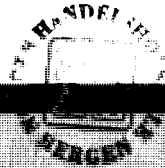




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*Norwegian School of Economics  
and Business Administration*



**The role of organization  
Culture in service operation:  
Effects on Customer Satisfaction and  
Employees' Affective Outcomes**

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Dissertation submitted to the Department of Strategy and Management  
at the Norwegian School of Economics and Business Administration  
in partial fulfilment of requirements for the degree of Dr. Oecon.

**March 1999**

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## ABSTRACT

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This work has been designed to investigate factors related to customer satisfaction in the service industry. A common assertion in the services marketing and management literature has been that organizational culture is important to service operation and quality. It is assumed that culture will influence employee behavior when they interact with customers and thus be related to customer satisfaction. Part of this research examines this alleged relationship by theoretical and empirical means. The "competing values" conceptualization of organizational culture was chosen for the empirical analysis. It comprises four value dimensions: hierarchy values, ad hoc values, market values and clan values, and was included together with customer satisfaction measures in a cross-sectional study within the hotel industry. Findings show that cultural values explain a fair amount of customer satisfaction. The values are not uniformly related to customer satisfaction, implying that a "strong" culture comprising all the competing values is not necessarily associated with more satisfied customers than other cultural configurations.

A second aim of this research was to investigate the relationship between employees' perception of cultural values in their organization and their affective response to the organization. Findings indicate that perceptions of culture are relatively closely associated with affective response to the organization, but values that are associated with positive employee affect are not necessarily the same that are related to customer satisfaction and vice versa.

A third aim of the study was to apply Multilevel Structural Equation Modeling (MSEM) to the study of organizational culture and culture perceptions. This allows for the simultaneous estimation of the employee level model and the customer satisfaction model and opens new avenues for studies of organizational aspects that are based upon employees' perceptions (e.g., culture, climate, market orientation). MSEM proved to be an adequate tool for this analysis.

---

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---

Some activities demand more interest, devotion and enthusiasm from man than others. So it seems to be with finishing a Ph.D dissertation. Seldom is one man *alone* so driven, knowledgeable and possessed, as to finish that undertaking by himself. I am not one of those persons. Sometimes my motivation has dwindled, sometimes my self-confidence has gone on vacation and at times I seemed to lack the skills needed to go further. Getting through would have been impossible without the support and encouragement from a number of people at the Department of Strategy and Management, NHH.

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This dissertation is dedicated to my children, Kristina and Jonas

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# 1. INTRODUCTION

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The objective of this study is to examine the relationship between organizational culture and customer satisfaction. The service management literature suggests that traditional employee governance structures based upon behavior and outcome control are not feasible for those parts of service delivery that consist of customer - employee *interactions*. An alternative governance structure suggested in the literature has been governance by values (i.e., organizational culture). However, there are only a few theoretical and quantitative empirical contributions that have thoroughly addressed the organizational culture / service satisfaction and quality issues. One reason for the dearth of empirical literature may be the practical difficulty in properly analyzing organizational phenomena that are aggregated in a body of individual employees (e.g., organizational culture). Recent methodological advances have however allowed for applications of multilevel structural equation modeling in these areas.

This dissertation is intended to capitalize on these methodological advances to further the insight into organizational culture and its effects.

## 1.1 BACKGROUND

Success in service operations has for millennia been dependent on an ability to identify factors that influence service personnel performance in interaction with customers, as well as a deeper understanding of how service personnel performance is related to customer satisfaction. As the total production in developed economies to a large extent has changed from the production of goods to the production of services, mastering service satisfaction and quality has become paramount for a majority of companies. For a brief period this has been of interest to labor unions, and for an even shorter period it has caught the attention of personnel management and marketing and service industry researchers. In the service industry, the interest mainly stems from a desire to improve performance, to achieve customer loyalty and a competitive advantage in the marketplace. Labor unions are interested because they want to avoid employment practices which are unfavorable to employees. Researchers are to a large extent driven by theory building and a universal desire for understanding phenomena, but also by a wish to be able to effectively advise the service industry and labor unions.

Marketing principles and thought has proliferated into non-profit organizations and the public sector. Over the last decades, public sector operations and services have also opened to competition, leading to a steadily growing interest in understanding service quality and customer satisfaction.

In the fields of organization theory, organizational psychology and human resource management, there has been a long research tradition in how to structure the organization (i.e. how to divide the work process among organizational units and individual employees and on how to get people to do what is required to reach organizational goals). The literature is now rich in both descriptive and normative models in these areas, many of which are contingency theories that specify different designs for different environments and tasks, making some applicable to service production and service delivery.

The production management oriented literature has for a long period been concerned with product quality and effective quality management. This literature has often been interdisciplinary, and has to some extent been concerned with generating check lists for operating procedures that will ensure "good quality". Total Quality Management (TQM) and

Total Quality Learning (TQL) have become standard catch phrases for normative models within this field, and the spread of the ISO 9000 standards and implementation of those in different industries illustrate the wide dissemination of these thoughts.

