

FROM SERVICE DESIGN TO DELIVERY:  
INTEGRATING MARKETING AND OPERATIONS IN THE SERVICE UNIT

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*Integrating Marketing and Operations in the Service Unit*

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This dissertation is dedicated to Mary J. Fox  
and the memories of L.A. Fox, Eneas Murray, and Marie Murray.

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From Service Design to Delivery:  
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**ABSTRACT**

This dissertation explores how marketing and operations interact at the point of service delivery. Researchers from these two disciplines approach services with widely divergent paradigms, focusing on different routes to success. These different approaches often cause these researchers to come to opposing conclusions and subsequently to recommend conflicting actions to practitioners. In this work, marketing and operations are considered simultaneously in order to highlight the trade-offs that might be necessary when providing services. Earlier research and a preliminary qualitative study indicated that these trade-offs are made by a service unit's manager.

Two models are proposed that explore how the manager's Operating Orientations might be related to customer, firm and employee outcomes. Data to test these models were gathered from two restaurant chains. Managers, district managers, employees and customers were surveyed.

One of the proposed models that explored how the discrepancy between the manager's Operating Orientations and employee Climates were related to employee

outcomes received support, particularly when examining two categories of employees – Customer-Contact and Backroom Employees – separately. However, the model that posited a relationship between the manager’s Operating Orientations and customer and firm outcomes received no support, likely due to the exclusion of employee variables in the model. A series of post-hoc analyses explored the relationship between climates and customer and firm outcomes and between the manager’s Operating Orientations and unit climates. These post-hoc analyses indicated that unit climates have differential effects on customers and firm outcomes, particularly when the employees are categorized as Customer-Contact or as Backroom Employees.

# CHAPTER 1 – INTRODUCTION

Just as services result from efforts from multiple functions such as marketing, operations and human resources (Lovelock 2000), the study of services is multi-disciplinary as well (Fisk, Brown, and Bitner 1993; Roth and Menor 2003). However, marketing and operations researchers rarely consider the concerns of each other in their research; thus, although we see work from marketing, operations and human research operators in cross-disciplinary services publications such as the *Journal of Services Research*, we rarely see research that specifically considers how marketing and operations interact in the delivery of services.

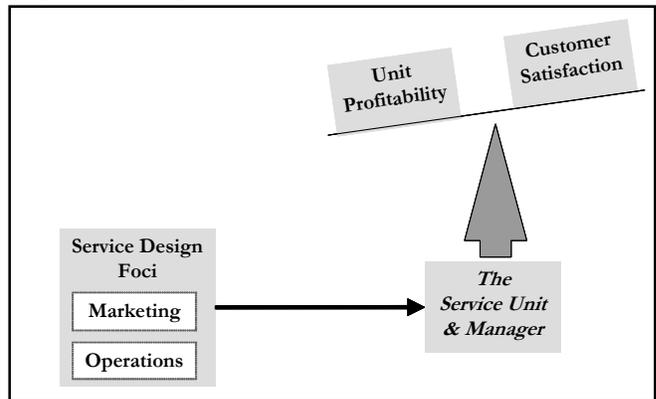
Brown (2005) recently lamented this

dearth and called for more research that is cross-disciplinary in nature, noting that this cross-disciplinary research will make marketing research more relevant to practitioners.

The research presented in this

dissertation explores how marketing and operations interact at the point of service delivery, identifying the manager of a service unit as making the necessary trade-offs between marketing and operations strategic initiatives. A broad conceptual model of this may be seen in Figure 1.

Figure 1: Conceptual Model



## THE ROLE OF THE UNIT AND ITS MANAGER

Many services firms, because of the necessity of being close to the customer (Chase 1978), operate with multiple branches, or units. However, work regarding outcomes such as profitability, customer satisfaction, and employee satisfaction tends to be focused at either the firm-level or at the individual employee level. For example, Anderson et al. (1997) considered the relationship between customer satisfaction and profitability at the firm level and found that trade-offs between customer satisfaction and profitability are necessary. Similarly, Malthouse et al. (2004) studied how customer satisfaction can vary across different subgroups of a firm's customers. At the employee-level, Chebat (2000) studied the effect of empowerment on employee role conflict, ambiguity, adaptability, and satisfaction, concluding that empowerment affects employees' attitudes and behaviors. Hartline (2000) looked at the paths through which strategies reach employees, focusing on customer-oriented strategies and customer-contact employees. While valid, these approaches ignore the effect that units have on customers, on employees, and on profitability. We are beginning to see some work that connects these two approaches, such as recent work examining self-managed service teams (de Jong, de Ruyter, and Lemmink 2004); however, more approaches that link the firm and the individual employee are necessary to fully understand how phenomena that occur at one level of the organization unfold across other levels (Klein and Kozlowski 2000). This research identifies the unit and its manager as that bridge.

Bateson (1990) theorized that the interaction of multiple strategic initiatives occurs at both the executive and the unit level of the firm. He placed the manager of the service unit squarely in control of this multi-disciplinary interaction. He also noted that the unit manager

must juggle strategic initiatives from each function that often conflict with each other. He considered this juggling act of the manager to be of prime importance in the success of the firm (Bateson 1990).

Although the literature about strategy implementation is sparse and fragmented, that which does exist highlights the importance of the middle manager (Noble and Mokwa 1999). To investigate, an exploratory qualitative study was undertaken, similar to the approach used to develop a model of service quality (Parasuraman, Zeithaml, and Berry 1985). What emerged from this qualitative work highlighted the strategic importance of the manager and reinforced Bateson's assertion that a large part of the interaction between marketing and operations is coordinated by the manager of the unit. The findings from this qualitative work directed the research presented in this dissertation. Excerpts and examples from the qualitative interviews are included throughout this document to illustrate and explain various points. When quoted, participants are identified by parenthetical initials at the end of the relevant excerpt. Information about the qualitative work and the participants may be found in Appendix 1. The manager as conceptualized in this work is discussed next.

## THE MANAGER

*Everything that happens in these four walls is the GM (manager), whether that is the cleanliness, the hospitality of the unit, the accuracy of the orders, the product, the speed, profitability, people development. Nothing can happen if we don't have a good GM. Nothing. You can't get anything done (DB).*

The manager is ultimately responsible for the overall performance of the unit, as this quote from a qualitative participant illustrates. He or she will often have assistant managers to whom many of his responsibilities are delegated. Some examples of titles held by

managers are “Director of Sales and Marketing”, “Restaurant General Manager”, “Nurse Manager”, “Branch Manager”, and “Sales Manager”. It is in this role – the role of the unit manager – that the integration of marketing and operations strategy is most necessary.

The managers of employees are often portrayed as, at best, facilitating employees’ provision of service; at worst, they are portrayed as impeding it. Some have gone so far as to question whether the role is even necessary. Zeithaml et al. (1988) considered layers of management as contributors to the gap between customer expectations and the firm’s understanding of these expectations because they hamper the flow of information between the executive suite and employees and customers. Attempting to eliminate this position, as advocated in the substitutes for leadership theories (Kerr and Jermier 1978), can have disastrous results, as one research participant pointed out. About 10-12 years ago, this manager’s firm had experimented with giving managers responsibility for three to five units rather than one. Profitability increased in the short-run, but sales, customer satisfaction, employee satisfaction and profitability soon fell. The effects of this initiative are only now, more than ten years later, completely disappearing from the units and the firm.

Far from being an impediment to performance and occupying a role suitable for elimination, the manager occupies a key strategic position. It is the manager who “translate(s) the vision and strategic intent of company executives into collective action” (Zaccaro, Rittman, and Marks 2001, p. 455). It is the manager who decides which of the multiple strategies emerging from different functional areas take precedence, which are to be implemented, and which are to be implemented well. While these functional – e.g. marketing, financial, operational and human resources – strategies are often planned in isolation from each other, their execution occurs simultaneously, and these strategies often

conflict with one another. The responsibility for managing these conflicts rests with the manager; how the manager juggles these various demands determines the performance of the unit.

## RESEARCH SCOPE

This research focuses on how marketing and operations strategies interact at the point of service delivery, exploring how the unit manager's priorities regarding marketing and operations strategies affect customers, employees and unit performance (costs, revenue and overall performance). Customer outcomes, such as satisfaction, and firm outcomes, such as revenue, are examined as unit outcomes – rather than looking at each customer's satisfaction, the overall satisfaction of the unit's customers is examined. The relationship between the manager and the employees, however, is explored at the individual employee level.

## RESEARCH QUESTIONS

Two questions guided the research. First, do managers differ in their operating orientations? While Lawrence and Lorsch (1967) noted that managers from diverse functions differ in their orientations, the managers here perform the same function in different units. Second, how does the unit manager, through these different operating orientations, influence customers, employees, and profitability?

In answering these questions, this research will make a number of contributions. These are discussed in the next section.

## RESEARCH CONTRIBUTIONS

There are a number of research contributions made by this research. First, the unit manager of a service unit is established as a key player in the unfolding service drama, linking strategy designed in the upper echelons of the firm to its implementation at the customer level. This research proposes that it is the manager, through his/her operating orientations, that makes the requisite day-to-day trade-offs between marketing and operations strategies, as suggested by Bateson (1990). Further theoretical support is provided by Lawrence and Lorsch (1967), who in developing a contingency Theory of Organization, noted that managers from different departments will approach the same problem from different frames of reference.

This research will also provide some insight into the separation of the technical from the functional elements of the service. This separation has long been advocated by operations researchers and is a standard practice in many service environments. A series of post-hoc analyses indicate that this separation is related to customer and employee outcomes and unit profitability.

Finally, the unit is included as a key contextual effect. Many, if not most, service providers work in some sort of a group; disregarding the effects of these groups can substantively skew research results. Many outcomes are also at least partially collective in nature and cannot be studied at an individual level in any meaningful way. Similarly, individual employee efforts in an outcome often cannot be parsed out and must be considered collectively.

## MANAGERIAL IMPLICATIONS

Understanding the tradeoffs made by the manager between marketing and operations strategies and the effect of these trade-offs on customers, employees, and profitability will aid firms in the formulation of more effective strategies. The identification of the manager as the primary point of convergence will also allow firm and functional strategists to consider this effect when developing strategies. For example, compensation plans and other rewards directed at the manager need to be carefully considered; a compensation plan that rewards a particular focus will see this focus play out in the unit regardless of incentives aimed at a different aspect of employee performance. One of the participants in the qualitative research discussed how her firm's compensation and bonus structure formally recognized and encouraged an emphasis on operational efficiency; customer- and sales-related rewards were implemented on an ad-hoc basis. It's likely in this case that improvements to customer- and sales-related outcomes will also only occur on an ad hoc basis. Understanding the simultaneous effects of these various strategies will help firms better align manager incentives with employee incentives to achieve desired outcomes.

This research will also provide a clearer picture of what is happening in services in which the technical and functional elements of the service are separate but equally important. The results highlight the care which must be taken by the unit manager in coordinating a production department and a customer service department simultaneously.

## CHAPTER SUMMARY

This exploratory research examines how marketing and operations strategies are implemented simultaneously at the point of service delivery. It identifies the unit as a key

point at which these strategies converge and presents a conceptual framework of how the unit elements affect individual elements, individual and collective performance, and individual and collective outcomes. One of the key unit elements is the manager, who makes the necessary tradeoffs in the implementation of conflicting strategies.

In forthcoming chapters, the relevant literature regarding the interaction between marketing and operations and the strategy implementation literature will be discussed (Chapter 2), followed by the presentation of the two models tested in this research (Chapter 3). The samples used for data collection, the process of collecting the data, the measurement model and the testing of the hypotheses are discussed in Chapter 4 and Chapter 5. In Chapter 6, a series of post-hoc hypotheses tests are presented and tested. This work concludes with Chapter 7, in which implications and conclusions are discussed.

## CHAPTER 2: LITERATURE REVIEW

### CHAPTER OVERVIEW

Marketing as a function, particularly in services organizations, has moved beyond the traditional marketing department in which the planning and enactment of marketing plans and strategies are isolated from the plans and strategies of other functions. Marketing now is a function where those who enact the plans and strategies are widely dispersed throughout the organization. These part-time marketers have dual responsibilities: they must perform the technical aspects of their roles in such a manner as to meet marketing objectives, such as customer satisfaction, and operations objectives, such as efficiency (Grönroos 1995; Gummesson 1987).

Drawing on discussions held with executives from various industries, Brown (2005) highlighted the importance of cross-functional integration and the importance of execution, pointing out that “superior execution of strategy can be the core of an organization’s strategy...[F]or many firms, execution occurs at the interface with the customer” (p. 2). He calls upon marketing scholars to expand the scope and target of their work to include work in strategic management, supply chain, human resources, finance, and operations. Since the effect of these functional areas cannot be readily separated from each other, studying them in isolation in a services context creates an environment far removed from reality. This point is illustrated by one qualitative participant, who spoke of the intertwined nature of the results of customer- and operations-focused efforts:

*People always love to put service versus product. What happens is they have to be equally important. You don't want to have great service and then the food is no good and you say, 'you know what? She was really nice but that was a lousy hamburger.' You want to make sure that you have certain*

*things in place when you have a restaurant and the service is one, the product is another and the atmosphere is another. You want to be in a clean place, you want to be in a comfortable place. So you have to make sure that the atmosphere is correct and that includes the other things like cleanliness, comfortability, those kinds of things. We want to make sure that service and product are not always competing with each other (KG).*

Services are often considered as resulting from combined efforts in marketing, operations, and human resources (Lovelock 2000). Bateson (1990) noted that coordination of the various functions occurs at the “very top and the very bottom (p. 331)” of the organization; because the unit manager is responsible for the day-to-day experiences of employees and customers, Bateson identifies the unit manager as the person at the bottom who makes the necessary trade-offs between the often-conflicting functional strategies.

The remainder of this chapter explores the marketing and production/operations literatures, highlighting the differences between the two regarding service delivery. The strategy implementation literature is then explored to provide insight into why the manager’s role is important in balancing marketing and operations. Finally, the goal-setting literature is drawn upon to provide a possible explanation of how the manager makes the necessary trade-offs.

## MARKETING AND OPERATIONS LITERATURE

The notion that services are the result of a combination of marketing and operations efforts is not new. Grönroos (1984) noted that service quality is comprised of technical quality – the *what* is delivered – and functional quality – *how* the product is delivered. Parasuraman et al. (1988) identified both technical and functional quality elements in their SERVQUAL measure. Chase has long recommended that the core service product – the *what* – be

separated from the interaction with the customer (Gronroos' functional quality element) as much as possible (Chase 1981; Chase 1978; Chase and Garvin 1989).

Although marketing and operations researchers both examine service delivery, they approach it from widely different paradigms, focusing on different outcomes and ways to achieve these outcomes. Five of these different approaches are of particular interest in this research – the purpose of the discipline, what outcomes are important and how these outcomes are achieved, how customers are viewed, what service quality is, and how employees are viewed.

The marketing and operations functions have very different purposes (Lawrence and Lorsch 1967), and the researchers from each discipline necessarily have different focuses as well. Services marketing scholars tend to operate from a paradigm based in the marketing concept that places the customer as the focus of the firm (for example, Bettencourt, Brown, and Mackenzie 2005; Malthouse et al. 2004; Mittal et al. 2005; Reinartz, Krafft, and Hoyer 2004). Operations researchers, on the other hand, tend to operate from a manufacturing paradigm and to lean toward exploring questions that are more conducive toward normative, analytic modeling (Roth and Menor 2003), often solving particular problems such as cross-training (Agnihotri and Mishra 2004; Chakravarthy and Agnihotri 2005), or providing techniques, such as Gelade and Gilbert's (2003) work in data envelopment analysis; or focusing on areas such as queuing (Mushko et al. 2006; Zeephongsekul and Bedford 2006).

These different focuses create differences in what outcomes are examined by each discipline. Marketing researchers are more likely to look at outcomes such as customer satisfaction, (Hennig-Thurau 2004; Kennedy, Goolsby, and Arnould 2003; Malthouse et al. 2004) and revenue generation (Emery and Fredendall 2002; Rozell, Pettijohn, and Parker

2004). Operations researchers tend to focus more on productivity and costs (Machuca, del Mar Gonzalez-Zamora, and Aguilar-Escobar 2007; Thompson and Goodale 2006).

We also see differences in how customers are treated in the two literature streams. In marketing, customers are central to the firm's existence and success (Levitt 1960; Lusch, Vargo, and O'Brien 2007; Vargo and Lusch 2004). Not only have marketing researchers focused on improving customer outcomes, but they have also explored how to co-opt customer competencies and increase the role of the customer in the production of the service (Bendapudi and Leone 2003; Bitner et al. 1997; Dong, Evans, and Zou 2007; Kelley, Donnelly, and Skinner 1990; Kellogg, Youngdahl, and Bowen 1997; Larsson and Bowen 1989). In operations, however, many researchers advocate minimizing the influence of the customer on the service product (Chase 1981; Chase 1978; Chase and Garvin 1989; Chase and Stewart 1994; Metters and Vargas 2000; Northcraft and Chase 1985). When customer co-production is considered, it is often with a view to increasing efficiency.

Service quality is also approached differently. In marketing, it is viewed that increased levels of functional service quality creates customer satisfaction (Bitner, Booms, and Tetreault 1990; Fisk, Brown, and Bitner 1993), and technical service quality acts as a dissatisfying factor: if a minimum threshold isn't met, dissatisfaction results. However, satisfaction won't increase if more than the threshold is provided. In operations, the focus is on delivering high levels of technical quality through developing and meeting objective services standards (Armistead, Johnston, and Slack 1988; Johnston 1987; Johnston 2005; Morris and Johnston 1987; Tsikriktsis and Heineke 2004).

Finally, employees are viewed differently by marketing and operations researchers. Services marketing researchers often view employees as the crux of the service delivery

experience. The focus here ranges from facilitating employees' delivery of service to examining the customer-employee interface (Babin and Boles 1996; Bell and Menguc 2002; Bettencourt, Brown, and Mackenzie 2005; de Jong, de Ruyter, and Lemmink 2004; Hartline 2000; Maxham and Netemeyer 2003). Service organizations are encouraged by these marketing researchers to empower and delegate as many decisions as possible to employees (Ahearne, Mathieu, and Rapp 2005; Rafiq and Ahmed 1998a; Rafiq and Ahmed 1998b). Operations researchers, on the other hand, tend to focus on protecting the technical core of the service from the influence of employees. This is done through fail-safing, in which service variance by employees is designed out of the services, ostensibly to reduce the likelihood of employee error; and through deprofessionalization, where the service is provided by the least qualified employee – a teller rather than a loan officer cashing a check, for example (Chase and Stewart 1994; Grout and Downs 1998; Northcraft and Chase 1985; Stewart and Grout 2001).

With these differences in research focuses, researchers in marketing and operations often arrive at different conclusions and provide conflicting advice in designing services strategies. This conflict becomes apparent at the point of delivery, requiring trade-offs be made when implementing these strategies. In this next section, insights from the strategy implementation literature are highlighted.

## STRATEGY IMPLEMENTATION LITERATURE

Strategy implementation is often treated as an afterthought by practitioners and academics alike (Noble 1999) – or is perceived as a problem belonging to another discipline. Yet, successful strategy implementation is critical in providing superior returns for a firm (Bharadwaj, Varadarajan, and Fahy 1993). For services, implementation is an even more

complex and vital issue: the inseparability of production and consumption of services means the quality of implementation *is* the product. Inseparability also increases the complexity of the implementation process – multiple functional strategies (e.g., marketing, operations) that are traditionally planned and carried out in silos must be enacted simultaneously, often by one service provider. Even in those service environments in which production and service delivery have been decoupled, as it typically is in restaurants, the production and delivery of the service often occur in the unit and are under the control of the unit manager. How the manager of the unit implements the diverse strategies simultaneously is critical to the long-term success of the firm. Skill in strategy implementation is one possible source of a sustainable, competitive advantage for service firms (Bharadwaj, Varadarajan, and Fahy 1993).

Researchers have observed the lack of work about strategic implementation. Varadarajan and Jaychandran (1999) noted that strategy content has received the most attention from marketing strategy researchers. Noble (1999), in a review of the strategy implementation literature, notes that little is known about strategy implementation and why it succeeds or fails. He attributes this, at least in part, to the multitude of conceptualizations of strategy implementation and ultimately defines strategy implementation as “the communication, interpretation, adoption and enactment of strategic plans” (Noble and Mokwa 1999, p. 120).

Sashittal and Jassawalla (2001) noted two time-oriented views of strategic implementation. One view sees strategic implementation as an organizational change process that consists of a beginning, a middle and an end. The second, and the view used here, identifies strategic implementation as emphasizing action and as a “process of managing

earlier installed strategies to achieve current objectives” (Sashittal and Jassawalla 2001, p. 46) – on-going, in other words.

Noble (1999) identified two general dimensions of strategy implementation: structural and interpersonal. Structural factors are those formal elements of the organization such as the organization’s structure, hierarchy, and control mechanisms. The interpersonal dimension includes strategic consensus, autonomous strategic behaviors, strategy diffusion, the role of leadership and style, and the communication and interaction process. Of particular interest here are autonomous strategic behaviors.

Autonomous strategic behaviors occur when each manager operates under different goals and objectives. It may be due to a lack of strategic consensus in the organization, which may derive from differences in the perceived operationalization of the strategy. This lack of consensus causes differences between middle managers in how the strategy is implemented (Noble 1999).

Autonomous strategic behaviors can be benign or malignant. Managers who act in their own best interests or who believe the strategy undermines them will attempt to sabotage the strategy. They may pay only lip-service to its implementation; they may allocate inadequate resources to implement it; or they may refuse to implement it completely. However, autonomous strategic behaviors aren’t necessarily dysfunctional; Bonoma (1986) pointed out that creativity in strategic responses are often necessary in dynamic business environments, requiring the manager to be flexible, innovative and action-oriented.

Mintzberg and Waters (1985) share a similar view of strategy. Defining strategy as “a pattern in a stream of decisions” (Mintzberg and Waters 1985, p. 257), they conceptualized a

continuum, anchored at one end by deliberate or intended strategies and at the other end by emergent strategies. Deliberate strategies are those patterns of decisions that are realized exactly as intended; these strategies have traditionally been the focus of strategy researchers, particularly in marketing. An emergent strategy, on the other hand, shows consistency in action even in the absence of intention; these are considered strategies because of the pattern of action that emerges. Resting between these two extremes are umbrella strategies.

Umbrella strategies are simultaneously deliberate and emergent (Mintzberg and Waters 1985). Organizational leaders define boundaries or targets for middle managers to operate within; these boundaries and targets allow managers to respond to a localized environment or to a complex and unpredictable environment (Mintzberg and Waters 1985). Service firms, particularly multi-site service firms, have complex, turbulent environments due to the intensive people inputs of both customers and employees. The environment in which each site or unit operates differs from unit to unit due to the different customer demands each attempts to fulfill – one research participant spoke of the decided differences in the customer demands between rural and urban units and between truckers and commuters. It is likely, then, that umbrella strategies are preferred in multi-site service firms.

Successful strategy implementation in a firm with multiple service units requires, then, broad strategic outlines coupled with a localized emergent strategy. This localized emergent strategy develops from the pattern of actions taken by the manager (Mintzberg and Waters 1985); it is these day-to-day actions that determine success of the unit, and subsequently, the success of the firm (Sashittal and Jassawalla 2001). The day-to-day actions that characterize the manager's emergent strategy to achieve unit profitability (assumed to be the meta-goal for the manager), result from his mental representations of his world.

Frameworks that guide their behaviors (Bacharach, Bamberger, and Sonnenstuhl 1996), mental representations or schemata allow the manager to “select, interpret, and act on information their past experience has told them has the greatest leverage” (Day and Nedungadi 1994, p. 41).

Day and Nedungadi (1994) identified four mental representations in studying senior-level executives: competitor-centered, in which competitors receive most of the attention; customer-centered, in which customers are the center of attention; self-centered in which little attention is paid to what competitors are doing or what customers believe; and market-driven, which balances the customer- and competitor-centered mental representations. The mental representations of the manager guide how the manager attempts to achieve results in his unit. These mental representations drive how the manager sets goals for his or her employees and how he responds to the goals provided to him. It is through the priority the manager places on goals that he achieves results.

Goals, “object(s) or aim(s) of an action; that which one wants to accomplish and concerns a valued, future-end state” (Locke and Latham 1990, p. 125), are thought to work through three basic mechanisms. First, they motivate people to exert appropriate effort toward the achievement of the goal. Second, they trigger persistence in effort toward achieving the goal. Finally, goals provide direction, orienting people toward relevant information and activities. These activities, or task strategies, are the conscious methods employed to achieve a goal (Locke and Latham 1990; Miner 2005). In complex tasks, task strategies are more strongly linked to performance than are goals (Locke and Latham 1990). Meta-analyses have consistently shown strong positive relationships between goal-setting and performance (Wright 1990). Goals are theorized to affect performance because the close

proximity of goals and action leads directly to achievement – little can interfere (Locke and Latham 1990; Miner 2005). Goals can also act as standards against which people may self-monitor (Bandura 1986).

