaluations of the organization are analogous to their evaluations of employees. As Berry (1995, p. 167) states, "[a]n incompetent insurance agent is an incompetent insurance company. A careless bank teller is a careless bank. An arrogant waiter is an arrogant restaurant."

However, an alternative perspective suggests that customers may distinguish between organizations and the employees that represent them. This view accepts that customers' evaluations of employees *can* affect their evaluations of organizations; however, it also acknowledges that not all evaluations of employees affect organizations to the same degree. Authors in marketing have claimed that customers may view employees and organizations distinctly (Levitt 1981; Kotler 1994). For instance, Levitt (1981) suggests that the intangibility inherent in services prompts customers to carefully consider the qualities of both the organization that is offering the service and the employee that will be delivering it. Similarly, Kotler (1994) argues that customers perceive employees and organizations as occupying distinctive roles in the delivery of services. While organizations communicate service promises and set customer expectations, employees deliver (or attempt to deliver) those promises to customers. These arguments suggest that in some instances, customers may view employees as analogous to the organization, while in others they may react to them more as autonomous agents.

Given these highly divergent perspectives, it is clear that a number of unanswered questions remain concerning how employee-initiated service failures affect evaluations of service organizations. How do customer reactions to employee actions and behaviors affect customer evaluations of the organization? What conditions influence this customer evaluation process? Although a better understanding of how customers' satisfaction with an employee impact their satisfaction with the organization is necessary, little research exists that has addressed this issue. The following section introduces a context in which these responses are likely to be extremely important.

### *Service Failures and Peripheral and Core Service Components*

As described earlier, the delivery of services is human intensive, which increases the likelihood that customers will experience failures during service encounters (Berry 1980). A service failure is defined as a service performance that falls below a customer's expectations (Hoffman and Bateson 1997). Because of the highly complex nature of service interactions, many different aspects of its execution can go wrong. A number of researchers in services have differentiated among various dimensions or aspects of a service encounter (Gronroos 1990; Parasuraman, Zeithaml, and Berry 1985; Zeithaml 1988; Swartz and Brown 1989). The most common of these models suggests a core and peripheral distinction (Gronroos 1990; Parasuraman, Zeithaml, and Berry 1985; Swartz and Brown 1989). The core component is the fundamental benefit desired by a customer (e.g., restaurant meal, airline flight, hotel room); whereas, the peripheral component is the manner in which the core component is delivered to the customer (e.g., courtesy, attentiveness, consideration).

Although previous research has examined the detrimental effects of failures in the core component (Folkes 1984; Folkes, Koletsky, and Graham 1987; Bitner 1990), very little research has examined customer responses to peripheral failures (Bitner, Booms, and Tetreault 1990; Kelley, Hoffman, and Davis 1993). Further examination of peripheral failures is needed, especially considering that these failures can be equally detrimental to customer satisfaction and service quality evaluations as core failures (Iacobucci, Grayson, and Ostrom 1994). For example, Bitner, Booms, and Tetreault (1990) found that peripheral failures accounted for 32% of the causes of dissatisfying service encounters. Furthermore, Keaveney (1995) revealed that these types of failures represent nearly 20%

of the factors leading to customer switching behavior. In addition, Goodman, Fichman, Lerch, and Snyder (1995) found that reactions to peripheral service can spill over and affect customer evaluations of the core service component. For instance, discourteous behavior exhibited by a waiter may diminish a customer's evaluations of the meal itself. Furthermore, specific service employees are typically identified as the causal agent of a peripheral failure, making it a good context for examining links between employee and organizational evaluations. For these reasons, this dissertation will focus on failures in the peripheral service component. The next section will discuss the possible responses that customers can exhibit following service failures.

#### *Customer Responses to Service Failures*

Service failures can elicit a number of different reactions in customers including affective responses (e.g., satisfaction, anger), cognitive responses (e.g., attributions of causality, quality, disconfirmation), and behavioral intentions (e.g., intentions to complain, intentions to exit, repurchase intentions, loyalty, negative word-of-mouth). For example, Folkes and colleagues examined the effect of service and product failures on customers' formation of attributions of causality (i.e., locus, controllability, stability) and behavioral intentions (Folkes 1984; Folkes, Koletsky, and Graham 1987; Curren and Folkes 1987). Bitner (1990) contributed to this literature by showing that customers' attributions of causality mediates the effects of the service failure on customer satisfaction with the encounter. Recently, a number of authors have examined cumulative satisfaction as mediating the effects of service failures on behavioral intentions (Zeithaml, Berry, and Parasuraman 1996; Bolton 1998; Smith and Bolton 1998). These authors have begun to show the importance of previous satisfaction on customers' responses. While these

authors focused on attributions and satisfaction, Singh (1988, 1990) investigated the effects of various characteristics about the situation, customer, and service organization on customers' intentions to complain about failures.

In sum, the extensive number of consequences examined by previous authors clearly demonstrates the complexity of customers' responses to service failures. Thus, to better understand this process, the present study will attempt to combine attributions of causality, satisfaction, intentions of complaining, intentions to exit, and loyalty, in a comprehensive model. These particular factors were chosen because it was believed that they are most important to service organizations. The following section introduces several variables that may affect customer responses to these failures.

### Variables that Affect Customer Satisfaction

#### *Severity*

One intuitive characteristic of service failures that should affect customer satisfaction with the organization, the employee, and the core service component is the severity of the service failure. Hart, Heskett, and Sasser (1990) have argued that customers judge the severity of failures by the magnitude of tangible (e.g., monetary) and intangible (e.g., anger, frustration) loss associated with its occurrence. For example, a poorly prepared meal may produce losses because the customer did not receive what was desired (tangible) and may experience some embarrassment when complaining to the waiter (intangible). While losses experienced from core service failures may be perceived as highly tangible by customers, the losses from peripheral failures may be considered less tangible because the benefits provided from this service component are themselves less

tangible. Differences in the magnitude of these losses may cause customers to respond to failures in the peripheral service component differently than they do to failures in the core service component.

### *History of Past Performance*

Another factor that should affect customer satisfaction is the history of past performance received by customers from a service organization. Research in services suggests that customer evaluations of current service performance may be shaped or formed by the quality of past service encounters (Boulding, Kalra, Staelin, and Zeithaml 1993; Levitt 1981; Bendapudi and Berry 1997). For example, Boulding, Kalra, Staelin, and Zeithaml (1993) empirically demonstrated that past service performances affect customer expectations for future service performance. Similarly, Zeithaml, Berry, and Parasuraman (1996) found that customers who had experienced previous service failures exhibited less favorable behavioral intentions toward the firm than those who had not experienced such failures. These results suggest that past performance has an effect on customer evaluations of current service performance; however, neither study examines the differential effect of past core and peripheral service performances on customer satisfaction. Consequently, several questions remain unanswered. First, it remains unclear as to the impact of past peripheral failures on evaluations of the present core and peripheral service components. In addition, it is uncertain whether these effects hold if previous core service performance has been favorable.

### *Attributions of Causality*

Attributions of causality will be explored as a process mediating the effects of both the history of past service performance and the severity of the present peripheral failure on

customer satisfaction. Attribution theory has been used extensively in marketing, as well as in other disciplines to account for how customers formulate explanations for negative events (for reviews see Folkes 1988; Mizersky, Golden, and Kernan 1979). According to Bitner (1990), the attributions that customers make for the perceived causes of service failures often have a significant impact on their level of satisfaction.

One attribution that is particularly relevant for the present research is controllability (Weiner 1985, 1986). Controllability is the degree to which customers perceive causes of failures as volitional or non-volitional by a focal party (Folkes 1984). Past research has demonstrated that customers are very dissatisfied when they believe that causes of negative events could have been controlled or prevented by an organization (Bitner 1990). This research, however, has not made a distinction between attributions of controllability by the employee, as opposed to the organization (Folkes 1984; Folkes, Koletsky, and Graham 1987). Instead, it has assumed, for the most part, that controllability is an organizational-level issue. However, customers may make distinct controllability attributions for employees and organizations. For example, failures related to inflexible organizational policies and procedures may be considered highly controllable by the organization, yet relatively uncontrollable by an employee. Conversely, failures caused by employee rudeness may be perceived as highly controllable by the focal employee, but less controllable by the organization. Differentiating between employee and organizational controllability may add to our understanding of when and to what degree employee actions and behaviors affect customer evaluations of the organization.

In addition to controllability, attributions of stability and globality may also contribute to our understanding of this evaluation process. Stability is the degree to which

causes of failures are considered temporary or permanent (Weiner 1985, 1986). This attribution relates to customers' expectations for future service performance (Folkes 1984). Previous research of customer response to product and service failures has revealed that causes considered highly stable are likely to generate more anger and dissatisfaction toward an organization than those perceived as less stable (Folkes 1984; Folkes, Koletsky, and Graham 1987; Bitner 1990). Similar to attributions of controllability, customers can formulate attributions of stability on both employee and organizational-levels. For example, a failure attributed to employee ineptitude may be perceived as highly stable at the employee-level. In contrast, failures attributed to organizational policies or procedures may be considered highly stable at the organizational-level. Because organizations seldom alter existing policies and procedures, customers are likely to perceive them as inherently long-term and stable.

Attributions of globality, which have not been explored previously in marketing, are the extent to which customers consider the causes of failures to be universal across the organization as opposed to being unique to a focal employee or situation (Abramson, Seligman, and Teasdale 1978; Oliver 1997). This attribution has been used extensively in social psychology to understand partners' responses within marital relationships (Fincham and O'Leary 1983; Holtzworth-Munroe and Jacobson 1985). Researchers within this discipline have found that a partner's negative actions and behaviors perceived as highly global will be judged less favorably than those perceived as situation specific (for review see Bradbury and Fincham 1990). The inclusion of globality adds significantly to an understanding of the effect that customers' satisfaction with the employee has on their satisfaction with the organization.



## Research Questions

Most of what we currently know about customer response to failures in service delivery is drawn from studies of failures in the core rather than the peripheral service component (Folkes 1984; Folkes, Koletsky, and Graham 1987; Curren and Folkes 1987; Bitner 1990). Customer responses to peripheral service failures may be different than those for core service failures because specific employees are identified with initiating the peripheral failure. As discussed previously, two divergent explanations exist as to how customers may respond to employee-initiated service failures. The predominant perspective in services suggests that customers perceive employees and organizations as analogous; whereas, the contrasting perspective argues that customers may perceive employees and organizations as distinct and evaluate them as such. This dissertation provides the first examination of how, and to what extent, customers' generalize their evaluations of employees to the organization. The first research question addresses this relationship:

1. To what extent do customer evaluations of employees following peripheral service failures affect evaluations of the organization?

In addition, research in buyer-seller relationships (Goodman, Fichman, Lerch, and Snyder 1995) has found that satisfaction with peripheral services can affect customers' satisfaction with the core service performance. The next research question examines the effects of peripheral failures on customer satisfaction with the core service:

2. Does the severity of the present peripheral service failure impact evaluations of the present core service performance?

In addition, little is known about the nature and causes of customers' responses to peripheral failures. This study explores attribution theory as a mediation process to

understand the customer evaluation process, as reflected in the next set of research questions:

3. How do attributions of causality affect customers' satisfaction with the employee and satisfaction with the organization, as well as the relationship between them?
4. How does the severity of the present peripheral service failure affect the customer's causal attribution process?

A number of authors have suggested that service encounters should not be investigated in isolation, but should be examined with respect to the past service performances experienced by the customer (Boulding, Kalra, Staelin, and Zeithaml 1993; Zeithaml, Berry, and Parasuraman 1996). This research attempts to examine the impact of past core service performances and the existence of past peripheral service failures on customer satisfaction. The following research question reflects this issue:

5. How do past core service performances and the existence of past peripheral service failures affect the customer's causal attribution process?

### Contributions of Research

The present research provides a number of contributions to both academicians and practitioners. Primarily, the present research examines customer response to service failures. Given the human-intensive nature of service delivery, customers will inevitably encounter service performance that falls below their expectations. This lack of consistency is quite evident from the mediocre satisfaction ratings given to the service industry in general by customers every year (Customer Satisfaction Index, Fortune Magazine 1998). Compared to manufacturers, satisfaction ratings of most service organizations have declined every year since the inception of the index, four years ago.

Considering the detrimental effects produced by poor quality service performance, it is important for organizations to gain a greater comprehension of how customers respond to such negative service encounters. This research attempts to address some of the deficiencies apparent in our current understanding of this process by examining the effect of the severity of the present peripheral service failure, the existence of past peripheral service failures, and the quality of past core service performance.

In addition, the present research examines the role that employees play in customer evaluations of the organization. This research examines the degree to which service employees' actions and behaviors are damaging to organizations. Examination of the role of employees in this evaluation process provides management with a better understanding of when customers become dissatisfied with the organization for employee actions and behaviors and how to minimize these detrimental effects. Researchers in services claim that customers perceive employees and organizations as analogous; however, questions remain as to how evaluations of employees and organizations relate. Very little research exists that examines how customers' satisfaction with the employee affects their satisfaction with the organization. One objective of the present study, therefore, is to investigate some of the factors that impact this relationship.

Furthermore, the present research examines the effects of both the core and peripheral service components on customers' satisfaction with the organization. Rather than focusing on one aspect of the service encounter, this study investigates the impact of both of these service components. Including both service components will provide managers with some evidence as to the relative importance of the core and peripheral service components on customer evaluations. It will also provide managers with a clearer

understanding of where managers should focus their attention when attempting to improve customers' satisfaction with the service firm.

Because it has seldom been researched, this research also investigates failures in the peripheral, rather than the core service component. As opposed to many core services which can be separated or “decoupled” from customers' view (e.g., restaurants, dry cleaning), peripheral failures must occur in the presence of customers. These types of failures often entail more personalized transgressions than core-related failures and, hence, may be perceived differently than core failures by customers. Many authors have written about the importance of the peripheral service component to the continued success of organizations. However, other than anecdotal evidence, very little research has investigated the impact of peripheral service failures on customers' overall satisfaction and behavioral intentions. This research addresses this deficiency by focusing on peripheral service failures.

Research on service failures has studied attributions of causality as mediating the relationship between service failures and customers' behavioral and affective responses. In the present research, this application is extended by differentiating attributions about the employee and the organization, with respect to controllability. Past attribution research has not made such a distinction. The inclusion of this delineation may clarify the process by which customer evaluations of employees transfer to an organization. In addition, this research introduces the globality dimension of attribution theory to the marketing literature. Although attributions of globality have been studied extensively in many other disciplines, no research in marketing has utilized this attribution. Attributions of globality will also contribute to a greater understanding of customers' responses to service failure.

Many authors have argued that customer evaluations of service interactions should be studied in the context of a history of service encounters. The present study attempts to examine how the quality of past service performances received by customers influence their evaluation process. Specifically, it investigates the impact of the quality of past core performances and the existence of previous peripheral failures on customer attributions and satisfaction evaluations. No research has examined how both past core and peripheral service performances shape customer responses to present failures. The present research investigates the differential effect of the existence of past peripheral service failures and the quality of past core service failures on customers' attributions which, in turn, affect their satisfaction with the employee and the organization. This examination should reveal how influential past core and peripheral performance is on customers' overall evaluations following a peripheral service failure.

### Summary

In conclusion, the focus of this dissertation is on how and to what extent customers' satisfaction with an employee following a peripheral service failure impacts their satisfaction with the organization. Within the present study, three factors are proposed to influence how customers respond to employee-initiated, peripheral service failures: the severity of the present peripheral service failure, the existence of past peripheral service failures, and the quality of past core service performance. Attributions of causality are included as a process mediating the effects of these factors on customers' satisfaction with the employee and the organization. This dissertation contributes to existing knowledge in services marketing and customer satisfaction by investigating the

customer response process following peripheral service failures, as well as the relative influence of past core and peripheral service performances on this evaluation process.

This manuscript consists of four remaining chapters. Chapter 2 provides the conceptual framework of this dissertation. In this chapter, literature related to the components of service encounters will be reviewed and an overview of the conceptual model will be analyzed. The chapter proceeds with a review of the relevant literature on the constructs explored in the conceptual model and hypotheses are developed to support the relationships outlined. Next, chapter 3 discusses the methodology that will be used to test these proposed hypotheses. Chapter 4 provides an explanation of the methods of analysis utilized for the study, the results of this analysis, and a summary of the support for the hypotheses. Finally, chapter 5 provides a discussion of the main findings and implications of the research, the limitations of the study, directions for future research, and substantive, methodological, and conceptual contributions of the research.

## Chapter 2

### CONCEPTUAL DEVELOPMENT

This chapter provides the conceptual development for the present study, which focuses on the customer response process following employee-initiated peripheral service failures. It investigates the effect of the severity of peripheral service failures on causal attributions and satisfaction evaluations, as well as how past core and peripheral service performance influences this process. This conceptualization integrates existing research in services marketing, customer satisfaction, and psychology to provide a greater understanding of how customers respond to peripheral service failures.

The first section will provide the conceptual background for the present research. Specifically, this section defines the components of service encounters. The second section of this chapter introduces the conceptual model that is the basis for hypothesis development. The third section defines and reviews the literature concerning the three independent variables examined in the proposed conceptual model (severity of the peripheral service failure, the existence of past peripheral failures, and the quality of past core performance). The fourth section provides a review of the literature on attribution theory and the types of attributions measured in the present study. The fifth section provides hypotheses for the effects of the independent variables on causal attributions. The sixth section defines satisfaction, the dependent variable central to the model. The seventh section provides hypotheses for the factors that affect satisfaction with the employee, core service component, and the organization, respectively. Finally, the eighth section presents hypotheses for the consequences of the model. Chapter 2 begins by

defining some key background concepts and delineating some boundary conditions for the proposed study.

### The Components of a Service Encounter

According to Surprenant and Solomon (1987, p. 87), a service encounter is “the dyadic interaction between a customer and the service provider.” Many authors suggest that service encounters consist of multiple aspects or dimensions (Gronroos 1990; Parasuraman, Zeithaml, and Berry 1985; Zeithaml 1988; Swartz and Brown 1989; Eiglier and Langeard 1977). The most commonly accepted conceptualization of a service encounter includes three components- core, peripheral, and augmented (Levitt 1983; Clemmer 1990, 1992; Iacobucci, Grayson, and Ostrom 1994). The core service component is defined as the “basic customer benefit received or the primary customer reason for the service transaction” (Ozmet and Morash 1994, p. 352; Levitt 1980, 1983). This component involves the customer’s principal motivation for purchasing a particular service. The meal served by a restaurant, the room offered by a hotel, and the flight provided by an airline represent examples of the core service component.

The peripheral service component is defined as the manner in which the service organization and its employees deliver the core service component to customers. The rude behavior exhibited by a waiter, the assistance given by a hotel agent, and the friendliness of an airline attendant are examples of the peripheral service component. In addition, many organizations provide augmented services, which are supplementary or ancillary to the core service. Augmentation is well established in product marketing (i.e., augmented product, extended product) and refers to the additional aspects of a



manufactured good that provide added value to customers (Kotler 1972; Levitt 1980, 1983). Likewise, within a services context, the augmented component can add value to the core service component (e.g., hotel-sponsored city tours), assist with customer usage of the core service (e.g. accept many forms of payment), or enhance customer perceptions of the core service (e.g. maintain a rare wine cellar). Levitt (1980) suggests that the augmented aspect of a core product (or service) offering can be somewhat temporary; competitors can quickly and easily imitate an augmentation and, eventually, it becomes an aspect that customers come to expect from the core service.

Although customer evaluations are influenced by the quality of each of these three service components, the present study focuses exclusively on customer evaluations of the core and peripheral service components. These components were chosen because customers typically consider these the most important aspects of service performance (Iacobucci, Grayson, and Ostrom 1994; Bitner, Booms, and Tetreault 1990; Keaveney 1995). For example, Iacobucci, Grayson, and Ostrom (1994) found that customers made a compensatory-like tradeoff between these two components when evaluating a service encounter with a physician. When either component was evaluated poorly, customer satisfaction decreased. Furthermore, when both were rated favorably, the interaction of the two components on satisfaction evaluations was higher than an additive effect would suggest.

In some instances, however, customers may have difficulty distinguishing between the core and peripheral service components. This is especially true for services characterized as highly intangible or inseparable. The inseparability of a service makes this differentiation difficult when the core performance relies heavily on the participation of the

customer for delivery. For instance, a doctor's diagnosis requires explicit input from the patient. If the doctor exhibits a poor bedside manner (peripheral service), it can hinder the amount and quality of information shared by the customer. This can potentially hamper the doctor's ability to formulate an accurate diagnosis and, hence, decrease the quality of the core service.

In addition, services that are highly intangible may make the core and peripheral service components virtually indistinguishable to customers. When the benefits of the core service are highly intangible (e.g., financial planning, legal advice), the customer often cannot differentiate the core service from the peripheral service which is also highly intangible. In order to avoid any complications associated with inseparability and intangibility, the present study will focus on those services where the distinction between core and peripheral service components is easily discernible. The following section provides an overview of the conceptual model for the present research.

### The Conceptual Model

The conceptual model for the proposed study is presented in Figure 1. It portrays the effects of both past and present service encounters on the customer response process. The model proceeds from left to right beginning with three independent variables: the severity of the present peripheral service failure, the quality of past core performance, and the existence of past peripheral service failures. These descriptors of past and current service performance affect customers' attributions of causality (controllability, stability, and globality) and, in turn, post-failure response variables (satisfaction, intentions to complain, loyalty, and intentions to exit). The model can be split into two distinct halves.

The lower half of the model represents the customer response process for the present peripheral service failure, while the upper half deals with how the history of past service performance influences this response process. The next two sections introduce the independent variables of the conceptual model- the severity of the peripheral service failure, the existence of past peripheral service failures, and the quality of past core service performances.

### The Characteristics of Service Failures

A service failure is defined as service performance that falls below customers' expectations (Hoffman and Bateson 1997). Thus service failures are a type of negative disconfirmation, the concept used in the disconfirmation paradigm which deals with the negative deviation between performance and customers' expectations for that performance (Oliver 1980). Service failures can vary in terms of severity, recurrence, and recency (Kelley and Davis 1994). One of the most intuitive characteristics of failures is the *severity* of the problem experienced by the customer. Severity is defined as the magnitude of loss that customers experience from failures (Hart, Heskett, and Sasser 1990; Hess, Ganesan, and Klein 1998). Losses from failures can be either tangible (e.g., monetary) or intangible (e.g., embarrassment from complaining, anger, time) in nature.

The amount of loss experienced by customers can result from the nature of the event itself (poor service performance) or it can be affected by the situation or circumstances surrounding the service experience. For instance, a service failure is perceived as more severe if coffee is spilled on the customer instead of on the table (nature of the event). Similarly, it is perceived as more severe if coffee is spilled on a customer

who is dressed in a wool suit rather than jeans (situation). These examples suggest that an identical service failure (i.e., spilled coffee) can be perceived quite differently depending upon the nature of the event or the situation.

Next, service failures can also be isolated, one-time occurrences or repetitive problems that are not easily resolved or that the organization is unwilling to eliminate. In contrast to isolated failures, recurring problems produce increased monetary and psychic costs for customers. Eventually, they will lose confidence in the competence and future reliability of the service organization (Berry 1995). Zeithaml, Berry, and Parasuraman (1996) found that customers who had experienced previous service failures exhibited more unfavorable behavioral intentions (i.e., complaining, switching, repurchase) toward the firm than those who had not experienced previous service failures. Specifically, they revealed that customers who had not experienced past service failures expressed higher loyalty intentions, lower switching intentions, and lower complaining intentions than those who had experienced past service failures, regardless of whether the failures had been satisfactorily resolved. Similarly, Keaveney (1995) found that *recurring* service failures represented a significant reason given by customers for switching to a competitor.

Last, service failures can be viewed differently depending upon the recency or timing of the occurrence. The *recency* of a service failure episode is the time period that has passed or the number of service encounters experienced since its occurrence. Services differ widely in terms of the frequency of interaction between the customer and the service provider (Bendapudi and Berry 1997). For example, customers typically require more frequent interactions with a hair stylist than a tax preparation service. Therefore, the recency of service failures must consider not only the time period that has passed since the

occurrence, but also when it occurred during the history of past service encounters. For example, a customer can have three poor haircuts in the past three years, but he or she may evaluate these events differently depending upon the frequency of interaction (e.g., every month versus every six months).

Although the recency of the service failure poses some interesting and significant implications for marketing managers, this particular characteristic is beyond the scope of the present research. This research focuses exclusively on the severity and recurrence of service failures. In particular, this research examines the effects of the severity of the present peripheral service failure and the existence of past peripheral service failures on the customer response process. It is proposed that variation in these characteristics greatly affect customers' affective and behavioral responses.

### Quality of Past Core Service Performance

It has been suggested that the quality of past service encounters may influence customers' overall evaluations of service quality and satisfaction (Boulding, Kalra, Staelin, and Zeithaml 1993; Bendapudi and Berry 1997). The quality of past performance is customers' perception of the relative inferiority or superiority of the services provided by a service organization (Hess, Ganesan, and Klein 1998). Because service encounters consist of multiple aspects or dimensions (e.g., core, peripheral, augmented), an organization's record of service can represent any of these dimensions. The present study, however, will focus on an examination of the quality of past core service performances.

Customers can experience past performances with either a particular employee or the organization itself. For example, a customer can interact with the same salesperson at

a retail store many times, forming a history of past performance with that employee, or they can interact with many different salespeople within the retail store, forming a history of past performance with the organization. The particular level of analysis examined can have significantly different effects on customer evaluations and behavioral intentions.

For instance, poor past core service performances with a particular salesperson may greatly affect customers' satisfaction with the focal employee, but may have less impact on their satisfaction with the organization. Although customers may attempt to avoid this individual in future service interactions, they may still have expectations for future interactions with the organization. In contrast, poor service performances spread across a number of different employees are more likely to reduce customers' satisfaction with the organization, but may have less negative impact on evaluations of specific employees. Customers who are very dissatisfied with the organization will be less inclined to repurchase and more likely to switch to competitive providers (Keaveney 1995). Although an examination of past performances from a single service employee may provide some very interesting implications for marketing managers, the present study will focus exclusively on the quality of past core performance at the organizational-level; that is, past core service performances will be defined as occurring with employees other than the one involved in the current peripheral service failure.

Very few studies in marketing have empirically explored the effect that past service performances have on customer evaluations of service performance. One such study by Boulding, Kalra, Staelin, and Zeithaml (1993) found that perceptions of cumulative service are a function of customers' perceptions of the present service delivery, "will" expectations, and "should" expectations. *Will* expectations, customers' beliefs about the

level of service performance they are likely to receive during a subsequent service encounter with the service organization, are updated in a Bayesian-like manner with each service encounter. They encompass perceptions of *every* past service encounter that has been experienced by the customer. Alternatively, *should* expectations are customers' beliefs about the level of service performance they ought to receive during the next service encounter with the service organization. These expectations are updated only when service performance surpasses customers' prior should expectations. Boulding, Kalra, Staelin, and Zeithaml (1993) experimentally demonstrated that will and should expectations have a positive and negative effect on customers' cumulative perceptions of service, respectively. Furthermore, over time, customers place greater weight on will expectations than perceptions of the current service performance and should expectations when formulating cumulative perceptions of service. The next section defines and reviews attributions of causality. This is followed by hypotheses for the effects of the severity of the peripheral service failure, the existence of past peripheral service failures, and the quality of past core service performances on these causal attributions.

### Attributions of Causality

#### *Definition and Motivation for Attributions*

Causal attributions are a customer's attempt to explain *why* a particular event has occurred (Heider 1944, 1958). According to Weiner (1985b), causal attributions are elicited by some stimuli that arouses the attention of individuals. He developed a typology of factors that are likely to prompt attributional activity and identified three general categories which include: 1) unexpected occurrences, 2) unachieved goals or desires, and

3) exceptional attainment of success or events of extraordinary significance. Although customers can formulate attributions for successful or extraordinary events, many authors acknowledge that the occurrences of unsuccessful or negative events are more likely to evoke attributional activity (Weiner 1985b; Folkes 1982).

One negative event that is likely to activate attributions in consumers is the disconfirmation of expectations (Folkes 1982, 1984; Kelley 1972; Wong and Weiner 1981). Using critical incident methodology, Folkes (1984) found that product and service failures evoked attributional activity in customers that significantly influenced the affective and behavioral responses that followed. Subsequent research in product and service failures has generally supported these results (Curren and Folkes 1987; Folkes, Koletsky, and Graham 1987; Folkes and Kotsas 1986; Bitner 1990). Overall, these authors demonstrate that customers' perceptions and responses to failures may depend upon how attributions are ascribed by customers.

#### *The Formation of Attributions- the Covariation Model*

Many different models exist that attempt to explain the formation of attributions (Jones and Davis 1965; Kelley 1967, 1972). One of the most widely accepted models of attribution formation is the covariation model (Kelley 1967, 1972). Kelley (1967) suggests that individuals have access to multiple occurrences of events that provide them with information to formulate causal inferences. The main premise of the covariation model is that attributions are based on the extent to which (potential) causes covary with the occurrence of a focal event. Kelley (1967) identified three dimensions that are used to test attributions: 1) distinctiveness (the extent to which the causal factor is present when the event occurs), 2) consistency (the extent to which a causal factor and the event co-



occur over time), and 3) consensus (the extent to which others have experienced a similar event).

Based on different combinations of these dimensions, the covariation model can explain how individuals formulate causal inferences. For example, consider a doctor who misdiagnoses a patient. If a combination of high distinctiveness (she is the only doctor that has misdiagnosed him), high consistency (she has also misdiagnosed him on other occasions), and high consensus (other patients complain of misdiagnoses) emerges, the model would predict that the cause is likely to be attributed to the doctor rather than the patient. However, if a combination of low distinctiveness (most doctors misdiagnose him), high consistency (she has misdiagnosed him before), and low consensus (nobody else complains of misdiagnoses) occurs, covariation would predict that the cause will be attributed to the patient.

Limited research using Kelley's (1967) covariation model has appeared in marketing (for reviews see Mizerski, Golden, and Kernan 1979 and Folkes 1988). For example, Bettman (1979) used the model to explain the rationale for customer purchasing behavior. Different combinations of consensus, distinctiveness, and consistency were used to formulate attributions about whether purchases were due to the qualities of the product, the customer, or the situation.