Consumer satisfaction has for several decades been a major area of analysis in the marketing literature. Large numbers of descriptive models are available, and there is a growing understanding of context and individual level factors that affect how customers form total evaluations or overall satisfaction ratings based on experience of different product attributes. This literature has also come a long way in identifying methodologies for investigating satisfaction and product quality as well as identifying factors that determine quality and satisfaction.

However, there seems to be one deficiency in this literature. The organization/production literature has assumed that appropriate actions to achieve quality and customer satisfaction are known, and effort has been concentrated on developing means for managing towards goals deduced from this knowledge. On the other hand, marketing has, to a large extent, concentrated on satisfaction alone without looking into the production of product and service attributes. In the service industry however, production and consumption occur *simultaneously*, and the customer is part of the production process, implying that a full understanding can not be gained by studying production and consumption as separate entities. Factors that influence production must be related to the customers' experienced satisfaction and product quality. This problem has formerly received little attention in the literature, and very few empirical investigations have been conducted.

In the service management and service marketing fields, there has, however, been a growing awareness of the need to identify factors that influence personnel performance in interaction with customers and understanding how personnel interaction performance influences customer satisfaction. So far there has been largely anecdotal evidence to guide researchers and practitioners (for notable exceptions, see Hartline and Ferrell 1996). This study is designed to fill some empirical evidence into that gap: Traditional and trusted management techniques which are behavior based (e.g., rules) and outcome based (e.g., goals) often become impracticable in service deliveries. Measurement of goal achievement is difficult because the measurement of the real content of interactions will often be destructive to the interaction itself. *Operational* rules may also be difficult to develop because customers have different needs and wants, as well as different expectations and preferences to the interaction itself.



Specified rules for the interaction would thus either have to be too complex to handle an adequate number of customer contingencies, or too simple to meet the needs of a large number of customers. One thus has to realize that the employee is on his or her own in the interaction, and has to adjust to customer needs on a number of important dimensions without operational rules or goals to guide them, with their own values as the most important guiding factor. In a number of service deliveries one thus has to rely on management *by values*.

Seldom does customer satisfaction with services rely solely on the performance of individual employees. Satisfaction and quality over time will normally be dependent on several employees which make the *shared values* or *organizational culture* of the service provider a potential key concept in understanding service satisfaction. Therefore, this dissertation explores the relationship between organizational culture and customer service satisfaction. Our objective is to investigate the importance of organizational culture as an organizational social control system for service deliveries.

## 1.2 ORGANIZATION OF DISSERTATION

Chapter 2, 3, 4 and 5 are devoted to a theoretical discussion and the development of hypotheses. A summary of the hypotheses is presented in chapter 5. The methodology and research design are presented in chapter 6 whilst chapters 7, 8 and 9 include analysis and discussion.

Chapter 2 develops the theoretical and practical arguments for the importance of organizational culture to service management, while chapter 3 is devoted to conceptual evaluation of organizational culture and satisfaction, and the relationship between these constructs at the organizational level. An introduction to individual level culture effects is also included. Chapter 4 contains a discussion of the methodological issues involved in culture measurement, while chapter 5 contains a presentation of the final model for the study and the hypotheses guiding the research. Chapter 6 addresses general design considerations as well as measurement and sample discussions and planning. A description of the final sample is also included. Chapter 7 describes the collected data and measurement scale refinement and validation based on standard multivariate techniques as well as structural equation modeling (LISREL; Jøreskog and Sörbom 1993). Chapter 8 describes the results of the hypotheses testing partly based upon multilevel structural equation modeling (Muthén 1994). Chapter 9

contains a discussion of the results from the study and suggestions regarding managerial implications and future research.



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## **2. BASIC CONCEPTS AND PARADIGMS**

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The preceding chapter introduced the culture - customer satisfaction theme of this dissertation. Here we shall further develop the rationale for the study. Culture and customer satisfaction studies belong to the greater family of culture and performance studies that we shall introduce first. Then the importance of customer satisfaction to performance will be outlined followed by a discussion of the unique aspects of services, and the role of culture in service production and deliveries. Finally we shall pose the research questions addressed in our study. First we shall however briefly define the culture concept.