While most of the work concerning goals and performance has focused on one goal, most individuals, groups, and organizations have multiple goals. In most services, simultaneous goals are pursued – profitability, customer satisfaction, and employee satisfaction, for example. After reviewing experimental and field studies, Locke and Latham (1990) concluded that multiple goals can successfully be simultaneously and sequentially pursued. A few studies have also shown that goals can be prioritized and people act according to these priorities (Locke and Latham 1990; Locke, Latham, and Erez 1988).

Results for group-goal setting and individual goal-setting are similar (Locke and Latham 1990). One meta-analysis even found that the effect of group goal setting on performance is stronger than the effect of individual goal setting (O'Leary-Kelly, Martocchio, and Frink 1994). In an experimental study, Knight et al. (2001) found that difficult goals goaded teams into choosing strategies with higher risk. Team members are also likely to work harder and smarter in pursuit of collective goals (Hollensbe and Guthrie 2000).

While common wisdom might suggest that self-set or participative goals would induce greater performance in achieving the goal, little evidence suggests that this is so (Lee, Locke, and Latham 1989). In fact, goals set by a legitimate authority, such as a manager, may induce commitment and subsequent performance just as much as self-set or participative goals (Locke and Latham 1990; Locke, Latham, and Erez 1988). The manager may become

even more important as groups pursue collective goals; in an experimental study, Durham et al. (1997) found that leader ability had a greater effect on the quality of tactics used by the group and on the group's efficacy than did follower ability.

To summarize, there are five key aspects from goal setting theory that apply to this research: first, an outcome is likely to occur if pursued, but if not pursued it likely won't occur; second, that goals can be collectively pursued; third, that given goals are just as motivating as self-set goals; fourth, that multiple goals can be pursued; and finally, that leaders have influence in determining both the goal and on the efficacy of the group pursuing the goal.

Services result from a blend of marketing, operations, and human resources strategies (Lovelock 2000), and the manager of a service unit pursues multiple goals from each of these functions simultaneously. This research, rather than assuming that managers pursue each goal equally, or that all managers place the same emphasis on each goal, instead explores how the differences in the prioritizing of these multiple goals affects customers, employees, and the firm. These priorities, identified here as the manager's Operating Orientations, are discussed more fully in the next chapter.

## CHAPTER SUMMARY

This chapter presented some ways in which marketing and operations functions differ in their focuses (a summary may be seen in Table 2). These differences, while necessary for successfully delivering services, also can create conflicts – for instance, emphasizing adherence to objective standards as might neglect the customer's perceptual evaluation of the service experience.

Table 2: Marketing versus Operations

	<i>Marketing</i>	<i>Operations</i>
<i>Purpose</i>	Profitably Satisfying the Customer	Efficiently Managing Demand
<i>Outcomes Researched</i>	Revenue Customer Satisfaction Service Quality	Costs Efficiencies Service Quality
<i>Service Quality</i>	Functional Focus on Customer Perceptions	Technical Focus on Meeting Internal Standards
<i>Customers</i>	Central to Firm's Existence and Success	A Nuisance to be Managed out of the Service Process as much as Possible
<i>Employees</i>	Elemental in Delivery of Service Focus on Empowerment and Delegation	Variability in Performance Reduced through Fail-Safing and Deprofessionalization

The effective implementation of the diverse and often-conflicting marketing and operations strategies are critical for a service company's success. While the development of this strategy occurs at the upper level of the organization, responsibility for its implementation rests with the unit's manager. To make the trade-offs between the strategic initiatives, the manager develops mental representations, or Operating Orientations, that provide guidance in how to achieve his goals. These Operating Orientations shape how the manager influences employee behavior to meet the multiple goals of the manager and the unit.

In the next chapter, two models are developed that explore how these Operating Orientations might be related to customer outcomes; profitability; and employee behavior and outcomes.

## CHAPTER 3: EMPIRICAL FRAMEWORK AND HYPOTHESES

In this chapter, two models are proposed that explore how the manager of a service unit makes the necessary trade-offs between marketing and operations and between the needs and wants of customers, employees and the firm. The first model explores how the manager may influence individual employees. The second model examines the manager's influence over unit outcomes such as customer satisfaction, service quality and profitability. The overriding assumption in both models is the manager must ultimately achieve a satisfactory level of profitability or risk termination. This goal is pursued through mental representations – identified here as the manager's Operating Orientations – that guide the manager.

### OPERATING ORIENTATIONS

The manager pursues profitability through various mental representations or Operating Orientations. Four broad Operating Orientations emerged from the qualitative content analysis of help-wanted advertising: a concern for customer relations; a concern for operations; a concern for top-line revenue; and a concern for human resources. The interviews and observations confirmed, with a minor exception, the results of this analysis: managers are responsible for achieving profitability through balancing customers, operations, and sales. The exception was human resources. While participants emphasized the importance of human resource activities, they viewed these activities as the means to an end, whether that end was customer satisfaction, efficiency, or top-line sales. This is not to say that employee well-being is not a genuine concern; it is simply not an end goal to achieve. Thus, three broad Operating Orientations are considered here – Customer, Sales,

and Production. These Operating Orientations aren't mutually exclusive; rather, a manager can hold multiple priorities, and these interactions are also considered in this research. These interactions will have differential effects on the unit's outcomes. These effects of the manager's Operating Orientations are at least partially mediated through the unit's performance in delivering service.

The manager's Operating Orientations determine how the manager will interpret and respond to events and situations within his or her unit; it directs manager behaviors toward employee performance, determining which employee behaviors to encourage, discourage, reward, and discipline. Operating Orientations thus influence who is attracted, selected, and retained (Green and Mitchell 1979; Schneider, Goldstein, and Smith 1995a). Operating Orientations may result from the manager's current and past experiences; and by his or her education. They may be influenced by the corporate culture and climates of the firm and by the manager's supervisor and they may derive from innate traits of the manager such as extroversion or need for cognition. However, the composition, not the formation, of the manager's Operating Orientations and the effects are the subject of the models advanced here. Three base-line orientations, uncovered in the exploratory qualitative research are considered: customer, sales, and production, as are the various interactions of these three base-line orientations.

#### Operating Orientation – Customer

Operating Orientation – Customer has its roots in the marketing literature, particularly that of the marketing concept and marketing orientation. The marketing concept elevates the customer to the forefront of an organization's focus (Christian 1958; Drucker

1985; Kotler and Levy 1969; Levitt 1960) and the marketing orientation literature focuses on implementing the marketing concept (Narver and Slater 1990). Two primary schools of thought exist regarding marketing orientation. One espouses marketing orientation as an organizational culture phenomenon (Deshpande and Webster 1989; Narver and Slater 1990); the other advances marketing orientation as an organizational strategy (Kohli and Jaworski 1990). Despite paradigmic differences, the two schools of thought share some commonalities, two of which are relevant here. First, both paradigms view marketing orientation as occurring at the organizational level, and it remains fairly constant across intra-firm boundaries. Second, marketing orientation is concerned with customers, competitors, information, and profitability; while the manager may affect each of these four concerns, two are explicitly considered here: customers and profitability.

The conceptualization of marketing orientation as being somewhat consistent across intrafirm boundaries – that firms are holographic – has not been borne out by recent research; rather, effects such as climate perceptions and commitment are stronger and different at the unit or work group level than at the organizational level (Dietz, Pugh, and Wiley 2004; Liao and Chuang 2004). In marketing, this likely means that a marketing orientation at the organization-wide level is still relatively philosophical; it is at the unit level that the marketing concept is implemented and it is the manager that implements it. That is, the marketing concept will be effectively implemented in a unit *only* if the manager adheres to a belief in the marketing concept and subsequently implements it in his unit.

To the extent that marketing orientation has included the individual employee, the focus has been on an employee's customer orientation (Donavan, Brown, and Mowen 2004; Kennedy, Lassk, and Goolsby 2002). This is extended here to the level of the unit: an

Operating Orientation – Customer is the *extent to which the manager focuses on the satisfaction of customers' needs and wants*. A manager with this Operating Orientation encourages interactional performance of high quality and generally sees technical performance as necessary but secondary in obtaining long-term success.

#### Operating Orientation - Sales

The manager is responsible for the unit's performance level and thus is concerned with overall unit and financial performance. Two basic routes exist for achieving profitability: through increasing sales and through reducing costs. An Operating Orientation – Sales is the *extent to which overall and individual customer revenue is the focus of the manager*. This manager encourages add-on and cross-selling and will therefore generally see higher sales from each employee. Selling skills are emphasized. Employees who are successful at increasing their sales receive special recognition and attention as illustrated by one research participant who spoke of publicly awarding custom gifts for the winners of a monthly wine contest. This manager may also pursue other sales opportunities, such as the research participant who struck a deal with a local college to share revenue from selling product during athletic events.

#### Operating Orientation – Production

A manager who possesses an Operating Orientation – Production has the mental attitude that unit profitability is best achieved by focusing on improving technical service quality and operational efficiency while reducing costs; consistently flawless, efficient technical performance that results in cost reductions is the penultimate goal. An Operating

Orientation –Production, then, is *the extent to which the manager focuses on improving technical quality, improving operating efficiency, and reducing costs.*

Operating Orientation – Production has its roots in Taylor’s scientific management theory (Taylor 2003). Scientific management sees one best way to perform a task, and employees are expected to rigidly conform to these performance standards and meet feasible output quotas (Handel 2003). Taylor, who held the average employee’s intelligence in low regard, considered the most important aspect of the theory of scientific management to be regimented task-making, in which each employee’s work is planned out at least a day in advance. The employee is then provided with detailed instructions about the means and the ends; in other words, Taylor espoused the micromanagement of employees. Taylor developed his theory in a manufacturing environment – an environment where the tasks were clear and unambiguous. This isn’t the case in services; the distinguishing features of services – heterogeneity, simultaneous production and consumption, intangibility and perishability – create dynamic and turbulent environments in which there is no one way to do things.

This Operating Orientation is exemplified by the work in the service operations research stream that embraces a view of the service operation as a service factory (Chase and Garvin 1989; Levitt 1976; Levitt 1972). This orientation is similar to Bowen et al.’s (1989) description of the prototypical manufacturing environment that values efficiency and economies of scale. Managers who tilt heavily toward this Operating Orientation value efficiency; they tend to see customers as secondary to the smooth functioning of the operation and therefore design customers out of the process as much as possible. The interaction required between customers and employees may prove to be a challenge for

operations-minded managers (Stewart 2003); at best, customers may be viewed as production inputs to be managed and, at worst, as distractions in the smooth functioning of the operation. A Operating Orientation – Production reduces efforts to understand customers (Bowen, Siehl, and Schneider 1989; Zeithaml, Berry, and Parasuraman 1988) and sees variety and flexibility as costly (Bowen, Siehl, and Schneider 1989). This approach to unit management is exemplified by a sign recently seen posted at a McDonald’s drive-through warning employees about “chit-chatting” with customers. Employees were to be polite to customers, but to limit conversation to “please”, “thank you” and “would you like to Supersize that?”.

This Operating Orientation also believes that the best way to achieve profitability is to control costs through increased efficiency; thus they tend to operate with the minimum number of employees allowable. This allows little spare time or energy on the part of the employees to help train new employees or to help each other when necessary – it is all a employee can do to complete his or her own assigned tasks, let alone help co-workers. Manager coaching and training is directed toward improving employees’ technical skills; training in sales and interpersonal skills are afterthoughts.

The three identified manager Operating Orientations are not mutually exclusive. A manager may emphasize one, two or all of these Operating Orientations with differential effects. In this study, outcomes of interest are aligned with the actors in the service triangle, which models services as resulting from the efforts of the firm, the customer, and employees (Grönroos 1990). Each of these actors also expects to receive something in return for their efforts. Employees expect satisfaction, customers expect satisfaction, the firm expects profitability. The relationships between the manager’s Operating Orientations and customers

and profitability are discussed later. First, the relationships between employees and the manager's operating orientations are discussed.

## THE MANAGER AND INDIVIDUAL EMPLOYEES

The qualitative work and the management literature highlight many of the ways the manager can affect the individual employee: i.e., hiring, coaching, promoting, leadership. Here, the interest is in the relationships between the degree of mismatch between the manager's Operating Orientation and the Unit Climates— or Operating Orientation-Climate Discrepancy – and individual employee outcomes. Climates, “patterns or themes that employees perceive in their experiences [that] answer the question of ‘what is important around here’” (Schneider 2000, p. 93), have long been thought to affect individual employee behavior and outcomes. Lewin (1939) was among the first to study the effects of climates on individuals. In an experimental study with a within subjects design, he found that different climates emerged from groups of adolescent boys depending on the style of the leader of the group. In services research, Schneider and his colleagues have emphasized the importance of the existence of a climate for service in which employees focus on providing service quality to customers (Schneider 1972; Schneider 1973; Schneider 2000; Schneider, Salvaggio, and Subirats 2002; Schneider and Snyder 1975; Schneider, White, and Paul 1998).

Climates can be studied at the individual or organizational level. Psychological climate refers to the individual's perception of the climate, and organizational climate is the aggregation of psychological climate (Schneider 2000). Both climates refer specifically to some aspect of the operation, such as climate for service or climate for safety (Reichers and Schneider 1990). Multiple climates can co-exist within an organization (Joyce and Slocum

1984; Reichers and Schneider 1990), although the effects of simultaneous climates are rarely considered.

While climate is traditionally conceptualized at the organizational level, evidence exists that climates can vary by unit. Recent research has shown that unit climates have more influence on outcomes than do organizational climates (Dietz, Pugh, and Wiley 2004; Liao and Chuang 2004). This was also observed in the qualitative work: the branches of the financial services firm differed greatly from one another in the *feel* of the branch. One branch had an air of friendly, efficient competence – emphasis on efficiency. Another branch, while seeming just as competent, had a more lackadaisical air; the customer was a supplicant and should do things their way (in speaking with this manager, she mentioned the difficulty she had in convincing the branch employees to incorporate changes). The hospital branch also emitted a competent and friendly air – the manager and employees seemed to know nearly every customer and could provide some gossip about each one – yet lacked a sense of urgency, likely because the clientele didn't seem to require it.

Managers often know the importance of the various climates in their branches: one branch manager noted the extremely malicious climate that existed in her branch when she arrived – managers and employees readily gossiped spitefully about one another and morale was poor. Changing this climate was her first task. Another research participant noted that the climate of each unit was determined by the manager, and that the ability to build an appropriate climate was the differentiating factor between successful and unsuccessful managers.

It is this ability to affect climates that is examined here. Unit fit improves as the composition of the unit climate increasingly matches the Operating Orientation composition

of the manager. The lack of congruence, or Operating Orientation – Climate Discrepancy, is one way that the manager may affect the employee as an individual, specifically the employee's performance, satisfaction, burnout and intention to turnover.

These discrepancies are the flipside of congruence. The notion of congruence is not new. The first service quality gap identified by Parasuraman et al. (1985) is the gap between management's perceptions of customer expectations and actual customer expectations. Evans et al. (2002) found perceptual congruence between a sales manager's and a salesperson's perceptions of job characteristics affected salesperson performance, job satisfaction, commitment, and ambiguity. DeCarlo et al. (1999) found that congruence between an employee's desired manager behavior and his perceptions of his manager's actual behavior contributes to an employee's effort and job satisfaction. Similarly, this research focuses on the relationships between the Operating Orientation-Climate Discrepancies and employee performance, satisfaction, burnout, and intent to turnover.

Employee performance, satisfaction, burnout and intention to turnover are explored at great length in the marketing and services literatures (Challagalla and Shervani 1996; Evans, Arnold, and Grant 1999; Ramaswami, Agarwal, and Bhargava 1993; Singh 2000; Singh, Goolsby, and Rhoads 1994; Teas 1981). These are also key concerns of practitioners as well: three of the qualitative participants indicated that their firms conducted semi-annual employee surveys; another mentioned having just completed their first regular employee satisfaction survey. Yet another noted that employee factors have the highest weight in the unit scorecards upon which manager bonuses are based.

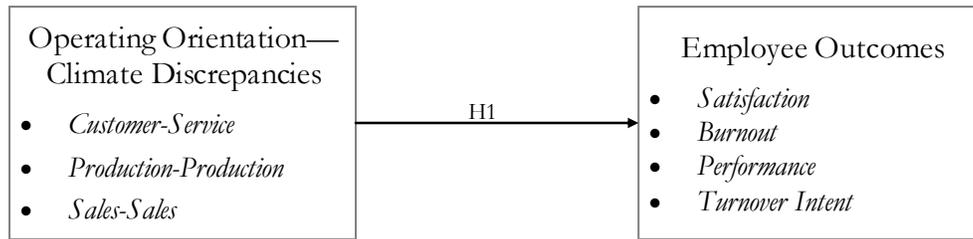
Although the simplistic link between happy employees, happy customers and profitability of the service profit chain isn't supported by the evidence – Evans et al. (1999),

for instance, found that higher performing employees tended to suffer greater stress and were less satisfied – most of the qualitative participants recognized the importance that the employee’s psychological states play in serving the customer. Here, employee performance, employee satisfaction; employee burnout – often marked by depersonalization, a state in which the employee will treat the customer or other employees as objects (see Cordes and Dougherty 1993 for a review of the burnout literature); and turnover, which not only affects the bottom-line of a unit but also the other employees of the unit, are explored.

Employees’ performance, satisfaction, burnout and intention to turnover are likely to be affected because of Attraction-Selection-Attrition. This theory suggests that a manager will attract, hire, and retain only those employees who are most similar to him (Schneider, Goldstein, and Smith 1995b). As the climate composition increasingly matches the manager’s Operating Orientation, potential and current employees who don’t fit this mold are less likely to be hired or to stay if hired. Thus, as Operating Orientation-Climate Discrepancies decrease, it is likely that the performance of an employee will improve. There will also be fewer conflicts between the peer influence of climate and the authority influence of the manager, and role clarity and harmony will improve. Burnout will be lower in this unit and satisfaction will be higher, making it less likely the employee will plan to leave and making it more likely that his performance will be more highly evaluated. Thus, the following hypothesis will be tested (see Figure 3.1):

H1: AS OPERATING ORIENTATION-CLIMATE DISCREPANCY DECREASES, A) EMPLOYEE SATISFACTION WILL INCREASE; B) EMPLOYEE BURNOUT WILL DECLINE; C) EMPLOYEE PERFORMANCE WILL IMPROVE; AND D) TURNOVER INTENT WILL DECREASE.

Figure 3.1: Individual Employee Model



The manager's Operating Orientations will also be related to unit-wide outcomes. This is explored next.

### THE MANAGER, CUSTOMERS AND PROFITABILITY

With a few exceptions, much of the services literature considers customer outcomes at the individual employee or customer level. Here, the collective satisfaction of a unit's customers is considered, along with unit costs and revenue. This more closely reflects how service operators evaluate customer satisfaction and profitability, and it provides a glimpse into the trade-offs made in services. The relationship between these unit-level outcomes and the manager's Operating Orientations are considered next.

#### The Manager's Operating Orientations and Outcomes

A manager with an Operating Orientation – Customer has an overarching goal of satisfying the customer. The strategies and plans this manager makes in operating the unit will focus on satisfying and pleasing customers, making it likely that customers will be pleased and satisfied. However, the lack of focus on cost containment and improving revenues also makes it likely that costs will increase and revenue decrease (Locke and Latham 1990). Although service profit chain theorists (Heskett, Sasser, and Schlesinger 1994) would say that satisfying the customer will increase revenue through retention and

customer price insensitivity – a belief shared by some of the qualitative participants – research has indicated less than optimal firm outcomes when the focus is solely on improving customer outcomes (Anderson, Fornell, and Rust 1997; Rust, Zahorik, and Keiningham 1995). Because of the immediacy effect of goal-setting – goals are effective because of their close proximity to action – it is likely that in a unit with a manager with a Operating Orientation – Customer, revenues will, at best, remain stable and will more likely decline. Thus the following is hypothesized:

H2: OPERATING ORIENTATION – CUSTOMER IS RELATED A) POSITIVELY TO CUSTOMER OUTCOMES; B) POSITIVELY TO COSTS; AND C) NEGATIVELY TO REVENUE.

A manager with an Operating Orientation-Sales will have a primary goal of increasing revenues. This is illustrated by a research participant’s answer to a question about the inherent tension between customers and operations in which he emphasized the importance of creating new sales:

*If you’ve got the sales, life is good. It’s when you don’t have the sales that life is bad. ... It (Sales) just buys you a lot more labor. ... Teach your employees: Iced tea? How about a flavored tea? Suggest an appetizer to them. ... You can solve a lot of problems if you have the sales (BN).*

While this strategic focus will orient the employees toward the achievement of this goal, it is often done without regard for the costs involved, as Shapiro (1977) noted, or without regard for the customer, as noted by marketing scholars such as Saxe and Weitz (1982). Customer outcomes, then, will decline and unit costs will increase. Thus, the following hypothesis should hold true:

H3: OPERATING ORIENTATION – SALES IS RELATED A) NEGATIVELY TO CUSTOMER OUTCOMES; B) POSITIVELY TO COSTS AND C) POSITIVELY TO REVENUE.

A manager with an Operating Orientation – Production will be focused on achieving the highest operating efficiency. His strategies focus on managing customers out of the systems as much as possible – special orders *do* upset this manager and, consequently, his staff. He will provide minimal staffing levels. The high efficiency that results from this orientation may lower unit costs, but the price with regards to customers may be high, as one research participant described how an overemphasis on the technical aspects may affect customer satisfaction:

*There are many places that are probably a lot faster than we are. That's great, they have your food ready when you get to the window, but if they can't even smile at you, they can't say hello to you or kiss my butt or nothing, what's the perception of the customer? Does the customer care that they got their food five seconds faster if the perception was that employee was being rude to them? I don't think so (DB).*

Not only will customer outcomes suffer in this type of environment, but revenues are also likely to suffer; the emphasis on process will not allow for any opportunities for the staff to take the time to sell more to each individual customer.

The focus on efficiency can also have effects on core product production. One research participant discussed how an overarching concern with costs may lead to a downward spiral of quality. In an initiative to save labor costs, his firm had instituted the concept of team-managed units. Rather than being responsible for one unit, managers were responsible for three to five units. This flattening of the hierarchy, a move designed to save labor costs, had disastrous results:

*We didn't invest in the people, so guess what? Speed of service increased, sales go down, we're stagnant. And that's where we were focusing on selling stupid dogs and stupid toys versus focusing on what we...should do best (DB).*

Thus, while an emphasis on operations may lead to reduced costs, it is likely that customer outcomes and top-line sales will decline. This is reflected in the following hypotheses:

H4: OPERATING ORIENTATION – PRODUCTION IS RELATED A) NEGATIVELY TO CUSTOMER OUTCOMES; B) NEGATIVELY TO COSTS AND C) NEGATIVELY TO REVENUE.

### Operating Orientation Interactions

These Operating Orientations can co-exist; the strengths of one Operating Orientation will balance the weaknesses of another. In fact, without multiple focuses, long-term success will prove elusive, as one of the qualitative participants pointed out:

*We (managers) control the P&L, whether it's food cost, labor cost, semi-variables. Nirvana doesn't come from control. If that's all you're focused on you've just managed down your sales because you're not going to get the people in (DB).*

There is support in the literature for a dual focus effect: Mittal et al. (2005) found the relationship between customer satisfaction and profitability is stronger only when simultaneous attention is paid to both revenues and cost reductions (they also note that profitability may be damaged in the short run by the process of achieving this dual focus.). The differential effects of various interactions of Operating Orientations are examined next.

The interaction of a manager's Operating Orientation – Customer and Operating Orientation – Sales will likely increase the manager's focus on satisfying the customer and driving revenue. This manager will develop strategies that address how her employees focus on a customer-oriented selling approach. For example, a bartender who works for this manager may be encouraged to promote a new beer to a beer-drinking customer rather than the featured wine. This Operating Orientation interaction will likely lead to higher sales and

higher customer outcomes. However, the time required to service and to sell to customers will decrease operating efficiencies, increasing costs. Thus the following hypothesis should hold:

H5: THE INTERACTION OF OPERATING ORIENTATION – CUSTOMER AND OPERATING ORIENTATION – SALES IS RELATED A) POSITIVELY TO CUSTOMER OUTCOMES; B) POSITIVELY TO COSTS AND C) POSITIVELY TO REVENUE.

The interaction of Operating Orientation – Customer with Operating Orientation – Production will likely see the manager’s goal of superior customer service bound by his simultaneous focus on operational efficiency. Customers are to be satisfied, but at a reasonable cost. Customer outcomes, then, are higher and costs are lower. The lack of focus on increasing customer revenue is likely to cause no improvement in achieving higher revenue. Additionally, the emphasis on efficiency won’t allow for additional time to be spent with the customer to discover needs to profitably fulfill. Revenues, then, are likely to be lower. Thus, the following is hypothesized:

H6: THE INTERACTION OF OPERATING ORIENTATION – CUSTOMER AND OPERATING ORIENTATION – PRODUCTION IS RELATED A) POSITIVELY TO CUSTOMER OUTCOMES; B) NEGATIVELY TO COSTS AND C) NEGATIVELY TO REVENUE.