Furthermore, Folkes and Kotsos (1986) utilized the covariation model to explain why buyers and sellers make discrepant attributions for who is responsible (or to blame) for product and service failures. This intriguing study suggested that attributional differences may occur because of deviations in buyers' and sellers' relative combinations of distinctiveness, consensus, and consistency. Buyers considered failures to be product-

related because of perceptions of high distinctiveness (they had not experienced prior product failures) and consensus (they believed that others had experienced such failures); sellers regarded failures as buyer-related because of perceptions of low consensus (product failures had not occurred frequently with other consumers). Folkes and Kotsas (1986) explain that these attributional differences may result because buyers and sellers have access to different information.

### Weiner's Theory of Attribution

Over the past several decades, many theories have been proposed that identify the general types of attributions that individuals use to explain events (Heider 1944, 1958; Jones and Davis 1965; Bem 1967, 1972; Weiner 1985, 1986). Weiner's (1985) extension of Heider's (1944, 1958) original work is probably one of the most widely recognized and most frequently used in the marketing discipline (Folkes 1984; Valle and Wallendorf 1977; for review see Folkes 1988 and Mizerski, Golden, and Kernan 1979). In a series of studies on individual achievement, Weiner and colleagues identified many explanations for success and failure. Based on the results of these studies, Weiner (1985, 1986) argues that individuals categorize attributions along three general dimensions- locus, controllability, and stability. The three dimensions of attributions have been tested extensively and found to be relatively reliable (Meyer 1980; de Jong, Koomen, and Mellenbergh 1988).

#### *Attributions of Locus*

Locus is defined as the extent to which a cause is considered internal or external to the individual (Weiner 1985). In achievement-related contexts, causes of success and

failure can be considered internally generated (e.g., aptitude, exertion) or externally generated (task difficulty, luck) (Weiner 1986). Locus has been operationalized in marketing as whether the location of the cause of failure is internal to the organization (originated in production or distribution of the product or service) or external to the organization (initiated by consumer ignorance or carelessness) (Folkes 1984; Krishnan and Valle 1979; Richins 1983; Valle and Wallendorf 1977). Folkes (1988, p. 556) argues that “[l]ocus influences beliefs about who should solve problems; problems arising from consumers’ actions should be solved by consumers, whereas problems arising from firms’ actions should be solved by firms.”

#### *Attributions of Controllability*

Next, controllability is defined as the degree to which the cause of a failure is perceived to be under the volition of an individual (Weiner 1985, 1985). Within a consumer context, authors have generally examined attributions of controllability as the extent to which causes of failures are considered to be under the volition of an organization. According to Folkes, Koletsky, and Graham (1987), attributions of controllability emerge from perceptions that the organization: 1) could have performed alternative actions to avert a negative event from occurring (Hamilton 1980), or 2) possesses a solution that eliminates the cause(s) of a negative event (Brickman, Rabinowitz, Karuza, Coates, Cohn, and Kidder 1982). Past research in marketing has revealed that factors such as employee training, misleading advertising, delays caused by excessive ticket sales, and personnel practices are perceived by customers as highly controllable by organizations (Folkes 1984; Folkes, Koletsky, and Graham 1987). In contrast, factors considered uncontrollable by organizations include air controller strikes,

ice, fog, hail, excessive heat, unanticipated over-demand, and fraudulent marketing research from suppliers (Folkes 1984; Folkes, Koletsky, and Graham 1987).

Previous research in marketing has revealed that the locus dimension is often highly correlated with other attribution dimensions such as attributions of controllability. For example, Folkes (1984) found that the correlation between locus and controllability attributions was 0.94. According to Oliver (1997), high correlation between these variables typically occurs because attributions of locus must already be assigned for attributions of controllability to be made. High correlations, however, complicate quantitative analyses (e.g., multicollinearity) and the ability to distinguish the relative effects of each dimension (Folkes 1984). Consequently, recent studies in marketing involving attribution theory have not measured the locus dimension (Folkes, Koletsky, and Graham 1987; Bitner 1990; Hess, Ganesan, and Klein 1998). Likewise, because the present study focuses on employee-initiated peripheral service failures, the locus will remain internal to the focal employee. Therefore, measurement of the locus dimension will be excluded from this study, as well.

#### *Controllability at the Employee and Organizational Levels*

Past research in marketing has not been explicit as to whether controllability attributions should be examined at the employee or organizational levels. Typically, this research has considered controllability as an organizational-level construct (Folkes 1984; Folkes, Koletsky, and Graham 1987). Customers often make distinctions between employees and organizations when formulating attributions of controllability. For example, service failures caused by restrictive return policies may be viewed by customers as controllable by organizations, but uncontrollable by employees. In contrast, failures

caused by employee rudeness may be perceived by customers as highly controllable by the focal employee, yet less controllable by the organization.

Given the factors that authors of previous research have found to be controllable and uncontrollable by organizations (summarized above) (Folkes 1984; Folkes, Koletsky, and Graham 1987), it appears that, in general, customers attribute control to organizations if causes can be prevented or eliminated by altering existing policies, procedures, or training programs (or establishing new ones). For example, service failures that are caused by overly restrictive return policies are typically perceived by customers as controllable at the organizational-level because the cause can be eliminated by modification of the current policy.

In contrast, when customers make controllability attributions at the employee-level, they are likely to use different criteria than that used for attributions involving organizations. Existing research in psychology has identified many causes of success and failure in achievement-related activities (for review see Weiner 1986). Although an infinite number of potential causes exist for an individual's success or failure at a task, effort (long-term effort and short term exertion) and ability (learned ability and aptitude) are the most frequently reported causes of success and failure (Frieze 1976; Elig and Frieze 1979; Cooper and Burger 1980; Anderson 1983; Bar-Tal, Goldberg, and Knaani 1984). Weiner (1986) has suggested that these explanations vary considerably in terms of controllability. For example, the effort that individuals exert and the ability that is learned are considered willful and, hence, more controllable by the individual. In contrast, aptitude, an inherent proficiency for a given activity (e.g., aptitude for art, sports, music),

is considered less controllable because it is an innate characteristic of the individual and cannot be changed.

Although there are an endless number of potential causes for employee-initiated service failures as well, ability, aptitude, and effort are likely to be very common explanations made by customers for such events. As with achievement tasks, these causes vary considerably in terms of controllability by the employee. For example, if customers believe that a focal employee possesses the ability required for a given role but fails to perform the service to expectations, then they are likely to consider the cause more controllable by the employee. However, if customers believe that the employee has not attained the sufficient ability to perform the role (e.g., newly hired employee), then they are unlikely to perceive that the employee's performance can be changed or altered significantly during the present service encounter. Customers may use a number of cues such as, titles, certifications, awards, plaques, and other criteria to infer employee competence (Folkes 1994).

Although in some instances employees can attain the necessary competencies for a given role, the level of aptitude that they possess may also hinder their performance. Because aptitude is an inherent faculty that is not willfully changed by an individual, customers are likely to consider such causes less controllable by the employee. For example, customers may consider a clumsy waiter that continually drops menu items and spills drinks as possessing little aptitude for the job. Under these circumstances, they are expected to consider the cause of failure to be less controllable at the employee-level.

Furthermore, perceptions of effort may also be a common explanation for employee-initiated service failures. Because employees willfully choose the amount of

effort expended for a given task, effort is typically considered highly controllable at the employee-level. If customers' perceive that the focal employee has exerted significant effort yet a failure has occurred, then they may consider the failure less controllable by the employee than if lower levels of effort are expended. According to Folkes (1994), cues such as physical exertion, perspiration, mental exertion, incentives, and bonuses are often used to judge an employee's motivation to perform. Although no research explicitly shows the effect of employee effort on customers' attributions, Mohr and Bitner (1995) found that the customers' perceptions of employee effort had a positive impact on their satisfaction with the service encounter.

#### *Attributions of Stability*

The third attribution dimension identified by Weiner is stability. Stability is the extent to which causes of failures are viewed as temporary (expected to vary over time) or permanent (expected to persist over time). For example, stable causes of a late-arriving airplane include factors such as air controller strikes, organizational policies, and personnel practices, while unstable causes involve mechanical problems, hail storms, fog, and heat waves (Folkes 1984; Folkes, Koletsky, and Graham 1987). Stability is associated with uncertainty of future performance (Folkes 1984). For example, stability attributions of good service performance increase a customer's confidence in the level of performance that is expected from the organization in the future.

#### *Stability at the Employee and Organizational Levels*

Similar to controllability attributions, customer attributions of stability can occur at both the employee and organizational-levels. Based on past research, failures due to policies, procedures, and personnel practices are likely to be considered highly stable at

the organizational-level unless the organization changes or eliminates them. Because organizations seldom make such alterations to existing policies and procedures, customers are expected to perceive them as inherently long-term and highly stable. For example, service failures caused by a restaurant's inflexible food substitution policy are likely to be perceived as highly stable at the organizational-level because these same inflexible policies will be in place during future service interactions with the organization.

Alternatively, customers can make attributions as to whether the cause of a service failure is considered stable or unstable at the employee-level. As discussed earlier, context, aptitude, ability, and effort are likely to be common explanations used by customers for employee-initiated peripheral service failures. It is likely that these causes also vary considerably in terms of the attributions of stability made by customers. For example, ability is often considered to be a less stable cause because learning can greatly impact the performance of the focal employee. In contrast, aptitude and effort are likely to be considered highly stable causes. Because aptitude is an inherent faculty that cannot be changed by the focal employee, customers are likely to consider failures caused by insufficient aptitude to be highly stable at the employee-level. Customers may consider failures caused by a lack of employee effort highly stable. Although previous attribution research in achievement-related contexts have distinguished between long-term effort (stable effort) and short-term effort (unstable effort) and the stability attributions that follow (Frieze 1976; Elig and Frieze 1979; Cooper and Berger 1980), such a distinction may be less meaningful in a consumer services context. Customer may consider the level of effort expended by an employee during a service encounter to be at the same level as that typically expended by them during any service encounter. Consequently, it is likely



that customers will perceive that failures due to the amount of effort exerted by employees to be highly stable at the employee-level.

### *Attributions of Globality*

Aside from Weiner's (1985) three attribution dimensions (i.e., locus, controllability, and stability), a number of additional attribution dimensions have been introduced in the literature (Anderson 1983). Unlike many of these additional dimensions (i.e., intentionality, changeability), attributions of globality have consistently exhibited unique dimensionality (Anderson 1983). In addition, it has been utilized extensively in social psychology to explain and understand partner interactions in intimate relationships (Holtzworth-Munroe and Jacobson 1985; Fincham, Beach, and Baucom 1987; Fincham and O'Leary 1983).

Attributions of globality were originally introduced by Abramson, Seligman, and Teasdale (1978) to explain why and under what circumstances individuals exhibit characteristics of learned helplessness. These authors define attributions of globality as the extent to which causes generalize across settings as opposed to being specific to situations. For example, compared to low intelligence, low math aptitude is a less global cause of a poor score on a mathematics test (Abramson, Seligman, and Teasdale 1978). While low intelligence is likely to affect an individual's academic performance in every course, low math aptitude will only impact performance in mathematics.

Attributions of globality may also be useful for understanding customers' responses to failures in service delivery. For the purpose of this research, *attributions of globality* are defined as the extent to which the cause of service failures are considered universal across the organization as opposed to being specific to a focal employee or

situation. Globality attributions can be based on information derived from one or more interactions with a service organization. With each service encounter, customers can interact with different employees, each possessing divergent skills, expertise, knowledge, and initiative (Larsson and Bowen 1989; Olivia, Oliver, and MacMillan 1992). Poor service performances from different employees over several service encounters are likely to be considered highly global. In addition, during a single service encounter customers can observe or experience several incidents that may lead them to form attributions about globality. For instance, during a visit to a restaurant a customer may experience slow service from an employee, discover dirty silverware, and find that the restroom facilities are out of toilet paper. As described, multiple service problems experienced during a discrete service encounter or over several service encounters may lead customers to make attributions of globality for causes of failures.

Attributions of globality are expected to explain why customers' anger and dissatisfaction with the focal employee affect their evaluations of the organization. For example, if customers experience a lack of attention from different employees on multiple interactions with the organization, then they are likely to perceive that the service organization does not stress this aspect of service delivery to its employees. Under these circumstances, customers are likely to consider the cause(s) to be highly global which will negatively impact evaluations of the organization. However, if customers have not experienced previous service failures with the organization, they may consider the cause to be specific to the focal employee (i.e., attributions of lower globality).

Attributions of globality can also be examined at the employee-level. Employee-related causes can be considered universal across situations as opposed to being specific to

a discrete service encounter. However, because customers typically do not interact with employees in situations other than those related to service interactions, it is inappropriate to examine globality attributions at the employee-level. Therefore, for the purpose of this study, attributions of globality will be examined at the organizational-level.

Attributions of stability at the organizational-level may be redundant when attributions of globality are included in the conceptual model. If customers consider causes of failures to be stable at the organizational-level, then these causes will be viewed as highly global, as well. As described previously, failures caused by deficient policies and procedures are likely to be considered highly stable at the organizational-level because changes to policies and procedures are rarely made. Organizational policies and procedures are also perceived highly global because they are universal across the organization, affecting every employee and all situations.

In contrast, causes that are viewed as highly global will not necessarily be considered highly stable at the organizational-level. For example, lack of restaurant employee attention resulting from the arrival of a tour bus may be considered highly global because such an event affects employees similarly; however, it may also be viewed as less stable at the organizational-level because it is not likely to occur in the future. It is apparent through these examples that stability at the organizational-level is unnecessary when attributions of globality are utilized in the conceptual model. Based on these arguments, stability at the organizational-level will not be examined in the present study. Next, hypotheses for the effects of past core service performances, the existence of past peripheral service failures, and the severity of the present peripheral service failure on causal attributions will be explored.

### *Hypothesized Effects on Attributions of Globality*

*Existence of Past Peripheral Service Failures.* The existence of previous peripheral service failures will affect customers' attributions of globality. According to covariation theory, individuals use information from past experiences to formulate causal attributions for present events (Kelley 1967). In psychology, researchers have found that the consistency of an individual's past successes and failures influence the formation of causal attributions for the present outcome (Frieze and Weiner 1971; Weiner and Kukla 1970). For example, Frieze and Weiner (1971) showed that the consistency of past and present performances resulted in causal ascriptions of aptitude and task difficulty for the present outcome; whereas, the inconsistency of past and present performances produced ascriptions of luck and effort for the present outcome. In other words, if an individual has failed in the past and also fails at the present attempt (consistency), the cause is attributed to task difficulty or to lack of aptitude, both of which are highly global causes. However, if an individual has had many previous successes but fails at the present attempt (inconsistency), bad luck or lack of effort are elicited for the cause of the present outcome which are viewed as less global.

Likewise, within a services context, customers utilize the evidence gained through multiple interactions with a service organization to formulate customers' causal attributions. The consistency (or inconsistency) of past and present peripheral service performances is likely to affect whether cause(s) of service failure(s) generalize across the organization as opposed to being situation or employee-specific. If customers have experienced previous peripheral service failures with the organization, they are likely to attribute the cause of the present failure (consistency) to low organizational competence

or deficient organizational policies and procedures. Failures due to such organizational factors are more likely to be considered global rather than employee-specific.

Alternatively, customers who have experienced no previous peripheral service failures are likely to consider the present event to be inconsistent with the service that is typically provided by the organization. When the present service performance is inconsistent with past service performance, customers are likely to consider the cause of the failure to be the result of either an employee-specific cause (i.e., lack of effort) or some other factor that is less universal across the organization. Therefore, it is proposed that the existence of past peripheral failures will lead to attributions of higher globality than if past peripheral failures had not been experienced. It is predicted that:

H<sub>1</sub>: The existence of past peripheral failures result in attributions of higher globality than if no past peripheral failures have been experienced.

*Quality of Past Core Service Performance.* The quality of past core service performance that has been experienced by customers may also be related to their attributions of globality. As discussed earlier, researchers have shown that the consistency of an individual's past performance with present performance on the same task affects the formations of causal attributions (Frieze and Weiner 1971; Weiner and Kukla 1970). This consistency was discussed above in terms of past peripheral service failures affecting causal attributions about current peripheral service failures. However, at a more abstract level, customers may consider core service performance as relevant to explaining the occurrence of peripheral failures, as well. Customers may believe that the fundamental competencies necessary for delivering the core performance to customers may be very similar to those required for the peripheral service performance. Excellent past core

service performance, therefore, may be seen as inconsistent with a current peripheral service failure. This inconsistency should lead to attributions of lower globality than if average past core performance was experienced. Consequently, the quality of past core service performance is likely to affect customers' attributions of globality. It is therefore proposed that:

H<sub>2</sub>: Exceptional quality past core service performance will result in attributions of lower globality than average quality past core service performance.

*Severity of the Present Peripheral Service Failure.* The severity of peripheral failures is also expected to affect customers' attributions of globality. As defined earlier, severity is defined as the magnitude of loss that customers experience from failures (Hart, Heskett, and Sasser 1990; Hess, Ganesan, and Klein 1998). According to Jones and Davis's (1965) correspondent inference theory, individuals attempt to make attributions for the dispositional qualities of others. This theory attempts to explain how judgments are formed as to whether an individual's behavior and the intention underlying the behavior correspond to an inherent quality or disposition. Understanding dispositions allows individuals to predict the future behavior of others (Jones and Davis 1965).

Jones and Davis (1965) identified a number of bases for correspondent inferences. One that is especially relevant for the present context is the social role. Social roles place constraints on the behaviors and actions that are exhibited to others. While in-role behaviors provide very little information about an individual's underlying dispositions, out-of-role behavior can be very informative. For example, an argument in favor of a ban on the sale of cigarettes from an employee of a cigarette manufacturer is likely to represent

the individual's true beliefs on the subject, considering it contradicts the beliefs that one expects from an individual holding such a position.

Similarly, the out-of-role behavior exhibited by service employees should also be very informative of their underlying dispositions. The roles that employees hold within service organizations represent social roles that define appropriate employee behavior (Solomon, Surprenant, Czepiel, and Gutman 1985). Because severe failures in peripheral service are extreme deviations from customers' expectations for employee role behavior, this conduct is likely to clearly reflect the qualities of the focal employee rather than the service organization. Consequently, more severe failures are likely to lead to attributions of lower globality than less severe peripheral service failures.

H<sub>3</sub>: More severe peripheral service failures elicit attributions of lower globality than less severe peripheral service failures.

#### *Hypothesized Effects on Controllability at the Organizational-Level*

*Existence of Past Peripheral Service Failures.* The existence of previous peripheral failures can also impact customer perceptions of controllability at the organizational-level. According to Brickman, Rabinowitz, Karuza, Coates, Cohn, and Kidder (1982), one aspect that individuals use to assign controllability attributions is the extent to which the causal agent holds the solution to the cause of a problem. When customers have experienced past peripheral failures, they believe that organizations are well aware that these problems exist and should take appropriate measures to reduce the occurrence of such events through changes in policies and procedures. In this situation, it is likely that customers perceive that the organization controls the solution of the cause of the failure. Consequently, the existence of past peripheral service failures is likely to lead

to attributions of greater controllability at the organizational-level. It is therefore proposed that:

H<sub>4</sub>: The existence of past peripheral service failures result in attributions of greater controllability at the organizational-level than if no past peripheral service failures have been experienced.

*Severity of the Present Peripheral Service Failure.* More severe peripheral service failures are expected to elicit attributions of greater controllability at the organizational-level than less severe peripheral failures. Because of a significant reliance on human performance for delivery, customers often experience heterogeneity in service performance that enhances the likelihood of service failures (Berry 1980). In order to decrease heterogeneity and the occurrence of service failures, organizations institute activity controls that attempt to guide employee conduct (Merchant 1985). Activity control mechanisms are used to routinize service delivery processes and standardize tasks (Zeithaml, Parasuraman, Berry 1990). Although these policies and procedures can eliminate many failures, they cannot completely control all employee errors- some minor mishaps are still likely to occur (Hart, Heskett, and Sasser 1990). Customers have become accustomed to an occasional mild service problem and perceive that such an event is extremely difficult for organizations to control.

Alternatively, it is likely that customers perceive that such policies and procedures should control for the occurrence of more severe peripheral failures. They may believe that service organizations should anticipate these events and design and implement policies, procedures, and training programs that eliminate more severe peripheral service failures (Folkes 1984; Folkes, Koletsky, and Graham 1987). Consequently, it is expected



that customers will consider more severe peripheral service failures to be more controllable at the organizational-level than less severe peripheral service failures.

H<sub>5</sub>: More severe peripheral failures elicit attributions of greater controllability at the organizational-level than less severe failures do.

*Hypothesized Effect on Controllability at the Employee-Level*

*Severity of the Present Peripheral Service Failure.* The severity of a service failure is expected to have a positive effect on attributions of controllability at the employee-level. Role theory addresses the extent to which an individual is perceived as exhibiting appropriate conduct for a socially defined position. Solomon, Surprenant, Czepiel, and Gutman (1985) suggest that service encounters are role performances rendered by employees and that customers hold expectations for what actions and behaviors are appropriate for these positions. For example, customers expect service personnel to act courteously, professionally, friendly, helpful, and attentive during service interactions. Customers consider these actions and behaviors controllable by employees unless circumstances impede their volition (Fiske and Taylor 1991).

Given the pressures and difficulties associated with delivering services to customers, especially during periods of excessive demand, customers are likely to expect some less severe peripheral service failures from employees (e.g., not carefully listening to customer requests) and view such failures as less controllable at the employee-level. However, more severe peripheral failures (e.g., extremely discourteous behavior, discrimination) represent significant deviations from customer expectations of proper employee role behavior. Customers are likely to believe that no circumstances justify or warrant such extreme conduct in employees. Therefore, customers are likely to consider

more severe peripheral service failures more controllable at the employee-level than less severe peripheral service failures. Hence, it is proposed that:

H<sub>6</sub>: More severe peripheral failures elicit attributions of greater controllability at the employee-level than less severe failures.

*Hypothesized Effect on Stability at the Employee-Level*

*Severity of the Present Peripheral Service Failure.* The severity of the present peripheral failure is likely to affect customers' attributions of stability at the employee-level. Compared to less severe peripheral failures, customers are likely to believe that more severe failures are unusual. If a particular employee consistently causes severe peripheral service failures, customers will eventually voice their aggravation and displeasure about this individual to the organization. Once the organization becomes aware of the employee's deviant actions and behaviors, customers believe that management will eliminate such conduct through admonishment or termination (if the problems persisted). This suggests that the occurrence of more severe events are not likely to persist in future interactions with the employee and, hence, causes of such failures will be considered less stable at the employee-level. Consequently, it is expected that more severe peripheral failures will lead to attributions of lower stability at the employee-level than less severe peripheral failures.

H<sub>7</sub>: More severe peripheral failures elicit attributions of lower stability at the employee-level than less severe failures.

The following section defines customer satisfaction and provides hypotheses for the factors that affect these evaluations.

## Customer Satisfaction

Satisfaction is defined as a customer's affective psychological response based on subjective evaluations of performance (Oliver 1980). Within the marketing domain, customer satisfaction has been conceptualized across a number of different levels of analysis (Oliver 1997). For example, it has been examined at the attribute level (Oliver 1980, 1993), discrete product or service experience level (Cadotte, Woodruff, and Jenkins 1987; Bitner 1990), overall or summary level (Oliver and Swan 1989; Bitner and Hubbert 1994), firm-specific aggregate level (Anderson and Fornell 1994; Johnson 1995), and industry-specific aggregate level (Anderson 1994). This study investigates satisfaction at the attribute and summary levels.

At the attribute level, the primary interest of this study is satisfaction with the core service component and the customer contact employee. In addition, satisfaction will also be examined at the overall or summary level (i.e., satisfaction with the organization).

Satisfaction with the organization is defined as a customer's accumulated affective psychological response to the organization (Oliver 1980; Goodman, Fichman, Lerch, and Snyder 1995; Bitner and Hubbert 1994). It is based on evaluations of past and present service encounters, treatment by service employee(s), the ambiance of the service environment, exposure to advertising, discussions with others, and additional service-related characteristics (Bitner and Hubbert 1994).

### *Hypothesized Effects on Satisfaction with the Employee*

*Severity of the Peripheral Service Failure.* The severity of the peripheral service failure is hypothesized to negatively affect customer's satisfaction with the focal employee. Hamilton (1980) suggests that individuals that experience negative events tend to focus

their sanctions toward the perceived causal agent- the individual believed to have caused them to occur. Similarly, because peripheral failures are typically initiated by employees in the presence of customers, they are likely to direct their anger and dissatisfaction toward the focal employee that is seen as having caused the peripheral failure. The intensity of those responses is likely to depend on the severity of the peripheral failure that is experienced by customers. The amount of anger and dissatisfaction directed toward the focal employee by a customer should be proportionate to the loss that results from the peripheral failure. It logically follows, therefore, that more severe peripheral failures are expected to generate more dissatisfaction toward the employee than less severe peripheral failures. Therefore, it is hypothesized that:

H<sub>8</sub>: More severe peripheral failures will result in lower levels of satisfaction with the employee than less severe failures.

*Attributions of Controllability at the Employee-Level.* Another factor that affects the extent of customers' dissatisfaction with the focal employee is attributions of controllability at the employee-level (Weiner 1985). Hamilton (1980) suggests that individuals behave more punitively towards those who appear to have caused negative events if they believe that these causal agents could have acted otherwise. Likewise, the more customers believe that the actions and behaviors of the focal employee were volitional, the more dissatisfied they will be with the focal employee. Weiner, Graham, and Chandler (1982) found that controllability was the primary attribution that altered an individual's response from pity (in the cases of low controllability) to anger (in the cases of high controllability). Hence, it is hypothesized that:

H<sub>9</sub>: Attributions of controllability at the employee-level for the peripheral service failure are negatively related to customers' satisfaction with the employee.

*Attributions of Stability at the Employee-Level.* Attributions of stability at the employee-level are related to customers' expectations for future service performance from the focal employee (Folkes 1984). When the causes of employee-initiated service failures are considered stable as opposed to unstable, this leads to greater confidence that a similar outcome will occur in the future (Folkes 1984). If additional peripheral service failures are believed to be likely with future interactions with the focal employee, customers may intensify their affective reactions toward that causal agent. Although not explicitly hypothesized, Bitner (1990) found that the attribution that the cause of a travel agent's (employee) pricing error was highly stable were associated with lower satisfaction with the employee. Consequently, employee-level attributions of stability will be negatively related to customers' satisfaction with the focal employee.

H<sub>10</sub>: Attributions of stability at the employee-level for the peripheral service failure are negatively related to customers' satisfaction with the employee.

*Attributions of Globality.* Attributions of globality are expected to be positively related to customers' satisfaction with the focal employee. Effective service organizations attempt to control for heterogeneity in service performance by designing extensive training programs, instituting behavioral control mechanisms, implementing stringent hiring practices, and performing other initiatives. However, when customers perceive that causes of failures are highly global, they are likely to believe that the organization does not emphasize or communicate the importance of quality service to its employees. When deficient service quality from employees is the norm at the organization, customers are likely to be less dissatisfied with the focal employee for poor service delivery because these individuals have not been trained or instructed to perform otherwise. Consequently,

attributions of globality are likely to be positively related to customer satisfaction with the employee.

H<sub>11</sub>: Perceived attributions of globality for the peripheral service failure are positively related to customers' satisfaction with the employee.

*Hypothesized Effects on Satisfaction with the Core Service Component*

*Severity of the Peripheral Service Failure.* The severity of the present peripheral service failure is expected to have a negative effect on customers' satisfaction with the core service component. Past researchers in psychology and marketing have empirically shown that negative affective states such as anger, disgust, and contempt influence subsequent affective evaluations (Westbrook 1980; Mooradian and Olver 1994; Schwarz and Clore 1983; Wright and Bower 1992). As discussed previously, the peripheral service component is the process whereby the core service component, is delivered to the customer (Gronroos 1990; Parasuraman, Zeithaml, and Berry 1985; Zeithaml 1988; Swartz and Brown 1989). Because of the inseparability of the service delivery process, failures in the peripheral service generally occur prior to the delivery of the core service component. For many services, employees must interact with customers prior to the delivery of the core service to better understand their specific needs. Peripheral service failures are likely to evoke negative affective states (i.e., anger, disgust, and contempt) in customers that are likely to impact customers' evaluations of the core service component.

It is likely that more severe peripheral failures will produce greater losses for customers and more intense anger than less severe peripheral service failures, which, in turn, will have a greater (negative) effect on customers' satisfaction with the core service component. Consequently, more severe peripheral service failures are expected to

decrease customers' satisfaction with the core service component more than less severe peripheral service failures. Hence, it is hypothesized that:

H<sub>12</sub>: More severe peripheral service failures cause lower levels of satisfaction with the core service performance than less severe peripheral service failures.

*Quality of Past Core Service Performance.* The quality of past core service performances experienced by customers is likely to positively affect their satisfaction with the present core service component. Boulding, Kalra, Staelin, and Zeithaml (1993) suggest that customers' expectations of the service that *will* be delivered by the service provider are updated in a Bayesian-like process with each successive service interaction. Service performance that exceeds expectations typically increases updated expectations. These expectations, in turn, have a positive effect on customer evaluations of service performance. It logically follows, therefore, higher quality past core service performances are likely to enhance customers' expectations for the core service performance, which, in turn, will positively affect their satisfaction with the present core service performance. It is therefore proposed that:

H<sub>13</sub>: High quality past core service performance results in greater satisfaction with the present core service than average quality past service performance.

#### *Hypothesized Effects on Satisfaction with the Organization*

*Satisfaction with the Core Service.* Customers' satisfaction with the core service component will be positively related to their satisfaction with the organization. As described previously, the core service represents the fundamental benefits desired by the customer (Ozmet and Morash 1994 Levitt 1980, 1983; Gronroos 1990). It is the customer's primary motivation for purchasing the service and, therefore, the primary criterion for evaluating the organization. Customers hold the organization responsible for

delivering satisfactory core service performance. Hence, if the customer is satisfied with the core service that is received, then this evaluation will reflect positively on the organization. Considerable support exists for this relationship. For example, Crosby and Stephens (1987), Goodman, Fichman, Lerch, and Snyder (1995), and Iacobucci, Grayson, and Ostrom (1994) all found that satisfaction with the core service performance was significantly related to customers' satisfaction with the organization. Indirect support for this relationship is also demonstrated by Keaveney (1995) who found that the most frequently reported justification for customer switching behavior was dissatisfaction with core service performance. Consequently, it is hypothesized that:

H<sub>14</sub>: Customers' satisfaction with the core service performance is positively related to their satisfaction with the organization.

*Satisfaction with the Employee.* Customers' satisfaction with a service employee is expected to affect their satisfaction with the organization. Customers consider service organizations responsible for the employees that are used to serve customers. Because organizations hire these employees, customers consider the service organization accountable for the actions and behaviors of employees. In addition, service employees play an essential role in the formation of customers' evaluations of the organization (Parasuraman, Zeithaml, and Berry 1985; Bowen and Schneider 1985; Bitner, Booms, and Tetreault 1990). Front-line service employees are boundary spanners that link the service organization to both its customers and its external environment (Hartline and Ferrell 1996; Hoffman and Bateson 1997; Zeithaml and Bitner 1996; Bitner, Booms, and Mohr 1994). They are the primary means through which customers gather information about service offerings, obtain answers to questions, receive solutions to problems, initiate purchases,



and acquire the services they desire. Crosby and Stephens (1987) found that satisfaction with an insurance agent significantly affected customers' satisfaction with the organization. Hence, it is proposed that customers' satisfaction with the focal employee positively affects their satisfaction with the organization.

H<sub>15</sub>: Satisfaction with the employee is positively related to satisfaction with the organization.

*Satisfaction with the Employee x Attributions of Controllability at the Organizational-Level.* The effect of customers' satisfaction with the focal employee on overall satisfaction with the organization may be moderated by their perceptions of controllability at the organizational-level. Customers who are dissatisfied with the employee become more dissatisfied with the service organization when they believe that the event was highly controllable by the organization than when they perceive the event to be less controllable by the organization. As discussed previously, it is likely that customers base their attributions of controllability at the organizational-level on their perceptions that the organization could have instituted or altered existing policies, procedures, or training programs to prevent the occurrence of the peripheral service failure. The more customers believe that the organization *could have* prevented the failure using such methods, the more their dissatisfaction with the employee will transfer to the organization. Therefore, it is proposed that:

H<sub>16</sub>: Satisfaction with the employee has a greater positive effect on satisfaction with the organization when customers consider the causes highly controllable at the organizational-level rather than less controllable at the organizational-level.

*Attributions of Globality.* Customers' perceptions that causes of failures are global are expected to decrease their satisfaction with the organization compared to those

that are considered employee or situation-specific. Abramson, Seligman, and Teasdale (1978) originally used globality attributions to explain why individuals exhibited a psychological condition known as learned helplessness. These authors found that individuals suffering from learned helplessness were more likely to generalize events to other situations that, in turn led them to exhibit low expectations and negative affect across many different situations.

Similarly, when customers consider causes of failures as highly global, they are likely to have lower expectations for all aspects related to the service organization. When peripheral failures occur during different interactions with other employees, they begin to believe that these events are prevalent throughout the organization. Customers consider the organization responsible for reducing the occurrence of service failures through effectively recruiting service personnel, carefully training these individuals, and developing appropriate employee control mechanisms (Kingman-Brudage 1989; Shostack 1987; Bowen and Lawler 1992; Heskett, Jones, Loveman, Sasser, and Schlesinger 1994). When evidence suggests that causes of failures are highly global, customers begin to question whether the organization has established adequate and effective service systems and processes. Such negligence will eventually lead to lower satisfaction with the organization. Consequently, attributions of globality for the cause of a service failure are likely to intensify customers' dissatisfaction with the organization. Thus, it is proposed that:

H<sub>17</sub>: Perceived attributions of globality for the peripheral failure are negatively related to customers' satisfaction with the organization.

The following section defines and reviews the consequences to the organization of varying satisfaction levels as proposed in the conceptual model. These include customers' behavioral and behavioral intention responses. These hypotheses are shown in Figure 5.

### Post-Failure Response Variables

Hirshman (1970) developed a general framework of responses to dissatisfaction. The author suggests that firms, organizations, and states have three primary options when deteriorating satisfaction is experienced: exit, voice, and loyalty. Partners can formally disassociate themselves from the relationship (exit), attempt to improve the present practices of the partner through active communication (voice/ complain), or remain committed to the partner and hope that problems will be resolved over time (loyalty). Rusbult, Zembrodt, and Gunn (1982) included relationship neglect as an additional response, which is defined as a partner's apathy toward maintaining the relationship. This particular response is manifested by an unwillingness to communicate displeasure to the partner, spend time with the partner, or treat the partner with respect (Rusbult, Zembrodt, and Gunn 1982).

This general classification scheme has received considerable support across diverse areas of research such as, marital relationships (Rusbult, Zembrodt, and Gunn 1982), buyer-seller relationships (Ping 1993), consumer dissatisfaction with products or services (Singh 1990; Best and Andreasen 1977; Zeithaml, Berry, and Parasuraman 1996; Maute and Forrester 1993), and employee behavior (Farrell 1983; Withey and Cooper 1989). The present research will also utilize Hirshman's (1970) framework to investigate customers' responses to employee-initiated peripheral service failures. It will focus on

responses of complaining, exit, and loyalty. The following sections review how these responses have been used in marketing and provide hypotheses related to these particular responses.

### *Intentions to Complain*

Extending Hirschman's framework, Singh (1988) proposed that intentions to complain comprised multiple dimensions that include: 1) complaining to the organization (pursuing restitution from the organization), 2) complaining to external constituencies (negative communication to friends, relatives, etc.; also known as negative-word-of-mouth), 3) complaining to a third-party (legal action, contacting better business bureau). Singh's (1988) framework of consumer complaining behavior is based on the particular constituencies in which the complaint is directed- the organization, third parties, and friends and family. The present research will focus exclusively on understanding customers' *intentions to complain to an organization* following a peripheral service failure.

### *Intentions to Exit*

Exit responses are manifested in customer intentions that include switching brands/services and reduction of subsequent purchases of product/service. When customers decide to exit the present relationship, they have lost confidence in the competence of the service organization and its employees and have little faith that voicing their displeasure will lead to positive outcomes. The exit response that will be explored in the present study is customers' intentions to exit to a competing service provider.

### *Loyalty Responses*

Loyalty is a partner's willingness to remain in a relationship in hope that problems will be resolved over time. There has been some disagreement as to Hirschman's (1970)

definition of loyalty. It is unclear whether this constructive response involves an affective disposition between partners (Maute and Forrester 1993). Within this study, loyalty is the customers' affective attachment or psychological bond between the customer and the service organization (O'Reilly and Chatman 1986, Mathieu and Zajac 1990; Mowday, Steers, and Porter 1979).

#### *Hypothesized Effects on Intentions to Complain*

*Satisfaction with the Employee.* Customers' dissatisfaction with the focal employee is expected to be positively related to their intention to complain to the organization about the peripheral service failure. Much research exists in marketing that explores the motivations for customer complaining behavior. One of the most potent factors that has been identified is catharsis. Catharsis is the benefits derived from expressing or venting frustration experienced from a service failure (Ursic 1985). Negative emotions such as anger and frustration often follow failures in service delivery (Folkes, Koletsky, and Graham 1987). These negative emotions affect customers' satisfaction with the employee, which, in turn, will motivate customers to pursue a means of retaliation or reprisal through complaining to the organization. It is hypothesized, therefore, that customers' dissatisfaction with the focal employee is positively related to their intentions to complain to the organization following peripheral service failures.

Hence, it is proposed that:

H<sub>18</sub>: Satisfaction with the employee is negatively related to customers' intentions to complain to the organization.

*Satisfaction with the Organization.* It is also likely that customers' intentions to complain will be positively related to their dissatisfaction with the organization. As

defined previously, satisfaction with the organization is defined as a customer's accumulated affective psychological response to the organization (Oliver 1980; Goodman, Fichman, Lerch, and Snyder 1995; Bitner and Hubbert 1994). It is based on many different aspects such as evaluations of past and present service encounters, treatment by service employee(s), the ambiance of the service environment, exposure to advertising, discussions with others, and other service-related characteristics (Bitner and Hubbert 1994). Customers believe that it is the organization's responsibility to deliver good service during an encounter. However, when poor service is provided, customers become dissatisfied with the organization because they feel that they did not receive the benefits they deserved. Thus, customers are motivated to complain to the organization to resolve this inequity. Consequently, it is proposed that:

H<sub>19</sub>: Satisfaction with the organization is negatively related to customers' intentions to complain to the organization.

#### *Hypothesized Effects on Loyalty Responses*

*Satisfaction with the Organization.* Oliver (1980, 1997) suggests that satisfaction with the service performance has a significant influence on customers' revised or updated attitudes, loyalty, and intentions. The author argues that satisfying or dissatisfying service performance can affect (positively or negatively) customers' cumulative satisfaction which, in turn, translates into higher (lower) expectations for future satisfaction and loyalty toward the service organization. This updating process is similar to theories of attitude change. When customers are satisfied (dissatisfied) with the service they have received, these positive (negative) beliefs are likely to lead to greater (lower) attachment toward the service organization. Based on this logic, customers' satisfaction

(dissatisfaction) with the organization is likely to produce greater (lower) affective loyalty toward the service organization. Therefore, it is proposed that:

H<sub>20</sub>: Satisfaction with the organization is positively related to loyalty.

*Hypothesized Effects on Exit Response*

*Satisfaction with the Organization.* Satisfaction with the organization is negatively related to customers' intentions to exit to a competitive service provider. Customers' decision to switch to a competitive service organization is contingent upon a comparison of perceived costs and benefits. In accordance with subjective utility theory (Oliver and Winer 1987), it is expected that customers will weigh the future value of their relationship with the service organization in terms of the benefits derived versus the costs of the service received and the costs associated with discontinuing and starting a new relationship with another service organization. Customers who are dissatisfied with the organization as a result of the service they have received are likely to lose faith in the competence of the service organization and believe that improvements in future service delivery will not occur. Greater dissatisfaction with the organization due to an inequity between these costs and benefits (and the belief that this inequity is unlikely to be altered with future exchanges) is expected to increase customers' intentions to switch to a competitive organization where an equitable exchange is more likely to occur. Hence, it is proposed that:

H<sub>21</sub>: Satisfaction with the organization is negatively related to customers' intentions to exit.

## CHAPTER 3

### METHODOLOGY

#### *Overview*

The objective of the present research is to investigate how customers' satisfaction with an employee affects their satisfaction with the organization following employee-initiated service peripheral failures. The research examines how the severity of the peripheral failure, quality of the past core service performance, and existence of past peripheral failures impact this relationship.

This chapter presents the methodology for the present study. The chapter begins by providing a rationale for the chosen method, an explanation of the experimental design, and details of the context, sample, and stimuli of the proposed study. Next, a description of the manipulations of the three independent variables and an explanation of the procedures used in the study are provided. Following these sections, details of the measures for the mediating variables, dependent variables, outcome variables, and control variables are presented. The actual measures for these constructs are provided in Appendices G-J. Next, the details of the pretest are presented. Finally, the results of the confirmatory factor analysis performed on these measures are discussed.

#### *Choice of Method- Advantages and Disadvantages of an Experiment*

An experiment was conducted to test the proposed hypotheses of the conceptual model shown in Figure 1. An experiment approach provided a number of benefits that are extremely useful for the present study. An experiment ensures that subjects experience a failure in the peripheral service component and allows the researcher to control the stimulus materials that are presented to subjects. Furthermore, experiments enable the



researcher to manipulate variables orthogonally, allowing greater control and stronger inferences concerning causation. Consequently, an experimental methodology was the most logical choice to test the proposed hypotheses.

An alternative method of testing the hypotheses is survey research. However, there are many disadvantages of using this type of method, especially for the present research. A significant impediment to survey research for investigating customer responses to service failures is identifying a sufficient number of customers who can recall experiencing peripheral failures during service encounters with employees and organizations. Even if such individuals can be identified, the only technique available for data collection is a retrospective-type methodology that requires individuals to recall their affective and behavioral responses following the negative event. Although a number of studies have used retrospection for data collection (Tax, Brown, and Chandrashekar 1998; Bitner, Booms, and Tetreault 1990; Kelley, Hoffman, and Davis 1993), this approach presents a number of limitations.

The primary limitation of retrospection is recall bias that can influence the results that are found by the researcher. Retrospection requires subjects to recall from memory their service failure experience. Subjects, however, may not accurately remember every detail of their experience. Another limitation of retrospection is that the researcher has no control over the stimuli that are presented to subjects. Many different aspects of subjects' service experience can affect their responses to failures. Without control over stimuli, the researcher has difficulty determining the extent to which the results provided by subjects are due to differences in these factors. Based on these limitations and the focus of this research, an experiment was used for the proposed study.

For this experiment, subjects were instructed to place themselves in the role of the customer who was described in a scenario. The scenario described a service encounter in which a peripheral service failure takes place. The service context used for this study was airline travel. In the scenarios, respondents read descriptions of the severity of the peripheral failure, the quality of the past core performance, and the existence of past peripheral failures. Participants then answered questions about their reactions to the particular situation described in the scenario.

### *Design*

The experiment involved a 3 (severity of the peripheral failure) x 2 (quality of past core service performance) x 2 (existence of past peripheral service failures) between-subjects factorial design. Subjects were randomly assigned to one of the twelve treatments that were created by crossing all the levels of these three independent variables. The manipulated variables in this study were the severity of the peripheral failure, quality of past core service performance, and existence of past peripheral service failures. There were three levels of severity of the peripheral failure that included: less severe, more severe, and a 'no-failure' control condition. The 'no-failure' control condition was used to facilitate with understanding the impact of the occurrence of peripheral failures on the dependent variables in the model. The quality of past core service performance was manipulated as either average or exceptional. The existence of past peripheral failures was manipulated as existing or not existing.

Four mediating variables were included in the study to provide a better understanding of the customer response process following peripheral service failures. These included: attributions of controllability at the employee-level, attributions of

controllability at the organizational-level, attributions of stability at the employee-level, and attributions of globality. The dependent variables included: satisfaction with the employee, satisfaction with the core service component, and satisfaction with the organization. Furthermore, measures of organizational consequences of the proposed conceptual model included: intentions to complain to the organization, loyalty, and intentions to exit. Finally, the control variables included: typicality of the service failure, age, importance of receiving good service from employees, and personal failure experience with service employees. Justification for the inclusion of these variables appears in the measurement section at the end of this chapter.

### *Experimental Context*

An airline context was used for this research for several reasons. First, the chosen context had to permit subjects to easily distinguish the core and peripheral service components. As previously described (in chapter 2), the intangibility and inseparability of services can make the distinction between the core and peripheral service components very difficult for customers. Without a clear distinction between the core and peripheral service components, valid evaluations of each component may not be feasible. The airline context met this criterion. Specifically, the airline flight represented the core service component and the attention provided to the customer by the agent during the check-in process represented the peripheral service component.

Next, the chosen service context had to permit customers to interact with employees during the service encounter. Direct interaction between the customer and the employee was essential because a clear identification of the causal agent was necessary given the focus of the study. However, the employee that initiated the peripheral service

failure was not the same individual who was responsible for the performance of the core service. With many services, employees can perform multiple duties during a service encounter. For example, the same auto repair employee can consult with the customer when taking a service request and can also perform the repairs on the automobile. The present study required that different employees perform the core and peripheral service in order to allow distinct evaluations of each service component and to make the source of employee satisfaction unambiguous. In addition, evaluations of the core and peripheral service components could interact to affect subjects' satisfaction with the employee, a key construct in the study. For example, participants may be forgiving of an unresponsive employee if she delivers an excellent core service performance. The airline context allowed different employees to perform the activities required for the core and peripheral service components.

### *Sample*

The sample was drawn from the population of consumers utilizing air travel at Baltimore-Washington International Airport. The questionnaire was distributed to a convenience sample of customers waiting at terminals for departing flights. Participants were approached by the interviewer once they were seated and waiting to board their flights at the gates. The subjects were chosen based upon age (whether they are over 18 years old) and their willingness to fill out the questionnaire. Participation was voluntary, with no compensation offered.

### *Stimuli*

Participants were asked to play the role of a customer during a service encounter with an airline. Details were presented about the quality of previous flights that had been

received from the airline. In addition, the scenario specified whether peripheral service failures had previously been experienced (or have not been experienced) from this airline. Then, the scenario described a situation in which the participant was taking a trip on the airline and experienced a peripheral failure from an airline employee during the check-in process. The severity of the failure was either less or more severe. Following this description, participants reported their satisfaction with the employee and attributions of causality for the service failure. The scenarios then described the core service performance in detail and asked questions related to satisfaction and behavioral intentions.

### Manipulated Independent Variables

#### *Severity of the Peripheral Failure*

As described previously, severity of the peripheral service failure is defined as the magnitude of tangible or intangible loss that customers experience from failures (Hart, Heskett, and Sasser 1990; Hess, Ganesan, and Klein 1998). Three levels of severity of the present peripheral service failure were created: less severe, more severe, and a ‘no-failure’ control condition.

A requirement for testing the conceptual model was that participants must clearly be able to identify the specific employee in the scenario that caused the peripheral failure (i.e., the locus of causation). The manipulation for the severity of the peripheral failure shown in Appendix A meets this requirement. For the less and more severe conditions, the scenario described a situation in which an individual must wait for the check-in agent at the check-in counter to serve them. Nobody else was in the line and the airline employee was working on a computer right in front of them. She was the only one that

was checking in passengers. The employee was not attentive to servicing customers despite attempts by the customer to gain the attention of the employee and the arrival of several additional customers to the line. The extent of the wait and the means required to obtain the agent's attention by the customer were used to vary the severity of the peripheral service failure that was experienced.

In the 'no-failure' control condition, the scenario described a check-in procedure whereby the customer experienced no problems. Although no failure was encountered, the service that was described was not exceptional in any way. It simply described a situation where adequate service was provided. This condition provided a baseline service to compare with the two failure conditions. Appendix A contains the actual manipulations that correspond with the less severe, more severe, and 'no-failure' conditions. The manipulation check for this independent variable is presented in Appendix D. This manipulation check was only used for the conditions that included a service failure description.

#### *Existence of Past Peripheral Service Failures*

The existence of past peripheral service failures is whether peripheral service failure events were experienced during past service interactions with the organization. Two different levels of existence of past peripheral service failures were created and are shown in Appendix B. The customer in the scenario was described as either having encountered other peripheral service failures with the service organization in the past or never having encountered peripheral failures. The severity of these past peripheral service failures is not specified. The existence of past peripheral service failures was manipulated

at the *organizational-level* and stated explicitly that past peripheral service failures involved different employees of the service organization.

The manipulation for the existence of past peripheral service failures described the participants' previous experience with the employees of the airline. The scenario described the employees as always/not always friendly, courteous, and attentive when serving participants' needs. The scenario stated whether past peripheral service failures were experienced in previous interactions with the airline. When previous peripheral failures were experienced, participants were told that they had experienced such events on several occasions in the past. Participants in the no past peripheral failure condition were told that they had never experienced problems with the service provided from the employees at the airline. The manipulation check for this independent variable is shown in Appendix D.

#### *Quality of Past Core Service Performance*

The quality of past core service performance is the customers' perception of the relative inferiority or superiority of the organization's core services (airline flights) in the past (Hess, Ganesan, and Klein 1998). Because the primary objective of this research is to examine the effects of employee-initiated peripheral service failures on satisfaction with the organization, quality of past core service performance is an *organization-level* construct.

The manipulation described two different levels of quality of past core service performance: average and excellent. These manipulations are shown in Appendix C. Each condition characterized the core service level that had been received in the past to a referent or a standard of comparison. Competitive excellence was used as the referent to

judge the quality of the core service. According to Rust and Oliver (1994), the level of service excellence that is delivered by representative service organizations or by an ideal service organization is often used by customers when making judgments of service quality. Therefore, the manipulation for the quality of past core service performance was framed as the participants' judgments of the quality that was delivered compared to similar airlines within the airline industry.

Average, rather than poor quality was chosen as a level of past core service performance because average quality closely reflects the minimum quality level acceptable to service customers. Unless customers are forced to patronize service organizations offering a poor core service (e.g., no alternative service providers, monopolies, etc.), they are not likely to continue using such service organizations. Consequently, average quality past core service performance was used as the low quality of past core service performance condition rather than poor quality.

The manipulation for the quality of past core performance described the quality of previous airline trips as either average or exceptional compared with participants' experience with other airlines (Appendix C). In addition, the description provided details on the quality of core-related attributes of an airline flight that customers may consider important when judging core service quality. These attributes included: timeliness of flight arrival performance and overall comfort. The selection of these core-related attributes was based on an annual survey of airlines by J.D. Power and Associates (Consumer Reports Travel Letter, July, 1997).

For the average past core quality condition, the scenario described the airline flights as typically not arriving on-time and being of average comfort. Alternatively, for



the exceptional core quality condition, airline flights were described as typically arriving on-time and being comfortable. The manipulation checks for this independent variable are presented in Appendix D.

## Experimental Procedures

### *Data Collection Method*

A questionnaire was used to collect the data for the proposed study. The author gained the necessary permission from the airport operations administration and the appropriate airlines to access passengers waiting at departure gates for airline flights. Most individuals taking airline trips arrived at gates about 30-45 minutes ahead of scheduled departure times, with longer periods often occurring between legs of a flight. During this waiting period, the author asked individuals to participate in the study. No compensation was provided to respondents for participation.

### *Scenario Sequence*

Table 1 provides an overview of the sequence of the experimental treatments, measures of the variables, and instructions (entire questionnaire shown in Appendix K).

*Introduction.* The scenario began with an introduction that informed respondents of the objective of the study. It asked respondents to place themselves in the role of the customer described in the service encounter and that they would be asked about different aspects of the service experience. It also clearly stated that the airline used in the scenario was hypothetical and provided flights to most major cities. Appendix E shows this introduction and the background described next.

*Background.* The scenario then provided some general background information and introduced the service context. Subjects were told that they were about to take a flight on this hypothetical airline (Admiral Airlines) from the Baltimore-Washington International Airport to Chicago. The scenario indicated that for the present trip participants would be flying on the same major airline that they had used previously. It explicitly stated that the participant had taken 5-6 flights on this airline in the past twelve months. The specific number of previous flights was established within the scenario because, this may influence the impact of past service failures on participants' responses.

*Presentation of Past Core and Peripheral Service Manipulations.* Next, manipulations for the quality of the past core service performance and the existence of past peripheral failures with the service organization were described. These were described in an earlier section and appear in Appendices B and C. Following these manipulations was a set of questions that helped subjects to internalize the details presented about the previous service encounters and served as manipulation checks. These manipulation checks are presented in Appendix D.

*Current Service Experience Description.* Following these manipulations, the scenario described the events related to the present service encounter. Participants were described as attempting to check their bags and get their tickets processed at the check-in counter. At this point, the manipulation for the severity of the peripheral failure was presented. As described previously, the peripheral service failure consisted of an employee-initiated failure that occurred during the service encounter. The actual manipulations for the less and more severe peripheral failures are shown in Appendix A.

*Satisfaction with the Service Employee Measure.* Following the service experience description, the measure for satisfaction with the service employee was administered. This measure preceded the measures for attributions of causality to eliminate demand effects. It was also presented prior to the description of the core service performance to eliminate the possibility that the core description would affect participants' evaluations of the employee. The actual items for this scale are shown in Appendix H.

*Attribution of Causality Measures.* Measures of attributions of causality were then administered to respondents to obtain their causal reactions to the peripheral failure that was experienced. Measures of controllability at the employee-level, controllability at the organizational-level, stability at the employee-level, and globality were presented. These items are shown in Appendix G and discussed more fully in a later section.

*Presentation of the Core Service Component.* Next, a description of the airline flight was provided to participants as shown in Appendix F. The level of performance of the present flight was held constant for all conditions. One difficulty of holding the current core performance constant was that it may violate expectations for those who were told that past performance was excellent or average. Past quality has been shown to affect customers' expectations, which, in turn, is likely to affect evaluations of the present core service performance (Boulding, Kalra, Staelin, and Zeithaml 1993). However, efforts were made to minimize this effect by describing a flight of reasonable quality. The same four attributes were used to describe the quality of the present airline trip as those used to depict the quality of the previous airline trips. The scenario provided details of an average airline flight across three quality attributes that included: timeliness of the arrival, seat comfort, and storage space in the overhead compartment.

*Satisfaction and Organizational Outcome Measures.* Following the description of the core service component, measures of satisfaction with the core service and satisfaction with the organization were administered. The actual measures for these two variables are shown in Appendix H. These measures are explained later in this chapter. Next, measures for loyalty, intentions to complain to the organization, and intentions to exit were presented. The measures for these variables are shown in Appendix I. These measures are explained in more detail later in the manuscript.

*Administration of Severity Manipulation Check.* Measures of the organizational outcome variables were followed by the manipulation check for the severity of the peripheral service failure (Appendix D). This manipulation check was placed later in the questionnaire to decrease the possible influence it may have on participants' responses to the service failure that was described in the scenario.

*Control and Miscellaneous Measures.* Next, the questionnaire presented measures of the believability of the scenario and the control variables (Appendix J), as well as questions dealing with sample demographics and attitudes. The believability of the scenario was important because it enabled the researcher to determine how realistic the scenario was believed to be and whether participants easily internalized the events that were described. Unrealistic descriptions of events could bias participants' responses.

Following the measures of believability, the measures for importance of receiving good service from service employees, age, personal failure experience, and the typicality of the peripheral failure described in the scenario were presented. An explanation of each control variable and a theoretical rationale for its inclusion in the study is provided in the last section of this chapter. Finally, a number of demographic and evaluations measures

were presented. These questions measured participants' personal failure experiences with airlines, the magnitude of those failures, gender, purpose of flight, the airline most frequently used, the airline used on the current flight, number of flights taken in current year and during lifetime, evaluation of the airline used most frequently, and evaluation of the overall airline industry.

*Thank You and Debriefing.* The final section thanked subjects for their participation and debriefed them about the purpose of the study.

### Mediating Variables

Four mediating variables were utilized in this study: 1) attributions of controllability at the employee-level, 2) attributions of controllability at the organization-level, 3) attributions of stability at the employee-level, and 4) attributions of globality. The actual measures for these mediating variables are shown in Appendix G.

#### *Attributions of Controllability at the Employee-Level*

Attributions of controllability at the employee-level assessed the extent to which customers considered the cause of the service failure to be under the volition of the focal employee. A 7-point, semantic differential scale was used to rate the control that participants believed the employee had over the cause of the peripheral service failure that was described. Three-items were used to measure attributions of controllability at the employee-level. Two items were adapted from Russell (1982) and one is new.

#### *Attributions of Controllability at the Organizational-Level*

Attributions of controllability at the organizational-level measured the extent to which customers perceived that the cause of the peripheral service failure was under the

volition of the organization. Three items assessed attributions of controllability at the organizational-level. The measure was a 7-point, semantic differential scale. Two of the items were adapted from Russell (1982) and one item is new.

#### *Attributions of Stability at the Employee-Level*

Attributions of stability assessed whether the cause of the failure was a permanent or varying aspect of the employee. A 7-point, semantic differential scale was used to rate the extent to which participants considered the cause of the peripheral service failure to be a temporary, variable, or inconsistent aspect of the employee. Three items, adapted from Russell (1982), were used to measure attributions of stability at the employee-level.

#### *Attributions of Globality*

Attributions of globality were defined as the extent to which the causes of a service failure were universal across the organization as opposed to being employee or situation-specific. Four items were used to assess whether the cause(s) of the service failure generalized across employees or situations. A new, 7-point, semantic differential scale was developed to measure globality attributions.

### Dependent Variables

#### *Satisfaction with the Employee, Core Service Component, and the Organization*

The dependent variables used in the present study included: 1) satisfaction with the core service component, 2) satisfaction with the employee, and 3) satisfaction with the organization. Satisfaction with the core service component, the employee, and the service organization refers to how pleased the subject is with the core service component, the focal employee, and the service organization, respectively. Measures of these constructs

were adapted from Oliver and Swan (1989). Three 7-point Likert-type scales were used to measure participants' satisfaction with the core service component, employee, and the organization. The actual items for these three dependent variables are presented in Appendix H.

### Outcome Variables

The study examines three organizational outcome variables: 1) intentions to complain to the service organization, 2) loyalty to the organization, and 3) intentions to exit to a competitive service organization. The actual scale items for these three outcome variables are presented in Appendix I.

#### *Intention to Complain to the Organization*

Intention to complain to the organization is the extent to which participants are likely to communicate their displeasure to the organization about the peripheral service failure that they experienced. Three items were used to rate participants' intentions to communicate to someone employed by the service organization about the peripheral service failure they experienced. A 7-point, Likert-type scale was used to measure this construct. The three items were adapted from Singh (1988) and Folkes, Koletsky, and Graham (1987).

#### *Loyalty Responses*

Loyalty is defined as a psychological attachment to a service organization (Mowday, Steers, and Porter 1979; O'Reilly and Chatman 1986, Mathieu and Zajac 1990). The measure assessed participants' affective commitment to the service organization. It was intended to measure a customer's deeper commitment that

transcends a commitment simply based upon pricing, convenience, or other marketing considerations. A three-item, 7-point, Likert-type scale was used for loyalty to the service organization.

#### *Intentions to Exit*

Intention to exit is a customer's intentions to repurchase from the service organization in the future. The items focused on whether the customer would use an alternative service organization for the next purchase. A three-item, 7-point, Likert scale was used to measure intentions to exit. The items were adapted from Singh (1988) and Rusbult, Zembrodt, and Gunn (1982).

#### Control Variables

Four control variables were explored in the present research: 1) typicality of the service failure, 2) importance of receiving good service from employees, 3) age, and 4) personal failure experience with service employees. This section provides some rationale for the inclusion of these variables in the analysis. The scale items for all of these control variables are shown in Appendix J.

#### *Typicality of Service Failure*

Typicality of the service failure is the customer's perception that the service failure described in the scenario is a common occurrence. Some service failures represent more prototypical events than others do. The negative effect of a service failure that is considered typical in the delivery of services is likely to be mitigated if customers believe that the event exemplifies industry-wide performance. Customers may consider the occurrence of more typical service failures to be less controllable by a service



organization. For example, delays may be considered more typical in the airline industry than in the over-night parcel delivery industry. A three-item, 7-point, semantic differential scale was used to measure typicality of the service failure. This measure was a new scale developed for the present study.