The interaction of Operating Orientation – Sales and Operating Orientation – Production, on the other hand, will emphasize the simultaneous goals of increasing revenue and improving technical quality, efficiency and cost-controls. The focus on efficiency will create a focus on getting things done quickly in the unit. Because time-pressed goals lead to a greater reliance on task strategies that were successful in the past (Christensen-Szalanski 1980), canned selling routines will develop (think McDonald’s ubiquitous fries up-sell). While costs should decrease and revenues increase, irritation with irrelevant or inappropriate

offerings will damage customer outcomes, as will the lack of courtesy fostered by the production focus of this Operating Orientation. Thus:

H7: THE INTERACTION OF OPERATING ORIENTATION – SALE AND OPERATING ORIENTATION – PRODUCTION IS RELATED A) NEGATIVELY TO CUSTOMER OUTCOMES; B) NEGATIVELY TO COSTS AND C) POSITIVELY TO REVENUE.

The ideal Operating Orientation interaction, called Nirvana by one qualitative participant, who also noted how difficult it is to achieve, is a balanced Operating Orientation – Customer-Sales-Production. This interaction focuses on achieving customer satisfaction profitably. Each weakness of one is balanced by a strength of another: the customer-focused goal is tempered by the goal of operational efficiency (and vice-versa). Revenue goals are harnessed by the customer goals and the operational goals, increasing customer outcomes and revenues while reducing costs. This will be tested with the following hypothesis:

H8: THE INTERACTION OF OPERATING ORIENTATION – CUSTOMER, OPERATING ORIENTATION – SALES AND OPERATING ORIENTATION – PRODUCTION IS RELATED A) POSITIVELY TO CUSTOMER OUTCOMES; B) NEGATIVELY TO COSTS AND C) POSITIVELY TO REVENUE.

The relationship between the manager's Operating Orientations and firm and customer outcomes is likely to be at least partially mediated by how well the manager can gain employee commitment to his priorities.

### The Manager and Performance

In goal setting theory, goal commitment, “one's attachment to or determination to reach a goal, regardless of origin” (Locke, Latham, and Erez 1988, p. 24) has been found to be a significant moderator of the relationship between goal-setting and performance (Wofford, Goodwin, and Premack 1992). One way to gauge commitment is to infer it by performance

(Locke and Latham 1990) since behavior can be considered the ultimate proof of commitment to a goal (Salancik 1977). Here, unit performance is considered the behavioral manifestation of the employees' collective commitment to the manager's priorities – his Operating Orientations.

Goal commitment is determined by a number of factors. Of primary interest here is the influence an authority figure has on goal commitment. A goal assigned by a legitimate authority figure with a modicum of control over rewards and punishments and who offers opportunities for development will see higher commitment (Locke, Latham, and Erez 1988); this commitment is increased if the authority figure, here the manager, is physically present and performs staff development activities (Locke, Latham, and Erez 1988). This point showed up repeatedly in the qualitative research. One participant, for example, spoke of how he set goals for his span of stores and then developed in his managers the skills necessary for them to gain commitment to that goal in their employees:

*In my last role as area coach, we were the fastest span in the nation. My stores were the fastest in the entire nation. Was that me? Well, yes, initially it was me. I had to teach them, I had to coach them, I had to embed that team spirit, that spirit of greatness in them, "we can achieve, we will achieve." I had that stupid raggedy trophy and every week it went around to the fastest store. At every meeting we had, that was the biggest topic of conversation, the stupid trophy. It's been around for three years, it fell, it was of an eagle – something corny, the wings were broke. The sense of pride to have that trophy in their store – it was all about pride; once I built that, I let them take it. I did not manage speed. You just don't know how excited I get to go in to a store and hear the team say, "Hey, how'd we do on speed? Come on guys, we can do better, we can pick it up."(DB).*

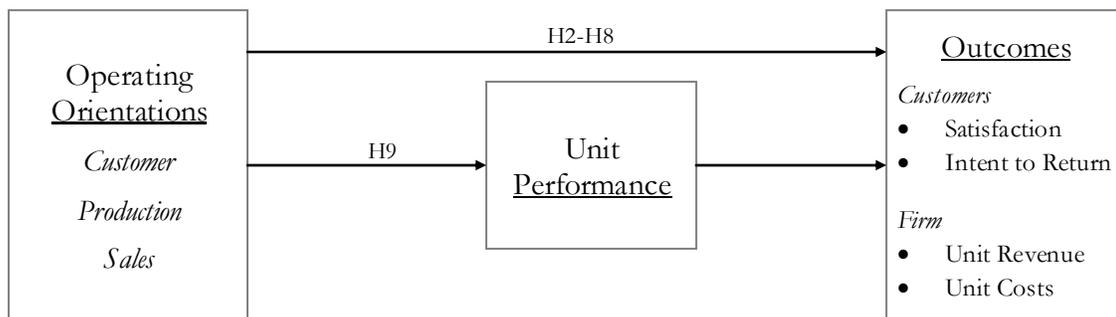
Managing this unit performance is critical for the manager if he wants to achieve his goals. While the manager can directly affect profitability through increasing sales (like the manager who pursued off-premise sales); through operating costs incurred or saved through equipment maintenance and replacement; or through the scheduling of labor, most of the

effect the manager has on unit outcomes is through his effect on employees, collectively and individually. Collectively, the manager's ability to motivate his employees into accepting his goals is shown in how well they transform the manager's Operating Orientation into performance. Thus, these performance elements will mediate the relationships between the manager's Operating Orientation Composition and outcomes:

H9: UNIT PERFORMANCES MEDIATE THE RELATIONSHIPS BETWEEN A MANAGER'S OPERATING ORIENTATIONS AND A) CUSTOMER OUTCOMES; B) UNIT COSTS; AND C) UNIT REVENUES.

These relationships may be seen in Figure 3.2.

Figure 3.2: Unit Level Effects



## CHAPTER SUMMARY

Drawing on the marketing and operations literature and the qualitative work, two models were developed in this chapter. The first model proposes that the lack of fit, or discrepancy, between the manager's Operating Orientations and the employee's psychological climate will affect employee satisfaction, burnout, turnover intention and performance. The second proposes that the manager's Operating Orientation is also related to customer and unit outcomes (satisfaction, costs and revenue). The next two chapters describe how these models were tested and provide the results of the hypotheses tests.



## CHAPTER 4: RESEARCH METHODOLOGY

This research explores how marketing and operations interact to deliver service. In the preceding chapters it was proposed that this interaction occurs primarily at the unit level, and is coordinated by the unit's manager. Two models were developed: a unit-level effects model that explored the effect of the manager on customers and profitability and an individual level effects model that explored the effect of the manager on individual employees (Figures 3.1 and 3.2). To test these models, data concerning costs, revenue, customer satisfaction, employee performance and psychological health were gathered from employees, from customers, from managers, and from district managers (the manager's supervisor). This chapter describes data collection, the measurement model, results of the hypotheses testing. First, however, the context in which the models were tested is discussed.

### STUDY CONTEXT

The challenge in choosing the context for this study was in meeting some specific criteria. First, a context in which the effects of the manager on customers, costs, revenue and employees could be isolated was necessary. The context must also be one in which a relatively unambiguous service outcome was provided that was a fairly balanced mix of technical, interactional and sales elements. The final criterion to meet in the choice of context was the ability to control for organizational effects – the goal here is to examine between-unit differences, not between-firm differences. Ideally, then, we needed multiple units in the same firm.

Restaurants most closely met these criteria. First, in restaurants, manager and unit-level effects could be easily distinguished. The manager of each unit is clearly identifiable:

although the manager may have assistant and shift managers to whom tasks are delegated, the responsibility for results and the authority to achieve these results clearly rest with the manager. Additionally, employees have little substantive contact with the firm other than through the manager: supervising, hiring and training are typically performed at the unit level. Just as the employee is often the firm to a customer (Bitner, Booms, and Tetreault 1990), the manager is the firm to employees for all intents and purposes.

Restaurants also provide a relatively unambiguous outcome that easily evaluated by the customer and the employee, yet the outcome is comprised of a fairly well-balanced mix of technical, interactional and sales elements. This mix of elements requires the manager to balance marketing (interactional and sales elements) and production (technical elements). In a restaurant, the same service process is provided to all customers with relatively minor customization, unlike other services such as healthcare or financial services in which the unit provides multiple, often customized service process and products to customers (e.g., teller services versus investment services provided by banks). In restaurants, each service episode occurs over a relatively short period of time and has a clearly defined beginning and end. Additionally, restaurant service providers – the employees – have no professional affiliation, and little training occurs outside the unit itself. Unlike service providers in education, healthcare and financial services context, there are no possible confounds with professional standards or associations.

Restaurants also met the criteria that unit effects could be isolated from organizational-level effects. Two firms agreed to participate in this research, allowing comparison between units while controlling for the firm-level effects, particularly the climate effects. While this raises the question of generalizability, the use of few firms with multiple

units allowed for greater precision in the wording of instruments, increasing the external validity of the measurements and the study. Because of the idiosyncratic nature of services, creating comparable measurement instruments is a severe challenge and would likely require the use of instruments vague in terms of the service elements, an unacceptable option since it is the specifics that define the manager's operating orientations.

## DATA COLLECTION AND SAMPLES

Two restaurant chains participated in this study. Although both firms have corporate and franchise units, the samples were drawn from only corporate-owned and –operated units. Data from three levels of employees and customers were gathered for this study. Although each restaurant chain participating in the study used different terminology to refer to the hierarchical levels of their employees, the responsibilities of those occupying each level were similar. Here, these levels are referred to as follows:

*Employees* have few if any managerial responsibilities. Their primary duties rest in the actual delivery of service to the customer. In restaurants, these job titles might include *server*, *cook*, *busser*. These employees may have reported on a shift-by-shift basis to an assistant manager or shift manager, but their ultimate supervisor is the *Manager*.

The *Manager* is responsible for the performance of the unit and its personnel. While the manager may have assistants and shift managers to whom some responsibilities such as scheduling and staffing are delegated, ultimate responsibility for performance of the unit rests with the manager. Although there may be a few instances where there are multiple managers, in the samples drawn for this study, each unit has one manager. The manager reports to the *District Manager*.

The *District Manager* is responsible for the performance of a district consisting of multiple units. In this sample, District Managers were responsible for 5-8 managers and units. The District Managers report to a regional manager.

Because of the idiosyncratic demands of each chain, distribution varied between chains. Each sample and its distribution are discussed next in detail.

### Speedy Nean's

This sample, drawn from a Midwest region of an international quick-service restaurant company, consisted of one regional manager, six district managers, and 32 managers. Survey packets were distributed to each district manager at a regular monthly meeting on February 8, 2007. These packets consisted of a survey

and reply envelope for the district manager and each of his/her managers. The District Managers were asked to distribute the manager surveys at their next weekly manager meetings. Additionally, the Regional Manager also received a survey. A second wave of packets was distributed at

the next district manager meeting held March 8, 2007. These packets included a second survey for those who had not yet returned surveys and thank you letters to those who had. The first wave yielded responses from the regional manager (100%), four district managers (about 67%) and 18 managers (50%). The second wave yielded additional responses from nine managers and one District Manager. Total response rate for this sample was about 84%

*Table 4.1: Response Rates*

Speedy Nean's Sample (Quick Service)			
	Sampled	Response	Rate
Regional Manager	1	1	100%
District Manager	6	5	83%
Managers	32	27	84%

Larry's Diner (Casual Dining)			
	Sampled	Response	Rate
Regional Manager	1	1	100%
District Manager	8	6	75%
Managers	53	31	58%
Employees	636	281	44%
Customers - Individual	12700	1380	11%
Customers - Units	53	35	66%

for managers, and 83% for District Managers, as can be seen in Table 4.1. Manager demographic information may be found in Table 4.2.

Table 4.2: Manager Demographics

<i>Tenure as Manager</i>			<i>Tenure in Industry</i>		
	Frequency	Percent		Frequency	Percent
Less than 6 months	12	18.8	At least 1 year but less than 2	1	1.6
More than 6 months but less than a year	7	10.9	At least 2 years but less than 5	2	3.1
At least 1 year but less than 2	17	26.6	At least 5 years but less than 10	11	17.2
At least 2 years but less than 5	12	18.8	At least 10 years	44	68.8
At least 5 years but less than 10	6	9.4			
At least 10 years	3	4.7			

<i>Tenure in Unit</i>			<i>Age</i>		
	Frequency	Percent		Frequency	Percent
Less than 6 months	9	14.1	Under 21 years old	1	1.6
More than 6 months but less than a year	7	10.9	21-30	19	29.7
At least 1 year but less than 2	14	21.9	31-40	12	18.8
At least 2 years but less than 5	15	23.4	41-50	15	23.4
At least 5 years but less than 10	8	12.5	51-64	9	14.1
At least 10 years	5	7.8	Over 65 years old	0	0

<i>Tenure with Supervisor</i>			<i>Gender</i>		
	Frequency	Percent		Frequency	Percent
Less than 6 months	24	37.5	Male	32	50
More than 6 months but less than a year	7	10.9	Female	26	40.6
At least 1 year but less than 2	12	18.8			
At least 2 years but less than 5	10	15.6			
At least 5 years but less than 10	3	4.7			
At least 10 years	2	3.1			

<i>Education Level</i>		
	Frequency	Percent
HS Diploma or Equivalency	13	20.3
Some college	27	42.2
Bachelor's degree	14	21.9
Some graduate work	1	1.6
Graduate degree	3	4.7

### Larry's Diner Distribution

This sample was drawn from a national casual dining restaurant chain whose restaurants operated around the clock. The sample consisted of one regional manager, eight district managers, 53 managers, 636 employees, and 12,700 customers. A summary of the distribution may be found in Figure 4.1.

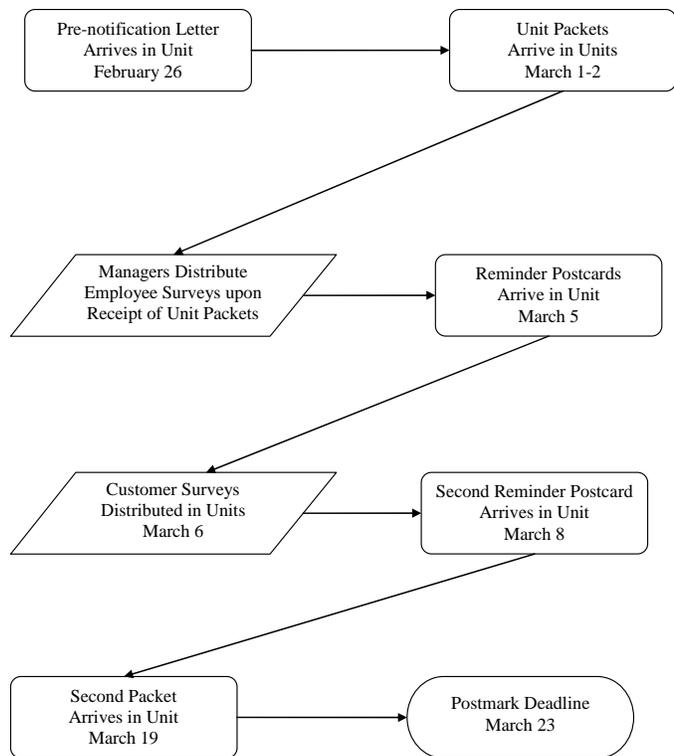
Surveys and reply envelopes were mailed to the regional and district managers. Manager, employee and customer surveys were mailed in a packet to each restaurant unit. In addition to the surveys, each packet also contained a box to which customers returned surveys and a reply envelope in which managers returned customer surveys. Manager and employee surveys were each accompanied by a self-addressed stamped envelope. This packet arrived at the units on March 1-2, 2007.

Upon receipt of this packet, managers were asked to distribute six of the employee surveys to six above-average performing employees and six to below-average performing employees. These employees were to be at least 18 years old and able to read English. These surveys could be immediately distributed upon receipt of the packet.

Customer surveys were distributed on a single uniform day chosen by the regional manager.

Beginning at midnight on March 6, 2007, servers (waiters and waitresses) distributed surveys to customers with the customer's bill. Upon completion of the survey, customers deposited the survey in the designated box placed near the cash register. To ensure a broad picture of

Figure 4.1: Larry's Diner Distribution



activity throughout the workday, the 240 customer surveys distributed to each unit were separated into three 80 survey packets. Each packet was then to be distributed during an 8-hour period – 12am-8am, 8am-4pm and 4pm-11:59pm. On March 7, 2007, the customer surveys were removed from the box and returned to me in the supplied envelope. More than 1375 surveys from 35 restaurants were returned.

A reminder postcard was mailed to each manager and arrived on March 5, 2007. This postcard served as a reminder to distribute customer surveys on March 6 and to distribute employee surveys. A second reminder was mailed March 8, 2007, asking that managers return the customer surveys and their own surveys. This reminder also asked managers to encourage their chosen employees to complete and return the surveys. On March 17, 2007, a final reminder packet was mailed to those managers who hadn't yet returned their surveys. This packet consisted of a manager survey and four replacement employee surveys. This second wave also included a notice to the manager and employees that surveys were to be postmarked by March 23, 2007, to be included in the drawing for the gift cards. An overview of the distribution may be seen in Figure 4.1.

The first wave yielded responses from the regional manager (100%), six district managers (75%) and 28 managers (53%). The response rate for employee surveys in the first wave was around 40%. The second wave yielded additional responses from 3 managers and 36 employees. Total response rate for this sample was about 44% for employees, 58% for managers, 75% for District Managers and 11% for customer surveys (66% of units returned customer surveys). Response rates may be found in Table 4.1. Manager demographics may be found in Table 4.2, employee demographics in 4.3.

Table 4.3: Employee Demographics

*Employee Tenure with Company*

	Frequency	Percent
Less than six months	52	18.3
More than 6 months, less than 1 year	46	16.2
At least 1, but less than 2 years	39	13.7
At least 2, but less than 5	74	26.1
At least 5, but less than 10 years	32	11.3
More than 10 years	34	12

*Employee Education Level*

	Frequency	Percent
Some High School	55	19.4
HS Diploma or Equivalency	114	40.1
Some College	97	34.2
Bachelor's Degree	5	1.8
Some Graduate Work	1	0.4
Graduate Degree	3	1.1

*Employee Tenure with Manager*

	Frequency	Percent
Less than six months	75	26.4
More than 6 months, less than 1 year	58	20.4
At least 1, but less than 2 years	64	22.5
At least 2, but less than 5	59	20.8
At least 5, but less than 10 years	19	6.7
More than 10 years	3	1.1

*Employee Hours Worked Weekly*

	Frequency	Percent
Less than 10 hours	4	1.4
10-20 hours	32	11.3
20-30 hours	70	24.6
30-40 hours	135	47.5
More than 40 hours	31	10.9

*Employee Tenure in Industry*

	Frequency	Percent
Less than six months	14	4.9
More than 6 months, less than 1 year	26	9.2
At least 1, but less than 2 years	29	10.2
At least 2, but less than 5	67	23.6
At least 5, but less than 10 years	69	24.3
More than 10 years	74	26.1

*Gender*

	Frequency	Percent
Men	97	34.2
Women	178	62.7

*Age*

	Frequency	Percent
Under 21 years of age	81	28.5
21-30 years of age	91	32.0
31-40 years of age	40	14.1
41-50 years of age	40	14.1
51-64 years of age	16	5.6
65 years of age or older	1	0.4

*Employee Tenure in Unit*

	Frequency	Percent
Less than six months	53	18.7
More than 6 months, less than 1 year	51	18
At least 1, but less than 2 years	41	14.4
At least 2, but less than 5	65	22.9
At least 5, but less than 10 years	36	12.7
More than 10 years	26	9.2

*Job Category*

	Frequency	Percent
Backroom	126	44.4
Customer Contact	126	44.4
Other	29	10.2

## CONSTRUCT MEASUREMENTS AND OPERATIONALIZATIONS

### Manager Constructs

#### *Manager Operating Orientations*

Three base-line Operating Orientations are considered: Operating Orientation – Customer, Operating Orientation – Sales and Operating Orientation – Production. These measures captured the importance the manager placed on each of the three Operating Orientations. Items for the measures of these constructs were drawn from existing scales; from the marketing, operations, human resources and sales literatures; and from the earlier qualitative work. External reliability was an important consideration in developing these measures – they needed to reflect the specific day-to-day operations of the context used here. The thirty items intended to capture the manager’s Operating Orientation may be found in the Appendix B, as can all items and measures used in this research. A summary of the measurements may be found in Table 4.4.

Pre-testing of early versions of the instrument indicated that managers tended to place equal importance on the items. To counteract this inclination, instructions informed the managers to assume that they had met standards on the particular area and asked them how much MORE effort they would devote the items. The anchors for all of these items were *Never (1)* and *Always (7)*.

Table 4.4: Measurement Summary

<b>Operating Orientation - Customer</b>			
<i>Factor</i>	<i>Reliability</i>	<i>Asked of</i>	<i>Scale Source</i>
Functional Quality	0.862	Manager	Developed here
Customer Outcomes	0.814	Manager	Developed here
Empathy	0.828	Manager	Developed here
<b>Operating Orientation - Sales</b>			
<i>Factor</i>	<i>Reliability</i>	<i>Asked of</i>	<i>Scale Source</i>
Sales	0.870	Manager	Developed here
<b>Operating Orientation - Production (formative measure)</b>			
<i>Factor</i>	<i>Reliability</i>	<i>Asked of</i>	<i>Scale Source</i>
Technical Quality	NA	Manager	Developed here
Efficiency	NA	Manager	Developed here
Costs	NA	Manager	Developed here
<b>Climate for Service</b>			
<i>Factor</i>	<i>Reliability</i>	<i>Asked of</i>	<i>Scale Source</i>
Climate for Service	0.726	Employees	Lytle and Horn, 1998
<b>Climate for Production</b>			
<i>Factor</i>	<i>Reliability</i>	<i>Asked of</i>	<i>Scale Source</i>
Technical Quality	0.826	Employees	Developed here
Efficiency	0.695	Employees	Developed here
<b>Climate for Sales</b>			
<i>Factor</i>	<i>Reliability</i>	<i>Asked of</i>	<i>Scale Source</i>
Sales	0.866	Employees	Periatt et al., 2004
<b>Employee Burnout</b>			
<i>Factor</i>	<i>Reliability</i>	<i>Asked of</i>	<i>Scale Source</i>
Burnout	0.892	Employees	Seltzer & Numeriff, 1988
<b>Employee Job Satisfaction</b>			
<i>Factor</i>	<i>Reliability</i>	<i>Asked of</i>	<i>Scale Source</i>
Job Satisfaction	0.857	Employees	Rice et al., 1991
<b>Turnover Intention</b>			
<i>Factor</i>	<i>Reliability</i>	<i>Asked of</i>	<i>Scale Source</i>
Turnover Intention	0.845	Employees	Donnelly & Ivancevich, 1974
<b>Unit Performance</b>			
<i>Factor</i>	<i>Reliability</i>	<i>Asked of</i>	<i>Scale Source</i>
Unit Performance	0.908	District Managers	Oliver & Anderson, 1994
<b>Unit Performance</b>			
<i>Factor</i>	<i>Reliability</i>	<i>Asked of</i>	<i>Scale Source</i>
Sales, Food & Labor	NA	Managers	This study
<b>Customer Satisfaction, Intention to Return, Service Quality</b>			
<i>Factor</i>	<i>Reliability</i>	<i>Asked of</i>	<i>Scale Source</i>
Customer Satisfaction	0.952	Customers	Stafford, 1996
Intention to Return	0.970	Customers	Oliver et al., 1997
Service Quality	0.960	Customers	Spreng & Mackoy, 1996

### *Unit Performance*

Managers were also asked to evaluate the performance of their unit with regard to costs (food and labor) and revenue.

### Employee Constructs

#### *Climates*

Employees were asked to provide information regarding the climate composition of their units. Three base-line climates were considered: a Climate for Customers, a Climate for Sales, and a Climate for Production. A Climate for Customers was measured using three subscales of the SERVOR scale (Lytle, Hom, and Mokwa 1998): service encounter practices, service failure prevention, and service vision. This seven-point Likert scale is anchored at one end by *Completely Inaccurate* and at the other by *Completely Accurate*. A Climate for Sales was measured with a shortened Selling Orientation-Customer Orientation Scale (Thomas, Soutar, and Ryan 2001), adapted to reflect the unit and a service rather than an individual sales encounter, and worded in neutrally valenced manner. This Likert scale is anchored by *Never (1)* and *Always (7)*. Items for the Climate for Production were inspired by the production/operations literature, and the earlier qualitative work.

#### *Other Employee Constructs*

In addition to the climate measures, employees were also asked about the state of their job satisfaction, intention to leave, and burnout.

*Job Satisfaction* was measured with Rice et al.'s (1991) measure that showed a reliability of 0.89 in prior studies. This 7-point Likert scale used diverse anchors in its items.

*Turnover Intention* was captured using Donnelly and Ivancevich's (1975) measure. Singh (2000) found reliability of 0.94-0.96 across two samples using a Likert scale with anchors of *Strongly Disagree (1)* and *Strongly Agree (7)*.

The level of *burnout* of the employee was captured using the Gillespie-Numeroff Burnout Inventory (Seltzer and Numeroff 1988). This scale is anchored by *Never (1)* and *Always (7)*.