#### *Importance of Receiving Good Service from Employees*

The importance of receiving good service from employees is the value a customer places on being treated well by service personnel. Past research has shown that the importance of product or service success has a significant impact on the amount of anger exhibited by customers following service or product failures, which, in turn negatively affects their complaining behavior, repurchase intentions, and satisfaction (Folkes, Koletsky, and Graham 1987; Hess, Ganesan, and Klein 1998). Customers who place a great deal of importance on the level of service that is provided by employees are likely to be less tolerant of deviations in the service they receive during a service encounter. Thus, it is likely that this control variable will have a significant impact on the manner in which these customers will respond to employee-initiated peripheral service failures. A one item, 7-point, semantic differential scale was used to assess the importance of receiving good service from employees.

#### *Age*

The age of customers may also influence the way in which customers respond to peripheral service failures. In general, older customers are likely to possess greater experience with the delivery of services and service organizations. As a result of these experiences, older customers may have grown increasingly pessimistic and cynical about the manner in which customers are treated by service organizations and employees. This

cynicism may negatively influence their responses following service failures. In contrast, greater service experience may provide older customers with better understanding about service procedures and the problems that often occur in service industries. Hence, they may exhibit greater tolerance for service failures.

#### *Personal Failure Experience with Service Employees*

The final control variable that will be examined is personal failure experience with service employees. This variable is the extent to which respondents have actually experienced service failures during previous interactions with commercial airline employees. Participants may be more likely to vent their frustrations about their own personal failure experiences when completing the questionnaire. This scale measured the frequency of participants' previous service problems with employees in the airline industry and was not intended to be airline-specific. It is possible that customers' previous failures with airline employees, regardless of which airline they originate, could influence their responses to present service failures. A one-item, semantic differential scale was developed for this study. The next section explains the pretest that was performed for this research.

#### Explanation of Pretests

In June, 1998, a pretest of the questionnaire was administered using a convenience sample of 160 undergraduate students. Although the use of the actual sample (airline passengers) would have been preferred, access to actual airline passengers was not obtained until later. The pretest was performed to improve the wording and effectiveness of the manipulations of the three independent variables, examine the convergent and

discriminant validity of the scale items for all dependent variables included in the conceptual model, determine whether the order of the mediating variables (attributions of causality) had an inappropriate influence on the dependent variables (i.e., demand effect), and modify various aspects of the questionnaire that were deemed unclear or poorly articulated.

For this pretest, the levels of the severity of the present peripheral service failure (less severe and more severe), existence of past peripheral failures (existing and not existing), and quality of past core service performance (average and excellent) were crossed and subjects were randomly assigned to treatments. The 'no-failure' control condition was not included in this pretest because it was not central to the conceptual model or the hypotheses being tested. The order of the attribution questions was varied across these eight conditions to test for possible demand effects. Half of the subjects received questionnaires in which the measures for the attributions preceded the measures for the dependent variables; the other half received stimuli where the measures for the attribution followed the measures of the dependent variables.

One obstacle to the design of the present study was the development of events that appropriately represented the manipulation for the severity of the present peripheral failure. In an earlier pretest conducted in the fall of 1997, subjects had reacted more negatively than expected to the peripheral failure designed to be less severe. For this pretest, the manipulation check for the less severe condition revealed that participants perceived this intended mild failure to be quite severe (means for less and more severe conditions, 5.42 and 6.20, respectively, 7-pt. scale). For the pretest in June, 1998, efforts were made to temper the perceived severity of the less severe peripheral failure condition.

Based on these results, further changes were made for each level of severity. Final results of this manipulation are presented in chapter 4.

Items measuring the dependent variables were analyzed by performing exploratory factor analysis and confirmatory factor analysis using LISREL. This analysis revealed a few problems with some of the items used for measurement. One of the items measuring controllability at the organizational-level exhibited a lack of discriminant validity and a new item was subsequently used for the final data collection. Several of the items used to measure global attributions revealed a lack of internal consistency. Two new items were added for the final data collection that improved the overall validity of this measure (details provided in the following section).

Analysis of the items measuring loyalty also did not provide adequate discriminant and convergent validity. Although the items chosen to measure loyalty were selected from previous research and exhibited reasonable discriminant and convergent validity in those studies, the same was not true in this pretest. A criticism often expressed in the marketing literature is the lack of an acceptable measure of loyalty. New items were developed and purified for the final data collection (details provided in the following section).

Finally, analysis was performed on the dependent variables to determine if the order of the attributions of causality measures caused a bias due to a demand effect. Analysis of the two groups using t-tests revealed no differences in the dependent variables when the measures for the mediating variables preceded or followed the measures of the dependent variables in the questionnaire. However, in order to ensure that a demand effect had no influence on satisfaction with the employee, a variable especially susceptible to such an effect, the attribution measures followed the measure of this dependent variable

in the final questionnaire used in the study (order shown in table 1). The next section provides the factor analysis of the measures of data collected for the main study.

### Measure Development

Analysis of the measures for this study was performed through a two step process. First, exploratory factor analysis was used to assess and purify the entire set of measures. Exploratory factor analysis revealed significant loadings on all scale items except one item (LOYAL1) measuring loyalty which was subsequently dropped from further analysis. Next, the convergent and discriminant validity of the measures was assessed through confirmatory factor analysis with intercorrelated factors. The model was specified using LISREL 8.20 (Jöreskog and Sörbom 1998). Results of the LISREL analysis are presented in tables 2, 3, and 4.

The LISREL model included the scale items for every dependent variable including: attributions of globality, attributions of controllability (organizational-level), attributions of controllability (employee-level), attributions of stability (employee-level), satisfaction with the core service, satisfaction with the employee, satisfaction with the organization, intentions to complain, loyalty to the organization, and intentions to exit. As indicated by the goodness of fit indices (table 2), the results suggest a strong fit of the model to the data. Although the chi-square indicates that the model and the data differ significantly ( $\chi^2_{500} = 823.37, p < 0.001$ ), many of the other indices show a strong fit. The Standardized Root Mean Square Residual (SRMR = 0.046) and the Root Mean Square Error of Approximation (RMSEA = 0.046) are both less than the recommended 0.08 criterion (Browne and Cudeck 1993). Both the Comparative Fit Index (CFI = 0.93), and

the Incremental Fit Index (IFI = 0.93) are above the suggested criterion of 0.90 (Bentler and Bonett 1980). However, the Goodness of Fit Index (GFI) is 0.87 which is slightly less than the criterion mentioned above. Taken together, these indices suggest that the measurement model provided a reasonably strong fit to the data.

The internal structure of the measures was evaluated using several methods. First, Table 2 shows that factor loadings for all items but one, LOYAL1 are greater than the suggested criteria of 0.60, indicating convergent validity for the constructs (Bagozzi and Yi 1991). Next, the Coefficient Alpha reliability for all but one construct, loyalty, is higher than the recommended criterion of 0.70 (Nunnally 1978). The loyalty measure, shown in Appendix I, has a Coefficient Alpha of 0.53. Because this construct is not central to the research questions that are addressed in this study, I elected to keep this two-item measure. Finally, as shown in Table 2, the average variance extracted for all measures except those for loyalty was above the recommended criteria of 0.50 (Fornell and Lacker 1981). Overall, these statistics show that most of these measures exhibit adequate reliability.

Discriminant validity was also assessed through several methods. First, the modification indices provided by LISREL 8.20 were examined (Jöreskog and Sörbom 1998). Table 3 presents the paths that were suggested by the program as having the most impact on the chi-square statistic when set free (Jöreskog and Sörbom 1998). The confirmatory factor analysis model was respecified with each of these suggested paths set free to determine the respective cross-loadings. As shown in the table, all of the factor loadings were low when set free suggesting that the items and paths stipulated by the original model have relatively high discriminant validity.

Next, discriminant validity was also assessed by comparing the fit and computing the Chi-square difference test for a series of structural equation models. The results of these tests are shown in Table 4. First, discriminant validity was examined for the four attribution variables: globality, stability, controllability at the employee-level, and controllability at the organizational-level. A single latent construct model was formulated with all attribution items loading on a single latent construct. This model was compared to the hypothesized, four latent construct model, proposed in this study. The results presented in Table 4 show that the hypothesized model fits the data better than the single latent construct model.

Furthermore, several additional models were formulated to determine whether any of the four latent constructs representing the four dimensions of attributions- globality, stability, controllability at the employee-level, and controllability at the organizational-level were redundant and lacked adequate discriminant validity. This was assessed by estimating a series of three latent construct models by allowing the measurement items of two attribution latent constructs to load on a single factor. None of the six, three construct models fit the data as well as the hypothesized model, as shown by the fit statistics of the various models (GFI, CFI, IFI, RMSEA, and SRMR).

Several Chi-square difference tests were also performed for these six models. All Chi-square differences between the three latent construct models and the hypothesized model were large and significant, indicating that the correlations among the constructs are significantly different from unity. In addition, these constructs satisfy Fornell and Larcker's (1981) criterion for discriminant validity. Therefore, based on these tests it can

be concluded that attributions of globality, stability, controllability at the employee-level, and controllability at the organizational-level exhibit discriminant validity.

Next, tests were performed to assess whether satisfaction with the employee, satisfaction with the core service, and satisfaction with the organization exhibited discriminant validity. First, a single latent construct model was formulated with all items for the three constructs loading on a single latent construct. Based on the fit indices shown in Table 4, this model fit less well than the hypothesized model. In addition, several three latent construct models were formulated by combining two satisfaction latent constructs. All of the Chi-square difference tests for these three, three latent construct models were large and statistically significant. This indicates that the correlation between satisfaction with the employee, satisfaction with the core service, and satisfaction with the organization are significantly different from 1. In addition, these constructs satisfy Fornell and Larcker's (1981) criterion for discriminant validity. In sum, there is evidence that these constructs exhibit discriminant validity, as proposed in this study.

Overall, these results show that the measures used to assess attributions of globality, attributions of controllability (organizational-level), attributions of controllability (employee-level), attributions of stability (employee-level), satisfaction with the core service, satisfaction with the employee, satisfaction with the organization, intentions to complain, loyalty to the organization, and intentions to exit are acceptable scales. Only one item, LOYAL1 (Appendix I), was eliminated from the original set of items for the ten constructs included in the conceptual model, and one measure, loyalty, demonstrated low reliability.



## CHAPTER 4

### ANALYSIS AND RESULTS

#### Overview

This chapter describes the analyses used to test the conceptual model and reports the results of this research. The first section examines the characteristics of the sample that was used for this study. The next section presents the results of the manipulation checks for the independent variables: severity of the peripheral service failure, existence of past peripheral service failures, and quality of the past core service. The third section provides the results of the hypothesis tests for each of the dependent variables. The next section compares the “no-failure” control condition to the experimental failure conditions. This comparison shows the detrimental effects of peripheral service failures on the dependent variables examined in the conceptual model. Finally, the last section summarizes the findings of this study.

#### Demographics of Sample

Four hundred thirty-four subjects participated in the present study. Table 5 provides demographic and airline usage information about the sample used in this study. These data include general characteristics of the subjects (e.g., gender, age), as well as information regarding subjects’ experience with airline travel (i.e., frequency of airline flights), purpose of the current flight, most frequently used airline, and whether they were ever employed by airlines. The sample is (almost) evenly split between males (46.5%,  $n = 202$ ) and females (48.0%,  $n = 208$ ). In terms of age, a wide range of age groups is represented. The highest percentage of subjects were between 40 and 49 years of age

(19.6%, n = 85). Overall, the majority of the sample were between the ages of 30 and 60 (55.7%, n = 242). Most of the participants indicated that the purpose of their trip was for pleasure (56.5 %, n = 245), while the remaining subjects were flying for business purposes (21.7%, n = 94) and other purposes (9.2%, n = 40). Thirty-one participants (7.1%) were not taking a flight, but were waiting for incoming flights or the arrival of packages or items.

Information about participants' commercial airline usage was also collected. For those participants actually taking a flight, the majority were using Southwest Airlines (80.6%, n = 350), with the remaining sample flying on a variety of major commercial airlines. The reason for the high percentage of Southwest Airline customers is that only Southwest allowed access to its customers while they waited at the departure gates. Although the heavy reliance on one commercial airline for data collection may pose some threats to the generalizability or validity of the study, comparisons of responses of Southwest Airline customers and other airlines are provided throughout this section. Very few differences between the sample drawn from Southwest Airlines and other airlines were found.

Furthermore, responses concerning the airline used most frequently exhibited greater variance across various commercial airlines compared to the airlines that respondents were flying on the current trip. Although Southwest Airline was still the most frequently used airline (38.5 %, n = 167), Delta Airlines (9.2%, n = 40), US Airways (9.9%, n = 43), and United Airlines (7.6%, n = 33) were also flown often. The remaining major commercial airlines represented approximately 14% (n = 61) of the sample. Nearly 7% of the sample did not stipulate a specific commercial airlines (n = 30). Most of these

individuals were first-time flyers or simply did not fly very often. Data on the frequency of flights taken by participants support this rationale showing that twenty-five subjects had not taken a flight during the current year and four were first-time flyers (more details next).

Overall, in terms of airline travel, the sample represents a wide range of experience levels. While the majority of the respondents had taken fewer than 10 flights during the year (73.5%,  $n = 319$ ), 22.6% ( $n = 98$ ) of the sample had taken more than 10 flights in the current year. Approximately 24% ( $n = 105$ ) had taken less than 10 flights in their lifetimes and about the same number ( $n = 101$ , 23.3%) had taken more than 100 flights in their lifetimes. Only 1% of the sample had never flown ( $n = 4$ ). Very few participants were employed or had been employed by a commercial airline ( $n = 11$ , 2.5%).

Table 6 provides details of the respondents' personal experience with airlines (past service problems, magnitude of the problems), evaluations of the airline they use most frequently, evaluations of the air travel industry, as well as ratings of the importance of different aspects of service delivery. The data indicates that average evaluations (in terms of service excellence) of the airline used most frequently is 5.63 (*s.d.* 0.93) (Southwest, mean = 5.95; other airlines, mean = 5.41) and the overall airline industry is 5.47 (*s.d.* 1.12) (Southwest, mean = 5.85; other airlines, mean = 5.19; means for evaluations of the airline and industry are both significantly different for the sample drawn from Southwest Airlines versus other airlines). The overall sample, in general, appears to have reasonably positive evaluations of the overall airline industry.

Those subjects having flown in the past rated the frequency of service failures with airline flights as moderately high (mean 3.59, *s.d.* 1.72) (Southwest, mean = 3.53; other

airlines, mean = 3.77). Approximately 86% (n = 352) of the subjects who had flown had experienced a problem with a flight in the past, while 66% (n = 276) had experienced some problems with airline personnel (overall, mean = 2.85; Southwest, mean = 2.69; other airlines, mean = 2.93). The average magnitude of problems with airline flights was rated as 4.05 (*s.d.* 1.94), with 11.2% (n = 38) rating them as the highest magnitude (7 = Extremely Major). The average rating of problems with airline personnel showed that they were considered more minor than those associated with flights (mean = 3.39, *s.d.* 1.83), with only 4.2% (n = 12) considering them "extremely major" (Southwest, mean = 3.05; other airlines, mean = 3.66; means are significantly different for the sample drawn from Southwest Airlines versus other airlines). These statistics clearly indicate that both flight-related and employee-related service failures occur quite frequently in the air travel industry.

Some participants had also experienced service failures during their present trip (6.5%, n = 28). Of those experiencing a service problem with the current trip, only two respondents considered the event to be major (0.5%). Furthermore, subjects considered receiving a good flight (mean = 6.27, *s.d.* 1.01) and having good interactions with service personnel (mean = 5.64, *s.d.* 1.40) to be extremely important (Southwest, mean = 6.30 and 5.53; other airlines, mean = 6.24 and 5.64). The next section examines the validity of the manipulations of the three independent variables (Appendix A, B, and C).

## Manipulation Checks

### *Severity of the Peripheral Failure*

The manipulation for the *severity of the peripheral failure* described two different levels of service performance that both fall below expectations (Appendix A). The two levels of this independent variable are labeled "Less Severe" and "More Severe." As shown in Appendix A, the difference between these two conditions is the loss experienced by the customer from the lack of service provided by the service employee and the resulting effort expended by the customer to be served. The three manipulation check items (Appendix D) were combined to form a single measure. The Coefficient Alpha reliability of this three-item measure is .80. The means of this combined measure are significantly different for the two conditions ( $F_{1, 273} = 36.95, p < .001, \eta^2 = 0.120$ ). Participants considered the more severe peripheral failure condition to represent a more serious service failure than the less severe condition (4.92 vs. 3.62, 1 = less severe, 7 = more severe). This supports the validity of this manipulation.

### *Existence of Past Peripheral Failures*

The *existence of past peripheral service failures* deals with whether peripheral service failures had been experienced during previous service encounters with the organization (Appendix B). The manipulation stated either that the customer had experienced peripheral failures during past service encounters with the organization or had not. The Coefficient Alpha reliability of this three-item measure is .91. The means of the manipulation check measure (Appendix D) are significantly different for the two conditions ( $F_{1, 286} = 491.19, p < .001, \eta^2 = 0.633$ ) and are in the intended direction (no

past failures = 1.74 vs. existence of past failures = 5.13). These results support the validity of the manipulation for this independent variable.

#### *Quality of Past Core Service Performance*

The manipulation for *the quality of past core service performance* had described the quality of core service that had been experienced during past service encounters with the organization (Appendix B). Average quality (past core service performance) was used as the low level instead of poor quality because describing continued patronage of an airline that provides poor core service seemed unrealistic, unless alternatives are limited. The Coefficient Alpha reliability of this three-item measure was .88. The F-test of the means of the three-item measure for the manipulation check of this independent variable shows that subjects consider average past core service quality (mean = 3.62) to be significantly worse than excellent past core service quality (mean = 6.33,  $F_{1, 287} = 502.60$ ,  $p < .001$ ,  $\eta^2 = 0.64$ ). The mean for average quality (3.62) is also close to the midpoint of the 7-point scale, indicating that participants perceived the past core service to be average and not poor, as intended. In total, these results support the success of the intended manipulation. The following section described the method of analysis chosen for this study and the results of the hypotheses.

#### *Model Fit*

Table 7 presents the means, standard deviations, and intercorrelations among the constructs in the conceptual model. The main effects shown in the conceptual model (Figure 1) were tested using LISREL 8.20 (Jöreskog and Sörbom 1998) with the sample covariance matrix as the input matrix. Although it is possible to examine interactions using LISREL 8.20, it is difficult to test an interaction effect using this procedure when

the interacting variables are also mediators of other relationships, as in this case (Jaccard and Wan 1996). Thus, the interaction hypothesis shown in the conceptual model ( $H_{16}$ ) will be examined using regression analysis (discussed later). Dummy-coded variables were used in the input covariance matrix in LISREL to represent the manipulated independent variables included in the conceptual model (severity of the peripheral service failure, existence of the past peripheral service failures, and quality of past core service performance). Dummy-coding was used rather than manipulation checks to insure randomization of subjects to conditions. This allows for more definitive causal inferences to be made by the researcher.

Error variances for multiple item measures, single item measures, and manipulated independent variables were calculated by subtracting the reliability from 1.00 and multiplying this figure by the variance, as suggested by (Jöreskog and Sörbom 1998). For the manipulated variables, the reliabilities were based on the manipulation check measures. For single item measures where reliabilities were not available (age, personal failure experience, and importance of receiving good service from employees), 0.85 was used as the reliability. In addition, the residuals for the latent constructs representing attributions of stability, globality, and controllability at the employee and organizational levels were assumed to be correlated because of correlated errors.

Table 8 provides the results of the structural equation analysis and the fit statistics for the overall model. Overall, these indices show a reasonably good fit for the final model. The Comparative Fit Index and the Incremental Fit Index are both 0.91 which is above the recommended criteria of 0.90 (Bentler and Bonett 1980; Jaccard and Wan 1995). The Goodness of Fit Index at 0.85 is less than this recommended level of 0.90.

However, the Standardized Root Mean Square Residual (SRMR) is 0.065 and the Root Mean Square Error of Approximation (RMSEA) is 0.049, each of which meets the recommended criteria of being less than 0.08 (Browne and Cudeck 1993).

As indicated earlier in this chapter, the majority of the sample was flying on Southwest Airlines. With such a high proportion of respondents using one particular commercial airline, further analysis was necessary to determine whether flying on this airline biased respondents' responses to the scenario described in the questionnaire and the measures that followed. To test for this possible effect, a model was analyzed using LISREL 8.20 with this control variable included. For simplification, a two-category dummy variable was formed with Southwest Airlines as one category and all of the other airlines as the second category. Results of this analysis revealed that this variable had a significant effect on only one variable in the conceptual model- satisfaction with the core service component. Although some beta coefficients changed slightly with the inclusion of this additional control variable, the results of both analyses (with and without this additional control variable) were very similar. These results show that the particular commercial airline that respondents were flying had very little effect on the results of the conceptual model. Thus, this control variable was not included as a variable in the following discussion of the results. The next section details the results of each of the hypothesis tests.

#### *Hypothesized Effects on Attributions of Globality*

The first hypothesis ( $H_1$ ) predicts that the existence of past peripheral service failures with the organization will result in attributions of higher globality for the present peripheral failure than if no past peripheral failures have been experienced. This



hypothesis is supported (.34,  $p < .01$ ). Similarly, exceptional quality past core service performance leads to attributions of lower globality than average quality past core service performance (-.08,  $p < .05$ ). Thus,  $H_2$  is also supported. Combined, these results suggest that customers rely on their past experience with a service organization to judge whether the focal employee's poor behavior generalizes across the organization. Moreover, multiple facets of an organization's performance record (i.e., past core service performance, past peripheral service performance) seem to be relevant when making such a determination.

In addition to the effects of past service experience, it was predicted in  $H_3$  that a more severe present peripheral failure would elicit attributions of lower globality than less severe peripheral service failures. Customers were expected to perceive more severe peripheral service failures as extreme deviations from customers' expectations for employee role behavior, reflecting the dispositional qualities of the focal employee rather than something universal across the service organization. This hypothesis is also supported by the data (-.09,  $p < .05$ ). Finally, no control variables have a significant effect on attributions of globality. In total, these results show that the severity of the present peripheral service failure and customers' past service experience with an organization influences their attributions of globality. Together, these variables explain 35% of the variance associated with this dependent variable.

#### *Hypothesized Effects on Attributions of Controllability at the Organizational-Level*

$H_4$  had predicted that the existence of past peripheral service failures would lead to attributions of greater controllability at the organizational-level. One basis for attributions of controllability is whether the focal party possesses the solution to the failure.

Customers having experienced past peripheral failures with an organization are more likely to believe that the organization is well aware of the problem and could implement policies and procedures to eliminate its recurrence. This hypothesis, however, is not supported ( $- .01$ , n.s.). This result suggests that unlike attributions of globality, customers' attributions of controllability at the organizational-level are not influenced by previous peripheral service failures. However, as hypothesized in H<sub>5</sub>, the severity of the present peripheral service failure has a significant, positive effect on attributions of controllability at the organizational-level ( $.11$ ,  $p < .05$ ). Thus, customers perceive that service organizations have greater control over more severe peripheral failures than over less severe ones.

One control variable (age) also has a significant impact on attributions of controllability at the organizational-level. Older customers perceived the peripheral service failure to be more controllable by the service organization than younger customers ( $.14$ ,  $p < .01$ ). Overall, these antecedents account for 8% of the variance of attributions of controllability at the organizational-level.

#### *Hypothesized Effects on Attributions of Controllability at the Employee-Level*

H<sub>6</sub> had stated that more severe peripheral service failures would result in attributions of greater controllability at the employee-level than less severe failures would. This predicted relationship is supported ( $.15$ ,  $p < .01$ ). This finding indicates that more severe peripheral failures are perceived as more controllable by these employees. No control variables were significantly related to this dependent variable. The severity of the peripheral service failure accounted for about 6% of the variance of attributions of controllability at the employee-level.

### *Hypothesized Effects on Attributions of Stability at the Employee-Level*

According to H<sub>7</sub>, more severe peripheral service failures should elicit attributions of lower stability at the employee-level than less severe peripheral service failures. This hypothesis was not supported by the data (.04, n.s.). Several control variables also affected attributions of stability. Similar to its effect on attributions of controllability at the organizational-level, age is positively related to attributions of stability following a peripheral service failure (.15,  $p < .01$ ). Older customers tend to consider the peripheral service failure to be more stable (more likely to recur in the future) than younger customers. The importance of receiving good service from employees also had a significant affect on attributions of stability (.16,  $p < .01$ ). Customers who place greater importance on their interactions with employees perceive the present failure to be more stable and more likely to recur during future encounters. In sum, these antecedents explain about 16% of the variance accounted for in attributions of stability at the employee-level.

### *Hypothesized Effects on Satisfaction with the Employee*

According to H<sub>8</sub>, the severity of the peripheral service failure is predicted to negatively affect customers' satisfaction with the service employee. This hypothesis is supported (-.44,  $p < .01$ ). The next hypothesis (H<sub>9</sub>) predicts that attributions of controllability at the employee-level are negatively related to customers' satisfaction with the service employee. As predicted, H<sub>9</sub> is supported (-.52,  $p < .01$ ). This result clearly shows that customers' perceptions that the focal employee could have controlled her behavior significantly diminish their satisfaction with that individual.

Next, it is predicted in H<sub>10</sub> that attributions of stability at the employee-level are negatively related to satisfaction with the employee. This hypothesis is not supported (-.02, n.s.). Similarly, contrary to hypothesis H<sub>11</sub>, attributions of globality are not significantly related to customers' satisfaction with the employee (-.05, n.s.). Customers do not seem to be more tolerant and less dissatisfied with the focal employee when peripheral service failures are perceived to be universal across the organization. Thus, evaluations of employee behavior are not buffered by the organizational context in which it occurs. No control variables have a significant impact on satisfaction with the employee. Overall, these antecedents account for approximately 47% of the variance in satisfaction with the service employee.

#### *Hypothesized Effects on Satisfaction with the Core Service*

Hypothesis H<sub>12</sub> predicted that the severity of the peripheral service failure would negatively affect customers' satisfaction with the core service component. The results support this hypothesis (-.11,  $p < .01$ ). This result shows that a failure in the peripheral service component can spill over and affect evaluations of the core service. In addition, the results show that as predicted in H<sub>13</sub>, higher quality past core service performance increases customers' satisfaction with the current core service (.13,  $p < .01$ ). This result is consistent with a study by Boulding, Staelin, Kalra, and Zeithaml (1994) who found that previous performance affected customers' expectations, which, in turn, positively influenced their present satisfaction.

The results also show that two control variables have an effect on satisfaction with the core service. First, age is related to satisfaction with the core service (-.12,  $p < .01$ ). Older customers appear to be less satisfied with the core service component following

peripheral service failures than younger customers. Next, customers' personal failure experience with service employees influenced their satisfaction with the core service component (-.11,  $p < .01$ ). Those customers having personally experienced past failures with airline employees were less satisfied with the core service. Overall, these variables explained 16% of the variance in satisfaction with the core service.

#### *Hypothesized Effects on Satisfaction with the Organization*

Hypothesis H<sub>14</sub> predicted that satisfaction with the core service is positively related to satisfaction with the service organization. As predicted, the results support this relationship (.76,  $p < .01$ ). The results also support H<sub>15</sub> which predicted a positive relationship between customers' satisfaction with the employee and their satisfaction with the organization (.19,  $p < .01$ ). Taken together, these results show that satisfaction with the core service component is considered more important than satisfaction with the service employee on customers' overall evaluation of the service organization. This finding is consistent with previous research comparing the importance of different service components on customers' satisfaction and service quality (Goodman, Fichman, Lerch, and Snyder 1995; Parasuraman, Berry, and Zeithaml 1990; Iacobucci, Grayson, and Ostrom 1994).

H<sub>17</sub> predicted that attributions of globality would be negatively related to customers' overall satisfaction with the service organization. This hypothesis is supported (-.54,  $p < .01$ ). This suggests that customers are more dissatisfied with the organization when they believe that the focal employee's poor behavior is typical of other employees across the organization. One control variable is significantly related to satisfaction with the organization. The more typical the peripheral service failure is perceived to be by

customers, the less dissatisfied they are with the organization (.17,  $p < .01$ ). In sum, these antecedents account for approximately 53% of the explained variance in satisfaction with the organization.

#### *Hypothesized Effects on Complaining Responses*

Hypothesis H<sub>18</sub> and H<sub>19</sub> predicted that customers' satisfaction with the service employee and the organization will reduce intentions to complain to the organization about the failure that occurred during the present service encounter. The results support both hypotheses (-.45,  $p < .01$  and -.16,  $p < .05$ , respectively). These findings show that the more important determinant of customers' intentions to complain is their dissatisfaction with the focal employee rather than with the organization. Previous research investigating customers complaining intentions have not examined the impact of customer satisfaction with the employee. These results suggest that intentions to complain may be motivated more by encounter-specific satisfaction, such as satisfaction with the employee, rather than summary or overall satisfaction (satisfaction with the organization).

In terms of control variables, the importance of receiving good service from service employees is positively related to intentions to complain (.22,  $p < .01$ ). Thus, customers who value good service from employees are more likely to complain following peripheral service failures. Overall, these four antecedents account for 34% of the variance in a customer's complaining intentions.

#### *Hypothesized Effects on Loyalty to the Organization*

As predicted in H<sub>20</sub>, customers' satisfaction with the service organization is positively related to their loyalty to the firm (.81,  $p < .01$ ). One control variable is associated with loyalty. Perceptions that the peripheral service failure is typical decrease a

customer's loyalty to the organization ( $-.26, p < .1$ ). Customers, in general, may be less loyal to firms where service failures are considered typical occurrences. In total, these antecedents explain approximately 28% of the variance in loyalty.