### Customer Constructs

To capture *Customer Intent to Return*, customers were asked to respond to Oliver et al.'s (1997) semantic differential scale. They found reliability of 0.89-0.92. To measure *Customer Satisfaction*, customers were asked to respond to Stafford's semantic differential scale (Day and Stafford 1997; Stafford 1996). Stafford and Day found reliabilities of 0.94-0.97. *Customer Perception of Service Quality* was measured with Spreng and Mackoy's (1996) semantic differential scale (reliability 0.97). Information about the time of visit and the frequency of visits was also gathered.

### District Manager

The district manager was asked about the performance of each of the units in his span. Three dimensions of performance were measured: customer, sales, and technical. Additionally, the district managers were asked about the unit's overall performance. Oliver and Anderson's (1994) scale was adapted here. They found a reliability of 0.88.

To establish unidimensionality, validity and reliability, existing and new scales were subjected to Exploratory Factor, Confirmatory Factor and reliability analyses, where appropriate; the results are presented next.

## TESTING OF THE MEASUREMENT MODEL

### Manager Operating Orientations

Of the three Manager Operating Orientations, two were measured with reflective scales – Operating Orientation – Customer and Operating Orientation – Sales. These two scales were each subjected to exploratory factor analyses and a single confirmatory factor analysis.

#### *Exploratory Factor Analysis: Operating Orientation – Customer*

The 12 items intended to capture the manager's Operating Orientation – Customer were subjected to a Principle Component Analysis (PCA) using SPSS 15.0 for Windows. The data were deemed suitable for factor analysis after determining that there were many correlations greater than 0.3 in the correlation matrix, a Kaiser-Meyer-Okin value of 0.828 (greater than the recommended cut-off of 0.6), and a statistically significant Bartlett's Test of Sphericity (Tabachnick and Fidell 2001).

Three factors emerged, accounting for more than 70% of the variance. The first factor (reliability of 0.862) reflects the manager's emphasis on improving the quality of employees' interactions with customers – or Functional Quality. The second factor (reliability of 0.814) reflects the manager's concern with customer outcomes at the unit level. The third factor (reliability of 0.828) reflects the importance the manager places on the empathic qualities of the employees.

### *Exploratory Factor Analysis: Operating Orientation – Sales*

The five items that were intended to capture the manager's Operating Orientation – Sales were also subjected to exploratory factor analysis. Two factors emerged, accounting for more than 77% of the variance. The first factor reflected the manager's emphasis on individual customer revenue and the second indicated the manager's emphasis on overall unit revenues. The first factor exhibited reliability of 0.870, while the second factor exhibited unacceptable reliability (0.535). Only the first factor was retained for further analyses.

A model consisting of a second-order factor for Operating Orientation – Customer and the factor Operating Orientation – Sales was tested using EQS 6.1 for Windows to determine convergent and discriminant validity. Each item was restricted to load only on its related factor. One item from each scale had its loading set to 1.0 (unstandardized). Operating Orientation – Customer and Operating Orientation – Sales were allowed to correlate with each other. Because some of the items indicated high levels of kurtosis, elliptical reweighted least squares (ERLS), which is less sensitive to departures from normality, was used to fit the measurement model. Model fit and convergent and discriminant validity are discussed next.

### *Confirmatory Factor Analysis*

#### *Model Fit*

Although the overall chi-square ( $X^2$ ) statistic is significant ( $X^2=117.455$ ,  $df=86$ ,  $p=0.01371$ ), the use of  $X^2$  as a sole indicator of model fit is inappropriate (Bagozzi and Yi 1988). Acceptable fit is indicated by the NNFI (0.954), CFI (0.962) and RMSEA (0.080). While the RMSEA point value is acceptable, the upper limit of its 90% confidence interval (0.038-

0.113) is outside Browne and Cudeck's (1993) recommendation, a potential cause for concern. However, because of the dangers of over-fitting models, particularly those with small sample sizes, and because of the other acceptable fit indices, additional model-fitting activities were deemed inappropriate.

#### *Convergent and Discriminant Validity*

All first and second factor loadings were significant and all loadings but one were greater than 0.60, indicating convergent validity. This indicates support for the averaging of items to create the first-order factors. The averages for the three Operating Orientation-Customer dimensions – Functional Quality, Customer Outcomes and Employee Empathy – were then used as indicators of the construct Operating Orientation – Customer (De Wulf, Odekerken-Schroder, and Iacobucci 2001).

Discriminant validity between the three factors of Manager Operating Orientation - Customer was also indicated. Three pairwise  $X^2$  difference tests were performed in which each construct and its items were tested in tandem with each of related constructs. For each pair of constructs, a two-factor and a one-factor model were tested and the resulting  $X^2$ s were compared. In each comparison the two-factor model  $X^2$  was a significant improvement over the single factor model, leading to a conclusion that these constructs measure different phenomena. Similarly, a pairwise  $X^2$  difference test performed for the second order Operating Orientation – Customer factor and Operating Orientation – Sales indicates that these too are two distinct constructs.

### *Manager's Operating Orientation – Production*

Unlike the Operating Orientation – Sales and Operating Orientation – Customer, the items comprising the scale for Manager's Operating Orientation – Production were formative rather than reflective. As such, subjecting these items to EFA and CFA is inappropriate (Diamantopoulos and Winklhofer 2001; Jarvis, MacKenzie, and Podsakoff 2003). Important here are content specification and indicator specification (Diamantopoulos and Winklhofer 2001). The Production Orientation of the manager was considered to have three facets – a concern with Technical Quality, a focus on efficiency in operations, and a focus on cost reductions. The items for each of these three dimensions may be found in Appendix B. Items were averaged, creating indicators for each of the three sub-dimensions. To arrive at a value for the manager's Operating Orientation – Production, the three indicators were then averaged (Diamantopoulos and Winklhofer 2001; Jarvis, MacKenzie, and Podsakoff 2003).

### Climates

#### *Exploratory Factor Analysis*

The ten items intended to capture Climate for Service were subjected to a PCA (multiple correlations of greater than 0.3, KMO of 0.917, significant Bartlett's Test of Sphericity). Although three dimensions of the SERVOR scale (Lytle, Hom, and Mokwa 1998) were used, only one factor emerged that explained more than 60% of the variance. Reliability for this factor was 0.926.

The 11 items measuring Climate for Production were also subjected to a PCA (multiple correlations greater than 0.30, KMO of 0.837, significant Bartlett's Test of Sphericity). Three factors emerged that explained more than 60% of the variance. The first

factor captures an emphasis on Technical Quality (reliability of 0.826) and the second captures a focus on efficiency (reliability of 0.695). The third factor is comprised of two items tapping into efficiency and exhibits low reliability (0.544) and is thus excluded from further analyses.

Two factors emerged when the items measuring Climate for Sales were subjected to a PCA (multiple correlations greater than 0.30, KMO of 0.835, significant Bartlett's Test of Sphericity). These two factors explained more than 65% of the variance. Due to the low reliability of one factor (0.447), only the first factor explaining more than 48% of the variance and exhibiting a reliability of 0.866 is retained for further analyses.

#### *Confirmatory Factor Analysis*

The emerged factors and their related items were tested for convergent and discriminant validity through confirmatory factor analysis (CFA) using EQS 6.1 for Windows. Each item was restricted to load only on its related factor. One item from each scale had its loading set to 1.0 (unstandardized). The three climates were allowed to correlate with each other. Because of the kurtosis of some items, ERLS was also used here to estimate the measurement model.

#### *Model Fit*

Although overall fit is significant ( $X^2=566.462$ ,  $df=247$ ,  $p=0.0000$ ), the use of  $X^2$  as a sole indicator of model fit is inappropriate (Bagozzi and Yi 1988). Acceptable fit of this measurement model is indicated by the NNFI (0.965), CFI (0.969) and RMSEA (0.068, 90% confidence interval 0.060-0.075).

### *Convergent and Discriminant Validity*

Evidence of convergent validity is found in the factor loadings: with two exceptions, all items had loadings of at least 0.55, and all reached significance at  $p \leq 0.05$ . Additionally, as can be seen in Appendix B, the extracted variance of each of the three factors was above the recommended cut-off of 0.50. This is adequate evidence of convergent validity (Bagozzi and Yi 1988; Fornell and Larcker 1981).

Discriminant validity between the three climates was also indicated. Three pairwise  $X^2$  difference tests were performed in which each construct and its items were tested in tandem with each of the related constructs. For each pair of constructs, a two-factor and a one-factor model were tested and the resulting  $X^2$ s were compared. In each comparison  $X^2$  for the two-factor model was a significant improvement over the single factor model, indicating that these constructs measure different phenomena.

### Other Employee Variables

#### *Exploratory Factor Analysis*

#### *Employee Burnout*

Six items comprising employee Burnout were also subjected to PCA using SPSS 15.0. Appropriateness of factor analysis was indicated by the presence of multiple correlations greater than 0.3, a KMO value of 0.864, and a significant Bartlett's Test (Tabachnick and Fidell 2001). One factor emerged, explaining 64.95% of the variance. Reliability for Employee Burnout was 0.892.

### *Employee Job Satisfaction*

After subjecting the six items of the employee Job Satisfaction scale to a PCA (multiple correlations greater than 0.30, KMO 0.85, significant Bartlett's Test), one factor emerged, explaining 59.1% of the variance. Reliability for Employee Job Satisfaction was 0.857.

### *Employee Intention to Turnover*

The three items measuring employee Intention to Turnover were also subjected to a PCA (all correlations greater than 0.3, KMO value of 0.672, and significant Bartlett's Test). The factor that emerged explained 76.62% of the variability and exhibited a reliability of 0.845.

### *Confirmatory Factor Analysis*

The emerged factors and their related items were tested for convergent and discriminant validity through confirmatory factor analysis (CFA) using EQS 6.1 for Windows. Each item was restricted to load only on its related factor. One item from each scale had its loading set to 1.0 (unstandardized). All six factors were allowed to correlate with each other. Because of the kurtosis of some items, ERLS was used here to estimate the measurement model.

### *Model Fit*

Although overall fit is insignificant ( $X^2=754.627$ ,  $df=335$ ,  $p=0.0000$ ), the use of  $X^2$  as a sole indicator of model fit is inappropriate (Bagozzi and Yi 1988). Acceptable fit of this measurement model is indicated by the NNFI (0.960), CFI (0.964) and RMSEA (0.07, 90% confidence level 0.064-0.077).

### *Convergent and Discriminant Validity*

Evidence of convergent validity is found in the factor loadings: all items had loadings of at least 0.50. Additionally, the extracted variance for each of the six factors was above the recommended cut-off of 0.50. This is adequate evidence of convergent validity (Bagozzi and Yi 1988; Fornell and Larcker 1981).

Discriminant validity between the three orientations was also indicated. Pairwise  $X^2$  difference tests were performed in which each construct and its items were tested in tandem with each of related constructs. For each pair of constructs, a two-factor and a one-factor model were tested and the resulting  $X^2$ s were compared. In each comparison the  $X^2$  for the two-factor model was a significant improvement over the single factor model, leading to the conclusion that these constructs measure different phenomena.

### Unit Performance Evaluation

The seven items drawn from each manager's District Manager were also subjected to EFA. KMO for these items was 0.823 and Bartlett's Test was significant. Six of the seven items exhibited loadings greater than 0.6. These six items had a reliability coefficient of 0.908.

### Customer Outcomes

Customers were asked about their satisfaction, their view of the service quality they received, and their intention to return to that unit. Each scale was deemed reliable with all coefficients larger than 0.90.

### *Model Fit*

Although overall fit is insignificant ( $X^2=71.374$ ,  $df=32$ ,  $p=0.0008$ ), the use of  $X^2$  as a sole indicator of model fit is inappropriate (Bagozzi and Yi 1988). Acceptable fit of this measurement model is indicated by the NNFI (0.972), CFI (0.980) and RMSEA (0.039, confidence interval: 0.027-0.051).

### *Convergent and Discriminant Validity*

Evidence of convergent validity is found in the factor loadings: all items had loadings of at least 0.50. Additionally, the extracted variance for each of the six factors was above the recommended cut-off of 0.50. This is adequate evidence of convergent validity (Bagozzi and Yi 1988; Fornell and Larcker 1981).

Discriminant validity between the three orientations was also indicated. Pairwise  $X^2$  difference tests were performed in which each construct and its items were tested in tandem with each of related constructs. For each pair of constructs, a two-factor and a one-factor model were tested and the resulting  $X^2$ s were compared. In each comparison the  $X^2$  for the two-factor model was a significant improvement over the single factor model, leading to the conclusion that these constructs measure different phenomena. All  $X^2$  difference test results may be found in Table 4.5.

Table 4.5:  $X^2$  Difference Tests

**Employee Variables**

	2 factor model	1 factor model
Burnout Job Satisfaction	141.8, df=53	160.375, df=54
Burnout Turnover	148.557, df=26	157.961, df=27
Burnout Self-Performance	49.234, df=34	275.11, df=35
Burnout Performance by Manager	56.645, df=26	214.041, df=27
Job Satisfaction Turnover	94.762, df=26	131.368, df=27
Job Satisfaction Self-Performance	52.501, df=34	275.836, df=35
Job Satisfaction Performance by Manager	41.758, df=26	193.008, df=27
Turnover Self Performance	7.071, df=13	173.695, df=30
Turnover Performance by Manager	14.073, df=8	266.614, df=9
Self Performance Performance by Manager	29.904, df=13	97.211, df=14

**Climates**

	2 factor model	1 factor model
Climate for Service Climate for Production	495.848, df=151	528.989, df=152
Climate for Service Climate for Sales	305.686, df=89	661.905, df=90
Climate for Production Climate for Sales	345.819, df=76	470.477, df=77

**Operating Orientations**

	2 factor	1 factor
Customer-Outcomes Functional Service Quality	28.974, df=26	53.347, df=27
Customer-Outcomes Employee Empathy	20.759, df=13	28.118, df=14
Employee Empathy Functional Service Quality	27.938, df=19	42.770, df=20
Operating Orientation - Customer Operating Orientation - Sales	126.406, df=89	239.887, df=90

**Customer Variables**

	2 factor model	1 factor model
Customer Satisfaction Intent to Return	21.521, df=13	189.774, df=14
Customer Satisfaction Service Quality	21.699, df=18	151.858, df=19
Intent to Return Service Quality	26.496, df=13	203.950, df=14

## CONCLUSION

This chapter discussed the samples from which the data were collected, the data collection procedures and the scales used to test the hypotheses. The items were subjected to exploratory and confirmatory factor analyses (where appropriate), which provided evidence of adequate reliability, convergent validity and discriminant validity. In the next chapter, the results of the hypotheses testing using the constructs are reported.

## CHAPTER 5: HYPOTHESIS TESTING

In the previous chapter, the process and the measures gathered for this study were discussed. In this chapter, the hypotheses that comprise the two proposed models that explore the how the manager's Operating Orientations are related to customer outcomes; costs and revenues; and employee outcomes are tested. These models may be seen in Figures 3.1 and 3.2.

### METHODOLOGY OVERVIEW

Hypotheses were tested using data gathered through paper surveys (data collection is described in Chapter 4). Because of the small sample size for many of the predictor and criterion variables and the exploratory nature of this research, multiple regression was chosen as the most appropriate method of testing.

### HYPOTHESIS TESTING – INDIVIDUAL EFFECTS MODEL

This model tested whether the difference between the manager's Operating Orientations and the psychological climate of the employee affected four employee level outcomes: burnout, turnover intention, job satisfaction, and performance. Although two factors emerged from employee performance, the high correlation between the employee's self-performance appraisal and the employee's view of how the manager views his performance allows these two measure to be combined. Results using all three performance variables as criterion variables are presented. The correlations, means and standard deviations for the Individual Effects Model may be seen in Table 5.1

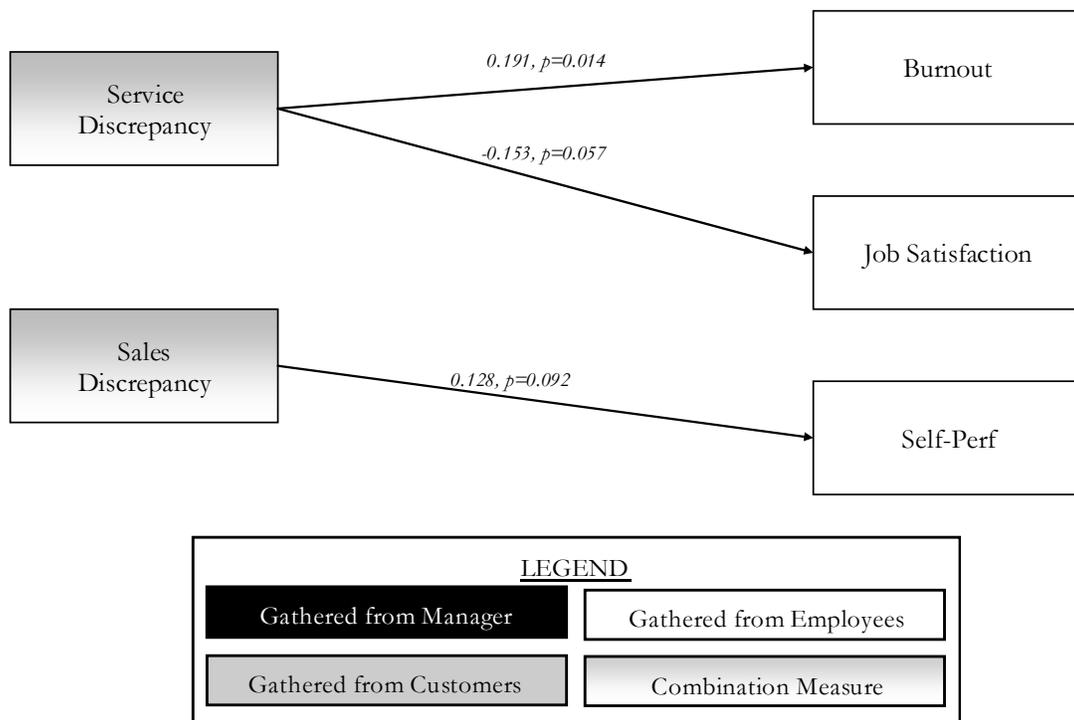
Table 5.1: Individual Employee Model Correlations, Means and Standard Deviations

	Mean	SD	Burnout	Job Satisfaction	Turnover Intention	Self Performance	Performance Manager	Overall Performance	Service Discrepancy	Production Discrepancy	Sales Discrepancy
Burnout	2.864	1.352	1								
Job Satisfaction	4.516	1.036	-0.541	1							
			0.000								
Turnover Intention	3.275	1.824	0.726	-0.657	1						
			0.000								
Self Performance	5.970	0.795	-0.228	0.338	-0.287	1					
			0.000								
Performance Manager	5.487	1.195	-0.216	0.298	-0.225	0.761	1				
			0.000								
Overall Performance	5.734	0.936	-0.239	0.337	-0.270	0.911	0.961	1			
			0.000								
Service Discrepancy	1.005	0.849	0.296	-0.252	0.223	-0.058	-0.110	-0.097	1		
			0.000								
Production Discrepancy	0.843	0.684	0.175	-0.158	0.163	-0.053	-0.098	-0.088	0.608	1	
			0.003								
Sales Discrepancy	1.071	0.904	0.151	-0.116	0.137	-0.113	-0.104	-0.115	0.303	0.552	1
			0.011								
				0.052	0.021	0.059	0.084	0.054	0.000	0.000	

## Predictor Variables

The predictor variables were measures of the distance between the manager's Operating Orientations and the related employee psychological climate (climate as a individual level variable). These were calculated using Euclidian distance. These three discrepancy measures – Service-Discrepancy, Production-Discrepancy, and Sales-Discrepancy – were then regressed onto the four outcomes. Additionally, employee age, gender, tenure with the company, tenure with the manager, number of hours worked weekly, and manager's tenure as manager are included in each regression as control variables. Predictor variables were mean centered to avoid possible collinearity problems. In this model, actual  $R^2$  values are reported. Results of the regressions may be found in Figure 5.1 and Table 5.2.

Figure 5.1: Individual Employee Model Relationships



## Regression Results

The regression model exploring the effects of the discrepancy variables on Burnout explained 21.3% of the variance ( $F=5.996$ ,  $p<0.001$ ). Examination of the regression coefficients revealed that Service-Discrepancy is positively related to Burnout ( $\beta=0.191$ ,  $p=0.014$ ). The regression coefficients for Production and Sales Discrepancy did not reach statistical significance.

The regression model testing for the relationship between the discrepancy measures and Employee Turnover Intention explained 17.5% of the variance in Employee Turnover Intention ( $F=4.697$ ,  $p<0.001$ ). However, none of the regression coefficients for the variables of interest reached statistical significance.

The effect of the discrepancies on Employee Job Satisfaction was also examined. The  $R^2$  for this model was 0.147 ( $F=3.80$ ,  $p<0.001$ ). Of the three variables of interest only Service-Discrepancy has a statistically significant effect ( $\beta=-0.153$ ,  $p=0.057$ ): as Service-Discrepancy increases, Job Satisfaction declines.

The control variables and the predictors of interest accounted for 11.6% of the variance in Employee Self-Performance ( $F=4.045$ ,  $p<0.001$ ). Of the regression coefficients, the Sales Discrepancy is negatively related to Employee Performance ( $\beta=-0.128$ ,  $p=0.092$ ). The regression models for Overall Employee Performance and the employee's view of how the manager views his performance explained a significant portion of the variance in each dependent variable (adjusted  $R^2=0.131$ ,  $F=0.131$ ,  $p<.001$ ; and adjusted  $R^2=0.125$ ,  $F=4.266$ ,  $p<.001$ , respectively). However, none of the discrepancy variables reached statistical significance.

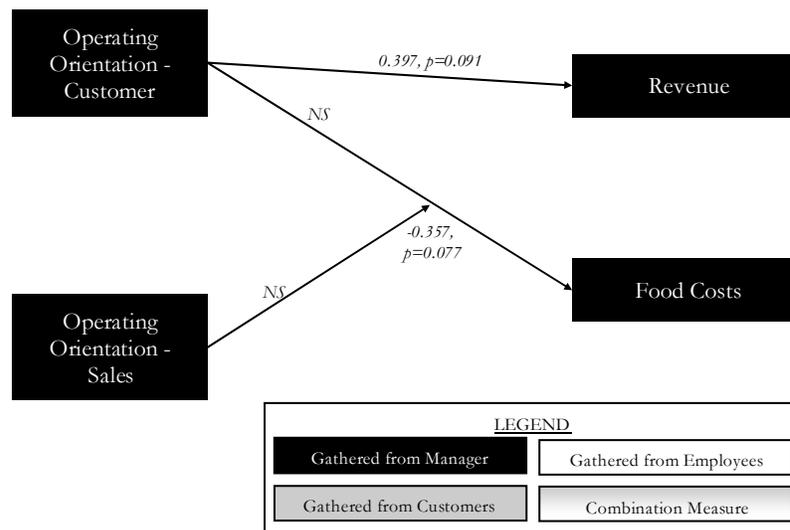
Taken as a whole, there is some support for H1. The relationships between the manager's Operating Orientations and customer outcomes; costs; and revenue are discussed next.

#### UNIT LEVEL EFFECTS MODEL

The eight hypotheses that comprise the unit-level effects model explore how the manager affects unit level outcomes. Seven of these hypotheses proposed the relationships between the manager's Operating Orientations (and their interactions) on costs, revenue, overall performance and customer outcomes. The eighth proposed that the relationships proposed in the first seven hypotheses were at least partially mediated by unit performance measures. To test the effect of the manager, regressions were run on three customer outcomes: customer satisfaction (Customer Satisfaction), customer evaluation of service quality (Service Quality) and customer intention to return (Customer Intent to Return). Regressions were also run on unit performance, gathered from the manager's supervisor; costs (food and labor); and revenue, gathered from the manager. Included in each regression were the manager's tenure as manager, tenure with supervisor, tenure with company, age, education level and gender. To eliminate the multi-collinearity that often occurs when performing moderated multiple regressions, predictor variables used in this analysis were mean-centered (Tabachnick and Fidell 2001). Subsequently, all VIF indices were well under the recommended threshold of 10. Skewness and Kurtosis were well within acceptable parameters. Correlations, means and standard deviations of the constructs used in these analyses may be found in Table 5.3.

In the following sections, fit of each model and the regression coefficients of each model are examined. Because of the small sample size, adjusted  $R^2$ , a more conservative fit indicator than  $R^2$ , is used to determine acceptability of model. Because of the small sample size and the exploratory nature of the research, regression coefficients significant at the 0.10 level are flagged. Results from testing the customer outcomes hypotheses are discussed first. These results may be seen in Table 5.4 (located at the end of this chapter) and Figure 5.2.

Figure 5.2: Unit Level Relationships



### Customer Satisfaction

In this regression the relationship between Customer Satisfaction and the manager's Operating Orientations and their interactions are considered. Because service quality is considered a determinant of customer satisfaction (Zeithaml, Berry, and Parasuraman 1996), Service Quality is also included in this model. The model explained 44.4% ( $F=2.661, p=0.040$ ) of the variance of Customer Satisfaction. As expected, Service Quality is positively

related to Customer Satisfaction ( $\beta = 0.554, p=0.005$ ). However, examining the regression coefficients indicates that none of the Operating Orientations or their interactions is related to Customer Satisfaction. Thus, no support is provided for H2-H8.