#### *Hypothesized Effects on Intentions to Exit*

The final hypothesis,  $H_{21}$ , stated that customers' satisfaction with the service organization would affect their intentions to exit. As predicted, the results support  $H_{21}$  ( $-.89, p < .01$ ). This result is similar to a study by Crosby and Stephens (1987) who found that satisfaction was related to customers' willingness to allow their insurance policies to lapse. It is also consistent with a study by Bearden and Teel (1983) who found that satisfaction had an effect on customers' attitudes, which, in turn, influenced their intentions of future patronage. One control variable, the importance of receiving good service from employees, had a significant effect on intentions to exit ( $.13, p < .05$ ). Participants who consider service from employees very important exhibited greater intentions to exit to a competitive service provider. Fifty-seven percent of the variance in exit intentions is explained by these two variables.

#### *Examination of Interaction*

$H_{16}$  proposed that attributions of controllability at the organizational-level moderates the effect of satisfaction with the employee on satisfaction with the organization. Specifically,  $H_{16}$  stated that dissatisfaction with the focal employee has a greater positive effect on their dissatisfaction with the organization when the peripheral service failure is perceived as more rather than less controllable by the organization. Because it is difficult to test an interaction effect within a LISREL model when the

interacting variables are also mediators of other relationships, as in this case (Jaccard and Wan 1996), the moderating relationship in H<sub>16</sub> was tested with regression analysis.

Table 9 shows the results of a regression analysis where satisfaction with the organization is regressed on satisfaction with the employee, attributions of controllability at the organizational-level, satisfaction with the employee X controllability at the organizational-level, attributions of globality, satisfaction with the core service component, typicality, age, importance of receiving good service from employees, and personal failure experience with service employees. This regression analysis includes the same variables tested using LISREL, but also includes a multiplicative term representing the interaction between satisfaction with the employee and attributions of controllability at the organizational-level. All independent variables used for this analysis were mean-centered. The regression analysis shows that contrary to H<sub>16</sub>, the relationship between customers' satisfaction with the employee and their satisfaction with the organization is not moderated by attributions of controllability at the organizational-level ( $b = -.03$ , n.s.). Similarly, the main effect of attributions of controllability at the organizational-level on satisfaction with the organization was not significant either ( $.00$ , n.s.). The next section provides the post-hoc results provided by the LISREL program.

#### *Details of Post-Hoc Results*

Two unhypothesized paths were suggested by the modification indices from LISREL 8.20. These results are reported in Table 8. First, a path from the existence of past peripheral service failures to attributions of stability at the employee-level was added ( $.20$ ,  $p < .01$ ). This relationship suggests that customers make attributions of greater stability at the employee-level when they have experienced past peripheral service failures,



compared to when they have not experienced such past failures. This was an unexpected relationship because in an airline context, in general, customers typically do not interact with the same employees for multiple service encounters. Therefore, the same employee involved in the current failure would not cause the past peripheral failures experienced by the customer.

Furthermore, an additional unhypothesized path from the quality of past core service performance to satisfaction with the organization was also added because of a modification index provided by the LISREL program. This relationship is positive (.23,  $p < .01$ ), showing that current satisfaction with the organization incorporates past core service experiences as well as current ones (additional examination of this direct relationship will be performed in next section). The next section provides the procedure and results of the tests of mediation.

### *Tests of Mediation*

The conceptual model shown in Figure 1 represents a process model that includes several mediated relationships among variables. Within this section several tests of mediation are performed to better understand the effects of past and present service failures on several customer response variables. Specifically, three potential mediations will be examined: 1) whether *attributions of globality* mediate the effects of the existence of past peripheral service failures and the quality of past core service performance on satisfaction with the organization, 2) whether *satisfaction with the employee* mediates the effect of the severity of the current peripheral failure on satisfaction with the organization and, 3) whether *attributions of controllability at the employee-level* mediates the effect of the severity of the current peripheral service failure on satisfaction with the employee.

First, the general approach used to test for mediation will be explained, and then the results of the three tests will be presented. The results of this analysis are shown in table 10.

*General Approach.* The procedure introduced by Baron and Kenny (1986) was followed to test for mediation. The authors recommend a 3-stage, sequential procedure whereby: 1) each mediating variable is estimated as a function of the independent variable, 2) the dependent variable is estimated as a function of the independent variable, and 3) the dependent variable is estimated as a function of the mediating variable as well as the independent variable. According to these authors, several conditions must hold for mediation to occur. In stage 1, a regression of the independent variable should be significantly related to the mediating variable. Next, in stage 2, the same independent variable must be significantly related to the dependent variable. In stage 3, the dependent variable is regressed on both the independent variable and the mediator.

For perfect mediation to exist, the beta coefficient for the independent variable must be nonsignificant in the presence of the mediating variable. If this beta coefficient is reduced but is still significant, then it can be concluded that the effect of the independent variable on the dependent variable is only partially mediated. In other words, the independent variable has both an indirect (through the mediating variable) as well as a direct effect on the dependent variable. All tests of mediation were analyzed using LISREL 8.20 with all control variables included (as performed in the LISREL analysis presented in the results section). Details of the tests of mediation are presented in table 10.

*Attributions of Globality as a Mediator.* Because the results in previous sections showed that controllability at the organizational-level was not significantly related to satisfaction with the organization, this section will test only whether attributions of globality mediate the effects of the existence of past peripheral service failures and quality of past core service on satisfaction with the organization. First, the results (stage 1) indicate that both the existence of past peripheral failures (.55,  $p < .01$ ) and the quality of past core service performance (-.12,  $p < .05$ ) are significantly related to attributions of globality. Similarly, the results of stage 2 shows that both of these variables are significantly related to satisfaction with the organization (-.37,  $p < .01$  and .34,  $p < .01$ , respectively). The final stage of this test estimates the paths of the independent variables and the mediating variable on satisfaction with the organization, simultaneously. The beta coefficients for the direct paths from the existence of past peripheral failures (-.20,  $p < .01$ ) and the quality of past core service performance (.31,  $p < .01$ ) are reduced, but remain significantly related to satisfaction with the organization, even when globality is included (-.28,  $p < .01$ ). These results indicate that attributions of globality only partially mediate the effects of the existence of past peripheral service failures and the quality of past core service on satisfaction with the organization. Thus, the existence of past peripheral service failures and quality of past core service performance have both an indirect (through attributions of globality) and a direct effect on satisfaction with the organization.

*Satisfaction with the Employee as a Mediator.* The next important test of mediation examines whether satisfaction with the employee mediates the effect of the severity of the peripheral failure on satisfaction with the organization. The first stage

shows that the severity of the peripheral failure is significantly related to the mediator, satisfaction with the employee ( $-.49, p < .01$ ). The results of stage 2 also show that the severity of the peripheral failure is significantly related to the dependent variable, satisfaction with the organization ( $-.08, p < .10$ ). The final step estimated the two paths to satisfaction with the organization (severity of the peripheral failure and satisfaction with the employee), simultaneously. When the mediated path is included, the severity of the peripheral failure becomes insignificant ( $-.01, n.s.$ ). The mediator, satisfaction with the employee, remains significantly related to satisfaction with the organization ( $.23, p < .01$ ). These results show that the effect of the severity of the peripheral failure on satisfaction with the organization is fully mediated by satisfaction with the employee, as proposed in the conceptual model (Figure 1).

*Attributions of Controllability at the Employee-Level as a Mediator.* Another mediating relationship of interest is whether the severity of the peripheral service failure directly affects (as hypothesized) satisfaction with the employee or is mediated by attributions of controllability at the employee-level. Attributions of globality and stability will not be reported here because the results in the previous section show that these attributions have no significant effect on satisfaction with the employee (Table 8).

In the first stage of the mediation analysis, a direct path was estimated from the severity of the peripheral service failure to attributions of controllability at the employee-level. This path is significantly related to attributions of controllability, as reported in the previous section ( $.16, p < .01$ ). This is also true for the relationship between severity of the peripheral service failure and satisfaction with the employee ( $-.54, p < .01$ ). The final stage of the test of mediation estimates direct effects from the severity of the peripheral

service failure and attributions of controllability at the employee-level, simultaneously. The beta coefficient for the severity of the peripheral failure is reduced, but remains significantly related to the dependent variable (-.48,  $p < .01$ ), even with controllability at the employee-level included (-.39,  $p < .01$ ). Thus, this analysis indicates that the severity of the peripheral failure has a direct as well as an indirect effect (through attributions of controllability at the employee-level) on satisfaction with the employee, as hypothesized in the conceptual model (Figure 1). The next section examines the effects of service failures on customers' responses by comparing these conditions to the "No-Failure" control condition.

#### *Examination of 'No-Failure' Control Condition Versus Experimental Conditions*

The study design included a "No Failure" control condition to provide a baseline for satisfaction with the employee and the organization. Table 11 compares the no-failure control condition to the less severe and more severe experimental conditions. This table presents the means for the dependent variables, satisfaction with the organization, satisfaction with the employee, satisfaction with the core service, loyalty, and intentions to exit for the no-control condition and the two experimental conditions (less severe and more severe peripheral service failure). It also provides a statistical comparison of the no-failure condition to each of the experimental conditions for each of the dependent variables. The results clearly show the impact of peripheral service failures on these dependent variables. For every dependent variable but one (satisfaction with the core service), there is a significant difference between an encounter that was performed without problems to one that had either a less or more severe peripheral failure. Even less severe

failures have a significant impact on customers' satisfaction with the employee and the organization, loyalty, and intentions to exit to a competitive service organization.

### *Summary of Results*

Table 12 summarizes the results of the hypotheses and Figure 2 shows a revised model based on the empirical results. Although not every hypothesis was supported and some unhypothesized relationships emerged, the results provide strong support for the conceptual framework proposed in chapter 2 (Figure 1). The next chapter provides discussion and conclusions based on these results.

## CHAPTER 5

### CONCLUSIONS AND IMPLICATIONS

#### Overview

This chapter presents the conclusions and implications that can be drawn from the results of this dissertation. The first section of this chapter discusses the implications of the results of this study. The second section presents the limitations of the study. The third section explores some directions for future research. Finally, the last section addresses conceptual, theoretical, and substantive contributions of this dissertation.

#### Discussion of Results

The purpose of the present research is to investigate the extent to which customers' satisfaction with an employee affects their overall satisfaction with the organization following a peripheral service failure. To address this question, the effects of one characteristic of the present peripheral failure (severity) and two descriptors of customers' history of past experience with the service organization (existence of past peripheral service failures and quality of past core service performance) were examined. Overall, the results show that these independent variables have a significant impact on customers' formulation of attributions of causality and the evaluations of the core service component, the employee, and the organization. This section will begin with a discussion of how the severity of the peripheral service failure affects employee and organizational-specific attributions of causality and customers' evaluations of the employee and the core service component. It will proceed with a discussion of how these attributions and evaluations impact customers' satisfaction with the employee and their overall satisfaction

with the organization. Then, it will explore the role of customers' past service experience with the organization on this evaluation process. Next, this section will review how employee and organization-specific satisfaction ultimately affect customers' behavioral intentions. Finally, it will discuss the relevance of the control variables on attributions and satisfaction.

#### *Effects of the Severity of the Peripheral Service Failure*

The results of this study clearly indicate that the severity of the present peripheral service failure has a direct, negative effect on customers' satisfaction with the focal employee. Not only do customers focus their dissatisfaction toward the employee causing the peripheral service failure, their level of dissatisfaction escalates depending upon the severity of the event that is experienced. This variable also has a similar direct effect on customers' satisfaction with the core service. This finding demonstrates that the occurrence of failures in the peripheral service component can spill over and negatively affect customers' evaluations of the core service component. Managers of service organizations, therefore, must carefully consider customers' evaluations of both the core and the peripheral service components prior to developing and implementing service quality improvement efforts. Without a thorough understanding of the source of the deficiencies, management may waste considerable time, effort, and expense on quality improvement initiatives directed toward the core rather than the peripheral service component, where the actual problems originate.

It is likely that a similar spillover effect may occur for other attributes of a service encounter aside from the core and peripheral dimensions examined in this study. Traditional views of satisfaction suggest that multiple attributes combine to form



satisfaction. These model did not explore the possibility that evaluations of some of these attributes may influence evaluations of other attributes. These results suggest that customer evaluations of attributes may not be independent of one another. Instead, attributes that fall below expectations may influence customers' satisfaction with other attributes of a service encounter. It is possible that a service failure on one attribute may bias evaluations of many other attributes of a service encounter.

In addition to these direct effects, the severity of the peripheral service failure also has an indirect impact on satisfaction through the customer's attribution process. First, the severity of the failure influences employee-specific attributions (i.e., attributions of controllability at the employee-level) that are made by customers following peripheral service failures. The findings show that a more severe peripheral service failure leads to attributions of greater controllability at the employee-level. This finding suggests that customers believe that service employees can and should control the actions and behaviors that they exhibit to customers, especially ones that deviate considerably from customers' role expectations (i.e., more severe peripheral service failures). However, contrary to what was hypothesized in this dissertation, the severity of the peripheral failure has no significant effect on attributions of stability at the employee-level.

Next, the severity of the current peripheral service failure also has an influence on organizational-level attributions (i.e., globality and controllability). More severe peripheral service failures elicit attributions of greater controllability at the organizational-level than less severe failures. This finding suggests that customers perceive less severe peripheral failures as difficult to completely eliminate and, hence, less controllable by the

organization. When failures become more severe, however, it is likely that customers will believe that service organizations could have controlled the occurrence of such events.

Even more interesting, customers consider more severe peripheral service failures to be less global across the organization than mild failures. This finding indicates that employee behavior that deviates considerably from what is expected for that role (i.e., more severe peripheral service failure) will be considered more employee-related rather than something that is common among other service personnel employed at the organization. This finding shows that compared to less severe failures, customers perceive more severe failures to be isolated incidents.

Overall, the results show some very intriguing relationships among the severity of the peripheral service failure and attributions at both the employee and organizational-levels. Customers, in general, tend to be less understanding of more severe failures and believe that these events could (or should) have been controlled by the employee and the organization. At the same time, however, customers who experience more severe peripheral service failures are more likely to believe that the incident represents an isolated situation that is related to a specific employee rather than something widespread across the organization.

#### *Effects of Attributions of Causality*

The results of this study support previous research by showing the significance of attributions of causality in affecting customers' satisfaction (Bitner 1990). This study contributes to this research by differentiating between employee and organizational-specific attributions and demonstrating how these attributions differentially effect customer's satisfaction with the employee and the service organization. Generally, the

results indicate that the employee and organizational-level attributions correspond to customers' satisfaction with the employee and with the organization, respectively.

First, failures considered more controllable by the employee lead to greater dissatisfaction with the focal employee. Customers tend to be more dissatisfied when they believe that the focal employee could have controlled the failure from occurring.

However, the results do not provide support for a relationship between attributions of stability at the employee-level and satisfaction with the employee. The lack of significance for this relationship may be explained by the fact that stability may matter most when the customer expects future encounters with the employee causing the current service failure.

However, these future encounters were unlikely given the situation described in the scenario. Similarly, the results also show no significant relationship between attributions of globality and satisfaction with the employee. This finding suggests that customers do not excuse individual employees simply because the problem is widespread throughout the organization. They still tend to hold individual employees accountable for their actions and behaviors. Lack of support for this hypothesis provides further confirmation that employee-level attributions affect employee evaluations and organizational-level attributions correspond to organizational evaluations.

Second, organizational-level attributions such as globality had a significant effect on customers' overall satisfaction with the organization. Customers who considered failures to be highly global across the organization were more dissatisfied with the organization than those who considered them to be less global. This finding suggests that customers hold organizations responsible for service failures that are perceived as widespread organizational problems.

Furthermore, controllability at the organizational-level had no significant direct or moderating effect on customer satisfaction with the organization. A key research question addressed in this study was whether customers' satisfaction with the employee following a peripheral service failure affected their overall satisfaction with the organization. It was believed, a priori, that this relationship depended upon whether customers perceived that the organization could have controlled or prevented the peripheral failure from occurring. Although customers clearly differentiate between service employees and the organizations when making evaluations, as shown in the psychometric properties of the respective measures and the differences in satisfaction levels, it appears that customers' evaluations of employees following peripheral service failures directly affect their satisfaction with the organization, without regard to the organization's ability to control the behavior.

This finding has significant implications for managers of service organizations because it suggests that customers do hold organizations responsible for employee-related service failures. This is unfortunate given the frequency of such failures in service industries and the negative consequences associated with them. Thus, investments in training and controlling service employees with respect to their interactions with customers are very important.

The results of this study show that the severity of the current peripheral service failure has contrasting indirect effects on satisfaction with the organization. Severity has an indirect negative effect on satisfaction with the organization through both satisfaction with the employee and satisfaction with the core service. However, severity has a positive indirect effect on satisfaction with the organization through attributions of globality (i.e., severity negatively affects globality which positively affects satisfaction with the

organization). Given these contrasting effects, it is important to understand the overall effect that severity has on satisfaction with the organization. LISREL 8.20 shows that the total effects of severity on satisfaction with the organization is negative (-.17,  $p < .01$ ). This implies that customers blame service organizations more for more severe employee-initiated peripheral service failure than less severe ones.

#### *Effects of Past Service Experience*

Given these findings, what can organizations do to maintain positive evaluations following an employee-initiated peripheral service failure? This question leads to another important research issue that was addressed in this study- the role of customers' past service experience with an organization on their evaluation process. The results show that the existence of past peripheral service failures and the quality of past core service performance have a significant effect on attributions of stability, globality and satisfaction with the organization.

Customers who have never experienced past peripheral failures are less likely to consider the actions and behaviors of the focal employee to be global across the organization. These attributions of low globality produce less dissatisfaction with the organization than if previous peripheral failures were experienced. In addition, the results also show that higher quality past core service performance can offset some of the negative implications associated with past peripheral service failures on customers' attributions of globality, as well as their overall satisfaction with the organization. When customers have experienced exceptional past core service performance, they consider the present peripheral failure to be less global than if average past core service performance was experienced.

Furthermore, the findings also show that customers who have experienced past peripheral service failures with an organization are more likely to make more stable attributions following the present failure than those who have not experienced such failures. This unhypothesized result suggests that customers utilize past failure information to make attributions as to whether additional service failures are likely in future exchanges. However, it is surprising that the existence of past peripheral service failures affects this employee-level attribution, especially given that the past failures seemed unlikely to have involved the same employee who caused the current failure. This finding may suggest that the *particular* employee that caused previous service failures is irrelevant to customers. They still tend to utilize past peripheral service failures when forming attributions of stability at the employee-level for the current peripheral service failure, even if the employees causing the failures are not the same individuals. Furthermore, this may also suggest that customers may not view employees and organizations as completely separate. It appears that aspects of the organization such as its record of previous service delivery may influence customers' perceptions of an employee.

As the test of mediation showed, the customer's attribution of globality only partially mediates the effects of the existence of past peripheral service failures and the quality of past core service performance on satisfaction with the organization. Thus, both descriptors of past service experience have a direct and indirect (through attributions of globality) impact on customers' satisfaction with the service organization. Not surprisingly, customers who had experienced previous peripheral service failures were less satisfied with the organization when the present peripheral failure occurred than if no past

peripheral service failures were experienced. Although the quality of past core service performance has less impact on attributions of globality than the existence of past peripheral failures does, past core service performance has a greater direct impact on satisfaction with the service organization.

In addition to these direct effects on satisfaction with the organization, better quality past core service performance enhances customers' current satisfaction with the core service component, as well. It appears that, as proposed, better quality past core service performance increases customers' expectations of the present core service, which, in turn, enhances their satisfaction with this service component. This finding is consistent with a study by Boulding, Staelin, Kalra, and Zeithaml (1994).

Taken together, these findings show the importance of consistently providing excellent service quality to customers. Previous peripheral service failures not only negatively influence attributions about the current service failure, but these failures are also incorporated by customers when forming overall evaluations of the organization. These results, however, also indicate that previous core service delivery has a significant, positive role on customers' attribution formation, as well as their overall satisfaction with the organization. Thus, for managers these results reveal the importance of previous core and peripheral service experience on customer satisfaction. Continued success is not only contingent on how well an organization delivers the current service, but also how well it delivered services during previous encounters.

#### *Effects of Satisfaction with the Employee and Organization*

Satisfaction with both the employee and the organization is related to customers' intentions to complain to the organization following a peripheral service failure. The

findings show that customers' satisfaction with the employee has a stronger effect on their willingness to complain than does satisfaction with the organization. Previous studies investigating complaining intentions have not identified evaluations of the employee as a significant factor prompting this behavioral intention. This is probably due to the fact that very few studies in marketing have made a distinction between the employee and the organization in terms of satisfaction.

One explanation for these results is that customers' intentions to complain may be motivated more by events that transpire during a discrete transaction (and the satisfaction that results) rather than from their cumulative or overall satisfaction with an organization. It is likely that the anger and annoyance resulting from a service failure occurring during a service encounter will prompt customers to complain about the incident. If customers are very dissatisfied with an organization, they may question whether complaining will result in a positive outcome. It may be that for other complaining responses such as negative word-of-mouth or complaining to a third party, cumulative satisfaction will have a greater effect than evaluations of discrete service transactions. Such extreme complaining behavior may only result when customers become extremely dissatisfied with an organization. Although such levels of dissatisfaction can result from a single service encounter (e.g., service catastrophe), it typically occurs from a succession of poor service encounters.

The results also indicate that customers' loyalty to an organization and their intentions to switch to a competitive firm are highly related to their overall satisfaction with the organization rather than their satisfaction with an employee. This is consistent with research by Crosby and Stephens (1987) who found that customers' prior satisfaction



with their whole life insurance coverage influenced whether they switched to an alternative insurance firm for such coverage or allowed the policy to lapse. Taken together, these findings suggest that satisfaction, formed over multiple interactions, is extremely important to the formation and maintenance of relationships with customers.

### *Effects of the Control Variables*

Overall, there are several control variables that significantly affect customers' responses to peripheral service failures. Many of these variables reveal some opportunities for segmentation. First, the age of customers seems to influence perceptions of the service failure. Older customers tend to believe that organizations should have greater control over service failures and that the causes are more stable and likely to recur in future service encounters. The results also show that these customers are less satisfied with the core service.

These findings may be explained by generational differences. Older customers, in general, may have been raised during a time when stricter social etiquette was the norm. Hence, older customers may have different expectations about the manner in which customers and people in general should be treated by others. Because of these generational differences, older customers are likely to consider peripheral service failures to be more controllable by the organization and more likely to reoccur in the future with the employee. These differences may also bias their evaluations of different aspects of service delivery, such as the core service component. Because age is an easy characteristic to identify and use for segmentation purposes, service organization should make extra efforts to satisfy these customers following service failures.

Another influential control variable is the importance of receiving good service from employees. Those customers who consider good service from employees important view causes of the peripheral failures to be more stable at the employee-level. These customers are also more likely to complain to the organization and switch to a competitive firm. These results are similar to those of Folkes, Koletsky, and Graham (1987) who found that the importance of receiving a good airline flight led to greater anger toward the firm, which, in turn, significantly affected customers' intentions to complain and repurchase. Similarly, customers who consider receiving good service from employees important are likely to be less understanding and more angry when they are treated poorly by employees. Thus, organizations must recognize that personal differences among customers do exist and are important determinants of satisfaction.

Furthermore, the typicality of the failure is related to satisfaction with the organization. As discussed in Chapter 2, it was expected that failures considered highly typical would mitigate some of the detrimental effects resulting from service failures. The results provide some support for this belief by showing that typicality leads to lower dissatisfaction with the organization. This result is consistent with those found by Hess, Ganesan, and Klein (1998) who studied customer responses to service failures in a restaurant context.

Finally, customers having personally experienced failures with employees during previous interactions with airlines were less satisfied with the core service component compared to those who had not experienced such events. Personal failure experience may represent a customer's previous experience with an entire service context or industry. Thus, it is possible that service failures experienced with other organizations within the

same industry may impact customers' responses to current service failures. This suggests that exposure to a service failure within a particular service industry, regardless of the organization in which it transpires, may reduce customers' tolerance and intensify their displeasure with an organization when present failures do occur. Therefore, this control variable may exemplify a broader version of the airline-specific, past service experience variables that were manipulated in this study. This explanation has disturbing implications for organizations doing business in industries where service failures are common occurrences. Even the best service organizations can be adversely affected by past service failures that were experienced by customers at competitive firms. The next section examines the limitations of the current study.

#### Limitations of Research

The results reported in the previous chapter and the issues discussed in the preceding section need to be interpreted in terms of the limitations of this study. First, the role-playing methodology used in this study required that the subjects take the role of the customer and described a hypothetical peripheral service failure. Because the service encounter is described rather than experienced first-hand, participants should be less involved than if they had actually experienced a service failure. Although the chosen methodology was necessary for the experimental manipulations of the three independent variables included in the study (severity of the peripheral failure, existence of past peripheral failures, and quality of past core service), it is likely that participants' responses to the descriptions of past service history and the severity of the peripheral failure invoke much less intense emotional responses than if they had actually experienced the situations

as described. It would have been ideal to have examined customers' responses to peripheral service failure using actual service encounters and customers. However, a significant constraint to such a procedure was attaining sufficient data that dealt with the independent variables of interest. For example, acquiring responses from customers who experience a combination of a more severe current peripheral failure, excellent past core service performance, and past peripheral failures may be challenging. Using actual service encounters also introduces many extraneous factors that could confound the results.

A second limitation of this study is that the same employee did not cause both the past and present peripheral service failures. As discussed in the previous section, the results do not support the relationship between attributions of stability at the employee-level and satisfaction with the employee. This lack of support is most likely due to the context that was selected and the situation described in the scenario. The situation implied that the same individual did not cause past and present service failures. Because of the volume of customers served at airline check-in service counters, customers typically do not interact with the same employee over successive encounters. It is likely that customers would make attributions of greater stability at the employee-level and be more dissatisfied with an employee who caused both the past and present service failures. However, because the scenario, as described, restricted such a situation, this may have limited the possible relationship between attributions of stability at the employee-level and satisfaction with the employee.

Finally, an additional limitation of this study involves the descriptions of the independent variables: existence of past peripheral service failures, quality of past core service performance, and the severity of the present peripheral failure. Descriptions of

past experience focused on just two service components- core and peripheral.

Furthermore, past and present service failures were described as occurring only with the peripheral service component. First, restricting the descriptions to only two dimensions (core and peripheral) may neglect some other important factors concerning past service history that may influence customers' responses to peripheral service failures. For example, as discussed in chapter 2, the augmented service component may also represent an important and influential service dimension. The core and peripheral components were chosen as dimensions of customers' past service history because many authors in services have argued and empirically demonstrated that these components are generally the most important to customers when formulating evaluations of satisfaction and service quality (Iacobucci, Grayson, and Ostrom 1994; Goodman, Fichman, Lerch, and Snyder 1995). However, for some services, differentiation among competitors may be based on the augmented service aspects offered by firms, thereby enhancing the relative importance of this component and its influence on customers' responses to failures.

Second, service failures can occur with all service components for both the past and present service encounters. Differences in the model may occur if the type of past service failure differs from the type occurring during the present failure. For example, it is uncertain whether previous core service failures will have an impact on current employee-initiated peripheral service failures (and vice versa). This may be because different service failures occur at different levels- some at the employee level and others at the organizational-level, which may influence where customers place responsibility for events.

## Directions for Future Research

Given the limited amount of research investigating customer responses to service failure and recovery, there is an abundance of further research that can be pursued. The central focus of the present study was to investigate how and to what extent customers' satisfaction with the employee affected their satisfaction with the organization following an employee-initiated peripheral service failure. The present research examined how the severity of the peripheral failure, the existence of past peripheral service failures, and the quality of core service performance impacted this relationship. Future research should identify and test the effects of additional customer perceptions of the employee (e.g., perceived level of experience, perceived level of responsibility), characteristics of the organization (e.g., reputation of the firm, national vs. local firm, standardization of policies and procedures), customer (e.g., level of expertise, level of experience, perceived termination costs), and situation (e.g., frequency of service contact required, degree of performance ambiguity). Each of these may impact the extent to which evaluations of service personnel influence customers' overall evaluations with the organization.

For example, it is possible that an organization's reputation for excellent service delivery, which can exist independently from a customer's personal experience with a specific service firm, may insulate organizations from customers' dissatisfaction with the focal employee following a peripheral service failure. In addition, customers' perceptions of an employee's level of responsibility or rank within a service organization may influence whether dissatisfaction with that individual will affect the organization. If the individual causing a service failure possesses high levels of responsibility or occupies a managerial-type position within a firm, customers may believe that that individual has been well

trained and is quite knowledgeable about how to treat customers. Under these circumstances, customers may hold the organization less responsible for the individual's poor behavior. However, the opposite may occur in which customers may believe that an employee that possesses a high ranking position within a service firm closely reflects the values and culture of the organization. Given these perceptions, customers' satisfaction with the employee is more likely to affect their overall satisfaction with the organization. It is necessary, therefore, to gain a better understanding of customers' perceptions of employee rank and authority and its impact on satisfaction with the organization.

Future research should also examine how a customer's previous service experience affects perceptions of present service failures and subsequent organizational recovery efforts. First, a better understanding of how customers respond to recurring service failures is necessary. The current study manipulated the existence of past peripheral service failures (none versus several occasions). This manipulation not only affected attributions of stability and globality, it directly influenced current satisfaction with the core component and overall satisfaction with the organization. A better understanding of customers' tolerance for service failures may be possible with a more detailed study of the number and the timing of past service failures.

Service failures can occur at any time during the customer's relationship with the service organization. As discussed in chapter 2, recency pertains to the time period that has passed or the number of encounters that have transpired between the organization and the customer since the service failure occurred. It is unclear whether service failures occurring early in the customers' service history are more or less detrimental to

evaluations of the service organization than those occurring later. Because services differ significantly in terms of frequency of contact required, both the time that has elapsed and the number of encounters that have transpired since the failure occurred should be investigated. Managers should understand what determines how many service failures customers will endure before they sever their relationship with a service organization. Reactions to multiple failures may also differ in industries in which failures are rare (e.g., over-night parcel service, stock brokerage) as opposed to common occurrences (e.g., fast-food restaurants, airline travel, automotive repair).

Similarly, a more thorough understanding of whether and when customers forgive organizations for service failures is necessary. Previous research in service marketing has shown that organizational recovery efforts can compensate customers for the losses that they experience from failures and (possibly) mitigate some of the negative consequences of the negative event (e.g., dissatisfaction and negative behavioral intentions). However, some authors claim that service failures are quite salient to customers and continue to negatively affect future behavioral intentions, regardless of recovery performance (Zeithaml, Berry, and Parasuraman 1996). Can service organizations completely expel the negative consequences resulting from service failures? What level of recovery performance and/or how many satisfying service encounters following the event are necessary for customers to forgive and forget a failed service encounter?