#### Customer Evaluation of Service Quality

In this regression, the relationships between Service Quality and the manager's Operating Orientations were explored. This model exhibited poor fit with an adjusted  $R^2$  of -0.370 ( $F=0.392, p=0.946$ ). No significant relationships were found to exist between Operating Orientation - Customer, Operating Orientation - Production, Operating Orientation - Sales, their interactions and Service Quality. Thus, no support was provided for H2a-H8a.

#### Customer Intention to Return

The relationships between the manager's Operating Orientations and Customer Intent to Return were examined in this regression equation. Model fit was poor (adjusted  $R^2 = -0.518, F=0.342, p=0.972$ ), and none of the hypothesized relationships existed at a statistically significant level, providing no support for H2a-H8a.

#### Costs

Two regression equations were tested to determine the effect of the manager's Operating Orientations on costs: labor costs (adjusted  $R^2 = -0.060, F=0.744, p=0.702$ ), and food costs (adjusted  $R^2 = -0.088, F=0.637, p=0.799$ ). None of these models exhibited acceptable fit. The interaction of Operating Orientation - Customer and Operating

Orientation - Sales is negatively related to Costs ( $\beta = -0.357$ ,  $p=0.077$ ); however, this effect is in the opposite direction of those hypothesized. Thus, H2b-H8b are not supported.

#### Revenue

In this model, the effect of the manager's Operating Orientations on Revenue was explored. Model fit was again poor (adjusted  $R^2 = -0.048$ ,  $F=0.793$ ,  $p=0.655$ ). Although Operating Orientation - Customer was found to have a significant relationship with Revenue ( $\beta=0.397$ ,  $p=0.091$ ), the direction of the relationship is positive, opposite of that hypothesized. Thus, H2c-H8c were not supported.

#### Unit Performance

In this model, the relationship between the manager's Operating Orientations and Overall Unit Performance was explored. Fit of the model was unacceptably poor (adjusted  $R^2 = -0.172$ ,  $F=0.475$ ,  $p=0.914$ ). None of the Operating Orientations or their interactions had any significant relationship with Overall Unit Performance, a necessary condition for mediation, providing no support for H9. Thus, H9 is rejected.

### DISCUSSION

Two questions guided this research. First, do managers of service units differ in their Operating Orientations? Second, how might these Operating Orientations be related to customer, firm and employee outcomes? The results of the measurement model, presented in Chapter 4, provide support for the notion that the three Operating Orientations and their hypothesized dimensions clearly exist.

To answer the second question, two models were presented, one in which the manager's Operating Orientations were projected to influence employee outcomes, albeit somewhat indirectly. This model, testing the relationship between the manager's Operating Orientations, an employee's psychological climate and employee outcomes, received support. Results indicated that as Service Discrepancy (calculated as the Euclidean distance between a manager's Operating Orientation – Customer and the employee's psychological Climate for Service) increases, employee outcomes of burnout and job satisfaction worsen. Similarly, as Sales Discrepancy (the Euclidean distance between the manager's Operating Orientation – Sales and the employee's Climate for Sales) increases, the employee's evaluation of his/her own performance declines. These results seem to indicate that as employees and managers differ in what they view as the appropriate levels of focus on customers and sales, a more stressful atmosphere develops

The second model proposed that the manager's Operating Orientations would be related to unit-level customer satisfaction and intent to return; unit costs; and unit revenues, relationships at least partially mediated by unit performances. This model received no support in the context used in this cross-sectional study. The lack of support for this model may be methodological – it may be that the effects of the manager's Operating Orientations are long-term and cannot be captured in cross-sectional survey research. However, it may be that the distinct Operating Orientations uncovered in this research are related to different variables than those proposed in this model. For example, while employee psychological climates were considered in the first model, the effects of organizational climate were not considered in the unit level model; rather, employees were considered at the unit level through the unit's performance as evaluated by the district manager. It may be that

organizational climates are differentially related to unit-level outcomes of interest. As those climate measures are simply the aggregation of employee psychological climates, this notion is examined in a series of post-hoc analyses discussed in the next chapter.

This research also tested H1 with the entire sample of employees. However, the restaurant setting used in this research decouples the production of the technical service elements from the production of its functional elements. It may be that this decoupling creates differences in the employee groups responsible for producing the different service elements; this is examined in the post-hoc analyses as well.

Finally, the dimensions of the Operating Orientations themselves are examined separately. In testing the proposed models, the dimensions that comprise each Operating Orientation were combined to arrive at one number. It may be that the dimensions themselves have differential effects on unit climates

## CHAPTER SUMMARY

In this chapter, the two models developed in Chapter 3 were tested. Results were disappointing, with H1 receiving limited support and H2-H9 receiving no support. While methodological issues may have contributed to the lack of fit of the unit-level effects model, a more likely explanation is an error with the model itself. In the next chapter, a series of post-hoc hypotheses are developed and tested that provide some evidence regarding possible sources for misspecification.



Table 5.3: Unit Model Correlations, Means and Standard Deviations

	Item Source		Customer			District Manager	Manager					
	Mean	SD	Customer Satisfaction	Service Quality	Customer Intent to Return	Overall Performance	Revenue	Food Costs	Labor Costs	Operating Orientation - Customer	Operating Orientation - Production	Operating Orientation - Sales
Customer Satisfaction	5.53	0.29	1									
Service Quality	5.90	0.36	0.677	1								
			0.000									
Customer Intent to Return	6.02	0.48	0.239	0.111	1							
			0.220	0.575								
Overall Performance	4.60	1.12	0.152	0.200	0.420	1						
			0.500	0.372	0.051							
Revenue	4.13	1.37	-0.057	0.095	-0.065	-0.007	1					
			0.772	0.631	0.742			0.964				
Food Costs	4.47	1.24	-0.084	-0.180	0.060	0.031	0.072	1				
			0.671	0.359	0.760		0.834		0.592			
Labor Costs	4.61	1.23	0.153	0.177	0.073	0.159	-0.064	0.445	1			
			0.438	0.367	0.712		0.287	0.636				
Operating Orientation - Customer	5.99	0.72	-0.140	-0.294	0.033	0.024	0.100	-0.135	1			
			0.479	0.129	0.869		0.873	0.454		0.312	0.461	
Operating Orientation - Production	5.69	0.69	-0.195	-0.299	0.005	0.014	-0.022	0.032	0.695		1	
			0.321	0.122	0.980		0.927	0.812		0.658	0.000	
Operating Orientation - Sales	5.38	1.31	-0.115	-0.120	-0.060	0.169	-0.095	0.043	0.306			1
			0.559	0.544	0.760		0.256	0.478		0.748	0.216	0.019

Table 5.4: Unit Model Regression Results

	Customer Satisfaction (customer)				Customer Intent to Return (Customer)				
	Beta	T-Value	p-value	VIF	Beta	T-Value	p-value	VIF	
Controls	Tenure as Manager	-0.163	-0.867	0.401	1.724	-0.09	-0.282	0.782	1.816
	Education Level	0.368	1.466	0.165	3.067	-0.26	-0.583	0.570	3.538
	Age	<b>-0.371</b>	<b>-1.87</b>	<b>0.083</b>	<b>1.916</b>	0.182	0.497	0.628	2.394
	Tenure with Company	0.256	1.209	0.247	2.172	-0.248	-0.675	0.512	2.398
Predictor	Tenure with Supervisor	0.194	1.015	0.327	1.776	0.265	0.809	0.433	1.907
	<b>Gender</b>	<b>-0.374</b>	<b>-1.975</b>	<b>0.068</b>	<b>1.738</b>	0.166	0.471	0.646	2.222
Predictor	<b>Service Quality (customer)</b>	<b>0.554</b>	<b>3.372</b>	<b>0.005</b>	<b>1.313</b>	-0.082	-0.223	0.827	2.381
	Sales Operating Orientation	-0.351	-1.345	0.2	3.307	0.316	0.715	0.487	3.471
	Customer Operating Orientation	0.294	0.869	0.4	5.552	-0.057	-0.124	0.903	3.734
	Production Operating Orientation	0.104	0.27	0.791	7.261	0.473	0.824	0.425	5.851
Predictor	Production & Sales OpOr	-0.506	-1.36	0.195	6.715	-0.21	-0.328	0.748	7.299
	Customer & Sales OpOr	0.176	0.512	0.616	5.757	0.127	0.194	0.849	7.602
Predictor	Customer & Production OpOr	0.313	1.319	0.208	2.738	-0.468	-0.815	0.430	5.865
				0.712		0.295	0.708	0.491	3.078
Fit	R <sup>2</sup>				0.269				
	Adjusted R <sup>2</sup>				-0.518				
	F-Value (p-value)				0.342 (0.972)				
Controls	Tenure as Manager	0.097	0.351	0.745	1.711	-0.023	-0.114	0.910	1.465
	Education Level	0.276	0.712	0.488	2.967	-0.008	-0.047	0.963	1.18
	Age	-0.283	-0.933	0.366	1.811	0.043	0.204	0.839	1.653
	Tenure with Company	0.008	0.025	0.981	2.172	-0.1	-0.51	0.614	1.418
Predictor	Tenure with Supervisor	0.253	0.864	0.401	1.692	0.263	1.337	0.191	1.417
	<b>Gender</b>	-0.274	-0.95	0.357	1.639	-0.187	-0.815	0.422	1.926
Predictor	Sales Operating Orientation	-0.018	-0.045	0.965	3.307	0.042	0.141	0.889	3.199
	Customer Operating Orientation	0.069	0.129	0.899	5.546	0.067	0.252	0.803	2.61
	Production Operating Orientation	-0.308	-0.512	0.616	7.136	-0.188	-0.623	0.538	3.353
	Production & Sales OpOr	-0.258	-0.446	0.662	6.627	-0.131	-0.486	0.630	2.664
Predictor	Customer & Sales OpOr	0.134	0.248	0.808	5.753	0.294	1.345	0.188	1.757
	Customer & Production OpOr	0.12	0.324	0.750	2.719	-0.071	-0.248	0.806	2.977
Fit	R <sup>2</sup>				0.155				
	Adjusted R <sup>2</sup>				-0.172				
	F-Value (p-value)				0.475 (0.914)				
Controls	Tenure as Manager	0.097	0.351	0.745	1.711	-0.023	-0.114	0.910	1.465
	Education Level	0.276	0.712	0.488	2.967	-0.008	-0.047	0.963	1.18
	Age	-0.283	-0.933	0.366	1.811	0.043	0.204	0.839	1.653
	Tenure with Company	0.008	0.025	0.981	2.172	-0.1	-0.51	0.614	1.418
Predictor	Tenure with Supervisor	0.253	0.864	0.401	1.692	0.263	1.337	0.191	1.417
	<b>Gender</b>	-0.274	-0.95	0.357	1.639	-0.187	-0.815	0.422	1.926
Predictor	Sales Operating Orientation	-0.018	-0.045	0.965	3.307	0.042	0.141	0.889	3.199
	Customer Operating Orientation	0.069	0.129	0.899	5.546	0.067	0.252	0.803	2.61
	Production Operating Orientation	-0.308	-0.512	0.616	7.136	-0.188	-0.623	0.538	3.353
	Production & Sales OpOr	-0.258	-0.446	0.662	6.627	-0.131	-0.486	0.630	2.664
Predictor	Customer & Sales OpOr	0.134	0.248	0.808	5.753	0.294	1.345	0.188	1.757
	Customer & Production OpOr	0.12	0.324	0.750	2.719	-0.071	-0.248	0.806	2.977
Fit	R <sup>2</sup>				0.239				
	Adjusted R <sup>2</sup>				-0.37				
	F-Value (p-value)				0.392 (0.946)				

## CHAPTER 6: POST-HOC EXPLORATIONS

The lack of support for the unit effects model is disappointing. Although methodological issues may contribute to the lack of support (discussed more fully in the limitations section of Chapter 7), model misspecification may also play a role in the lack of support. To explore this, a series of post-hoc hypotheses are developed and tested in this chapter. These hypotheses are centered around two notions: first, employees who produce the technical core differ from employees who produce the functional core; second, there are collective effects of climate, employee psychological variables, and employee performance on unit level outcomes.

### DECOUPLING TECHNICAL AND FUNCTIONAL SERVICE

Often the responsibility for the production of the various elements of a service is delegated to different people or groups of people – although a customer may receive only one service, many people or groups of people participate in its production. As earlier discussed, in services we generally see two broad aspects of service quality – Functional Quality and Technical Quality. In many services these types of quality are likely to be produced by different groups, particularly in the setting used in this study. These different groups function differently – the tasks associated with the roles of each group differ, and the structure of the group likely differs as well. Lawrence and Lorsch's Contingency Theory of Organization provides theoretical support for the notion that the structure of a group is a key contextual variable (Lawrence and Lorsch 1967).

Certainly the notion that task and work structure affect performance is not new. Early researchers in the management field sought to discover the one best way to organize a

firm (1967), giving rise to two broad theories about the organization and structure of the firm – Classical Theory and Human Relations.

Building on Taylor's Theory of Scientific Management, classical theorists argue for a highly structured, authoritarian system, marked by limited and prescribed communication channels, detailed role descriptions and narrow spans of control. This was the dominant Theory of Organization for quite sometime, until it was challenged by the Human Relations Theory. Early human relations theorists, bothered by the apparent waste of human resources they saw in organizations structured along authoritarian lines, noted that the planned implementation of work was generally far different from the reality of actual worker behavior. They advocated a more participative approach to organizational structure in which workers from lower levels of the hierarchy should be encouraged to participate in decision-making, more openness in communication should be encouraged, and trust between individuals and groups throughout the organization should be fostered.

While researchers in the Classical and Human Relations traditions argued that their structure was the one best way to organize work in the firm, Lawrence and Lorsch (1967) proposed a contingency model of organization. In this theory, they attempted to determine the kind of organization it takes to deal with different environmental conditions. Their theory is based on the notions of differentiation and integration. Differentiation and the structural differences that subsequently arise are discussed next.

### Differentiation and Structure

Based on division of labor, differentiation occurs when managers and employees develop specialized knowledge, attitudes and behaviors in order to perform their roles.

Lawrence and Lorsch proposed that different functions and their managers will differ in four important areas. First, functions and managers would differ in their functional orientations - how they prioritized particular goals. Second, functions and managers would differ in their interpersonal orientations – how they approached relationships with colleagues, superiors and subordinates. Lawrence and Lorsch also theorized that functions would differ in the formality of structure – the function’s hierarchical structure, its communication routes, reward structures and control systems. Finally, they proposed that the time orientation would differ between functions and managers: a production department, for example, would be more interested in immediate problems, such as a line shut-down, than would a group of design engineers (Lawrence and Lorsch 1967).

Drawing from the work of Burns and Stalker (1961), Lawrence and Lorsch (1967) suggest that as differentiation increases, different structures will be more appropriate for some functions than for others. Mechanistic structures are characterized by a reliance on formal rules and procedures, an emphasis on high levels of standardization, decisions made by the upper levels of the hierarchy and by narrow spans of control. These structured environments are useful for stable, established environments (Dickson, Resick, and Hanges 2006; Jones 2004; Lawrence and Lorsch 1967). In contrast, organic structures are characterized by a reduced emphasis on formal procedures, wider spans of control and the pushing of decision-making to lower levels of the organization. Organic structures promote more flexibility to allow employees to more rapidly adapt to changing conditions (Dickson, Resick, and Hanges 2006; Jones 2004; Lawrence and Lorsch 1967).

The appropriateness of a mechanistic or organic structure for a given function is partially dependent upon the nature of the work performed by the function. Naylor and

Dickinson (1969) defined task structure as “the demand characteristics of the task to be accomplished” (p. 167). They noted three components of task structure: component complexity – the information processing demands of the task; component organization – the interrelationships between the components; and task redundancy – the overlapping demands of the various components. They hypothesized that task structure and work structure – the manner in which the various tasks are distributed among team members – both affect performance. Similarly, Nemiroff and Ford (1976) noted that task structure, organizational structure and individual variables interact to drive performance and employee well-being. Thus, based on this discussion, it is reasonable to assume that the nature of the task and work structures will affect employee well-being and performance. One of the more obvious and pervasive structural elements in services is the differentiation between the production of technical and functional quality.

Levitt (1972) and Chase (Chase 1981; Chase 1978; Chase and Garvin 1989) encouraged a more manufacturing-like approach to service delivery early in the evolution of the literatures dealing with services. Levitt highlighted the success of McDonald’s in standardizing operations to improve product quality and efficiency (Levitt 1976; Levitt 1972), and Chase argued for separating the production of the technical core of the service offering from the influence of customers (Chase 1981; Chase 1978; Chase and Garvin 1989). Certainly, we see this separation occurring in many service environments: banks and other financial services, for instance, often separate routine processing tasks for which customer involvement and participation is unnecessary from tasks that require higher levels of customer contact. We also see this separation in the restaurant context used in this study. The tasks of each function in a restaurant such as those of the participating firm are clearly

delineated. Rarely do personnel such as cooks, dishwashers, and other production personnel have direct contact with customers. These Backroom employees are isolated from the influence of the customer and they are responsible for producing the bulk of the technical elements of the service. Customer-contact employees such as servers and hosts, on the other hand, are primarily responsible for producing and delivering the functional elements of service, and for delivering the technical elements of the service. This differentiation may necessitate different structures – mechanistic or organic – operating within the unit, creating differences in employee climate perceptions and in how discrepancies between climate perceptions and the manager’s operating orientations affect Backroom employees and Customer-Contact employees. This leads to the following post-hoc hypothesis, tested in the post-hoc analyses:

PH1: BACKROOM EMPLOYEES REACT DIFFERENTLY TO THE DISCREPANCY BETWEEN THEIR CLIMATE PERCEPTIONS AND THE MANAGER’S OPERATING ORIENTATIONS THAN DO CUSTOMER-CONTACT EMPLOYEES.

The effect of Backroom employees and Customer-Contact employees on customer and firm outcomes is explored next. Insight into this question can be provided by the Total Quality Management literature.

### Total Quality Management

The field of Total Quality Management (TQM) arose out of the development of statistical control processes with the goal of eliminating defects and reducing variations in the product (Reed, Lemak, and Montgomery 1996). Sitkin et al. (1994) noted that a duality exists in the approaches to TQM, and that two fundamentally different goals are pursued – control and learning. The goal of control is the traditional reduction of variation and

elimination of product defects. This approach to quality relies on the adherence of standard operating procedures and control mechanisms to create reliable products as efficiently as possible. This paradigm emphasizes repetition and standardization; it requires routine tasks and less rather than more environmental uncertainty is necessary for this approach to be useful. In contrast, the goal of learning is to improve the organization's ability to adapt by identifying and implementing novel solutions (Sitkin, Sutcliffe, and Schroeder 1994). This paradigm emphasizes flexibility and is more suitable for environments that are more dynamic and complex than not.

Reed et al. (1996) builds on the work of Sitkin et al. (1994) when they build a framework in which the content of TQM strategy affects firm performance. They also propose two approaches to managing quality: a conformance to standards, which they label an *operations orientation*; and a *customer orientation*, adapted from Narver and Slater (1990), which emphasizes a focus on customer needs, a concern for competitors' offerings and inter-functional coordination of the firm's activities. They theorize that these two orientations affect revenue and costs differently. For example, with a firm-wide customer orientation, TQM strategies should be geared toward building a market advantage, generating revenues. Simultaneously, a customer orientation will also encourage a focus on the value chain of customers, resulting in increased product design efficiency, ultimately reducing costs. A firm with an operations orientation, on the other hand, can increase its revenue by implementing strategies that increase product reliability and can reduce costs by improving efficiency in the production process.

Reed et al. (1996), like Sitkin et al. (1994), consider environmental uncertainty as a primary contextual variable in the choice of which orientation is more appropriate. They

postulate that when dynamism (the unpredictability of the environment's stability) and complexity are high, a customer-orientation is more effective than when dynamism and complexity are low. When dynamism and complexity are low, an operations orientation is more effective than when dynamism and complexity are high.

Although the TQM literature provides valuable insight into the differentiation of service quality, care must be taken to judiciously adopt these precepts. Much of the TQM literature grew from a manufacturing paradigm in which quality is an objective evaluation and is provided solely by the firm. There are fundamental differences between product quality as conceptualized in the TQM literature and service quality as conceptualized in the services literatures. Three differences are of particular importance here.

First, service quality has two elements – an interpersonal element, identified as functional quality, and a technical element, identified as technical quality (Grönroos 1984). Second, the evaluation of quality, particularly functional quality rests firmly with the customer (Parasuraman, Zeithaml, and Berry 1985), and the evaluation of service quality is peculiar to each customer. Third, not only does the customer evaluate the quality of the service, he or she also plays a role in the production of functional and technical quality (Bitner, Booms, and Mohr 1994; Bitner et al. 1997). This, along with the heterogeneity of demand from various customers, increases environmental uncertainty in the delivery of service quality. Separating the technical quality elements from the functional quality elements and isolating the production of technical quality from the influence of the customer reduces some of this uncertainty, allowing for a more mechanistic structure to develop around the production of technical quality. Objective standards regarding product quality can be repeatedly adhered to, creating reliable levels of technical quality.

Although separating technical from functional quality – decoupling – isolates the production of the technical core from the influence of the customer and allows a mechanistic structure in Backroom operations, a more organic structure is necessary for the delivery of functional quality. This structure allows for more latitude in satisfying customers. Because Backroom employees and Customer-Contact employees are separably responsible for producing different aspects of service quality, they are each likely to directly affect customer and firm outcomes. Although Backroom employees don't have direct interaction with customers, they do produce most of the technical portion of the service delivered to customers. Thus, the following was tested in the post-hoc analyses:

PH2: UNIT CLIMATES AND EMPLOYEE PSYCHOLOGICAL VARIABLES (AGGREGATED BY BACKROOM EMPLOYEES AND CUSTOMER-CONTACT EMPLOYEES) ARE RELATED DIFFERENTIALLY TO CUSTOMER AND FIRM OUTCOMES.

In the next section, the role of the manager in developing climates and delivering service quality is examined.

#### Integration: The Manager as Linking Pin

Although the functions of Backroom and Customer-Contact employees differ, they must be integrated to deliver high quality service consistently to customers. The challenge in successfully differentiating the production of these two service quality elements lies in their integration (Lawrence and Lorsch 1967).

As differentiation in an organization increases, integration – *the quality for the state of collaboration that exists among departments that are required to achieve unity of effort* (Lawrence and Lorsch 1967, p. 11), or the state of interdepartmental relations – becomes more important. One of the ways in which this integration occurs is through a linking pin (Graen et al. 1977;

House, Filley, and Gujarati 1971). As proposed by Likert (1961), the linking pin, often a manager, acts as a bridge between two groups, advocating for each group and facilitating understanding and cooperation between the groups, reducing dysfunctional competition. One of the duties of the manager of a service unit is to act as this linking pin for the two groups – Backroom employees and Customer-Contact employees – that provide service quality to customers. Managers may do this directly through their own efforts (often explored in the control and leadership literatures), or they may do this indirectly by creating a common problem-space in the unit.

Lord (1976) proposed that the development of a problem-space – an individual's internal representation of the task environment and goal or task – limits and may determine the methods by which a goal might be met or a task performed. In groups, failure to develop a common problem-space may lead to poor performance and low employee outcomes. Thus, one of the duties of the manager of a service unit is to create these common-problem spaces, and since there are two primary groups of employees in the restaurant unit, common problem-spaces are developed within each group, affecting outcomes differentially. In this work, common problem-spaces are operationalized as climates.

The climate literature also provides support for the notion that the manager influences the development of climates. Lewin, one of the earliest researchers on climate, emphasized the role of the leader in the shaping of a group's climate (Lewin, Lippitt, and White 1939), identifying three primary types of leaders that dramatically affected how the group interacted and performed: authoritarian, democratic and laissez faire (Lewin, Lippitt, and White 1939; Lewin 1938; Lewin 1944). Foreshadowing Lord (1976), Lewin cautioned

that one of the basic problems of leadership is how to link the group with organizational goals.

Schneider et al. (1980) also suggested that leadership plays a role in the formation of climates. In their interviews with bank employees, they found that the degree to which the branch manager assumed the traditional managerial functions (consisting of planning, coordinating, goal setting and establishing routine); the extent to which the branch manager awarded customer-focused extra-role behavior; and the degree to which the branch manager focused on retaining customers influenced the employees' delivery of service (Schneider, Parkington, and Buxton 1980). In their related empirical study, managerial functions and the manager's customer retention efforts had the greatest correlation with customer variables such as overall quality, teller courtesy and the adequacy of staffing.

The climates of the unit, then, are likely to reflect the Operating Orientations of the manager. A manager will set standards that encourage and reward behavior that mirrors his/her values and beliefs. These standards eventually take on a life of their own and aid in building a self-perpetuating climate (Schein 1992; Schneider, Goldstein, and Smith 1995b).

This discussion leads to the following post-hoc hypothesis:

PH3: THE UNIT MANAGER'S OPERATING ORIENTATIONS ARE DIFFERENTIALLY RELATED TO BACKROOM EMPLOYEE AND CUSTOMER-CONTACT EMPLOYEE CLIMATES (UNIT LEVEL).

Table 6.1: Employee Job Titles

<b>BACKROOM EMPLOYEE TITLES</b>	
PRODUCTION	ASSOCIATE - PRODUCTION
P.T. PRODUCTION TRAINER	OPERATIONS SUPERVISOR
DISHWASHER	GRILL
PRODUCTION SOME SERVICE	DISHWASHER
PRODUCTION CREW MEMBER	PRODUCTION
PRODUCTION	OPERATIONS SUPERVISOR
GRILLMAN	OPERATIONS SPECIALISTS
PRODUCTION	PRODUCTION
PRODUCTION TRAINER	PRODUCTION ASSOCIATE
LINE PRODUCTION	PRODUCTION
COOK	OPERATIONS SPECIALIST
PRODUCTION	PRODUCTION
PRODUCTION WORKER	FOUNTAIN AND DISH
PT	PRODUCTION/SERVICE
PREP PERSON	PRODUCTION TRAINER
PRODUCTION	PRODUCTION TRAINER
PRODUCTION TRAINER	COOK
PRODUCTION TRAINER	FRONT DRESS
GRILLMAN	GRILL COOK
OPERATIONS SPECIALIST	PRODUCTION TRAINER
PRODUCTION	PRODUCTION WORKER
DISHWASHER	PRODUCTION WORKER
PRODUCTION	PRODUCTION WORKER-SERVER
PRODUCTION	GRILL
COOK	DDTO(BACK HOUSE PRODUCTION)
PRODUCTION TRAINER	DDTO(BACKHOUSE PRODUCTION)
PRODUCTION TRAINER	BREAKFAST COOK
PRODUCTION TRAINER	PRODUCTION TRAINER
PRODUCTION	PRODUCTION TRAINER-SHIFT LEADE
DISHWASHER	DISHWASHER-PORTER
DISH AND PREP	COOK FOOD PREP-PROD TRAINER
COOK	COOK
GRILL	DRESS TABLE OPERATOR
PRODUCTION	PRODUCTION TRAINER
PRODUCTION	PRODUCTION WORKER
PRODUCTION	PRODUCTION
PRODUCTION TRAINER	PRODUCTION
PRODUCTION LINE ASSOCIATE	PRODUCTION TRAINER
GRILL COOK	P.T.
DRESS OPERATOR	PRODUCTION TRAINER
PREP	PRODUCTION
PRODUCTION TRAINER	PRODUCTION/SERVER
PRODUCTION	PRODUCTION/PREP
PRODUCTION	PRODUCTION TRAINER
PRODUCTION TRAINER	PRODUCTION TRAINER
PRODUCTION	PRODUCTION
PRODUCTION	LINE COOK
CREW PERSON	OPERATIONS SUPERVISOR
PRODUCTION TRAINER	PRODUCTION TRAINER
CREW MEMBER/PRODUCTION	PRODUCTION TRAINER
PRODUCTION TRAINER	PRODUCTION TRAINER
PRODUCTION ASSOCIATE	PRODUCTION TRAINER/SHIFT MANAG
PRODUCTION	PRODUCTION
PRODUCTION	PRODUCTION TRAINER
3RD SHIFT COOK	PRODUCTION
PRODUCTION TRAINER	COOK
PRODUCTION	PRODUCTION
PRODUCTION TRAINER	GRILL
PRODUCTION	PRODUCTION TRAINER
PRODUCTION TRAINER	DRIVE THRU & BREAKFAST COOK
COOK	MILKSHAKE MAKER
PRODUCTION	PREP-PRODUCTION WORKER
PRODUCTION	ASSOCIATE-OPERATIONS SPECIALIS
DRIVE THRU BACKWORK	

Table 6.1 Employee Job Titles(continued)

SERVER	SERVER
DRIVE THRU OPERATOR	SERVER
SERVICE TRAINER	SERVER
SERVER	SERVER
SERVER	DISTRICT SERVICE TRAINER
DRIVE THRU	DISTRICT SERVICE TRAINER
SERVICE TRAINER	SERVER
SEVER	SERVER
SERVER	HOST
SEVER	DISTRICT SERVICE TRAINER
WAITER	SERVER
SERVER (WAITRESS)	SERVER
WAITRESS	SERVER
SERVICE TRAINER	SERVER/PRODUCTION
WAITRESS/PRODUCTION WORKER	SERVICE TRAINER
FOUNTAIN	ST
SERVICE TRAINER	SERVER
WAITRESS	WAITER
SERVICE TRAINER	SERVER
SERVER	SERVER
SERVICE TRAINER	SERVER
SERVER	SERVER
WAITRESS	SERVER
SERVER	SERVICE-MANAGER
ST	SERVICE
SERVICE	SERVER
SERVER	SERVER
SERVER	SERVER
DRIVE THRU	SERVER
WAITRESS	SERVER
SERVER	SERVER TRAINER
SERVER	SERVICE/PRODUCTION ASSOCIATE
SERVER	DRIVE THRU
SERVER	SERVER
DRIVE THRU CAPTAIN	SERVER
SERVER	SERVER
WAITRESS	SERVICE TRAINER
SERVER	SERVER
SERVER	SERVICE TRAINER
SERVER	SERVER
SERVER	WAITRESS
SERVICE TRAINER	SERVER
SERVER	SERVER
SERVER	SERVER
SERVER	SERVER
SERVER TRAINER	SERVER
SERVER	CASHIER
SERVER	SERVER
WAITRESS	SERVER
SERVICE	DRIVE THRU
SERVER	SERVER TRAINER
SERVER TRAINER	SERVER TRAINER
SERVICE TRAINER	SERVER
SERVER	SERVER WRKING ON SERVERTRAINER
SERVER	SERVICE TRAINER
SERVER	SERVER
SERVER	SERVER
SERVICE TRAINER	SERVICE TRAINER
SERVER	SERVER TRAINER
SERVER	

## HYPOTHESES TESTING

To test these hypotheses, employees, who had provided their job title during data collection, were categorized into one of three categories: Backroom, Customer-Contact or Other. Approximately 45% of the sample was categorized as Backroom, 45% as Customer-Contact, and 10% as Other (not examined in this testing). Job titles associated with this coding schema may be found in Table 6.1. The hypotheses were tested with multiple regression techniques, using the same control variables used in the earlier hypotheses testing. The first post-hoc hypothesis explored whether the discrepancy variables were differentially related to employee burnout, turnover intention, satisfaction and performance. These results are presented next.

### Backroom Employee Results

The effect of the discrepancy between the manager's Operating Orientations and the employee's psychological climate appears to be even stronger for the Backroom employees. The discrepancy and control variables explain 28.8% of the variance in Backroom Employee Burnout ( $F=4.217$ ,  $p=0.0001$ ), with Service-Discrepancy positively related to Backroom Employee Burnout ( $\beta = 0.278$ ,  $p=0.018$ ). Similarly, the discrepancy and control variables accounted for 26.5% of the variance of Backroom Employee Turnover Intention ( $F=3.583$ ,  $p=0.001$ ), with Service Discrepancy and Sales Discrepancy exhibiting positive relationships with Backroom Employee Turnover Intention ( $\beta = 0.284$ ,  $p=0.019$  and  $\beta = 0.228$ ,  $p=0.076$ ). For Backroom Employee Job Satisfaction, a similar story exists. The predictor variables account for 22.4% of the variance, with Service and Sales Discrepancy negatively related to

Backroom Employee Job Satisfaction ( $\beta = -0.259, p=0.034$  and  $\beta = -0.270, p=0.040$ ).

The discrepancy measures also affect employee performance. The variables explain 24.5% of the variance in Backroom Employee Performance. Here, Sales-Discrepancy is negatively related to Performance ( $\beta = -0.226, p=0.081$ ). These results may be seen in Table 6.2 and Figure 6.1.

Figure 6.1: Discrepancies and Backroom Employees

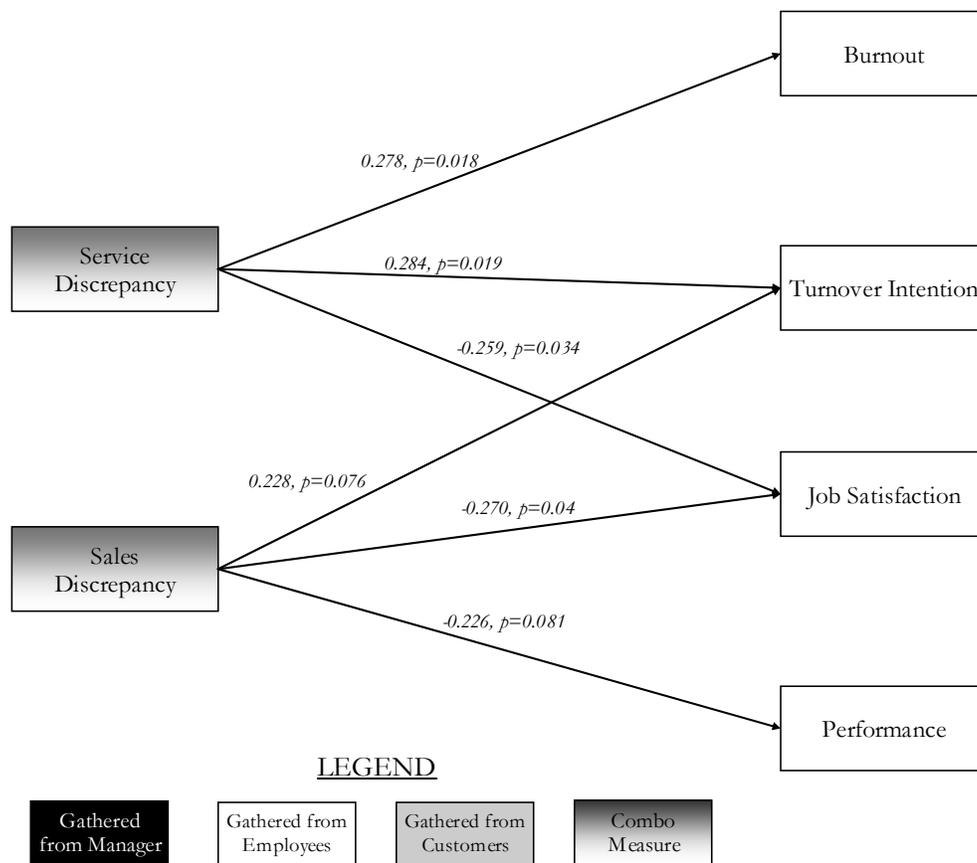


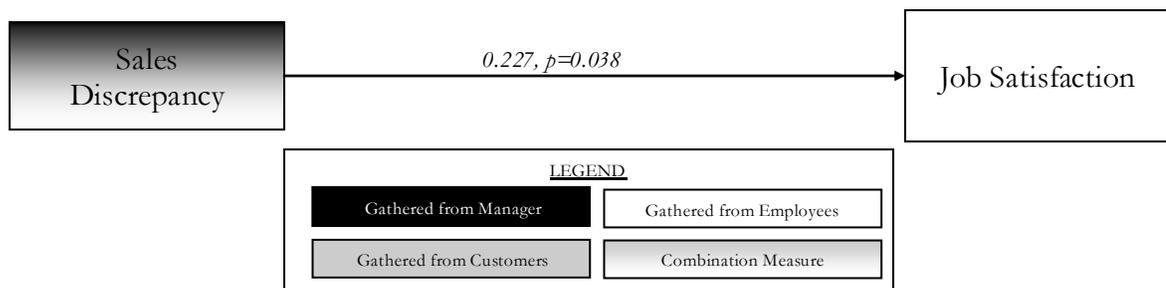
Table 6.2: Discrepancies and the Backroom Employee

	Burnout			Turnover Intention			Job Satisfaction					
	Beta	T-Value	p-value	VIF	Beta	T-Value	p-value	VIF	Beta	T-Value	p-value	VIF
Controls												
Manager Tenure	-0.004	-0.046	0.963	1.106	-0.071	-0.764	0.447	1.106	0.089	0.935	0.352	1.106
Employee firm tenure	<b>0.428</b>	<b>4.032</b>	<b>0.000</b>	<b>1.484</b>	<b>0.197</b>	<b>1.819</b>	<b>0.072</b>	<b>1.484</b>	0.015	0.139	0.890	1.484
Gender	-0.128	-1.400	0.165	1.096	-0.109	-1.168	0.246	1.096	0.026	0.275	0.784	1.096
Education	-0.035	-0.367	0.714	1.166	0.036	0.372	0.710	1.166	-0.083	-0.847	0.399	1.166
Hours worked weekly	<b>-0.166</b>	<b>-1.618</b>	<b>0.109</b>	<b>1.392</b>	-0.125	-1.192	0.236	1.392	-0.071	-0.659	0.512	1.392
Age	<b>-0.202</b>	<b>-2.028</b>	<b>0.045</b>	<b>1.303</b>	<b>-0.226</b>	<b>-2.224</b>	<b>0.029</b>	<b>1.303</b>	<b>0.273</b>	<b>2.630</b>	<b>0.010</b>	<b>1.303</b>
Service Discrepancy	<b>0.278</b>	<b>2.407</b>	<b>0.018</b>	<b>1.767</b>	<b>0.284</b>	<b>2.397</b>	<b>0.019</b>	<b>1.767</b>	<b>-0.259</b>	<b>-2.148</b>	<b>0.034</b>	<b>1.767</b>
Production Discrepancy	-0.035	-0.233	0.816	2.959	-0.059	-0.386	0.700	2.959	0.139	0.887	0.377	2.959
Sales Discrepancy	<b>0.198</b>	<b>1.592</b>	<b>0.115</b>	<b>2.033</b>	<b>0.228</b>	<b>1.795</b>	<b>0.076</b>	<b>2.033</b>	<b>-0.270</b>	<b>-2.087</b>	<b>0.040</b>	<b>2.033</b>
R <sup>2</sup>	0.288				0.255				0.224			
Adjusted R <sup>2</sup>	0.219				0.184				0.150			
F-Value (p-value)	4.217 (0.0001)				3.583 (0.001)				3.023 (0.003)			
Fit												
Overall Performance												
Controls												
Manager Tenure	<b>-0.167</b>	<b>-1.767</b>	<b>0.080</b>	<b>1.106</b>	<b>-0.224</b>	<b>-2.320</b>	<b>0.023</b>	<b>1.106</b>	-1.070	-1.137	0.258	1.101
Employee tenure with firm	<b>0.176</b>	<b>1.615</b>	<b>0.110</b>	<b>1.484</b>	0.119	1.065	0.289	1.484	<b>0.201</b>	<b>1.863</b>	<b>0.066</b>	<b>1.459</b>
Gender	0.098	1.048	0.297	1.096	0.102	1.058	0.293	1.096	0.090	0.972	0.334	1.086
Education	0.131	1.357	0.178	1.166	0.048	0.484	0.630	1.166	<b>0.179</b>	<b>1.870</b>	<b>0.065</b>	<b>1.149</b>
Hours worked weekly	0.151	1.427	0.157	1.392	0.195	1.802	0.075	1.392	0.127	1.216	0.227	1.378
Age	-0.036	-0.352	0.726	1.303	-0.010	-0.099	0.922	1.303	-0.047	-0.460	0.646	1.290
Service Discrepancy	<b>-0.188</b>	<b>-1.575</b>	<b>0.119</b>	<b>1.767</b>	-0.143	-1.170	0.245	1.767	<b>-0.234</b>	<b>-1.925</b>	<b>0.057</b>	<b>1.847</b>
Production Discrepancy	0.028	0.179	0.859	2.959	0.067	0.427	0.338	2.959	0.043	0.269	0.788	3.136
Sales Discrepancy	<b>-0.226</b>	<b>-1.766</b>	<b>0.081</b>	<b>2.033</b>	<b>-0.222</b>	<b>-1.699</b>	<b>0.093</b>	<b>2.033</b>	<b>-0.231</b>	<b>-1.793</b>	<b>0.076</b>	<b>2.079</b>
R <sup>2</sup>	0.245				0.207				0.258			
Adjusted R <sup>2</sup>	0.173				0.131				0.186			
F-Value (p-value)	3.396 (0.001)				2.731 (0.007)				3.589 (0.001)			
Fit												
Performance by Manager												
Controls												
Manager Tenure	-1.070	-1.137	0.258	1.101	-1.070	-1.137	0.258	1.101	-1.070	-1.137	0.258	1.101
Employee tenure with firm	<b>0.201</b>	<b>1.863</b>	<b>0.066</b>	<b>1.459</b>	<b>0.201</b>	<b>1.863</b>	<b>0.066</b>	<b>1.459</b>	<b>0.201</b>	<b>1.863</b>	<b>0.066</b>	<b>1.459</b>
Gender	0.090	0.972	0.334	1.086	0.090	0.972	0.334	1.086	0.090	0.972	0.334	1.086
Education	<b>0.179</b>	<b>1.870</b>	<b>0.065</b>	<b>1.149</b>	<b>0.179</b>	<b>1.870</b>	<b>0.065</b>	<b>1.149</b>	<b>0.179</b>	<b>1.870</b>	<b>0.065</b>	<b>1.149</b>
Hours worked weekly	0.127	1.216	0.227	1.378	0.127	1.216	0.227	1.378	0.127	1.216	0.227	1.378
Age	-0.047	-0.460	0.646	1.290	-0.047	-0.460	0.646	1.290	-0.047	-0.460	0.646	1.290
Service Discrepancy	<b>-0.234</b>	<b>-1.925</b>	<b>0.057</b>	<b>1.847</b>	<b>-0.234</b>	<b>-1.925</b>	<b>0.057</b>	<b>1.847</b>	<b>-0.234</b>	<b>-1.925</b>	<b>0.057</b>	<b>1.847</b>
Production Discrepancy	0.043	0.269	0.788	3.136	0.043	0.269	0.788	3.136	0.043	0.269	0.788	3.136
Sales Discrepancy	<b>-0.231</b>	<b>-1.793</b>	<b>0.076</b>	<b>2.079</b>	<b>-0.231</b>	<b>-1.793</b>	<b>0.076</b>	<b>2.079</b>	<b>-0.231</b>	<b>-1.793</b>	<b>0.076</b>	<b>2.079</b>
R <sup>2</sup>	0.258				0.258				0.258			
Adjusted R <sup>2</sup>	0.186				0.186				0.186			
F-Value (p-value)	3.589 (0.001)				3.589 (0.001)				3.589 (0.001)			
Fit												

## Customer-Contact Employee Results

For the Customer-Contact Employees, the control and predictor variables explain 16.9% of their burnout ( $F=2.195$ ,  $p=0.029$ ); however, none of the regression coefficients for the predictor variables reach statistical significance. Similarly, although the control and predictor variables explain 17.3% of the variance in turnover intention ( $F=2.252$ ,  $p=0.025$ ), none of the regression coefficients for the predictor variables reach statistical significance. For Customer-Contact Employee Job Satisfaction, the control and predictor variables explain 13.9% of the variance ( $F=1.745$ ,  $p=0.089$ ). Of the predictor variables, the coefficient for Sales Discrepancy reached statistical significance ( $\beta = 0.227$ ,  $p=0.038$ ). For Customer-Contact Performance, the control and predictor variables explain 17.8% of the variance ( $F=2.327$ ,  $p=0.020$ ). However, none of the predictors of interest are significantly related to performance. These results may be seen in Figure 6.2 and Table 6.3.

*Figure 6.2: Discrepancies and Customer-Contact Employees*





Overall, the outcomes for Customer-Contact employees weren't significantly related to the discrepancies. One interesting exception is the positive relationship between Sales Discrepancy and Job Satisfaction. There could be a pocketbook explanation for this unexpectedly positive relationship: the manager's emphasis on sales, while not increasing Customer-Contact Employee burnout, increases revenue captured from customers. Since most of the Customer-Contact Employees are servers, this means an attendant increase in their tipped compensation.

### EMPLOYEES, CUSTOMERS, AND PROFITABILITY

Before testing PH2 and PH3, which explore aggregated employee effects on outcomes and the manager's relationship with employee outcomes, the data were examined for the appropriateness of aggregation. As can be seen in Table 6.4, at least 23% of the variance for all employee variables existed between units.

Table 6.4: *Eta-Squared Statistics*

<b>Aggregation of Employee Variables</b>	
<i>Backroom Employees</i>	
	Eta Squared
Climate for Service	0.353
Climate for Production	0.352
Climate for Sales	0.23
Employee Performance	0.285
<i>Customer Contact Employees</i>	
	Eta Squared
Climate for Service	0.35
Climate for Production	0.334
Climate for Sales	0.296
Employee Performance	0.304

The effects of climates, burnout, turnover and job satisfaction were tested on customer and unit outcomes. These regressions were run for each of the employee types –

Customer-Contact and Backroom Employees. All regressions controlled for the manager's tenure with his supervisor, the manager's gender, the manager's tenure as manager, the manager's tenure with the company and the managers age. Climate and employee psychological variables were considered in each of these equations, unless evidence of high multi-collinearity existed, at which point the variable was dropped from that regression. Rather than use the global Customer and Production Operating Orientation and Climate for Production constructs, the sub-climates that comprise these global constructs were used in these analyses. For Operating Orientation – Customer, these would include Operating Orientation – Customer Retention; Operating Orientation – Functional Quality; and Operating Orientation – Empathy. For Operating Orientation – Production, these would include Operating Orientation – Technical Quality; Operating Orientation – Efficiency; and Operating Orientation – Costs. For Climate for Production, these would include Climate for Efficiency and Climate for Technical Quality. As in the discussion about the hypothesized unit level model, adjusted  $R^2$  is used and coefficients significant at the 0.10 level or better are flagged. The regressions for Customer-Contact Employees are discussed first.

#### Customer-Contact Employees and Unit Outcomes

Customer-Contact Employee variables were tested for their relationships to Customer Satisfaction, Service Quality, Customer Intent to Return, Overall Unit Performance, Unit Revenue, Food Costs, and Labor Costs. The predictor variables of interest explain little of Customer Intent to Return, Overall Unit Performance, or Unit Revenue. The regression coefficients for these criterion variables were also statistically insignificant. However, Customer-Contact Employee variables are related to Customer Satisfaction, Service Quality and Food Costs.

Customer-Contact Employees, unsurprisingly, have a strong relationship with Customer Satisfaction. Here we see that climates and burnout explain 71.4% of the variance in Customer Satisfaction ( $F=6.687$ ,  $p=0.001$ ). While Service Quality is positively related to Customer Satisfaction ( $\beta = 0.589$ ,  $p=0.001$ ), Climate for Technical Quality is negatively related to Customer Satisfaction ( $\beta = -0.468$ ,  $p=0.041$ ).

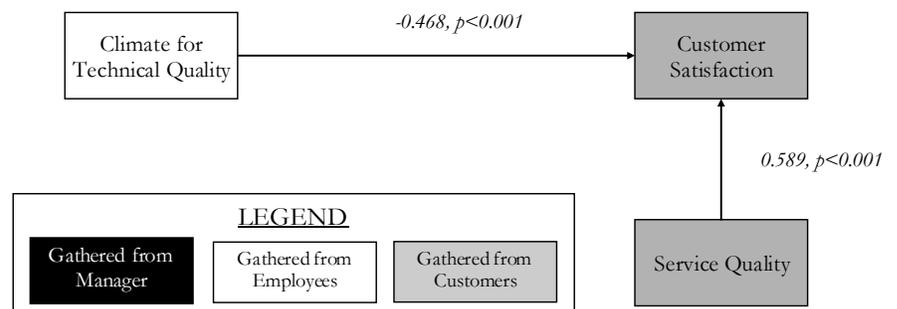
Customer-Contact Employees also have a strong relationship with Service Quality. This model explains 36.3% of the variance in Service Quality ( $F=2.239$ ,  $p=0.079$ ). Here, a Climate for Sales is negatively related to Service Quality ( $\beta = -0.689$ ,  $p=0.040$ ), and a Climate for Efficiency is positively related to Service Quality ( $\beta = 1.208$ ,  $p=0.009$ ).

Customer-Contact Employees also have a strong relationship with Food Costs, explaining 60.1% of the variance ( $F=4.837$ ,  $p=0.002$ ). A positive relationship exists between Climate for Service and Food Costs ( $\beta = 0.946$ ,  $p=0.011$ ), indicating that as Climate for Service increases among the Customer-Contact Employees, Food Costs also rise. A different situation exists for the efficiency dimension of Climate for Production. Here, as Climate for Production (Efficiency) increases, Food Costs decrease ( $\beta = -1.635$ ,  $p=0.0001$ ). Burnout and

Figure 6.3: Customer-Contact Employees and Unit Outcomes

Food Costs also have a negative relationship ( $\beta = -0.835$ ,  $p=0.003$ ).

Although the Customer-Contact



variables provide little explanation of Labor Costs (adjusted  $R^2=0.188$ ,  $F=1.591$ ,  $p=0.189$ ), Climate for Efficiency is negatively related to Labor Costs ( $\beta = -1.142$ ,  $p=.015$ ), as is

Burnout ( $\beta = -1.050$ ,  $p=0.007$ ). We see from these results, shown in Figure 6.3, that customer-contact climates and psychological outcomes are related to unit-level outcomes. Next, the relationship between Backroom Employees and unit outcomes is discussed.