Finally, this research focuses on encounters involving failures in service delivery. Attributions of globality can apply equally well to situations where highly successful encounters or events occur. Service organizations are eager to be credited for employee actions and behaviors that delight customers. For some service industries (e.g., fine



clothing sales) in which employees can provide outstanding personalized service, customers may be more willing to believe that a specific individual is one-of-a-kind rather than typical of other employees in the organization. Under these circumstances, the satisfaction that is extended to the employee may not transfer to the organization. Further understanding of this issue is necessary and may be extremely useful to organizations.

### Contributions of Research

The final section of this dissertation details the contributions of this research. They will be presented in terms of conceptual, methodological, and substantive contributions.

#### *Conceptual.*

*Role of the Employee in Customers' Evaluations of Service Organizations.* The present research examined the role of the service employee on customers' overall evaluations of the organization. Few studies have investigated how customers' satisfaction with a focal employee following a peripheral failure ultimately affected their satisfaction and behavioral intentions. The present study attempted to identify some factors that impact this relationship. Specifically, it examined the effects of the severity of the peripheral failure and customers' past service experience with the organization. Results of this study contribute to our understanding of how employee-initiated failures affect the customer satisfaction process.

*Peripheral Service Failures.* Although much research has investigated the negative effects associated with core service failures, few previous studies have focused on failures involving the peripheral service component. The reason is that the core service

component is believed to be so much more important to customer satisfaction than the peripheral service component. This study empirically demonstrates that employee-initiated peripheral service failures can have detrimental effects on customers' evaluations of the employee and the organization. It also shows that such events can spill over and negatively impact evaluations of the core service. This study contributes to our present knowledge about how failures in the peripheral service component affect customers' evaluations of the employee, the core service component, and the overall service organization.

*Past Service Experience with an Organization.* Authors of previous research involving satisfaction and service quality have treated service encounters as discrete transactions without acknowledging or considering the influence that previous service experiences have on customers' responses. The present study examines the effect of past service experience on customers' evaluation processes. In this study, customers' past service experience with an organization was represented by two descriptors: the existence of past peripheral service failures and the quality of past core service performance. This research contributes to our understanding of how past core and peripheral service experience with a service organization influence customers' attributions of causality and satisfaction following the present peripheral service failure.

*Attributions of Causality.* This study is the first to introduce attributions of globality to the marketing discipline. As discussed previously, attributions of globality are the extent to which customers perceive a failure to be universal across the organization as opposed to being employee or situation-specific. It is often argued in services marketing that service personnel *are* perceived as the organization in the minds of customers. In

many instances, the only interaction that customers have with a service organization is through their encounters with its service employees. Therefore, when service failures occur, especially those directly caused by service employees, it is important to understand under what circumstances customers will be dissatisfied with the organization for such failures. The results of this study contribute to our present understanding of the customer evaluation process by showing how attributions of globality are formulated and how employee behaviors and actions affect customers' overall satisfaction with the organization. No previous research in marketing has examined this issue. Furthermore, this research distinguishes between employee and organizational-level attributions of causality. This distinction has not been made by authors in services marketing. It provides a more thorough understanding of how these specific attributions ultimately influence customers' evaluations of employees and organizations.

*Methodological.*

*Measures of Constructs.* Several scales were developed for the purpose of this research. The scales included attributions of controllability at the employee-level, attributions of controllability at the organizational-level, attributions of globality, and attributions of stability at the employee-level. Although other researchers in marketing have developed general versions of many of these scales, this study was explicit as to whether the attribution pertained to the employee or the organization. This level of specificity (for attributions of causality) has not been employed by previous research in marketing. As discussed in chapter 3, each scale exhibits satisfactory psychometric properties, and may be useful to other researchers.

*Substantive.*

*Employee-Initiated Peripheral Service Failures.* This research has examined the detrimental effects of employee-initiated peripheral service failures on customers' evaluations. These findings show that customers become dissatisfied with the focal employee causing the failure and that the organization will be blamed for the actions and behaviors of service personnel during the present encounter. The results also demonstrate that peripheral service failures can spill over and negatively affect customers' satisfaction with the core service component. This suggests that marketing researchers must measure customers' satisfaction with the peripheral service as well as the core service component in order to identify the true source(s) of unsatisfactory evaluations of the core service. Without this information, management may incorrectly focus their efforts in improving the quality of the core service component when the problem(s) actually originates with the peripheral service.

*Customers' Past Service Experience with an Organization.* The results of this research clearly show that customers' past service experience with an organization influences their evaluations of the present core service, as well as their overall satisfaction with the organization. The findings reveal that simply providing high quality core service on a consistent basis is not enough; past peripheral service failures also directly influence customers' overall evaluations of the organization. However, the quality of past core service performance appears to compensate somewhat for these negative effects on customers' satisfaction with the organization. It appears that the past core service component is a more important determinant of satisfaction with the organization than the existence of past peripheral service failures.

Furthermore, both components of past service experience also have an effect on whether customers believe that the present peripheral service failure is employee or situation-specific or something that is universal across the organization. However, for this perception, the existence of previous peripheral service failures has a greater influence than past core service performance. Taken together, it is clear that both components of customers' past service experience with an organization have a significant impact on customers' overall satisfaction with the organization.

Table 1  
Sequence of the Experiment

Introduction

Background Information

Presentation of Past Service Manipulations

Quality of Past Core Performance

Existence of Past Peripheral Service Failures

Measures for Past Service History Manipulation Checks

Current Service Experience Description

Severity of Peripheral Service Failure Manipulation

Satisfaction with the Service Employee Measure

Attribution of Causality Measures

Description of the Current Core Service (description of the flight)

Organizational Outcome Measures

Satisfaction with the Core Service

Satisfaction with the Organization

Organizational Outcome Measures (complain, exit, loyalty)

Administration of Severity Manipulation Check

Control and Descriptive Measures

Thank You and Debriefing

Table 2  
Standardized Measurement Coefficients and t-values Resulting from Confirmatory Factor Analysis

Item Abbreviation	Globality	Controllability (Organization)	Controllability (Employee)	Stability (Employee)	Satisfaction (Core Service)	Satisfaction (Employee)	Satisfaction (Organization)	Intention to Complain	Loyalty to Organization	Intentions to Exit
GLOB1	0.72 (13.66)									
GLOB2	0.92 (19.87)									
GLOB3	0.88 (18.35)									
GLOB4	0.81 (16.08)									
CONTORG1		0.78 (14.53)								
CONTORG2		0.85 (16.34)								
CONTORG3		0.76 (14.08)								
CONTEMP1			0.47 (7.73)							
CONTEMP2			0.87 (16.14)							
CONTEMP3			0.77 (13.88)							
STABEMP1				0.64 (10.77)						
STABEMP2				0.83 (14.69)						
STABEMP3				0.68 (11.53)						
SATCORE1					0.84 (16.11)					
SATCORE2					0.63 (11.14)					
SATCORE3					0.87 (16.82)					
SATEMP1						0.83 (15.50)				
SATEMP2						0.55 (9.24)				
SATEMP3						0.81 (15.20)				
SATORG1							0.91 (19.13)			
SATORG2							0.71 (13.22)			
SATORG3							0.83 (16.41)			
COMP1								0.82 (15.43)		
COMP2								0.82 (15.45)		
COMP3								0.72 (12.87)		
LOYAL2									0.72 (8.00)	
LOYAL3									0.50 (6.63)	
EXIT1										0.80 (15.27)
EXIT2										0.84 (16.37)
EXIT3										0.75 (13.77)
Var Extracted	0.70	0.63	0.52	0.52	0.62	0.55	0.66	0.63	0.36	0.63
Alpha	0.902	0.835	0.718	0.756	0.819	0.759	0.845	0.831	0.530	0.838

Note: 1) t-values are in parentheses, 2) All are significant at  $p < .001$  level.

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Table 2 (continued)  
Standardized Measurement Coefficients and t-values Resulting from Confirmatory Factor Analysis

**Goodness-of-fit index**

Chi-square (df)	823.37 (500)
Goodness of fit index (GFI)	0.87
Comparative fit index (CFI)	0.93
Incremental fit index (IFI)	0.93
Root mean square error of approximation (RMSEA)	0.046
Standardized root mean square residual (SRMR)	0.046



Table 3  
Analysis of Modification Indices

Path to:	Path from:	Decrease in Chi-Square	Factor Loading (when set free)
SATEMP2	Stabemp	17.3	-0.25
SATEMP2	Contorg	10.4	-0.19
SATEMP2	Contemp	10.9	-0.24
GLOB3	Satcore	9.2	-0.11
GLOB4	Satemp	9.2	-0.13
GLOB4	Satorg	9.1	-0.13

Table 4  
Results of Discriminant Validity Analysis

Model	Chi-Sq. (df)	Chi-Sq. difference	GFI	CFI	IFI	RMSEA	SRMR
Hypothesized Model	823.37 (500)	---	0.87	0.93	0.93	0.05	0.05
Single Latent Construct Model (Attributions)	1774.96 (545)	951.59 <sup>a</sup>	0.70	0.72	0.73	0.11	0.10
Three Latent Construct Model (Globality & Stability Redundant)	1057.04 (516)	233.67 <sup>a</sup>	0.83	0.88	0.88	0.06	0.07
Three Latent Construct Model (Globality & Control-Emp. Redundant)	1191.57 (516)	368.20 <sup>a</sup>	0.81	0.85	0.85	0.07	0.08
Three Latent Construct Model (Globality & Control-Org. Redundant)	1275.30 (516)	451.93 <sup>a</sup>	0.80	0.83	0.84	0.07	0.08
Three Latent Construct Model (Stability & Control-Emp. Redundant)	1077.93 (516)	254.56 <sup>a</sup>	0.82	0.87	0.88	0.07	0.07
Three Latent Construct Model (Stability & Control-Org. Redundant)	1012.92 (516)	189.55 <sup>a</sup>	0.83	0.89	0.89	0.06	0.06
Three Latent Construct Model (Control-Org. & Control-Emp. Redundant)	987.48 (516)	164.11 <sup>a</sup>	0.84	0.89	0.90	0.06	0.05
Single Latent Construct Model (Satisfaction)	1443.03 (531)	619.66 <sup>a</sup>	0.78	0.80	0.80	0.08	0.08
Three Latent Construct Model (Sat. w/ Org. & Sat. w/ Emp. Redundant)	1183.05 (516)	359.68 <sup>a</sup>	0.81	0.85	0.86	0.07	0.07
Three Latent Construct Model (Sat. w/ Org. & Sat. w/ Core Redundant)	1080.80 (516)	257.43 <sup>a</sup>	0.83	0.87	0.88	0.06	0.06
Three Latent Construct Model (Sat. w/ Emp. & Sat. w/ Core Redundant)	1227.23 (516)	403.86 <sup>a</sup>	0.80	0.84	0.85	0.07	0.08

<sup>a</sup> Difference in Chi-square from hypothesized model.

Table 5  
Demographics of Sample

Demographic Variable	Number of Respondents	Percentage (Valid)
Gender:		
Male	202	46.5%
Female	208	48.0%
No Answer (Missing)	24	5.5%
Age (by category):		
Less than 20 years	29	6.7%
20-29 years	65	15.0%
30-39 years	77	17.7%
40-49 years	85	19.6%
50-59 years	80	18.4%
60-69 years	51	11.8%
70-79 years	23	5.3%
80-89 years	2	0.5%
No Answer (Missing)	22	5.0%
Purpose of Flight:		
Business	94	21.7%
Pleasure	245	56.5%
Other	40	9.2%
Not Taking a Flight	31	7.1%
No Answer (Missing)	24	5.5%
Airline Flying Today		
Southwest Airlines	350	80.6%
Delta Airlines	3	0.7%
US Airways	3	0.7%
Continental Airlines	7	1.6%
United Airlines	1	0.2%
American Airlines	8	1.8%
Other	9	2.1%
Not Flying Today	5	1.2%
No Answer (Missing)	48	11.1%
Most Frequently Used Airline:		
Southwest Airlines	167	38.5%
Delta Airlines	40	9.2%
US Airways	43	9.9%
Continental Airlines	12	2.8%
United Airlines	33	7.6%
American Airlines	23	5.3%
Other	26	6.0%
None	30	6.9%
No Answer (Missing)	60	13.8%

n = 434

(Continued on Next Page)

Table 5 (continued)

Demographic Variable	Number of Respondents	Percentage (Valid)
Number of Flights (Current Year)		
None	25	5.8%
1 -10	294	67.70%
11-20	24	5.60%
21-30	11	2.50%
31-100	14	3.20%
Over 100	49	11.30%
No Answer (Missing)	17	3.90%
Number of Flights (Lifetime)		
None	4	1.00%
1 -10	101	23.20%
11-20	66	15.20%
21-30	41	9.40%
31-100	108	24.90%
Over 100	101	23.30%
No Answer (Missing)	13	3.00%
Employed by an Airline		
Yes	11	2.5%
No	397	91.5%
No Answer (Missing)	26	6%

n = 434

Table 6  
Airline Service Evaluations

Variable	Overall Sample	Southwest Customers	Other Airline Customers
Evaluation of Airline Used Most Frequently (1 = Poor, 7 = Excellent) Missing = 34 (7.8%)	5.63 <sup>a</sup> (0.93) <sup>b</sup>	5.95 <sup>c</sup> (0.84)	5.41 <sup>c</sup> (0.94)
Evaluation of Airline Industry (1 = Poor, 7 = Excellent) Missing = 29 (6.7%)	5.47 (1.12)	5.85 <sup>c</sup> (0.89)	5.19 <sup>c</sup> (1.16)
Past Failure(s) with Airline Flights (1 = Never, 7 = Frequently) Missing = 22 (5%)	3.59 (1.72)	3.53 (1.64)	3.77 (1.75)
Magnitude of Past Failure(s) with Airline Flight (1 = Extremely Minor, 7 = Extremely Major)	4.05 (1.94)	3.89 (1.97)	4.20 (1.94)
Past Failure(s) with Employees (1 = Never, 7 = Frequently) Missing = 21 (4.8%)	2.85 (1.72)	2.69 (1.61)	2.93 (1.82)
Magnitude of Past Failure(s) with Airline Employees (1 = Extremely Minor, 7 = Extremely Major)	3.39 (1.83)	3.05 <sup>c</sup> (1.70)	3.66 <sup>c</sup> (1.97)
Importance of Flight (1 = Not Important, 7 = Very Important) Missing = 22 (5%)	6.27 (1.01)	6.30 (0.95)	6.24 (1.03)
Importance of Good Interactions with Service Employees (1 = Not Important, 7 = Very Important) Missing = 21 (4.8%)	5.64 (1.40)	5.53 (1.54)	5.64 (1.27)
Experienced Failure(s) on Current Trip with Airline (frequency and percentage): Yes, Major Failure Yes, Minor Failure No Problems No Answer (Missing)	2 (0.5%) 26 (6.0%) 350 (80.6%) 56 (12.9%)		

<sup>a</sup> Mean

<sup>b</sup> Standard deviation

<sup>c</sup> Means are significantly different for Southwest and Other Airlines (based upon t-tests).

n = 434

Table 7  
Correlations, Means, and Standard Deviations of All Variables

Variable	Mean	s.d.	1	2	3	4	5	6	7	8	9	10	11	12
1. Severity of the Peripheral Failure	0.50	0.50	—											
2. Quality of Past Core Performance	0.50	0.50	-0.01	—										
3. Existence of Past Peripheral Failures	0.49	0.50	-0.01	0.00	—									
4. Attr. of Controllability (Org.-Level)	5.38	1.51	0.11	-0.06	0.10	—								
5. Attr. of Controllability (Empl.-Level)	5.86	1.25	0.17**	-0.06	0.08	0.50**	—							
6. Attr. of Stability (Empl.-Level)	4.38	1.39	0.06	0.03	0.23**	0.39**	0.31**	—						
7. Attr. of Globality	3.42	1.61	-0.13*	-0.12*	0.55**	0.19**	0.07	0.39**	—					
8. Satisfaction with the Core Service	5.92	1.17	-0.13*	0.15*	-0.12*	0.02	0.14*	-0.10	-0.14*	—				
9. Satisfaction with the Employee	2.40	1.37	-0.46**	0.09	-0.12*	-0.25**	-0.39**	-0.21**	-0.01	0.09	—			
10. Satisfaction with the Organization	4.95	1.37	-0.16**	0.34**	-0.34**	-0.09	-0.01	-0.22**	-0.37**	0.49**	0.25**	—		
11. Intentions to Complain	4.00	1.88	0.25**	-0.02	0.12*	0.19**	0.15*	0.26**	0.09	-0.18**	-0.41**	-0.21**	—	
12. Loyalty	3.35	1.50	-0.02	0.17**	-0.23**	-0.12*	-0.04	-0.15*	-0.19**	0.13*	0.11	0.33**	-0.07*	—
13. Intentions to Exit	3.19	1.54	0.15*	-0.28**	0.32**	0.07	0.05	0.15*	0.34**	-0.37**	-0.21**	-0.63**	0.31**	-0.24**

Note: 1) \*\* p < 0.01, \* p < 0.05, 2) The correlation matrix represents a pairwise correlation matrix.  
N = 288

Table 8  
Standardized Structural Path Estimates

Relationships	Estimate	t-value	Hypothesis	Support/ No Support
Existence of Past Peripheral Failures → Attributions of Globality	0.34	8.56***	H <sub>1</sub>	Supported
Quality of Past Core Performance → Attributions of Globality	-0.08	-2.35**	H <sub>2</sub>	Supported
Severity of Peripheral Failure → Attributions of Globality	-0.09	-2.30**	H <sub>3</sub>	Supported
Existence of Past Peripheral Failures → Attributions of Controllability (Org.)	-0.01	-0.39	H <sub>4</sub>	Not Supported
Severity of Peripheral Failure → Attributions of Controllability (Org.)	0.11	2.29**	H <sub>5</sub>	Supported
Severity of Peripheral Failure → Attributions of Controllability (Empl.)	0.15	2.96***	H <sub>6</sub>	Supported
Severity of Peripheral Failure → Attributions of Stability (Empl.)	0.04	0.82	H <sub>7</sub>	Not Supported
Existence of Past Peripheral Failures → Attributions of Stability (Empl.)	0.20	3.97***	---	---
Severity of Peripheral Failure → Satisfaction with the Employee	-0.44	-6.59***	H <sub>8</sub>	Supported
Attributions of Controllability (Empl.) → Satisfaction with the Employee	-0.52	-4.97***	H <sub>9</sub>	Supported
Attributions of Stability (Empl.) → Satisfaction with the Employee	0.02	0.22	H <sub>10</sub>	Not Supported
Attributions of Globality → Satisfaction with the Employee	-0.05	-0.56	H <sub>11</sub>	Not Supported
Severity of Peripheral Failure → Satisfaction with the Core Service	-0.11	-2.88***	H <sub>12</sub>	Supported
Quality of Past Core Performance → Satisfaction with the Core Service	0.13	3.49***	H <sub>13</sub>	Supported
Satisfaction with the Core Service → Satisfaction with the Organization	0.76	7.45***	H <sub>14</sub>	Supported
Satisfaction with the Employee → Satisfaction with the Organization	0.19	3.48***	H <sub>15</sub>	Supported

\*\*\* p < .01, \*\* p < .05, \* p < .10. The p-value is based on a two-tailed test.

Table 8 (continued)  
Standardized Structural Path Estimates

Relationships	Estimate	t-value	Hypothesis	Support/ No Support
Attributions of Globality → Satisfaction with the Organization	-0.54	-6.73***	H <sub>17</sub>	Supported
Quality of Past Core Performance → Satisfaction with the Organization	0.23	4.90***	---	---
Satisfaction with the Employee → Intentions to Complain	-0.45	-5.59***	H <sub>18</sub>	Supported
Satisfaction with the Organization → Intentions to Complain	-0.16	-2.10**	H <sub>19</sub>	Supported
Satisfaction with the Organization → Loyalty	0.81	4.85***	H <sub>20</sub>	Supported
Satisfaction with the Organization → Intentions to Exit	-0.89	-8.41***	H <sub>21</sub>	Supported

\*\*\* p < .01, \*\* p < .05, \* p < .10. The p-value is based on a two-tailed test.

**Goodness-of-fit Statistics**

Chi-square (df)	943.70 (548)
Goodness of fit index	0.85
Comparative fit index	0.91
Incremental fit index	0.91
Standardized root mean square residual (SRMR)	0.065
Root mean square error of approximation (RMSEA)	0.049



Table 9  
Results of Regression Analysis for Hypothesized Interaction (Results of H<sub>16</sub>)

Variable	Beta (Unstandardized)	Std. Error	Beta (Standardized)	t-statistic and sign. level
Satisfaction w/ Employee	0.18	0.05	0.18	3.40***
Satisfaction w/ Core	0.52	0.06	0.46	8.86***
Attributions of Globality	-0.26	0.04	-0.315	-6.11***
Attributions of Controllability	0.00	0.05	0.00	0.05
Satisfaction w/ Empl. X Control	-0.02	0.03	-0.03	-0.54
Age	-0.02	0.05	0.025	0.45
Personal Exp. w/ Empl.	-0.04	0.04	-0.05	-1.02
Importance of Rec. Good Service	-0.03	0.05	-0.03	-0.51
Typicality	0.13	0.05	0.15	2.74***

\*\*\* p < .01, \*\* p < .05, \* p < .10.

Table 10  
Tests of Mediation

Mediator Tested	Independent Variable(s)	Dependent Variable	Step 1 M = f(I)	Step 2 D = f(I)	Step 3 D = f(I,M)	Conclusions
Attributions of Globality	1) Existence of Past Peripheral Service Failures 2) Quality of Past Core Service Performance	Satisfaction with the Organization	1) .55 *** 2) -.12**	1) -.37*** 2) .34***	1) -.20*** 2) .31***	1) Partial Mediation 2) Partial Mediation
Satisfaction with the Employee	1) Severity of the Peripheral Service Failure	Satisfaction with the Organization	1) -.49***	1) -.08*	1) -.01, n.s.	1) Full Mediation
Attributions of Controllability (Employee-Level)	1) Severity of the Peripheral Service Failure	Satisfaction with the Employee	1) .16***	1) -.54***	1) -.48***	1) Partial Mediation

\*\*\*  $p < .01$ , \*\*  $p < .05$ , \*  $p < .10$ .

Table 11  
Examination of the No-Failure Control Condition

Dependent Variable	Means	Test of Significant Difference
Satisfaction with the Organization		
No Failure	5.77	
Less Severe Failure	5.17	$F_{(1,286)} = 19.94^{**}$ <sup>a</sup>
More Severe Failure	4.74	$F_{(1,286)} = 49.16^{**}$ <sup>b</sup>
Satisfaction with the Employee		
No Failure	6.11	
Less Severe Failure	3.02	$F_{(1,288)} = 479.12^{**}$ <sup>a</sup>
More Severe Failure	1.78	$F_{(1,288)} = 1417.87^{**}$ <sup>b</sup>
Satisfaction with the Core Service		
No Failure	6.16	
Less Severe Failure	6.08	$F_{(1,287)} = .51$ <sup>a</sup>
More Severe Failure	5.77	$F_{(1,286)} = 8.35^{**}$ <sup>b</sup>
Loyalty		
No Failure	3.81	
Less Severe Failure	3.19	$F_{(1,283)} = 15.08^{**}$ <sup>a</sup>
More Severe Failure	3.09	$F_{(1,288)} = 21.58^{**}$ <sup>b</sup>
Exit		
No Failure	2.36	
Less Severe Failure	2.96	$F_{(1,282)} = 15.39^{**}$ <sup>a</sup>
More Severe Failure	3.42	$F_{(1,283)} = 40.38^{**}$ <sup>b</sup>

<sup>a</sup> Test difference between means of no failure condition and less severe condition.

<sup>b</sup> Test difference between means of no failure condition and more severe condition.

\*\*  $p < .01$

\*  $p < .05$

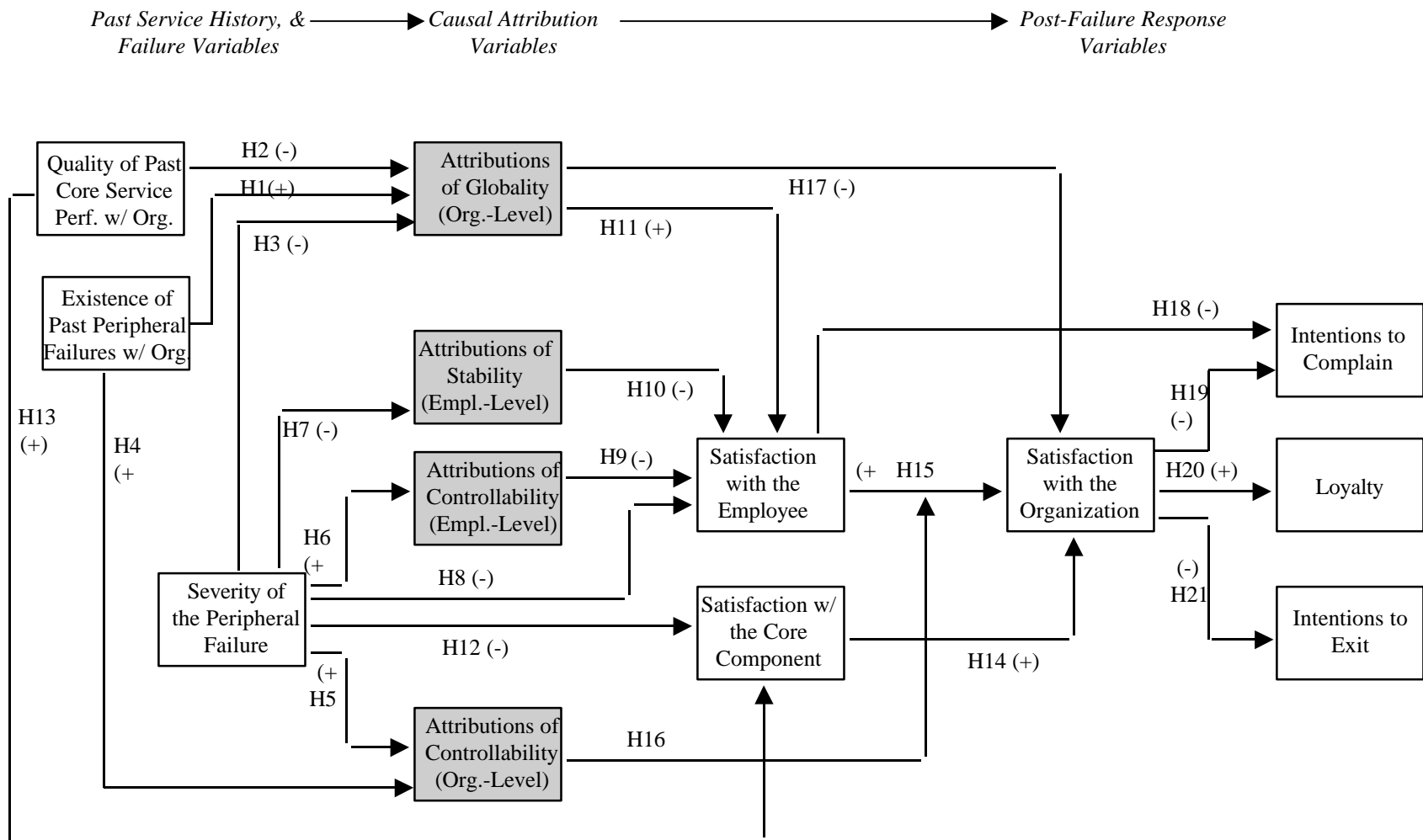
Table 12  
Summary of Hypotheses Tests

	Hypothesis	Result	Supported/ Not Supported
H <sub>1</sub>	The existence of past peripheral failures result in attributions of higher globality than if no past peripheral failures have been experienced.	Significant Positive	Supported
H <sub>2</sub>	Excellent quality past core service performance will result in attributions of lower globality than average quality past core service performance.	Significant Negative	Supported
H <sub>3</sub>	More severe peripheral failures elicit attributions of lower globality than less severe peripheral service failures.	Significant Negative	Supported
H <sub>4</sub>	The existence of past peripheral service failures result in attributions of greater controllability at the organizational-level than if no past peripheral service failures have been experienced.	Nonsignificant Positive	Not Supported
H <sub>5</sub>	More severe peripheral failures elicit attributions of greater controllability at the organizational-level than less severe peripheral failures.	Significant Positive	Supported
H <sub>6</sub>	More severe peripheral failures elicit attributions of greater controllability at the employee-level than less severe peripheral failures.	Significant Positive	Supported
H <sub>7</sub>	More severe peripheral failures elicit attributions of lower stability at the employee-level than less severe failures.	Nonsignificant Positive	Supported
H <sub>8</sub>	More severe peripheral failures will result in lower levels of satisfaction with the employee than less severe failures.	Significant Negative	Supported
H <sub>9</sub>	Attributions of controllability at the employee-level for the peripheral service failure are negatively related to customers' satisfaction with the employee.	Significant Negative	Supported
H <sub>10</sub>	Attributions of stability at the employee-level for the peripheral failure are negatively related to customers' satisfaction with the employee.	Nonsignificant Negative	Not Supported
H <sub>11</sub>	Perceived attributions of globality for the peripheral failure are positively related to customers' satisfaction with the employee.	Nonsignificant Negative	Not Supported
H <sub>12</sub>	More severe peripheral failures cause lower levels of satisfaction with the core service performance than less severe peripheral failures.	Significant Negative	Supported
H <sub>13</sub>	Excellent quality past core service performance results in greater satisfaction with the present core service than average quality past service performance.	Significant Positive	Supported

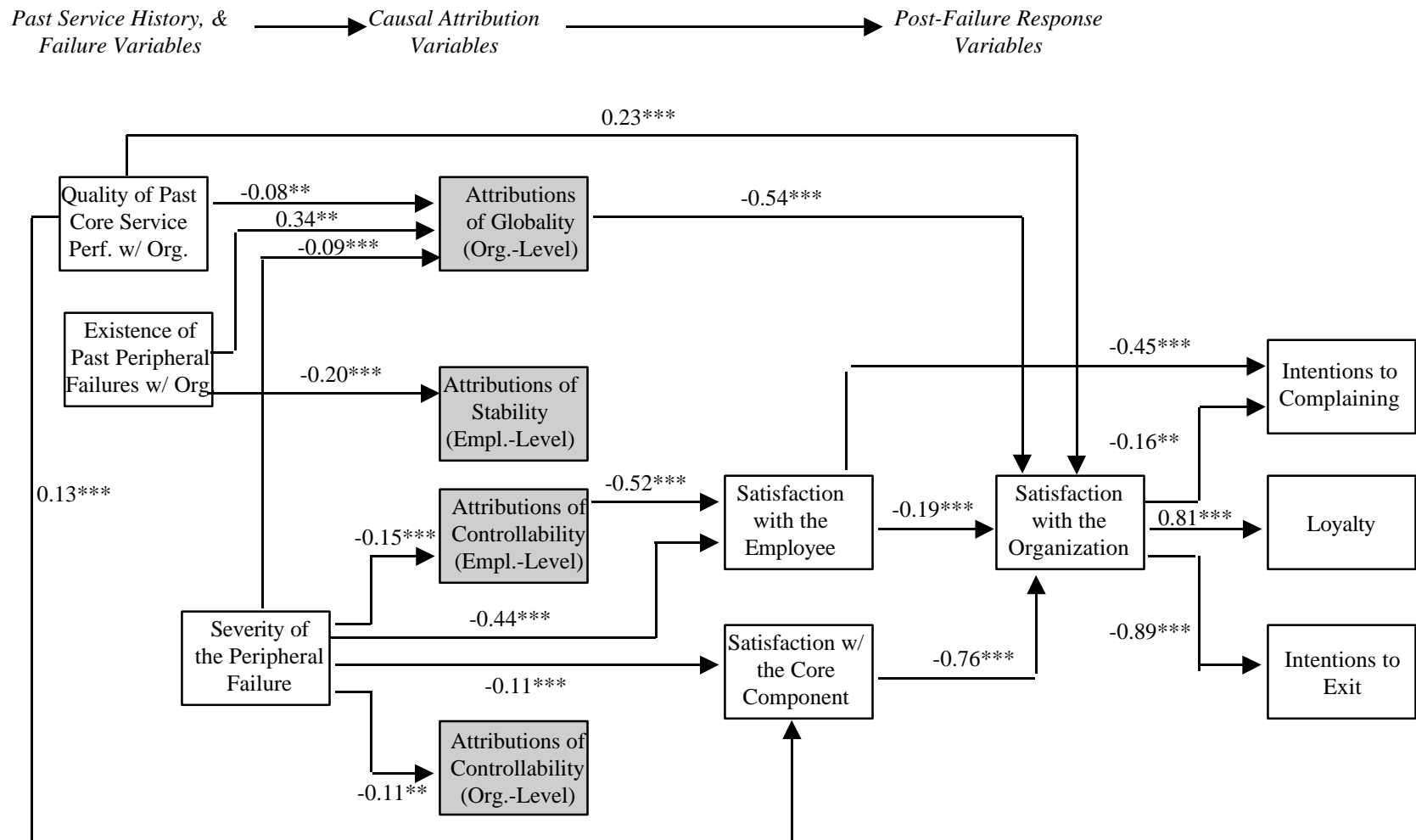
(Continued on Next Page)

Table 12 (Continued)  
Summary of Hypotheses Tests

	Hypothesis	Result	Supported/ Not Supported
H <sub>14</sub>	Satisfaction with the core service performance is positively related to satisfaction with the organization.	Significant Positive	Supported
H <sub>15</sub>	Satisfaction with the employee is positively related to satisfaction with the organization.	Significant Positive	Supported
H <sub>16</sub>	Dissatisfaction with the employee has a greater positive effect on dissatisfaction with the organization when customers consider the causes highly controllability at the organizational-level rather than less controllable at the organizational-level.	Nonsignificant	Not Supported
H <sub>17</sub>	Perceived attributions of globality for the peripheral failure are negatively related to satisfaction with the organization.	Significant Negative	Supported
H <sub>18</sub>	Satisfaction with the employee is negatively related to intentions to complain to the organization.	Significant Negative	Supported
H <sub>19</sub>	Satisfaction with the organization is negatively related to customers' intentions to complain to the organization.	Significant Negative	Supported
H <sub>20</sub>	Satisfaction with the organization is positively related to loyalty.	Significant Positive	Supported
H <sub>21</sub>	Satisfaction with the organization is negatively related to customers' intentions to exit.	Significant Negative	Supported



**Figure 1. A Conceptual Model of Peripheral Service Failures**



**Figure 2. Empirical Results of LISREL Analysis**

Appendix A  
Manipulations for Severity of the Peripheral Service Failure

1. Less Severe Peripheral Service Failure:

There is only one check-in agent behind the counter, and nobody else in line. You set your bags down at the counter right in front of her, where she is working at a computer terminal. You wait patiently for a minute but she does not acknowledge your presence. Then, several other passengers arrive in line behind you. You then say: “excuse me” to get the check-in agent’s attention. After you do so, the agent says: “I’ll be right with you.” She then asks to see your ticket and identification.

2. More Severe Peripheral Service Failure:

There is only one check-in agent behind the counter, and nobody else in line. You set your bags down at the counter right in front of her, and the agent glances at you, but says nothing and just keeps on working on her terminal. You wait patiently for a minute. The agent still hasn’t acknowledged your presence. By this time, several other passengers have arrived in line behind you. You then say: “excuse me” to get the check-in agent’s attention. However, the agent doesn’t respond, but just continues to work. You wait another minute, as more passengers enter the line. Finally you just ask the agent if she will please check your bags in. After you do this, the agent says: “Just wait a minute, I’ll be right with you.” After putting a few more entries into the terminal, she asks to see your ticket and identification.



Appendix B  
Manipulations for the Existence of Past Peripheral Service Failures

1. Not Existing:

With respect to terminal and baggage check-in areas, you have never experienced any problems with Admiral's employees. They have always been friendly, courteous, and attentive. They are always willing to help you.

2. Existing:

With respect to terminal and baggage check-in areas, you have sometimes had problems with Admiral's employees. They have not always been friendly, courteous, and attentive. They sometimes seem less than willing to help you.

Appendix C  
Manipulations for Quality of Past Core Service Performance

1. Average Quality Past Core Service

Your flights on Admiral have been satisfactory, but nothing special. The airline seems to have occasional delays in arrival times, and the flights themselves are sometimes not very comfortable. Compared to other major airlines, the flights on Admiral are about average.

2. Excellent Quality of Past Core Service

Your flights on Admiral have been exceptional. The airline seems to arrive on time, and the flights themselves are very comfortable in every respect. Compared to other major airlines, the flights on Admiral are about outstanding.

## Appendix D Manipulation Checks

### Severity of Peripheral Service Failure

Based on your experience with airlines, how would you describe the check-in agent's actions?

1. Insignificant lapse in service -- Significant lapse in service
2. Severe service problem -- Mild service problem
3. Minor service problem -- Major service problem

### Quality of Past Core Service Performance of the Organization

Based on the experiences we have described, please give your evaluation of Admiral's flights.  
(Strongly Disagree, Strongly Agree)

1. Your past flights on Admiral Airlines have been exceptional.
2. The quality of Admiral Airline's past flights has been poor. (r)
3. The quality of the airline flights provided by Admiral Airlines in the past has been excellent.

### Existence of Past Peripheral Service Failures

Based on what we have described, please evaluate Admiral Airline's employees.  
(Strongly Disagree, Strongly Agree)

1. Admiral's terminal and check-in employees have always treated you well in the past. (r)
2. In the past, you have experienced several problems with Admiral's terminal and check-in employees.
3. You have been treated poorly by the terminal and check-in employees of Admiral Airlines on several occasions in the past.

## Appendix E Introduction and Background

### Introduction

In this survey, we want you to imagine that you are traveling on Admiral Airlines, a major airline flying to most major cities. This is not a real airline, but we want to know how you would react if you were in the situation we will describe. Please read the description carefully and then answer the questions.

### Background:

You are about to take an Admiral Airlines flight from Baltimore-Washington Airport to Chicago. You have flown on Admiral Airlines many times before- maybe 5-6 times in the past year.

Appendix F  
Present Core Service Description

The flight to Chicago is uneventful. You have no problem finding your seat and stowing your carry-on luggage. The seat is reasonably comfortable. Once the airplane reaches cruising altitude, a snack and beverage are served. The flight is relatively smooth and it arrives in Chicago on-time.

Appendix G  
Measures for Mediating Variables

Attributions of Controllability at the Employee-Level (items 1-2, adapted from Russell 1982, alpha = 0.73; item 3, new item)

The check-in agent's behavior was:  
(7-point scale)

1. Not at all controllable by that agent -- Definitely controllable by that agent
2. Not at all preventable by the agent -- Definitely preventable by the agent
3. Not at all avoidable by the agent -- Definitely avoidable by the agent

Attributions of Controllability at the Organizational-Level (items 1-2, adapted from Russell 1982, alpha = 0.73; item 3, new item)

In your opinion, the cause of the check-in agent's response was likely to be:  
(7-point scale)

1. Not at all controllable by the airline -- Definitely controllable by the airline
2. Not at all preventable by the airline -- Definitely preventable by the airline
3. Not at all avoidable by the airline -- Definitely avoidable by the airline

Attributions of Stability at the Employee-Level (Adapted from Russell 1982, alpha = 0.84)

The check-in agent's behavior was:  
(7-point scale)

1. A temporary characteristic of that agent-- A permanent characteristic of that agent
2. A variable characteristic of the agent-- A stable characteristic of the agent
3. An inconsistent characteristic of the agent-- A consistent characteristic of the agent

Attributions of Globality (new scale)

In your opinion, the cause of the check-in agent's response was likely to be:  
(7-point scale)

1. Not at all universal across this airline-- Universal across this airline
2. Not at all common among other employees at this airline-- Common among other employees at this airline
3. Not at all similar to the responses of other employees-- Similar to the responses of other employees
4. Not at all widespread throughout this airline-- Definitely widespread throughout this airline

Appendix H  
Measures for Dependent Variables

Satisfaction with the Core Service Component (Adapted from Oliver and Swan 1989, alpha = 0.95)

At this point, how are you feeling about the flight on Airline Airlines? (1 = Strongly Disagree, 7 = Strongly Agree)

1. I am pleased with the airline flight.
2. I am unhappy with the airline flight. (r)
3. I am satisfied with the airline flight.

Satisfaction with the Employee (Adapted from Oliver and Swan 1989, alpha = 0.95)

At this point, how are you feeling about the check-in agent ? (1 = Strongly Disagree, 7 = Strongly Agree)

1. I am pleased with the check-in agent.
2. I am unhappy with the check-in agent. (r)
3. I am satisfied with the check-in agent.

Satisfaction with the Organization (Adapted from Oliver and Swan 1989, alpha = 0.95)

Overall, how do you feel about Admiral Airlines ? (1 = Strongly Disagree, 7 = Strongly Agree)

1. I am pleased with the airline.
2. I am unhappy with the airline. (r)
3. I am satisfied with the airline.

Appendix I  
Measures for Outcome Variables

Intentions to Complain to the Organization- (Adapted from Singh 1988; Folkes, Koletsky, and Graham 1987)

How likely is it that you would: (Extremely Unlikely -- Extremely Likely)

1. Complain to someone at the airline about your experience with the check-in agent?
2. Feel that you should complain to the airline about your check-in experience?
3. Tell someone at the airline about your experience with the check-in agent?

Loyalty

At this point, how are feeling about Admiral Airlines? (Strongly Disagree – Strongly Agree)

1. I could just as well use another airline as long as it had the flight times that I wanted.
2. It would require very little increase in Admiral's ticket prices for me to choose a different airline.
3. It would take very little decrease in Admiral's service quality to make me fly another airline instead.

Exit- (Adapted from Singh 1988; Rusbult, Zembrodt, and Gunn 1982, average alpha across four studies = 0.82)

At this point, how are feeling about Admiral Airlines? (Strongly Disagree – Strongly Agree)

1. I will fly with a different airline on my next trip.
2. I will not fly with this airline again.
3. I will not continue using this airline in the future.



Appendix J  
Measures for Control Variables

Typicality of Service Failure (new scale)

The situation described here is: (7-point scale)

1. Characteristic of my experiences – Not at all characteristic of my experiences ( r )
2. Not at all Typical – Extremely Typical
3. Occurs Frequently – Occurs Infrequently ( r )

Importance of Receiving Good Service from Employees (new scale)

What are your general feelings about services and airlines?

1. How important is it to you that you have good interactions with check-in and terminal employees? (Not important -- Very important)

Age

Could you share some information about yourself so we can group you with similar airline customers?

1. What is your age?

Personal Service Failure Experiences- (new scale)

1. Have you ever had any problems with airline employees? (Never – Frequently)

Appendix K  
Sample Questionnaire

**Airline Service Questionnaire**

In this survey, we want you to imagine that you are traveling on Admiral Airlines, a major airline flying to most major cities. This is not a real airline, but we want to know how you would react if you were in the situation we will describe. Please read the description carefully and then answer the questions.

## **Past Experience with Admiral Airlines**

You are about to take an Admiral Airlines flight from the Baltimore-Washington Airport to Chicago. You have flown on Admiral Airlines many times before – maybe 5-6 times in the past year.

Your flights on Admiral have been exceptional. The airline always seems to arrive on time, and the flights themselves are very comfortable in every respect. Compared to other major airlines, the flights on Admiral are outstanding.

[Your flights on Admiral have been satisfactory, but nothing special. The airline seems to have occasional delays in arrive times, and the flights themselves are sometimes not very comfortable. Compared to other major airlines, the flights on Admiral are about average.]

With respect to the terminal and baggage check-in areas, you have never experienced any problems with Admiral's employees. They have always been friendly, courteous, and attentive. They are always willing to help you.

[With respect to the terminal and baggage check-in areas, however, you have sometimes had problems with Admiral's employees. They have not always been friendly, courteous, and attentive. They sometimes seem less than willing to help you.]

***Based on the experiences we have described, please give your evaluation of Admiral's flights.***

1. Your past **flights** on Admiral Airlines have been exceptional.

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

2. The quality of Admiral Airline's past **flights** has been poor.

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

3. The quality of the airline **flights** provided by Admiral Airlines in the past has been excellent.

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

***Based on what we have described, please evaluate Admiral Airline's employees.***

1. Admiral's **terminal and check-in employees** have always treated you well in the past.

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

2. In the past, you have experienced several problems with Admiral's **terminal and check-in employees**.

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

3. You have been treated poorly by the **terminal and check-in employees** of Admiral Airlines on several occasions in the past.

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

***Overall, how do you feel about Admiral Airlines?***

1. I am pleased with the airline.

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

2. I am unhappy with the airline.

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

3. I am satisfied with the airline.

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

***What do you expect or anticipate for your upcoming trip to Chicago on Admiral Airlines?***

1. The level of service from Admiral's terminal and check-in employees will be:

Poor	1	2	3	4	5	6	7	Excellent
Not at All Helpful	1	2	3	4	5	6	7	Extremely Helpful
Not at All Courteous	1	2	3	4	5	6	7	Extremely Courteous
Not at All Attentive	1	2	3	4	5	6	7	Extremely Attentive

2. The actual flight on Admiral Airlines will be:

Poor	1	2	3	4	5	6	7	Excellent
Not at All Enjoyable	1	2	3	4	5	6	7	Extremely Enjoyable
Not at All Pleasant	1	2	3	4	5	6	7	Extremely Pleasant

## **Your Chicago Trip**

### Check-in:

You enter the airport and walk up to the check-in counter. There is only one check-in agent behind the counter, and nobody else is in line. You set your bags down at the counter right in front of her, where she is working on a computer terminal. You wait patiently for a minute but she does not acknowledge your presence

Then, several other passengers arrive in line behind you. You then say “excuse me” to get the check-in agent’s attention. After you do so, the agent says: “I’ll be right with you.” She then asks to see your ticket and identification.

The agent then checks in your bags, processes your ticket, and tells you that you may proceed to the gate.

[You set your bags down at the counter right in front of her, and the agent glances at you, but says nothing and just keeps on working on her terminal. You wait patiently for a minute. The agent still hasn’t acknowledged your presence.

By this time, several other passengers have arrived in line behind you. You then say: “excuse me” to get the check-in agent’s attention. However, the agent doesn’t respond, but just continues to work. You wait another minute, as more passengers enter the line.

Finally, you just ask the agent if she will please check your bags in. After you do this, the agent says: “Just wait a minute, I’ll be right with you.” After putting a few more entries into the terminal, she asks to see your ticket and identification.]

***At this point, how are you feeling about the check-in agent?***

1. I am pleased with the check-in agent.

Strongly Disagree    1      2      3      4      5      6      7      Strongly Agree

2. I am unhappy with the check-in agent.

Strongly Disagree    1      2      3      4      5      6      7      Strongly Agree

3. I am satisfied with the check-in agent.

Strongly Disagree    1      2      3      4      5      6      7      Strongly Agree

***The check-in agent's behavior was:***

Not at all controllable by that agent	1	2	3	4	5	6	7	Definitely controllable by that agent
---	---	---	---	---	---	---	---	---

A temporary characteristic of that agent	1	2	3	4	5	6	7	A permanent characteristic of that agent
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Not at all universal across this airline	1	2	3	4	5	6	7	Universal across this airline
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***The check-in agent's behavior was:***

Not at all controllable by the airline	1	2	3	4	5	6	7	Definitely controllable by the airline
Not at all preventable by the agent	1	2	3	4	5	6	7	Definitely preventable by the agent
Not at all common among other employees at this airline	1	2	3	4	5	6	7	Common among other employees at this airline
An inconsistent characteristic of the airline	1	2	3	4	5	6	7	A consistent characteristic of the airline
Not at all preventable by the airline	1	2	3	4	5	6	7	Definitely preventable by the airline
An inconsistent characteristic of the agent	1	2	3	4	5	6	7	A consistent characteristic of the agent
A temporary characteristic of the airline	1	2	3	4	5	6	7	A permanent characteristic of the airline
Not at all avoidable by the airline	1	2	3	4	5	6	7	Definitely avoidable by the airline
Not at all similar to the responses of other employees	1	2	3	4	5	6	7	Similar to the responses of other employees
A variable characteristic of the agent	1	2	3	4	5	6	7	A stable characteristic of the agent
Not at all avoidable by the agent	1	2	3	4	5	6	7	Definitely avoidable by the agent
Not at all widespread throughout this airline	1	2	3	4	5	6	7	Definitely widespread throughout this airline



***The check-in agent's behavior was:***

A variable characteristic of the airline	1	2	3	4	5	6	7	A stable characteristic of the airline
Caused by the clerk	1	2	3	4	5	6	7	Caused by the airline
Created by the airline	1	2	3	4	5	6	7	Created by the clerk
Responsibility of the clerk	1	2	3	4	5	6	7	Responsibility of the airline

***Compared to what I expected the check-in agent to be like:***

***1. Overall, the check-in agent was:***

Much worse than expected	Worse than expected	As expected	Better than expected	Much better than expected
1	2	3	4	5

***2. The problems I had were:***

Much worse than expected	Worse than expected	As expected	Better than expected	Much better than expected
1	2	3	4	5

***3. Her good points were:***

Much worse than expected	Worse than expected	As expected	Better than expected	Much better than expected
1	2	3	4	5

***In your opinion, why did the check-in clerk behave the way that she did?***

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## More About Your Chicago Trip

### Your Flight to Chicago:

The flight to Chicago is uneventful. You have no problem finding your seat and stowing your carry-on luggage. The seat is reasonably comfortable. Once the airplane reaches cruising altitude, a snack and beverage are served. The flight is relatively smooth and it arrives in Chicago on-time.

### *At this point, how are you feeling about the flight on Admiral Airlines?*

1. I am pleased with the airline flight.

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

2. I am unhappy with the flight.

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

3. I am satisfied with the flight.

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

### *Compared to what I expected the flight to Chicago to be like:*

1. *Overall, the flight was:*

Much worse than expected	Worse than expected	As expected	Better than expected	Much better than expected
1	2	3	4	5

2. *The worst aspects of the flight were:*

Much worse than expected	Worse than expected	As expected	Better than expected	Much better than expected
1	2	3	4	5

3. *The best aspects of the flight were:*

Much worse than expected	Worse than expected	As expected	Better than expected	Much better than expected
1	2	3	4	5

***Overall, how do you feel about Admiral Airlines?***

1. I am pleased with the airline.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

2. I am unhappy with the airline.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

3. I am satisfied with the airline.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

***Compared to what I expected Admiral Airlines to be like:***

***1. Overall, the airline was:***

Much worse than expected	Worse than expected	As expected	Better than expected	Much better than expected
1	2	3	4	5

***2. Overall, the problems I experienced were:***

Much worse than expected	Worse than expected	As expected	Better than expected	Much better than expected
1	2	3	4	5

***3. Overall, the benefits I experienced were:***

Much worse than expected	Worse than expected	As expected	Better than expected	Much better than expected
1	2	3	4	5

*At this point, how are you feeling about the Admiral Airline?*

1. I could just as well use another airline as long as it had the flight times that I wanted.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

2. I will fly with a different airline on my next trip.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

3. I expect my relationship with Admiral Airlines to be enduring.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

4. I will not fly with this airline again.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

5. I expect to be using Admiral Airlines for a long time.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

6. It would require very little increase in Admiral's ticket prices for me to choose a different airline.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

7. I do not expect to fly on Admiral Airlines in the future.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

8. It is likely that I will fly on Admiral Airlines in the future.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

9. It would take very little decrease in Admiral's service quality to make me fly another airline instead.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

10. I will not continue using this airline in the future.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

***How likely is it that you would:***

1. Complain to someone at the airline about your experience with the check-in agent?  
Extremely Unlikely    1   2   3   4   5   6   7    Extremely Likely
2. Convince your friends and relatives not to use this airline?  
Extremely Unlikely    1   2   3   4   5   6   7    Extremely Likely
3. Stick with the airline and hope things improve?  
Extremely Unlikely    1   2   3   4   5   6   7    Extremely Likely
4. Report the check-in incident to a consumer agency so that they can warn other consumers?  
Extremely Unlikely    1   2   3   4   5   6   7    Extremely Likely
5. Just try to forget what happened?  
Extremely Unlikely    1   2   3   4   5   6   7    Extremely Likely
6. Tell your friends and relatives about the experience you had with the airline?  
Extremely Unlikely    1   2   3   4   5   6   7    Extremely Likely
7. Feel that you should complain to the airline about your check-in experience?  
Extremely Unlikely    1   2   3   4   5   6   7    Extremely Likely
8. Disregard what happened and have faith that things will get better at the airline?  
Extremely Unlikely    1   2   3   4   5   6   7    Extremely Likely
9. Complain to a consumer agency?  
Extremely Unlikely    1   2   3   4   5   6   7    Extremely Likely
10. Have positive things to say about this airline?  
Extremely Unlikely    1   2   3   4   5   6   7    Extremely Likely
11. Write a letter to the local newspaper about the airline?  
Extremely Unlikely    1   2   3   4   5   6   7    Extremely Likely

***How likely is it that you would:***

1. Have negative things to say about this airline

Extremely Unlikely    1    2    3    4    5    6    7    Extremely Likely

2. Tell someone at the airline about your experience with the check-in clerk?

Extremely Unlikely    1    2    3    4    5    6    7    Extremely Likely

***Based on your experience with airlines, how would you describe the check-in agent's actions?***

Insignificant lapse in service	1	2	3	4	5	6	7	Significant lapse in service
Severe service problem	1	2	3	4	5	6	7	Mild service problem
Minor service problem	1	2	3	4	5	6	7	Major service problem

***The situation described here is:***

Extremely unbelievable	1	2	3	4	5	6	7	Extremely believable
Extremely unrealistic	1	2	3	4	5	6	7	Extremely realistic
Characteristic of my experiences	1	2	3	4	5	6	7	Not at all Characteristic of my experiences
Not at all Typical	1	2	3	4	5	6	7	Extremely Typical
Occurs Frequently	1	2	3	4	5	6	7	Occurs Infrequently

Service experiences can be split into different parts. The *core* parts are the central benefits that are received from the service. For example, for most people, how the food tastes is a core benefit of a restaurant. However, a rare wine selection is not.

***In the following questions, we have listed several aspects of your travel experience. Please indicate how much each aspect is a core benefit for you.***

	Not Really a Core Benefit					Definitely a Core Benefit	
1. The airline flight:	1	2	3	4	5	6	7
2. On-time arrival:	1	2	3	4	5	6	7
3. Overall comfort of the flight:	1	2	3	4	5	6	7
4. Speed of Check-in:	1	2	3	4	5	6	7
5. Seat Comfort:	1	2	3	4	5	6	7
6. Flights at convenient times:	1	2	3	4	5	6	7
7. Helpfulness of check-in agents:	1	2	3	4	5	6	7
8. Baggage storage space on airplane:	1	2	3	4	5	6	7
9. Courteousness of check-in agents:	1	2	3	4	5	6	7

Another aspect of a service experience is known as a peripheral benefit. A *peripheral* benefit is the manner in which the core benefits are provided to you. For example, for most people, a waiter's efficiency at serving you or the way he treats you are peripheral benefits.

***In the following questions, we have listed several aspects of your travel experience. Please indicate how much each aspect is a peripheral benefit for you.***

	Not Really a Peripheral Benefit					Definitely a Peripheral Benefit	
1. The airline flight:	1	2	3	4	5	6	7
2. On-time arrival:	1	2	3	4	5	6	7
3. Overall comfort of the flight:	1	2	3	4	5	6	7
4. Speed of Check-in:	1	2	3	4	5	6	7
5. Seat Comfort:	1	2	3	4	5	6	7
6. Flights at convenient times:	1	2	3	4	5	6	7
7. Helpfulness of check-in agents:	1	2	3	4	5	6	7
8. Baggage storage space on airplane:	1	2	3	4	5	6	7
9. Courteousness of check-in agents:	1	2	3	4	5	6	7

***What are your general feelings about services and airlines?***

1. How important is it to you that you have a good flight ?

Not Important    1        2        3        4        5        6        7        Very Important

2. How important is it to you that you have good interactions with check-in and terminal employees ?

Not Important    1        2        3        4        5        6        7        Very Important

3. It bothers me quite a bit if I don't complain about an unsatisfactory service or product when I know I should.

Strongly Disagree        1        2        3        4        5        6        7        Strongly Agree

4. I often complain when I'm dissatisfied with products or services.

Strongly Disagree        1        2        3        4        5        6        7        Strongly Agree

5. Have you ever had any problems with an airline flight ?

Never                    1        2        3        4        5        6        7        Frequently

6. The worst problem I ever experienced with an airline flight was (if none experienced skip):

Extremely Minor        1        2        3        4        5        6        7        Extremely Major

7. Have you ever had any problems with airline employees ?

Never                    1        2        3        4        5        6        7        Frequently

8. The worst problem I ever experienced with airline employees was (if none experienced skip):

Extremely Minor        1        2        3        4        5        6        7        Extremely Major



**Could you share some information about yourself so we can group you with similar airline customers?**

1. Sex (please circle):                    Male                    Female
  
2. What is your age (please check) ?  
\_\_\_\_\_ less than 20    \_\_\_\_\_ 30-39                    \_\_\_\_\_ 50-59                    \_\_\_\_\_ 70-79  
\_\_\_\_\_ 20-29                    \_\_\_\_\_ 40-49                    \_\_\_\_\_ 60-69                    \_\_\_\_\_ 80-89
  
3. What is the primary purpose of your flight today (please check all that apply) ?  
\_\_\_\_\_ Business    \_\_\_\_\_ Pleasure                    \_\_\_\_\_ Other                    \_\_\_\_\_ Not Taking a Flight
  
4. Which airline are you flying with today? \_\_\_\_\_
  
5. What airline do you use most frequently? \_\_\_\_\_
  
6. Have you ever worked as an employee of an airline (Please circle) ?                    Yes                    No
  
7. On the trip that you are taking **today**, have you experienced any problems with the airline ?  
\_\_\_\_\_ Yes, major problems  
\_\_\_\_\_ Yes, minor problems  
\_\_\_\_\_ No problems
  
8. How frequently have you flown within the past year ?    \_\_\_\_\_
  
9. In total, estimate the number of flights you've made.    \_\_\_\_\_
  
10. How good is the airline that you travel most ?  
                  Poor    1            2            3            4            5            6            7            Excellent
  
11. How good is airline service in general ?  
                  Poor    1            2            3            4            5            6            7            Excellent

***Thank you for your participation***

## REFERENCES

- Abramson, Lyn Y., Martin E. P. Seligman, John D. Teasdale (1978), "Learned Helplessness in Humans: Critique and Reformulation," *Journal of Abnormal Psychology*, 87 (1), 49-74.
- Anderson, Craig A. (1983), "The Causal Structure of Situations: The Generation of Plausible Causal Attributions as a Function of Type of Event Situation," *Journal of Experimental Social Psychology*, 19, 185-203.
- Anderson, Eugene W. and Claes Fornell (1994), "A Customer Satisfaction Research Prospectus," in *Service Quality: New Directions in Theory and Practice*, eds. Roland T. Rust and Richard L. Oliver, Thousand Oaks, CA: Sage, 241-68.
- (1994), "Cross-Category Variation in Consumer Satisfaction and Retention," *Marketing Letters*, 5 (January), 19-30.
- Bagozzi, Richard P., and Youjae Yi (1991), "On the Evaluation of Structural Models," *Academy of Marketing Science*, 16 (1), 74-94.
- , and ---- (1988), "Multitrait-Multimethod Matrices in Consumer Behavior," *Journal of Consumer Research*, 17 (March), 426-439.
- Bar-Tal, D., M. Goldberg, and A. Knaani (1984), "Causes of Success and Failure and Their Dimension as a Function of SES and Gender: A Phenomenological Analysis," *British Journal of Educational Psychology*, 54, 51-61.
- Baron, Reuben M. and David A. Kenny (1986), "The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations," *Journal of Personality and Social Psychology*, 51 (6), 1173-82.
- Bearden, William O., and Jesse E. Teel (1983), "Selected Determinants of Consumer Satisfaction and Complaint Reports," *Journal of Marketing*, 20 (February), 21-28.
- Bem, Daryl (1967), "Self Perception: an Alternative Interpretation of Cognitive Dissonance Phenomena," *Psychological Review*, 74, 183-200.
- (1972), "Self Perception Theory," in *Advances in Experimental Social Psychology*, Vol. 6, ed. Leonard Berkowitz, New York, NY: Academic Press.
- Bendapudi, Neeli, and Leonard L. Berry (1997), "Customers' Motivations for Maintaining Relationships with Service Providers," *Journal of Retailing*, 73 (1), 15-37.
- Bentler, P. M., and Douglas Bonett (1980), "Significance Tests and Goodness of Fit in the Analysis of Covariance Structures," *Psychological Bulletin*, 88 (3), 588-606.