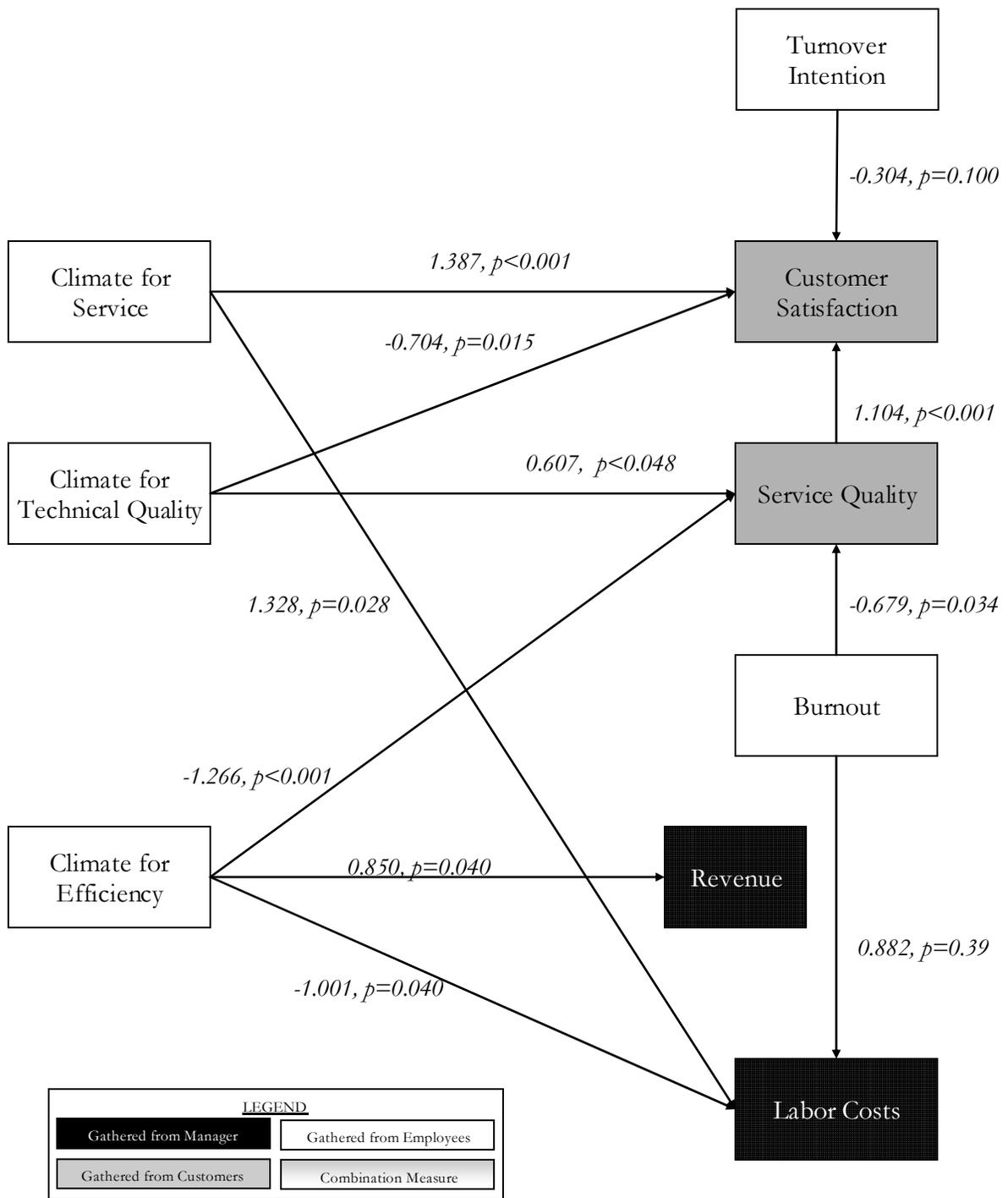
### Backroom Employees

Backroom Employee variables were also tested for their relationships to Customer Satisfaction, Service Quality, Customer Intent to Return, Overall Unit Performance, Unit Revenue, Food Costs, and Labor Costs (shown in Figure 6.4). The predictor variables of interest explain little of Customer Intent to Return or Food Costs. The regression coefficients for these criterion variables were also statistically insignificant. However, Backroom Employee variables are related to Customer Satisfaction, Service Quality, Unit Revenue and Labor Costs.

Backroom Employee variables explain 76.2% of Customer Satisfaction ( $F=7.561$ ,  $p=0.000$ ). In addition to the positive relationship between Service Quality and Customer Satisfaction ( $\beta = 1.104$ ,  $p<0.001$ ), Climate for Service and Burnout are positively related to Customer Satisfaction ( $\beta = 1.387$ ,  $p<0.001$  and  $\beta = 0.930$ ,  $p=0.002$ , respectively) and the Climate for Technical Quality and Turnover Intention are negatively related to Customer Satisfaction ( $\beta = -0.704$ ,  $p=0.015$  and  $\beta = -0.304$ ,  $p=0.100$ , respectively).

Backroom Employee variables also explain a significant proportion of Service Quality (adjusted  $R^2 = 0.567$ ,  $F=4.096$ ,  $p=0.007$ ). Three regression coefficients reach statistical significance: Climate for Technical Quality is positively related to the customers' evaluation of Service Quality ( $\beta = 0.607$ ,  $p=0.048$ ) and Climate for Efficiency is negatively related to Service Quality ( $\beta = -1.266$ ,  $p<0.001$ ), as is Burnout ( $\beta = -0.679$ ,  $p=0.034$ ).

Figure 6.4: The Backroom Employees and Unit Outcomes



Although little of Revenue is explained by the Backroom Employee variables (adjusted  $R^2 = -0.014$ ,  $F=0.965$ ,  $p=0.508$ ), Climate for Efficiency is positively related to Unit Revenue ( $\beta = 0.850$ ,  $p=0.040$ ). Similarly, although the Backroom variables explain little of Labor Costs (adjusted  $R^2=0.061$ ,  $F=1.187$ ,  $p=0.357$ ), four regression coefficients were significant. Climate for Efficiency is negatively related to Labor Costs ( $\beta = -1.001$ ,  $p=0.040$ ). Climate for Service and Burnout are both positively related to Labor Costs ( $\beta = 1.328$ ,  $p=0.028$  and  $\beta = 0.882$ ,  $p=0.039$ , respectively).

These results lend support to the notion that climates have varied relationships with unit level outcomes. The question now is whether the climates and other employee level variables have any relationship with the manager's Operating Orientations. The results of these tests are presented next.

#### THE MANAGER AND EMPLOYEE RELATIONSHIPS

These next regressions test the effect that the manager's Operating Orientations and their interactions have on Climate for Service, Climate for Production, Climate for Sales, Employee Burnout, Employee Turnover Intention, and Employee Job Satisfaction. Separate regressions were tested for Customer-Contact and for Backroom Employees. In these regressions, the sub-dimensions of the manager's Operating Orientations are also considered.

##### Customer-Contact Employees

With the exception of a single regression coefficient, the manager's Operating Orientations had little relationship with Customer-Contact Employee Climates. The sole exception is the

positive relationship that exists between Climate for Sales and the Technical Quality dimension of the Production Operating Orientation ( $\beta = 0.743$ ,  $p=0.029$ ).

The Operating Orientations also exhibit little relationship to Customer-Contact Employee Burnout: explanatory power of the model is weak (adjusted  $R^2 = -0.282$ ,  $F=0.560$ ,  $p=0.855$ ). Similarly, the Operating Orientations explain little of Customer-Contact Employee Job Satisfaction (adjusted  $R^2 = -0.397$ ,  $F = 0.432$ ,  $p = 0.936$ ). There are no significant relationships between the Operating Orientations and Customer-Contact Turnover Intention. Results from these regression tests may be seen in Figure 6.5.

### Backroom Employees

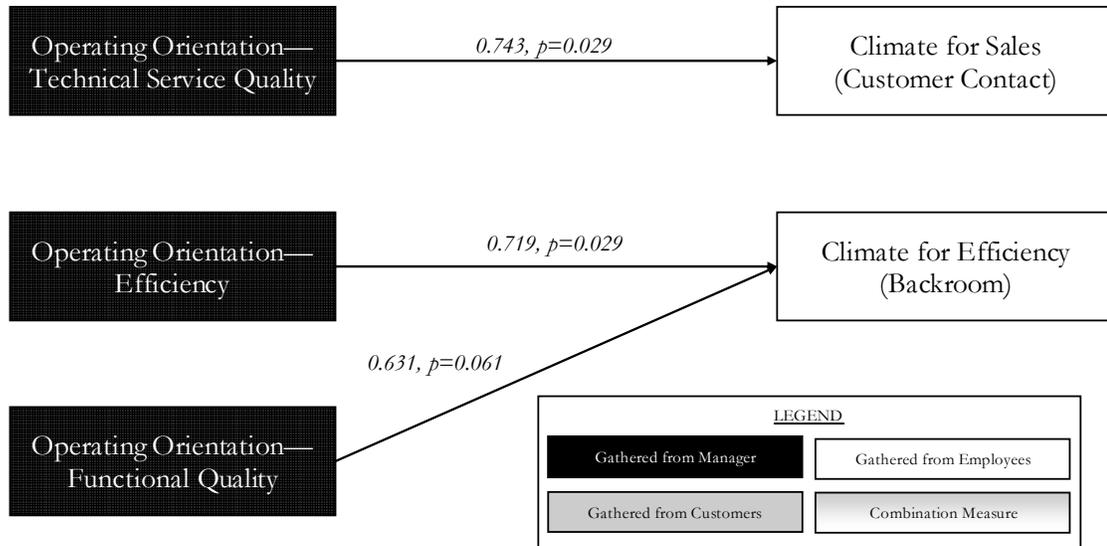
In examining the relationships between the manager's Operating Orientations and Backroom Climate or between the Operating Orientations and Backroom Employee Burnout, Turnover Intention and Job Satisfaction, we are provided with little explanation of the variance in the criterion variables. However, a few regression coefficients were statistically significant. The manager's Operating Orientation – Efficiency is positively related to Climate for Efficiency ( $\beta = 0.719$ ,  $p=0.034$ ). The manager's Operating Orientation – Functional Quality is also positively related to Climate for Efficiency ( $\beta = 0.631$ ,  $p=0.061$ ). Figure 6.8 illustrates these results.

## DISCUSSION

In this chapter, a series of post-hoc hypotheses were presented and tested. The first hypothesis posited that there would be difference between Backroom and Customer-Contact employees in how they reacted to the Discrepancies. The second hypothesis suggested that Backroom and Customer-Contact Unit Climates would be differentially related to customer

and firm outcomes. Finally, the third hypothesis posited that the manager’s Operating Orientations would be related to the unit climates. Each of these hypotheses received support, although support for the third was limited.

Figure 6.5: The Manager and Unit Climates



In exploring decoupling, we see decided differences in the reactions of Backroom and Customer-Contact employees to the discrepancy variable. First, Backroom employees are seemingly much more susceptible to these discrepancies: each of the dependent variables of interest (burnout, turnover, job satisfaction and performance) is related to at least one of the discrepancy variables. This is in contrast to Customer-Contact employees, who seem immune to the effects of these discrepancy variables, with the exception of the positive relationship that exists between Sales Discrepancy and Customer-Contact Employee Job Satisfaction. This indicates that as Sales Discrepancy increases, Customer-Contact employees are happier in their jobs. There may be a pocketbook explanation for this somewhat surprising finding: most of the Customer-Contact employees participating in this study were

servers. As the manager emphasizes the importance of increasing revenue through increasing guest-check averages by up-selling, the server, a tipped employee, will see higher tips.

The lack of other Customer-Contact employee relationships with the discrepancy variables may be due to the nature of the Customer-Contact role. Boundary spanners such as the Customer-Contact employee sample receive feedback not only from the manager but also from customers. This feedback from customers is often more immediate and meaningful to the Customer-Contact Employee, whether that feedback is a smile or a generous gratuity. The Customer-Contact Employee may well identify more with the customer than with the firm or manager. The employee may then see that protecting the customer from what the employee views as inappropriate pressure, such as increased sales or efficiency pressure, as an integral part of their job. Thus, the more they resist these efforts by managers, the better the employee's view of his performance and the more satisfaction felt by the employee.

No support exists for the Unit-Level Effects model initially proposed, as none of the more than 20 relationships proposed is both significant and directionally correct. Post-hoc analyses, the results of which are summarized in Figure 6.6, revealed that psychological climates aggregated to the unit level had significant effects on customer and unit outcomes, and the manager's Operating Orientations had some significant relationships with unit climates. Additionally, since a great deal of the variance of Employee Burnout, Employee Turnover Intention and Employee Job Satisfaction was between units, these variables were aggregated to the unit level. Particularly intriguing in these analyses were the different effects for Customer-Contact and Backroom Employees.

Here we see that Customer-Contact Employee Climate for Technical Quality is negatively related to Customer Satisfaction, indicating that increasing the Customer-Contact Employees emphasis on delivering high levels of Technical Quality may not produce happier customers. However, we don't see that Customer-Contact Employee Climate for Service has any relationship to any of the customer outcome variables of Customer Satisfaction, Service Quality or Customer Intention to Return. So while we may see that increasing the Customer-Contact Employees' focus on delivering Technical Quality isn't necessarily the right move, we can't provide any guidance on what the right move might be.

The positive relationship between Customer-Contact Employee Climate for Service and Food Costs and the negative relationship between Customer-Contact Employee Climate for Efficiency and Food and Labor Costs are as one would expect. As Customer-Contact Employee Climate for Service increases, an emphasis on ensuring customer satisfaction reigns and may encourage Customer-Contact Employees to be generous in their provision of food and beverage items – beverages being refilled more often, thicker milkshakes being made, extra crackers or dressing being provided initially rather than on request – thus increasing costs.

As Customer-Contact Employee Climate for Efficiency increases, we see both Food and Labor Costs drop – employees focus on doing more with less, reducing labor costs and as Customer-Contact Employees must do more, they may not have time to spare for beverage refills or extra sides of dressing, thereby reducing food costs. Customer may also complete their service experience more quickly, reducing the need for those extra refills as well.

The negative relationships between Customer-Contact Employee Burnout and Food and Labor Costs are intriguing. They could simply be covariate relationships; as efficiency becomes the focus of Customer-Contact Employees, they continually attempt to do more with less – in a restaurant setting this could mean that servers may have responsibility for serving seven tables rather than four or five. While this may reduce the need for as many employees on the floor, it also increases the workload for Customer-Contact Employees, perhaps to the point of work overload, potentially increasing their Burnout. These overworked and burned out Customer-Contact Employees would have less time and inclination to spend improving the quality of the customers experience – including providing the extra beverage or thicker milkshake. Thus, while Customer-Contact Employee Burnout increases, Labor and Food Costs would decline, at least in the short-run.

A more complex picture emerges when Backroom Employees are considered. Here we see that while Climate for Service and Service Quality are positively related to Customer Satisfaction, Climate for Technical Quality actually has a negative relationship with Customer Satisfaction. However, a positive relationship exists between Backroom Employee Climate for Technical Quality and Service Quality, indicative of the trade-offs that must be made in the delivery of service.

Somewhat surprisingly, the data indicated a lack of relationship between Backroom Employee Climates and Food Costs, although we do see relationships with Labor Costs. All relationships between Backroom Employee Climates and Labor Costs are as one might expect – Backroom Employee Climate for Service is positively related to Labor Costs, as is Backroom Employee Burnout, and Backroom Employee Climate for Efficiency is negatively

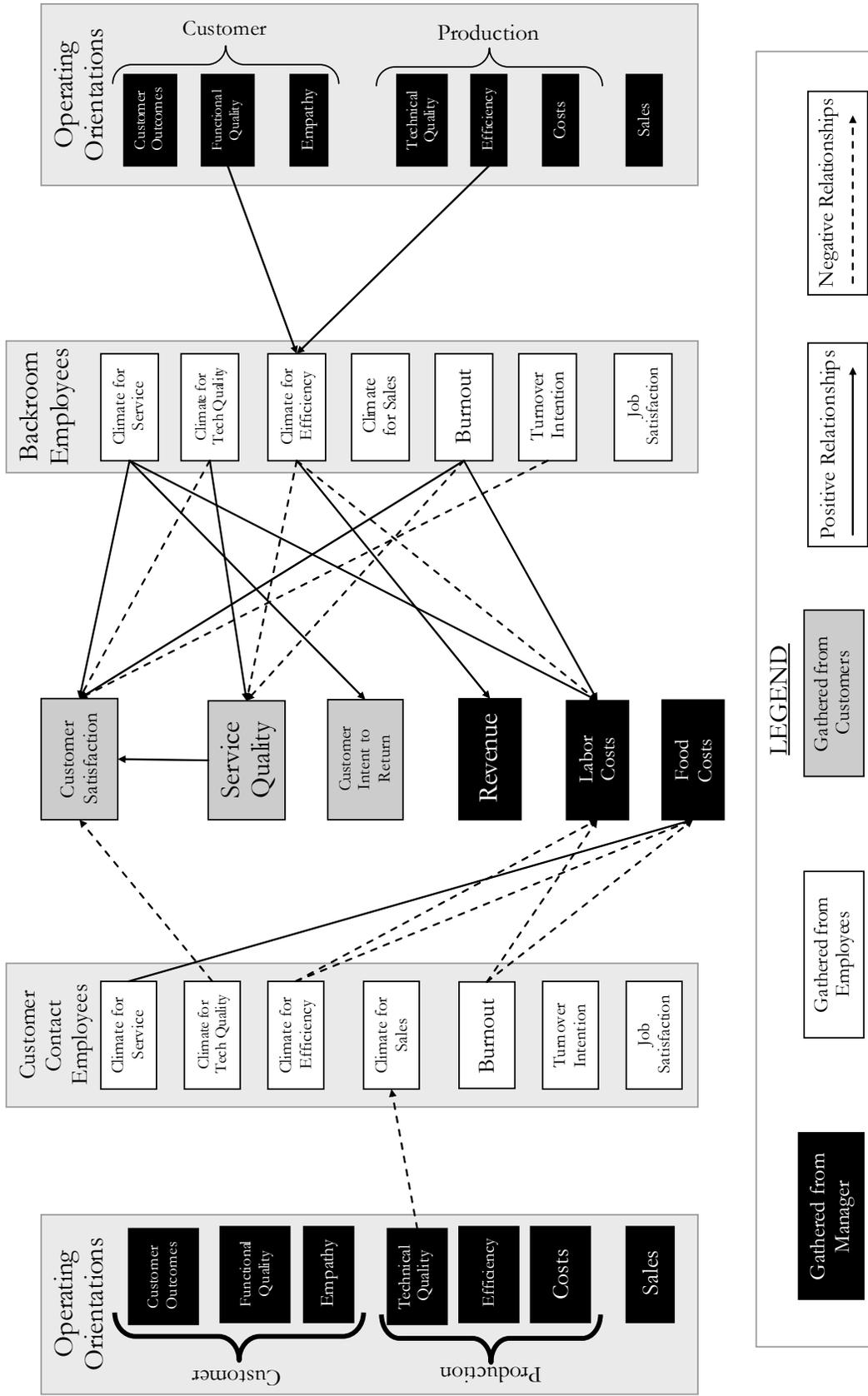
related to Labor Costs. The positive relationship between Backroom Employee Climate for Efficiency and Revenue can be explained by an increased number of customers.

The data indicate that the Customer-Contact Employees and Backroom Employees do seem to have some relationship to unit outcomes. The next task was to explore whether the manager's Operating Orientations have any relationship with Customer-Contact Employee and Backroom Employee variables. While it appears from the data that the manager's Operating Orientations have little direct effect on customers or unit outcomes, there are a few relationships between the manager's Operating Orientations and Customer-Contact employee and Backroom employee Climates.

The relationships between the manager's Operating Orientations and Backroom Employees are different than the relationships with Customer-Contact Employees. The manager's Operating Orientation – Functional Quality is positively related to Backroom Employee Climate for Efficiency, as is the Manager's Operating Orientation - Efficiency. It may be that the Operating Orientation – Functional Quality manifests for Backroom Employees as getting food to customers quickly. One relationship between the Customer-Contact employee climates and the manager's Operating Orientations emerged. The negative relationship between the manager's Operating Orientation – Technical Quality and Customer-Contact Employee Climate for Sales is not unexpected. The manager's Operating Orientation – Technical Quality produces a “build a better mousetrap” mentality among Customer-Contact employees, reducing their focus on selling (see Figure 6.6).

In the next chapter, implications of these findings, contributions and limitations of this research, and future research directions are discussed.

Figure 6.6: Summary of Unit-Level Post Hoc Analyses



## **CHAPTER 7: CONCLUSIONS, IMPLICATIONS AND LIMITATIONS**

The design and delivery of services is a complex blend of marketing, operations, and human resources strategies (Lovelock 2000). Although these multiple functions are necessary for successful service delivery, the goals of one function often conflict with the goals of another function (Bateson 1990), necessitating that trade-offs be made between the strategies of each function. For example, a retailer may implement stringent or even draconian return policies to discourage customer or employee fraud. These return policies may, however, reduce overall revenue through reduced customer satisfaction or through the loss of customers due to the inconvenience (customers may not want to risk a purchase if they have to adhere to too many criteria in returning an ill-advised purchase). Thus, two different functions, each designing strategies to achieve valid goals, such as reduced fraud and increased revenue, may be mutually exclusive to some degree, necessitating trade-offs between the various functional strategies be made.

Although researchers from multiple disciplines explore services-related questions, rarely is the research they conduct multi-disciplinary in nature (Brown et al. 2005), providing us with a severely limited view of services delivery. This research addresses this lack and explores services delivery from a multi-disciplinary approach, following Bateson (1990), who sees the upper echelons of the firm as making long-term service design trade-offs and proposes that the unit manager makes the day-to-day service delivery trade-offs. In this research, the unit manager is conceptualized as influencing service delivery through his or her Operating Orientations – the priority the manager places on the various functional goals

for which he is responsible. The Operating Orientations are thought to be related to customer, firm and employee outcomes.

The remainder of this chapter will describe the contributions – theoretical and managerial – made by this research, the limitations of the current study, and future research directions. First, however, a summary of the study and its key findings is presented.

### RESEARCH SUMMARY AND KEY FINDINGS

This research identifies the manager as making the day-to-day trade-offs between marketing and operations strategies; two research questions guided the exploration of this. First, do managers vary in how they prioritize these strategies? Second, how does this prioritization affect customers, the firm and employees? To answer the latter question, two models were developed and tested. The first model explored the relationships between employee psychological climates, employee outcomes, and the manager's functional priorities – his Operating Orientations. The second explored the relationships between the manager's Operating Orientations and unit-level customer outcomes and unit costs and revenue. In testing the two theorized models, a cross-sectional survey methodology was employed. Data were gathered from two restaurant chains and from multiple levels of respondents: district managers (both firms), unit managers (both); employees (Larry's Diner only) and customers (Larry's Diner only). Data were analyzed using multiple regression techniques.

A few key findings emerged from the analyses. First, unit managers do operate their units with different priorities between the various functional strategies, and these Operating Orientations are related to employee climates and outcomes. Second, if the relationships

between the Operating Orientations and unit customer outcomes and unit costs and revenues exist, they are not apparent in the cross-sectional data gathered for this study.

Perhaps the most interesting finding arose from a series of post-hoc analyses conducted in this research that explored the decoupling of the production of the technical from the production of the functional elements of the service. Results indicated that the manager's Operating Orientations were differentially related to climates and outcomes of Backroom employees – those responsible for producing the technical elements of the service – and to Customer-Contact employees – those responsible for producing the functional elements of the service. It also seems that Backroom and Customer-Contact Climates are differentially related to unit customer outcomes and unit costs and profits. The emergence of these decoupling effects forms the basis of the theoretical and managerial contributions of this research.

## THEORETICAL CONTRIBUTIONS

Two theoretical bases were proposed in examining the effects of decoupling: Total Quality Management (TQM) and Lawrence and Lorsch's Contingency Theory of Organization (1967). In TQM, two approaches to quality have been identified: one which emphasizes control and conformance to objective standards (Jabnoun 2005), also identified as Operations Oriented TQM (Reed, Lemak, and Montgomery 1996), and a customer-oriented TQM which emphasizes customer satisfaction and continuous improvement (Reed, Lemak, and Montgomery 1996). While one approach may suffice for the manufacturing environment in which these researchers operate, both approaches are necessary in providing both functional and technical service quality. The Contingency Theory of Organization

(Lawrence and Lorsch 1967) suggests that the provision of these two dimensions of service quality is best approached through differentiating the production of functional and technical quality. Hence, the decoupling of service into a technical and functional core (Chase 1981; Chase 1978). In the context of this study and in many other service settings, the two groups separately producing the service quality elements operate under the same roof, and under the guidance of the same manager.