- Berry, Leonard L. (1980), "Services Marketing is Different," *Business Magazine*, 30 (May-June), 24-29.
- (1995), "Relationship Marketing of Services- Growing Interest, Emerging Perspectives," *Journal of the Academy of Marketing Science*, 23 (4), 236-245.
- and A. Parasuraman (1991), *Marketing Services: Competing Through Quality*. New York, NY: The Free Press.
- Best, Arthur and Alan R. Andeasen (1977), "Consumer Response to Unsatisfactory Purchases: A Survey of Perceiving Defects, Voicing Complaints, and Obtaining Redress," *Law and Society Review*, 11 (Spring), 701-42.
- Bettman, James R. (1979), *An Information Processing Theory of Consumer Choice*. Reading, MA: Addison-Wesley.
- Bitner, Mary Jo (1990), "Evaluating Service Encounters: The Effects of Physical Surroundings and Employee Responses," *Journal of Marketing*, 54 (April), 69-82.
- , Bernard H. Booms, and Mary Stanfield Tetreault (1990), "The Service Encounter: Diagnosing Favorable and Unfavorable Incidents," *Journal of Marketing*, 54 (January), 71-84.
- , ----, and Mohr (1994), "Critical Service Encounters: The Employee's Viewpoint," *Journal of Marketing*, 58 (October), 95-106.
- and Amy R. Hubbert (1994), "Encounter Satisfaction Versus Overall Satisfaction Versus Quality: The Customer's Voice," in *Service Quality: New Directions in Theory and Practice*, eds. Roland T. Rust and Richard L. Oliver. Thousand Oaks, CA: Sage, 72-94.
- Bolton, Ruth N. (1998), "A Dynamic Model of the Customer's Relationship with a Continuous Service Provider: The Role of Satisfaction," *Marketing Science*, 17 (1), 45-65.
- Boulding, William, Ajay Kalra, Richard Staelin, and Valarie A. Zeithaml (1993), "A Dynamic Process Model of Service Quality: From Expectations to Behavioral Intentions," *Journal of Marketing Research*, 30 (February), 7-27.
- Bowen, David E. and Benjamin Schneider (1985), "Boundary-Spanning-Role Employees and the Service Encounter: Some Guidelines for Management and Research," in *The Service Encounter: Managing Employee/Customer Interaction in Service Businesses*, eds. John A. Czepiel, Michael R. Solomon, and Carol F. Surprenant, Lexington, MA: D.C. Heath and Company, 127-47.
- and Edward E. Lawler III (1992), "The Empowerment of Service Workers: What, Why, How, and When," *Sloan Management Review*, (Spring), 31-9.

- Bradbury, Thomas N., and Frank D. Fincham (1990), "Attributions in Marriage: Review and Critique," *Psychological Bulletin*, 107 (1), 3-33.
- Brickman, Philip, Vita Carulli Rabinowitz, Jurgis Karuza, Jr., Dan Coates, Ellen Cohn, and Louise Kidder (1982), "Models of Helping and Coping," *American Psychologist*, 37 (4), 368-84.
- Browne, Michael W., and Robert Cudeck (1993), "Alternative Ways of Assessing Model Fit," in *Testing Structural Equation Models*, eds. Kenneth A Bollen and J. Scott Long. Newbury Park, California: Sage Publications, Inc., 136-62.
- Cadotte, Ernest R., Robert B. Woodruff, and Roger L. Jenkins (1987), "Expectations and Norms in Models of Consumer Satisfaction," *Journal of Marketing Research*, 24 (August), 305-14.
- Clemmer, Jim (1990), "The Three Rings of Perceived Value," *Canadian Manager*, 15 (Summer), 12-15.
- (1992), *Firing on All Cylinders: The Service/Quality System for High Powered Corporate Performance*. Homewood, IL: Business One Irwin.
- Cooper, H. M. and J. M. Berger (1980), "How Teachers Explain Students' Academic Performance: A Categorization of Free Response Academic Attributions," *American Educational Research Journal*, 17, 95-109.
- Crosby, Lawrence A., and Nancy Stephens (1987), "Effects of Relationship Marketing on Satisfaction, Retention, and Prices in the Life Insurance Industry," *Journal of Marketing*, 24 (November), 404-11.
- Curren, Mary T., and Valarie S. Folkes (1987), "Attributional Influences on Consumers' Desires to Communicate About Products," *Psychology and Marketing*, 4 (1), 31-45.
- de Jong, Peter F., William Koomen, and Gideon J. Mellenbergh (1988), "Structure of Causes for Success and Failure: A Multidimensional Scaling Analysis of Preference Judgments," *Journal of Personality and Social Psychology*, 55 (November), 718-25.
- Eiglier, Pierre, and Eric Langeard (1977), "Services as Systems: Marketing Implications," in *Marketing Consumer Services*, eds. P. Eiglier, E. Langeard, C. H. Lovelock, J. E. G. Bateson, and R. F. Young. Cambridge, MA: Marketing Science Institute, 83-103.
- Elig, T. W., and I. H. Frieze (1979), "Measuring Causal Attributions for Success and Failure," *Journal of Personality and Social Psychology*, 37, 621-634.
- Ferrell, Dan (1983), "Exit, Voice, Loyalty, and Neglect as Responses to Job Dissatisfaction: A Multidimensional Scaling Study," *Academy of Management Journal*, 26 (December), 596-607.

- Fincham, Frank D. and K. Daniel O'Leary (1983), "Causal Inferences for Spouse Behavior in Maritally Distressed and Nondistressed Couples," *Journal of Social and Clinical Psychology*, 1, 42-57.
- , S. R. Beach, and D. H. Baucom (1987), "Attribution Processes in Distressed and Nondistressed Couples: Self-Partner Attribution Differences," *Journal of Personality and Social Psychology*, 52, 739-48.
- Fiske, Susan T. and Shelley E. Taylor (1991), *Social Cognition*. New York: The McGraw Hill Companies.
- Folkes, Valarie S. (1982), "Communicating the Reasons for Social Rejection," *Journal of Experimental Social Psychology*, 18 (May), 235-52.
- (1984), "Consumer Reactions to Product Failure: An Attributional Approach," *Journal of Consumer Research*, 10 (March), 398-409.
- , Susan Koletsky, and John Graham (1987), "A Field Study of Causal Inferences and Consumer Reaction: The View from the Airport," *Journal of Consumer Research*, 13 (March), 534-539.
- (1988), "Recent Attribution Research in Consumer Behavior: A Review and New Directions," *Journal of Consumer Research*, 14 (March), 548-65.
- , and Barbara Kotsas (1986), "Buyers' and Sellers' Explanations for Product Failure: Who Done It," *Journal of Marketing*, 50 (April), 74-80.
- (1994), "How Consumers Predict Service Quality: What Do They Expect?," in *Service Quality: New Directions in Theory and Practice*, eds. Roland T. Rust and Richard L. Oliver. Thousand Oaks, CA: Sage, 108-22.
- Frieze, I. H. and Bernard Weiner (1971), "Cue Utilization and Attributional Judgments for Success and Failure," *Journal of Personality*, 39, 591-605.
- (1976), "Causal Attributions and Information Seeking to Explain Success and Failure," *Journal of Research in Personality*, 10, 293-305.
- Goodman, Paul S., Mark Fichman, F. Javier Lerch, and Pamela R. Snyder (1995), "Customer-Firm Relationships, Involvement, and Customer Satisfaction," *Academy of Management Journal*, 38 (5), 1310-1324.
- Gronroos, Christian (1990), "Relationship Approach to Marketing in Service Contexts: The Marketing and Organizational Behavior Interface," *Journal of Business Research*, 20, 3-11.

- Grove, Stephen J. and Raymond P. Fisk (1983), "The Dramaturgy of Services Exchange: An Analytic Framework for Services Marketing," in *Emerging Perspectives in Services Marketing*, eds. Leonard L. Berry, G. Lynn Shostack, and Gregory D. Upah, Chicago, IL: American Marketing Association, 45-49.
- , ----, and Mary Jo Bitner (1992), "Dramatizing the Service Experience: A Managerial Approach," in *Advances in Services Marketing and Management*, Vol. 1, eds. Teresa A. Swartz, David E. Bowen, and Stephen W. Brown. Greenwich, Connecticut: JAI Press, Inc., 91-121.
- Hamilton, V. Lee (1980), "Intuitive Psychologist or Intuitive Lawyer? Alternative Models of the Attribution Process," *Journal of Personality and Social Psychology*, 39 (5), 767-72.
- Hart, Christopher W. L., James L. Heskett, and W. Earl Sasser, Jr. (1990), "The Profitable Art of Service Recovery," *Harvard Business Review*, (July-August), 148-156.
- Hartline, Michael D., and O. C. Ferrell (1996), "The Management of Customer-Contact Service Employees: An Empirical Investigation," *Journal of Marketing*, 60 (October), 52-70.
- Heider, Fritz (1958), *The Psychology of Interpersonal Relationships*. New York: John Wiley and Sons, Inc.
- (1944), "Perception and Phenomenal Causality," *Psychological Review*, 51, 358-74.
- Heskett, James L., Thomas O. Jones, Gary W. Loveman, W. Earl Sasser, Jr., and Leonard A. Schlesinger (1994), Putting the Service-Profit Chain to Work," *Harvard Business Review*, (March-April), 164-74.
- Hess, Ron, Shankar Ganesan, and Noreen Klein (1998), "Service Failures and Recovery: The Impact of Relationship Factors and Attributions on Customer Satisfaction," *unpublished manuscript*.
- Hirschman, Albert O. (1970), *Exit, Voice, and Loyalty: Responses to Decline in Firms, Organizations, and States*. Cambridge, MA: Harvard University Press.
- Hoffman, K. Douglas, and John E. G. Bateson (1997), *Essentials of Services Marketing*, Fort Worth, TX, The Dryden Press.
- Holtzworth-Munroe, A., and N. S. Jacobson (1985), "Causal Attributions of Married Couples: When do they Search for Causes? What do they Conclude When they do?" *Journal of Personality and Social Psychology*, 48, 1398-1412.
- Iacobucci, Dawn , Kent A. Grayson, and Amy L. Ostrom (1994), The Calculus of Service Quality and Customer Satisfaction: Theoretical and Empirical Differentiation and Integration," in *Advances in Services Marketing and Management*, Vol. 3, eds. Teresa A. Swartz, David E. Bowen, and Stephen W. Brown. Greenwich, Connecticut: JAI Press, Inc., 1-67.

- Jaccard, James and Choi K. Wan (1995), *Interaction Effects in Multiple Regression, II: Multiple Indicator and Structural Equation Approaches*, Newbury Park, CA: Sage Publications.
- Johnson, Michael D. (1995), "The Four Faces of Aggregation in Customer Satisfaction Research," in *Advances in Consumer Research*, Vol. 22, eds. Frank R. Kardes and Mita Sujan, 89-93.
- Jones, Edward E., and Keith E. Davis (1965), "From Acts to Dispositions: The Attribution Process in Person Perception," in *Advances in Experimental Psychology*, ed. Leonard Berkowitz, New York, NY: Academic Press, 219-66.
- Jöreskog, Karl, and Dag Sörbom (1998), *LISREL 8: Structural Equation Modeling with the Simplis Command Language*. Chicago, IL: Scientific Software International, Inc.
- Keaveney, Susan M. (1995), "Customer Switching Behavior in Service Industries: An Exploratory Study," *Journal of Marketing*, 59 (April), 71-82.
- Kelley, Harold H. (1967), "Attribution Theory in Social Psychology," in *Nebraska Symposium on Motivation*, ed. David Levine, Lincoln, NE: University of Nebraska Press, 192-238.
- (1972), "Causal Schemata and the Attribution Process," in *Attribution: Perceiving the Causes of Behavior*, eds. Edward E. Jones et al., Morristown, NJ: General Learning Press, 151-174.
- Kelley, Scott W., K., Douglas Hoffman, and Mark A. Davis (1993), "A Typology of Retail Failures and Recoveries," *Journal of Retailing*, 69 (Winter), 429-452.
- , and Mark A. Davis (1994), "Antecedents to Customer Expectations for Service Recovery," *Journal of Academy of Marketing Science*, 22 (1), 52-61.
- Kingman-Brundage, Jane (1989), "The ABC's of Service System Blue-printing," in *Designing a Winning Strategy*, eds. Mary Jo Bitner and Lawrence A. Crosby, Chicago, IL: American Marketing Association, 30-3.
- Kotler, Philip (1972), *Marketing Management: Analysis, Planning and Control, 2nd edition*. Englewood Cliffs, NJ: Prentice Hall.
- Krishnan, S., and Vallerie A. Valle (1979), "Dissatisfaction Attributions and Consumer Complaint Behavior," in *Advances in Consumer Research*, Vol. 6, ed. William L. Wilke, Ann Arbor, MI: Association for Consumer Research, 445-49.
- Larsson, Rikard and David E. Bowen (1989), "Organization and Customer: Managing Design and Coordination of Services," *Academy of Management Review*, 14 (April), 213-33.
- Levitt, Theodore (1980), "Marketing Success Through Differentiation- of Anything," *Harvard Business Review*, 58, (January-February), 83-91.

- (1981), "Marketing Intangible Products and Product Intangibles," *Harvard Business Review*, 59, (May-June), 94-102.
- (1983), *The Marketing Imagination*. New York: Free Press.
- Lieber, Ronald B. (1998), "Now Are You Satisfied? The 1998 American Customer Satisfaction Index," *Fortune*, (February 16), 161-164.
- Lovelock, Christian (1981), "Why Marketing Managers Need to be Different for Services," in *Marketing of Services*, eds. J. Donnelly and W. George, Chicago, IL: American Marketing Association, 5-9.
- Mathieu, John E. and Dennis M. Zajac (1990), "A Review and Meta-Analysis of the Antecedents, Correlates, and Consequences of Organizational Commitment," *Psychological Bulletin*, 108 (2), 171-194.
- Maute, Manfred F. and William R. Forrester, Jr. (1993), "The Structure and Determinants of Consumer Complaint Intentions and Behavior," *Journal of Economic Psychology*, 14 (June), 219-47.
- Merchant, Kenneth (1985), *Control in Business Organizations*. Boston, MA: Pitman Publishing.
- Meyer, John P. (1980), "Causal Attribution for Success and Failure: A Multivariate Investigation of Dimensionality, Formation, and Consequences," *Journal of Personality and Social Psychology*, 38 (May), 704-18.
- Mizerski, Richard W., Linda L. Golden, and Jerome B. Kernan (1979), "The Attribution Process in Consumer Decision Making," *Journal of Consumer Research*, 6 (September), 123-140.
- Mohr, Lois A., and Mary Jo Bitner (1995), "The Role of Employee Effort in Satisfaction with Service Transactions," *Journal of Business Research*, 32, 239-52.
- Mooradian, Todd A. and James M. Olver (1994), "Neuroticism, Affect, and Postpurchase Processes," in *Advances in Consumer Research*, Vol. 21, eds. Chris T. Allen and Deborah Roedder John, Association for Consumer Research, Provo, UT, 595-600.
- Mowday, Richard T., Richard M. Steers, and Lyman W. Porter (1979), "The Measurement of Organizational Commitment," *Journal of Vocational Behavior*, 14, 224-247.
- Olivia, Terence A., Richard L. Oliver, and Ian C. MacMillan (1992), "A Catastrophe Model for Developing Service Satisfaction Strategies," *Journal of Marketing*, 56 (July), 83-95.
- Oliver, Richard L. (1980), "A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions," *Journal of Marketing Research*, 17 (November), 460-9.



- (1997), *Satisfaction: A Behavioral Perspective on the Consumer*. New York, NY: The McGraw-Hill Companies, Inc.
- , and John E. Swan (1989), "Equity and Disconfirmation Perceptions as Influences on Merchant and Product Satisfaction," *Journal of Consumer Research*, 16, 372-383.
- (1993), "Cognitive, Affective, and Attribute Bases of the Satisfaction Response," *Journal of Consumer Research*, 20 (December), 418-430.
- and Russell S. Winer (1987), "A Framework for the Formation and Structure of Consumer Expectations: Review and Propositions," *Journal of Economic Psychology*, 8, 469-99.
- O'Reilly, Charles, III and Jennifer Chatman (1986), "Organizational Commitment and Psychological Attachment: The Effects of Compliance, Identification, and Internalization on Prosocial Behavior," *Journal of Applied Psychology*, 71 (3), 492-9.
- Ozmet, John, and Edward A. Morash (1994), "The Augmented Service Offering for Perceived and Actual Service Quality," *Journal of the Academy of Marketing Science*, 22 (4), 352- 363.
- Parasuraman, A., Valarie A. Zeithaml, and Leonard L. Berry (1985), "A Conceptual Model of Service Quality and Its Implications for Future Research," *Journal of Marketing*, 49 (Fall), 41-50.
- Ping, Robert A., Jr. (1993), "The Effects of Satisfaction and Structural Constraints on Retailer Exiting, Voice, Loyalty, Opportunism, and Neglect," *Journal of Retailing*, 69 (Fall), 320-52.
- Philips, Lynn W. (1981), "Assessing Measurement Error in Key Informant Reportes: A Methodological Note on Organizational Analysis in Marketing," *Journal of Marketing Research*, 18 (November), 395-415.
- Richins, Marsha L. (1983), "Negative Word-of-Mouth by Dissatisfied Consumers: A Pilot Study," *Journal of Marketing*, 47 (Winter), 68-78.
- Rusbult, Caryl E., Isabella M. Zembrodt, and Lawanna K. Gunn (1982), "Exit, Voice, Loyalty, and Neglect: Responses to Dissatisfaction in Romantic Involvements," *Journal of Personality and Social Psychology*, 43 (December), 130-1242.
- Russell, Daniel (1982), "The Causal Dimension Scale: A Measure of How Individuals Perceive Causes," *Journal of Personality and Social Psychology*, 42 (June), 1137-1145.
- Rust, Roland T. and Richard L. Oliver (1994), "Service Quality: Insights and Managerial Implications from the Frontier," in *Service Quality: New Directions in Theory and Practice*, eds. Roland T. Rust and Richard L. Oliver. Thousand Oaks, CA: Sage, 1-19.

- Schwartz, Norbert, and Gerald L. Clore (1983), "Mood, Misattribution, and Judgments of Well-Being: Informative and Directive Functions of Affective States," *Journal of Personality and Social Psychology*, 45 (September), 513-523.
- Shostack, G. Lynn (1987), "Service Positioning Through Structural Change," *Journal of Marketing*, 51 (January), 34-43.
- Singh, Jagdip (1988), "Consumer Complaint Intentions and Behavior: Definitional and Taxonomical Issues," *Journal of Marketing*, 52 (January), 93-107.
- (1990), "A Typology of Consumer Dissatisfaction Response Styles," *Journal of Retailing*, 66 (Spring), 57-99.
- Smith, Amy K., and Ruth N. Bolton (1998), "An Experimental Investigation of Customer Reactions to Service Failure and Recovery Encounters: Paradox or Peril?," *Journal of Service Research*, 1 (1), 65-81.
- Solomon, Michael R., Carol F. Surprenant, John A. Czepiel, and Evelyn G. Gutman (1985), "A Role Theory Perspective on Dyadic Interactions: The Service Encounter," *Journal of Marketing*, 49 (Winter), 99-111.
- Surprenant, Carol F., and Michael R. Solomon (1987), "Predictability and Personalization in the Service Encounter," *Journal of Marketing*, 51 (April), 86-96.
- Swartz, Teresa A., and Stephen W. Brown (1989), "Consumer and Provider Expectations and Experiences in Evaluating Professional Service Quality," *Journal of the Academy of Marketing Science*, 17, 189-195.
- Tax, Stephen S., Stephen W. Brown, and Murali Chandrashekar (1998), "Customer Evaluations of Service Complaint Experiences: Implications for Relationship Marketing," *Journal of Marketing*, 62 (2), 60-76.
- Ursic, Michael L. (1985), "A Model of the Consumer Decision to Seek Legal Redress," *Journal of Consumer Affairs*, 19 (Summer), 20-36.
- Valle, Valerie A., and Melanie Walendorf (1977), "Consumer Attributions of the Cause of Their Product Satisfaction and Dissatisfaction," in *Consumer Satisfaction, Dissatisfaction, and Complaining Behavior*, ed. Ralph L. Day, Bloomington, IN: Indiana University, 26-30.
- Weiner, Bernard and A. Kukla (1970), "An Attributional Analysis of Achievement Motivation," *Journal of Personality and Social Psychology*, 15, 1-20.
- (1985), *Human Motivation*. New York, NY: Springer-Verlag.
- (1986), *An Attribution Theory of Motivation and Emotion*. New York, NY: Springer-Verlag.

- (1985b), "Spontaneous Causal Thinking," *Psychological Bulletin*, 97 (January), 74-84.
- , Sandra Graham, and Carla Chandler (1982), "Pity, Anger, and Guilt: An Attributional Analysis," *Personality and Social Psychology Bulletin*, 8 (2), 226-232.
- Westbrook, Robert A. (1980), "Intrapersonal Affective Influences upon Consumer Satisfaction with Products," *Journal of Consumer Research*, 7 (June), 49-54.
- Withey, Michael and William H. Cooper (1989), "Predicting Exit, Voice, Loyalty, and Neglect," *Administrative Science Quarterly*, 34 (December), 521-39.
- Wong, Paul T. P. and Bernard Weiner (1981), "When People Ask 'Why' Questions, and the Heuristics of Attributional Search," *Journal of Personality and Social Psychology*, 40 (April), 650-63.
- Wright, William F., and Gordon H. Bower, "Mood Effects on Subjective Probability Assessment," *Organizational Behavior and Human Decision Processes*, 52 (July), 276-291.
- Zeithaml, Valarie, Leonard L. Berry, A. Parasuraman (1996), "The Behavioral Consequences of Service Quality," *Journal of Marketing*, 60 (April), 31-46.
- , A. Parasuraman, and Leonard L. Berry (1990), *Delivering Quality Service: Balancing Customer Perceptions and Expectations*. New York, NY: The Free Press.
- (1988), "Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence," *Journal of Marketing*, 52 (July), 2-22.
- , and Mary Jo Bitner (1996), *Services Marketing*. New York, NY: The McGraw-Hill Companies, Inc.

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### EDUCATION

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| Ph.D. | Doctoral Candidate<br>Department of Marketing<br>Virginia Tech<br><i>Major Area:</i> Marketing<br><i>Minor Area:</i> Organizational Behavior and Applied Psychology<br><br><i>Expected Completion:</i> May, 1999 |
| MBA   | College of William & Mary, 1994<br><i>Concentration:</i> Marketing   |
| B.A.  | James Madison University, 1988<br><i>Major Area:</i> Marketing   |

### DISSERTATION

***“The Effects of Employee-Initiated Peripheral Service Failures on Customers’  
Satisfaction with the Organization”***

The proposed study examines how customers’ satisfaction with service employees affects their overall satisfaction with the service organization following employee-initiated peripheral service failures (i.e., problems in how the service is delivered to the customer). Specifically, this research examines how the severity of a peripheral service failure, the quality of past core service performance (the basic benefits desired from service purchase), and the existence of past peripheral service failures impact the extent to which customers’ satisfaction with an employee transfers to evaluations of the service organization. Other than anecdotal evidence, very little research has examined how these variables affect the evaluation process. Attribution theory, customers’ explanations for the cause of the service failure, is explored as a process mediating the effects of these variables on satisfaction. This study extends this theory by differentiating controllability attributions at both the employee and organizational levels, as well as introducing attributions of globality to marketing. These distinctions may clarify the process by which customer evaluations of employees affect organizations. An experiment will be performed to test the proposed hypotheses of the conceptual model. A role-playing scenario describes the past core and peripheral service performances received from the organization and the severity of the present peripheral service failure. Measures are then provided to assess participants’ responses of the present failure given the past service performances that have been experienced. Regression analysis and analysis of variance are used to test the proposed hypotheses.

#### **Dissertation Committee:**

*Chairs:* Noreen Klein and Shankar Ganesan

*Members:* James Brown, Neeraj Arora, and Roseanne Foti (Psychology)

## RESEARCH

### Research Interests

Services and relationship marketing, issues in service failure and recovery, customer loyalty, and trust.

### Journal Publications

Ganesan, Shankar, and Ronald L. Hess (1997), "Dimensions and Levels of Trust: Implications for Commitment to a Relationship," *Marketing Letters*, 8 (4), 439-448.

### Conference Publications

Hess, Ronald L. (1997), "The Development of Relational Commitment: An Integrative Review and Extension to a Services Context," in *1997 AMA Winter Educators' Conference Proceedings*, Debbie Thorne LeClair and Michael Hartline, eds., St. Petersburg, FL: American Marketing Association.

Hess, Ronald L., and Shankar Ganesan (1997), "The Impact of Service Recovery on Customer Satisfaction," in *1997 AMA Winter Educators' Conference Proceedings*, Debbie Thorne LeClair and Michael Hartline, eds., St. Petersburg, FL: American Marketing Association.

Ganesan, Shankar, and Ronald L. Hess (1996), "Safeguarding Human Capital Through Dependence Balancing Strategies: A Conceptual Framework," in *INFORMS Marketing Science Conference Proceedings*, Steven M. Shugan and Barton A. Weitz, eds., Gainesville, FL: INFORMS.

Cook, Don Lloyd, and Ronald L. Hess (1995), "Internet Security: The Last Barrier to Interactive Commerce?" in *COTIM-95 Communications and Technology in Marketing Proceedings*, Ruby Dholakia and David Fortin, eds., Kingston, RI: University of Rhode Island.

### Research in Progress

Hess, Ronald L., Shankar Ganesan, and Noreen Klein, "Service Failure and Recovery: The Impact of Relationship Factors and Attributions on Customer Satisfaction." (*Draft in Revision*)

Ganesan, Shankar, and Ronald L. Hess, "Employing Dependence Balancing Strategies to Safeguard Human Capital." (*Conceptual segment drafted; data collection in planning*)

Hess, Ronald L., "A Conceptual Model of the Development of Customer Commitment in Services Industries." (*Draft in revision*)

Keith, Janet, Ronald L. Hess, and Tao Gao, "Customer Empowerment of the Service Provider." (*Draft in revision*)

## ASSISTANTSHIPS

Shankar Ganesan/ Noreen Klein	Sept., 1997- May, 1998
Shankar Ganesan	Sept., 1995- May, 1997
Noreen Klein/ Corinne Faure	Sept., 1994- May, 1995

## TEACHING EXPERIENCE

### Teaching Interests

Services Marketing, Retailing, Sales Management, Marketing Research, Industrial Marketing

### Teaching Experience and Evaluations

<u>Institution</u>	<u>Course</u>	<u>Term</u>	<u>Instructor Rating*</u>
Virginia Tech	Marketing 4454- Sales Management	Summer, 1998	5.00
Virginia Tech	Marketing 4454- Sales Management	Summer, 1997	4.92
Virginia Tech	Marketing 3104- Marketing Management	Summer, 1996	4.62
Virginia Tech	Marketing 3104- Marketing Management	Summer, 1995	4.92

\* Scale- 1 (Unsatisfactory) to 5 (Excellent).

### Present Teaching Experience

<u>Institution</u>	<u>Course</u>	<u>Term</u>
William & Mary	Marketing Research (Visiting Assistant Professor of Marketing)	Spring, 1999

## PROFESSIONAL ACTIVITIES

### Professional Affiliations

American Marketing Association  
Academy of Marketing Science

### Reviewing Activities

1999 AMA Winter Educators' Conference, Channels and Relationship Marketing Track  
1999 AMA Winter Educators' Conference, Retailing and Services Marketing Track  
1999 Southern Marketing Association Winter Conference, Marketing Education Track (Two manuscripts)  
1999 Summer SCP Conference

## INDUSTRY EXPERIENCE

### 1989-1992

#### **Commercial Lending Representative, First Union Bank (Formerly Signet Bank), Norfolk, Virginia**

Approved and administered commercial loans to small businesses with incomes ranging from \$200,000 to \$8 million. Generated commercial deposits through business contacts and sales activities. Served as commercial sales manager for five retail bank branches in Chesapeake and Portsmouth, Virginia.

### 1988-1989

#### **Credit Analyst, First Union Bank (Formerly Signet Bank), Norfolk, Virginia**

Analyzed financial statements of approximately 400 commercial customers with assets ranging from \$5 million to \$30 million. Drafted written summaries of the customers' financial condition along with recommendations as to loan approval.

## AWARDS AND ACTIVITIES

Member of Pamplin College of Business Research Committee, 1998  
Participant of the American Marketing Association-Sheth Foundation Doctoral Consortium, 1997  
Beta Gamma Sigma Honor Society, College of William & Mary Chapter, 1995  
Recipient of the William & Mary Sancetta Memorial Fund Award for Doctoral Studies, 1994  
Recipient of the William & Mary MBA Fellowship, 1992-1994

## RELEVANT DOCTORAL COURSES

### *Marketing Courses:*

Advanced Research Methods in Marketing  
Advanced Topics in Marketing I  
Advanced Topics in Marketing II  
Seminar in Consumer Behavior  
Independent Study in Consumer Decision-Making and Information Processing

### *Instructor:*

David Brinberg  
James Brown  
Janet Keith  
Eloise Coupey  
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### *Minor Courses (Organizational Behavior)*

Organizational Psychology I  
Organizational Psychology II  
Seminar in Organizational Behavior

Sigrid Gustafson  
Roseanne Foti  
Terry Cobb

### *Statistics Courses:*

Advanced Analysis of Structural Equations  
Advanced Statistics in Research I  
Advanced Statistics in Research II  
Experimental Design and Analysis

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