Lawrence and Lorsch (1967) suggested that this differentiation – or decoupling – will require different work and task structures to function effectively. Thus, the research presented in this dissertation argues that employees will form climates that differ in their strength; that these climates will differentially be related to customer and unit outcomes; and that employee from these groups will react differently to discrepancies between psychological climate and the related Operating Orientation. The empirical testing of the post-hoc hypotheses supported these notions, highlighting the importance decoupling plays in the delivery of service.

Related to this is the second theoretical contribution of this research: the importance of Backroom employees in delivering satisfaction and quality to customers. Much of the services marketing literature has focused on the role of Customer-Contact employees in delivering services; if the Backroom employee has been considered at all, it has been in the context of internal marketing in which the contributions of the Backroom employee are thought to facilitate the Customer-Contact employee's performance. This research provides support for the idea that rather than producing a service that has a diluted role in customer outcomes for a Customer-Contact employee, the Backroom employee's efforts are more directly related to producing customer satisfaction and service quality. One way in which to

view the provision of service, at least in the context of this study, is that Customer-Contact employees deliver and produce primarily functional quality and they deliver the technical quality produced by the Backroom employees.

The third theoretical contribution of this research is the role played in service delivery by the unit and the manager. Although the relationships between the manager's Operating Orientations and customer and firm outcomes weren't apparent in this cross-sectional research, the existence of relationships between the manager's Operating Orientations, climates (both psychological and unit) and employee outcomes provide tantalizing hints about this role of the manager, particularly when considering decoupling. Likert (1961) suggests the necessity of managers acting as a linking pin, bridging two functions. This is echoed by Lawrence and Lorsch (1967) who suggest that the integration of differentiated functions is an elemental role played by managers. This suggests that the manager is critical in coordinating the functional and technical quality produced by the two separate groups of employees under his control. This is certainly an area that needs further study.

## MANAGERIAL CONTRIBUTIONS

This multi-respondent exploratory study also provides some directions to offer to practitioners. It is dangerous to presume that a single operating orientation or climate is preferable to the others; rather, because of the multi-disciplinary nature of services it is likely that combinations of climates or operating orientations are necessary to win the rat race referred to by one qualitative participant. For example, we see that Backroom Climate for Service and Backroom Climate for Technical Quality both are related to Customer

Satisfaction in *opposite directions*. While this might suggest that it is dysfunctional to encourage higher levels of Backroom Climate for Technical Quality, a more complete picture of the service delivery emerges when we consider that Backroom Climate for Technical Quality is positively related to Service Quality, which is positively related to Customer Satisfaction.

Just as the decoupling of service into technical and functional elements produced by Backroom and Customer-Contact employees provides theoretical directions, so too does this decoupling provide insights for practitioners. One insight in particular is important for practitioners: the role of the Backroom employee. Many managers and employees (and researchers) may consider Backroom employees to have negligible relationships with customer outcomes – after all, they have little direct contact with customers. However, the findings of this study suggest that those units with stronger Backroom Climates for Service may enjoy a competitive advantage over those who don't.

Customer-Contact employees seem more impervious to the influence of the manager than are Backroom employees. This is likely due to the nature of the role occupied by the Customer-Contact employee. Occupying a boundary-spanning role, the Customer-Contact employee requires more freedom to contend with an environment that is complex and turbulent. Customer-contact employees in this setting also receive very powerful and more immediate feedback from customers in the form of tips. These two elements of the Customer-Contact role combine to reduce the manager's ability to influence the Customer-Contact employee's behavior and attitudes. When the interests of customers, the manager, and Customer-Contact employees are aligned, this creates few issues; dysfunction results, however, when they become misaligned.

Managers also need to beware of attempting to develop uniform climates across employees. For example, promoting a uniform Climate for Technical Service Quality across Customer-Contact and Backroom employees may well backfire: in this data, Customer-Contact Climate for Technical Quality is negatively related to Customer Satisfaction. While Backroom Climate for Technical Quality is also negatively related to Customer Satisfaction, this effect is at least partially mitigated by the positive relationship Backroom Climate for Technical Quality has with Service Quality, which is positively related to Customer Satisfaction.

This research highlights the importance of managing the trade-offs involved in service delivery. As mentioned earlier, the negative relationship between Backroom Climate for Technical Service and Customer Satisfaction seems to be partially offset by the positive relationship between Backroom Climate for Service and Customer Satisfaction. Understanding these trade-offs and mitigations will help the manager provide improved outcomes to *all of his/her* customers – employees, unit customers and the firm.

## LIMITATIONS

Although this research has the potential to contribute to researcher and practitioner understanding of service delivery, there are a number of limitations to the study. First, two companies participated in this research. Although one is an international firm and the other national, the samples drawn from both were located in the Midwestern section of the United States. Results may differ when different managers, employees and customers are considered.

Similarly, only one industry was used as a context – the restaurant industry. Although this has benefits, there are also drawbacks. A wide array of services exists in the non-profit and for-profit sectors. Certainly, not only results may differ when considering different service industries, but operating orientations and climates are likely to vary as well. For example, if we were to study the transportation industry, a climate for safety would likely be important to include.

There is also the possibility of selection bias in this research. In addition to self-selection bias, customer data may also suffer from selection bias stemming from the fact that servers were ultimately responsible for distributing surveys to their customers with the customer's guest check. If servers systematically decided not to provide a survey to patently unhappy guests, bias will result. Future research might reduce these biases by triangulating the findings with other customer data such as customer complaint rates or guest counts.

There may also be selection bias in the employee responses. Although they were asked to choose a combination of above-average and below-average performing employees, managers selected the employees participating in this research. This could be addressed in future research by randomly selecting employees from a list, an option unavailable in this research by request of the participating firms.

Finally, this study was cross-sectional in nature, and as such we may not be able to ferret out relationships that occur only over time. The lack of findings in the unit level model may well be due to this fact, and the relationships between the manager's operating orientations and climate may only be fully understood over time. A study which gathers data at multiple points in time may find evidence that supports the unit level model.

## FUTURE RESEARCH

There are several future research directions provided by this research. First, the post-hoc analyses offer intriguing insights into how decoupling affects service delivery in a unit. This provides several interesting avenues to explore, including how the manager might integrate the production of technical and functional elements. The notion that the manager acts as a linking pin, integrating and directing the efforts of marketing and production employees to provide both technical and functional quality in adequate levels bears exploration.

While the cross-sectional study presented here found some evidence that the manager's Operating Orientations are related to unit outcomes, it may be that critical elements were neglected in the development of the models tested. Some of these missing elements might include leadership and coaching variables. These elements may be used by the manager to motivate his/her staff to achieve the goals he/she deems most important as captured by the manager's Operating Orientations. Exploring how the manager's Operating Orientations may work together with leadership, control, and coaching variables to move the unit toward desired outcomes is an area rich with possibilities.

The post-hoc analyses also highlight the role that structural elements play in the design and delivery of services. Certainly there are a great many more firm and unit structural elements other than decoupling that may affect services delivery, such as the use of controls and incentives. Exploring how controls and incentives aimed at the unit manager influence the implementation of diverse strategies and the achievement of unit outcomes could provide insight for researchers and practitioners alike. For example, future research might explore how incentives and controls aimed at different employee levels interact. The unit

manager has at least a modicum of influence over the controls and incentives aimed at employees, and so can enhance or negate the effects of these controls. Incentives aimed at managers that are not aligned with the incentives aimed at employees could prove counterproductive. However, aligning the manager and employee incentives may provide synergistic results.

Perhaps the most intriguing research avenue suggested by the post-hoc analyses lies in possibility of the development of a contingency theory of service quality. Just as organizational theorists often argued for “one best way to organize in all situations” (Lawrence and Lorsch 1967, p. 3), many services researchers in marketing and operations argue at least implicitly for one best way to design for service quality: marketers tend to emphasize the importance and benefits of humanistic elements in service delivery, such the empowerment and psychological health of frontline employees, while operations researchers tend to advocate for the mechanization and standardization of service delivery. However, it may be that the relative importance of functional versus technical service quality will vary depending on the nature of the service being provided. The typologies provided by Lovelock (1983) might provide a good starting place.

Addressing one of the limitations of this study, the basic framework should be studied in multiple industries, both for-profit and non-profit. This would necessitate the building of measures peculiar to the setting, as the conceptualization of the operating orientations argues against generic measures. Additionally, different operating orientations and climates may be necessary to deliver service in different environments. For example, in most education settings, an Operating Orientation – Sales and a Climate for Sales are

inappropriate, and could be replaced with an Operating Orientation – Discipline and a Climate for Discipline.

A longitudinal study would also prove helpful. Many of the relationships hypothesized in the model explored here might more logically occur over time. For example, Attraction-Selection-Attrition Theory would suggest that truly understanding how managers influence climate requires a longitudinal perspective. Similarly, the relationship between the manager's Operating Orientations and sales and costs may be a lagged one – the efforts of the manager in directing the attention and actions of his staff may require time to show results.

Finally, this longitudinal study should also include secondary data as well as survey data. Although the study presented here, designed as cross-sectional, incorporates multiple sources of data to guard against single-source bias, response bias may still be an issue that secondary data (unavailable at this time for this study) can mitigate. For example, in this study, the outcome variables of Revenue and Costs were subjective measures asked of the unit manager. The actual revenue and costs of the unit could provide a different picture than the one that emerged in this work.

## CONCLUSION

The delivery of services incorporates elements of marketing, operations and human resources (Lovelock 2000). This study explored how the manager might direct his/her staff toward the accomplishment of the various functional strategies. The results highlight the complex and delicate orchestration of the efforts of multiple employees necessary to provide satisfaction to customers; profitability to the firm; and stability and satisfaction to the

employee. This study provides insight into how marketing and operations interact at the point of services delivery by highlighting the role that decoupling plays. It appears that Backroom employees, responsible for the production of the technical elements of the service, and Customer-Contact employees, responsible for the production of the technical elements of the service, are differentially related to customer and firm outcomes. The two groups of employees also seem to react differently to the differences between the manager's Operating Orientations and the related psychological climate. Although the role the manager of the service unit plays in this orchestration isn't completely clear, this study provides some intriguing directions for future exploration.

# APPENDIX A: QUALITATIVE STUDY

## OVERVIEW

An exploratory, qualitative study was performed to investigate how marketing and operations strategies are implemented simultaneously in a service organization – the chief implementer is the manager. As no cohesive theory exists regarding this role, this qualitative study was performed to link practice to the theory built here. This is similar to the approach used by Parasuraman et al. (1985) to build the Gaps Model of Service Quality.

The qualitative work began with an examination of relevant Monster.com help wanted postings. Job categories included Retail/Wholesale; Sales; Banking; Healthcare – RNs and Nurse Management; Restaurant and Food Service; Staffing; Customer Service and Call Center; and Hospitality/Tourism. These advertisements were then explored for recurring themes in the job duties and responsibilities of the incumbent.

Building on the emerged themes of this analysis, a series of one-on-one interviews was conducted with mid-level operations managers in multiple industries, including: convenience stores; financial services, and hospitality (hotel, quick service and casual dining segments). The participants held titles such as: Director of Food and Beverage; Vice-President of Operations; Market Coach; and Vice-President of Sales and Service. The firms for which the participants worked varied in ownership structure and ranged from small family-run businesses to large multi-national firms.

The unstructured interviews began by asking participants about their background in the industry and in their firm. Participants were asked about the differences between above and below average performing managers, the differences between good and great managers and the challenges and responsibilities of managers. Questions also developed during the conversation. Interview length ranged from about 45 minutes to about two hours.

A series of approximately eight to ten observations of four managers of a financial services firm was also conducted. Observations lasted approximately three to four hours; one manager was shadowed during each observation. The observations also provided opportunity to discuss the manager's role with the manager.

## PARTICIPANT DESCRIPTIONS

DB is a market manager for a major quick-service restaurant chain. He supervises six area managers who in turn supervise five to seven managers. He began as an assistant manager and progressed to manager, training manager and, until recently, area manager. Although he worked for other restaurant firms while in high school and college, his career has been spent with only one company.

MB is Vice-President of Operations for a regional firm that focuses primarily on the convenient store industry, although they have recently begun to diversify into the hospitality business. Prior to

her tenure at this firm, she worked in various operations management roles (Front Desk, Housekeeping, Banquets) in various locations, culminating as Assistant General Manager.

KG works for a firm that began as a restaurant company that has since expanded into real estate holdings and manufacturing of their signature sauces. She is responsible for ensuring standards are upheld in the restaurants; this involves placing and promoting all managers, including the general managers (most are promoted from within). She is also responsible for the training of all new and current staff. Their training systems consist of centralized classroom training and on-the-job training. Most of the time, KG can be found at one or another of the restaurant units. KG has more than 30 years experience in the industry and with this firm.

PS is Vice-President of Sales and Service at a division of a regional bank holding company. Nine bank branch managers and an operations manager report to PS. PS began working with the bank upon graduating from college and progressed to her current position.

RC is Director of Food and Beverage at a large urban convention hotel. She is responsible for multiple outlets including a commissary (banquet kitchen) and casual dining (on- and off-property), fine dining and quick-service restaurants. She has spent more than 20 years with this hospitality firm in multiple locations. She began as an assistant restaurant manager.

BN currently oversees multiple outlets for a suburban parks and recreation department. He had earlier owned two outlets of a national quick-service restaurant and had previously worked in this firm's regional franchise development office ensuring that owners and managers were meeting standards. All told, BN has spent more than 20 years in the hospitality industry.

MS is Director of Restaurant Operations for a hotel, one of many in a large international firm, and is responsible for multiple restaurants within the unit, a retail outlet, all kitchen functions for both the restaurants and banquet functions and purchasing for the unit. He has been with this firm for 14 years. This is the seventh property at which he has worked.

BP is the Director of Event Planning for the same unit and is responsible for multiple salespeople and banquet managers. He has been with the firm for 11 years; this is his third property.

EM is a general manager for a multi-unit franchisee of a large international firm. She began working for this firm while in college and stayed. She has been the general manager at this unit for seven years.

BH, DS, AS and BL are branch managers for a financial services firm whose tenures in their roles range from less than a year to more than 10 years (not necessarily at the same branch).

## APPENDIX B: ITEMS

### Operating Orientation Measures

In these measures, managers were asked to assume that they had already met standards and then asked to indicate how much more effort they would devote to the following areas. Anchors were *Never* (1) to *Always* (7).

<i>Operating Orientation - Customer Measure Source: Manager Item Source: Developed Here</i>				
<i>Factor</i>	<i>Item</i>	<i>Loading</i>	<i>Reliability</i>	<i>Average Variance Extracted</i>
<i>Technical Quality</i>	Improving employees' customer relationship skills.	0.771	0.862	0.748
	Customer retention.	0.645		
	Improving servers' ability to build bonds with customers.	0.776		
	Improving employees' people skills.	0.839		
	Encouraging employees to spend more time with customers.	0.71		
<i>Customer Outcomes</i>	Delivering superior customer service.	0.662	0.814	0.697
	Ensuring customers are pleased with their experiences	0.477		
	Increasing customers' desire to return.	0.926		
	Ensuring all employees focus on customer satisfaction.	0.724		
<i>Empathy</i>	Increasing the friendliness with which employees treat customers.	0.754	0.828	0.775
	Improving employees' responsiveness to customer requests.	0.738		
	Increasing the courtesy with which employees treat customers.	0.833		
<i>Operating Orientation - Sales Measure Sources: Manager Item Sources: Developed Here</i>				
<i>Factor</i>	<i>Item</i>	<i>Loading</i>	<i>Reliability</i>	<i>Average Variance Extracted</i>
<i>Customer Sales</i>	Increasing guest check averages.	0.711	0.870	0.830
	Increasing employees' rate of suggestive selling.	0.819		
	Improving employees' abilities in suggestive selling.	0.959		
<i>Unit Sales</i>	Increasing the number of customers served.	dropped	0.535	NA
	Increasing unit revenues.	dropped		

<i>Operating Orientation - Production</i> <i>Measure Source: Manager</i> <i>Item Source: Developed Here</i>				
<i>Factor</i>	<i>Item</i>	<i>Loading</i>	<i>Reliability</i>	<i>Average Variance Extracted</i>
<i>Technical Quality</i>	Increasing restaurant cleanliness.			NA
	Improving employees technical skills.			
	Improving food quality.			
	Improving order accuracy.			
<i>Efficiencies</i>	Improving employee efficiency.			NA
	Reducing customer waiting times.			
	Focusing front-of-house staff on increasing back-of-house efficiency.			
	Keeping contact between employees and customers brief.			
	Improving the efficiency with which food and beverages are delivered to customers.			
	Increasing the speed at which customers are served.			
<i>Costs</i>	Reducing labor costs.			NA
	Controlling food costs.			
	Reducing operating expenses.			

### Climate Measures

Employees were asked to indicate how often the statement reflected their unit, anchored by *Never* (1) to *Always* (7), or how important the performance of the item was in their unit (these statements are indicated by an \*), anchored by *Unimportant* (1) to *Important* (7).

<i>Climate for Service: Measure Sources: Employees Item Source: Lytle and Horn, 1998</i>				
<i>Factor</i>	<i>Item</i>	<i>Loading</i>	<i>Reliability</i>	<i>Average Variance Extracted</i>
<i>Climate for Service</i>	Employees go out of their way to reduce inconveniences for customers.	0.638	0.726	0.745
	We go out of our way to prevent customer problems.	0.807		
	In this restaurant, it is believed that the organization exists to serve the needs of its customers.	0.694		
	We are noticeably friendlier and more courteous than our competitors.	0.694		
	Employees go the "extra mile" for customers.	0.796		
	There is a true commitment to service in this restaurant, not just lip service.	0.816		
	We go out of our way to prevent customer problems rather than reacting once they happen.	0.768		
	Employees care for customers as customers would like to be cared for.	0.755		
	In this restaurant, customers are viewed as opportunities to serve rather than as sources of revenue.	0.71		
	We actively listen to our customers.	0.773		

<i>Climate for Production: Measure Source: Employees Item Source: Developed Here</i>				
	<i>Item</i>	<i>Loading</i>	<i>Reliability</i>	<i>Average Variance Extracted</i>
<i>Technical Quality</i>	Food quality?	0.875	0.826	0.704
	That customers are served promptly?	0.765		
	Minimizing costs?	0.471		
	Order accuracy?	0.592		
	The cleanliness of your restaurant?	0.819		
<i>Efficiency</i>	This restaurant runs like a well-oiled machine.	0.702	0.695	0.607
	In this restaurant, we strive to minimize wasted effort as much as possible.	0.725		
	Employees in this restaurant are highly skilled at doing the technical parts of their jobs.	0.626		
	Overtime is readily available in this restaurant .	0.374		
<i>Dropped</i>	In this restaurant, we most value efficiency.	dropped	0.544	NA
	The most important thing in this restaurant is to do things as quickly as possible.	dropped		

<i>Climate for Sales: Measure source: Employees Item source: Adapted from Perriatt et al., 2004</i>				
	<i>Item</i>	<i>Loading</i>	<i>Reliability</i>	<i>Average Variance Extracted</i>
<i>Sales</i>	Increasing the number of menu items sold to customers?	0.773	0.866	0.755
	Increasing the rate at which employees up-sell?	0.820		
	Improving employees' abilities to up-sell?	0.817		
	Increasing the number of customers served?	0.613		
	Increasing unit revenues?	0.750		
<i>Dropped</i>	We decide what menu items to offer to customers on the basis of what they'll buy.	dropped	0.447	NA
	In this restaurant, we try to sell customers all we can convince them to buy.	dropped		

### Other Employee Variables

<i>Burnout</i> Likert Scale with Anchors - Never (1) to Always (7) Measure Source: Employee Item Source: Seltzer and Numeroff, 1988				
	<i>Item</i>	<i>Loading</i>	<i>Reliability</i>	<i>Average Variance Extracted</i>
<i>Burnout</i>	I'm fed up with my job.	0.817	0.892	0.763
	I feel that everything is caving in at work.	0.739		
	I feel unable to get out from under my work.	0.693		
	My job makes me angry.	0.754		
	I feel crabby at work.	0.743		
	My job has me at the end of my rope.	0.834		

<i>Job Satisfaction</i> Anchors varied by item Measure Source: Employee Item Source: Rice et al., 1991				
	<i>Item</i>	<i>Loading</i>	<i>Reliability</i>	<i>Average Variance Extracted</i>
<i>Job Satisfaction</i>	If you had to decide again whether to take the job you have now, what would you decide? <i>Definitely not (1) to Definitely would (7)</i>	0.779	0.857	0.710
	How does this job compare with your ideal job? <i>Very far (1) to Very Close (7)</i>	0.665		
	How satisfied are you with your current job? <i>Completely dissatisfied (1) to Completely satisfied (7)</i>	0.883		
	How do you feel about your job overall? <i>Terrible (1) to Terrific (7)</i>	0.774		
	I feel like giving up on the job. <i>Never (1) to Always (7)</i>	0.551		
	How does your job measure up to the sort of job you wanted when you took it? <i>Not at all (7) to Exactly (7)</i>	0.606		

<i>Employee Self-Performance Evaluation</i> Likert Scale, Anchored by Way Below Average (1) to Way Above Average (7) Measure Source: Employee Item Source: Oliver and Anderson, 1994				
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	<i>Item</i>	<i>Loading</i>	<i>Reliability</i>	<i>Average Variance Extracted</i>
<i>Employee Manager Performance</i>	All things considered, my general manager thinks I am outstanding.	0.831	0.798	0.798
	My general manager thinks I am one of the restaurants most valuable employees.	0.731		
	How would you evaluate your performance on your restaurant's most important tasks?	0.831		
<i>Employee Self-Performance</i>	All things considered, I do outstanding work.	0.685	0.780	0.672
	Compared with others who work for your restaurant, how would you evaluate your effort?	0.655		
	I perform my job the way it should be performed.	0.693		
	Compared with others in your position working for your restaurant, how would you evaluate your overall performance?	0.656		

<i>Turnover Intention</i> <i>Likert scale anchored by Strongly Agree (1) and Strongly Disagree (7)</i> <i>Measure Source: employees</i> <i>Item Source: Donnelly and Ivancevich, 1947</i>				
<i>Turnover Intention</i>	I often think about quitting	0.738	0.845	0.830
	I will probably look for a better job in the next year	0.857		
	I will likely look for a new job within the next year	0.895		

### Unit Performance Measures

<i>Overall Unit Performance</i> <i>Measure Source: District Manager</i> <i>Item Source: adapted from Oliver and Anderson, 1994</i>				
	<i>Item</i>	<i>Loading</i>	<i>Reliability</i>	<i>Average Variance Extracted</i>
<i>Unit Performance</i>	How is this unit's customer service performance	0.83	0.908	0.858
	How is this unit's effort toward customers, as compared with your other units?	0.879		
	How is this unit's effort in increasing revenue, as compared with your other units?	0.879		
	How is this unit's overall effort as compared with your other restaurant units?	0.845		

<i>Unit Financial Performance</i> <i>Measure Source: Manager</i> <i>Item Source: One-item measures for this study</i>				
<i>Revenue</i>	How would you evaluate your sales volume?	NA	NA	NA
<i>Labor Costs</i>	How would you evaluate the labor costs in your unit?			
<i>Food Costs</i>	How would you evaluate the food costs in your unit?			

### Customer Measures

<i>Customer Satisfaction</i> <i>Measure Source: Customers</i> <i>Item Source: Stafford, 1996</i> <i>Semantic Differential with Stem: How do you feel about this Larry's Diner?</i>				
	<i>Item</i>	<i>Loading</i>	<i>Reliability</i>	<i>Average Variance Extracted</i>
<i>Customer Satisfaction</i>	Bad (1) - Good (7)	0.914	0.952	0.925
	Unfavorable (1) - Favorable (7)	0.888		
	Negative (1) - Positive (7)	0.973		

<i>Customer Intention to Return</i> <i>Measure Source: Customer</i> <i>Item Source: Oliver et al., 1997</i> <i>Semantic Differential with Stem: How likely are you to return to this Larry's Diner?</i>				
	<i>Item</i>	<i>Loading</i>	<i>Reliability</i>	<i>Average Variance Extracted</i>
<i>Intent to Return</i>	No Chance (1) - Sure to (7)	0.951	0.970	0.943
	Unlikely (1) - Likely (7)	0.923		
	Certainly Won't (1) - Certainly Will (7)	0.951		
	Impossible (1) - Probable (7)	0.945		

<i>Customer Evaluation of Service Quality</i> <i>Measure Source: Customer</i> <i>Item Source: Spreng and Mackoy, 1996</i> <i>Semantic Differential with Stem: How is the overall service in this Larry's Diner?</i>				
	<i>Item</i>	<i>Loading</i>	<i>Reliability</i>	<i>Average Variance Extracted</i>
<i>Service Quality</i>	Very Poor (1) - Very Good (7)	0.938	0.960	0.949
	Awful (1) - Excellent (7)	0.955		
	Very Low (1) - Very High (7)	0.953		

## VITA

Lynn Murray was born in Shawnee Mission, Kansas, on October 14, 1964. She attended Pittsburg State University, Pittsburg, Kansas, and earned a Bachelor's of Business Administration in Marketing (1988) and a Master's of Business Administration (2001). In August of 2007, she earned a Ph.D in Marketing from the University of Missouri-Columbia. She returned to Pittsburg State University, joining the Faculty of the College of Business in August, 2007.

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