## 2.1 ORGANIZATIONAL CULTURE AND PERFORMANCE

The number of available definitions of organizational culture is very large (Reichers and Schneider 1990; O'Reilly and Chatman 1996), and there is no commonly agreed upon definition. This implies that the study of culture involves a number of definitional, measurement, and theoretical problems which we shall return to in chapter three. We do however need a temporary definition of culture as a basis for our development of the argument for the importance of culture in service management, and we suggest that organizational culture may be defined as a system of shared values and norms for organizational members (O'Reilly and Chatman 1996). The conceptual richness (and perhaps vagueness) of the concept does not seem to have dampened the interest for investigations of organizational culture. O'Reilly and Chatman (1996) suggest that few concepts of the past decade have captured the attention of scholars and practitioners as that of *organizational culture*. There has been an outpouring of scholarly books (e.g., Frost et al. 1991; Hofstede 1981; Czarniawska-Joerges 1992; Ott 1989; Schein 1992; Pettigrew 1990; Gist et al. 1989), popular books (e.g., Deal and Kennedy 1982; Kotter and Heskett 1992; Lessem 1990), special issues of scientific and management journals (e.g., Administrative Science Quarterly, 1983; Human Resource Management, 1993), issues in annual series (e.g., Research in Organizational Change and Development), as well as continual references to the importance of corporate culture in the business press. The topic has been addressed by psychologists (Pettigrew 1990), sociologists (e.g., Swindler 1986), organization theorists (e.g., Harrison and Carroll 1991), strategy researchers (e.g., Barney 1986), management consultants (Pascale 1985), anthropologists (e.g., Van Maanen and Barley 1984), and even economists are now addressing the subject (e.g., Kreps 1986). What accounts for this broad-based interest?

The most rational reason for studying organizational culture is the presumed relationship between organizational culture and performance. Part of this interest may arise because "...its managerial implications can be readily developed, easily communicated, and illustrated by vivid anecdotes" (Langan-Fox and Tan 1997). The concept of effectiveness, just as the culture concept, does however present a challenging set of problems. The multidimensional nature of the concept requires that effectiveness be defined by a complex of stakeholders, who may hold differing, incompatible, and changing criteria (Denison and Mishra 1995). The criteria

employed in the literature include, among others, indices of service at hospitals (Argote 1982), the amount of money raised for a fund-raising campaign (Rousseau 1990b), new product development (Moonman 1995), interfirm relationship development (Williams and Attaway 1996), advanced manufacturing technology adoption (Zammuto and O'Connor 1992), customer orientation and innovativeness (Deshpandé et al. 1993), employee retention (Sheridan 1992) as well as a combination of other economic performance data (Peters and Waterman 1982; Kotter and Heskett 1992; Denison 1984; Denison 1990). Studies also vary in terms of the use of longitudinal (e.g. Denison 1984) and cross-sectional data (Rousseau 1990), as well as between qualitative (Quick 1992), and quantitative studies (Denison 1984). In recognition of the difficulties involved in these studies, some researchers have even called for a moratorium on empirical research on effectiveness, suggesting that inquiries be limited to single outcome studies (Goodman et al. 1983).

Joining the two concepts of culture and effectiveness thus defines research questions which are important, but often problematic. Consequently, there is also a dearth of empirical research on culture and effectiveness, and findings are equivocal (Denison 1990; Denison and Mishra 1995; Pettigrew 1979; Pettigrew 1990; Siehl and Martin 1990; Lim 1995)<sup>1</sup>.

The empirical literature on organizational culture and effectiveness can, according to Denison & Mishra (1995), be traced back to early studies of culture and adaptation (Weber 1930, Buckley 1967), and to the work of classic organizational theorists such as Likert (1961), Burns & Stalker (1961), or Lawrence and Lorsch (1967). More recently, Wilkins & Ouchi (1983) discussed the concept of clan organization and explored the hypothetical conditions under which a clan organization would be a more efficient organizational form. Peters and Waterman (1982) built a "theory" of excellence that has caused much debate (e.g., Van de Ven 1983).

One of the first quantitative studies examining the relationship between culture and performance was conducted by Denison (1984), who collected data on 34 American firms over a five-year period. He found work organization and participation in decision making to be positively related to both current and future return on investment and sales. Gordon (1985) found high and low performing companies in banking and utilities industries had different

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<sup>1</sup> The main argument is not that there has been *no* quantitative culture analysis, but that the ratio of quantitative to conceptual/qualitative work is low (Rousseau 1990a).

culture profiles. Hansen and Wernerfelt (1989) contrasted the effects of internal organization and market position on performance. They found internal organization factors to be stronger predictors than market position, and that the two predictors were largely unrelated. A French study of managerial values and practices also identified a set of cultural values and practices associated with the growth patterns of five firms (Calori and Sarnin 1991). In an application to health care, Argote (1982) found a positive relationship between norms and performance indicators in 44 hospital emergency units. Rousseau (1990b) examined the normative beliefs of 32 voluntary service organizations, and found no significant positive correlation between the beliefs measured and the outcome data. Sheridan (1992) found employee retention to be positively related to organizational culture values. Denison and Mishra (1995) found cultural traits to be related to perceptions of performance as well as objective measures such as return on assets and sales growth.

The inconclusiveness of quantitative findings is also evident in qualitative studies. As for quantitative studies, there are a number of methodological problems and problems of intervening variables. In a review of four case studies, Lim (1995) found that the findings do not point clearly to the presence of a positive relationship between culture and organizational performance, but the studies lack generalizability, and would need to be replicated before they can be accepted as either corroborating or refuting the culture-performance link.

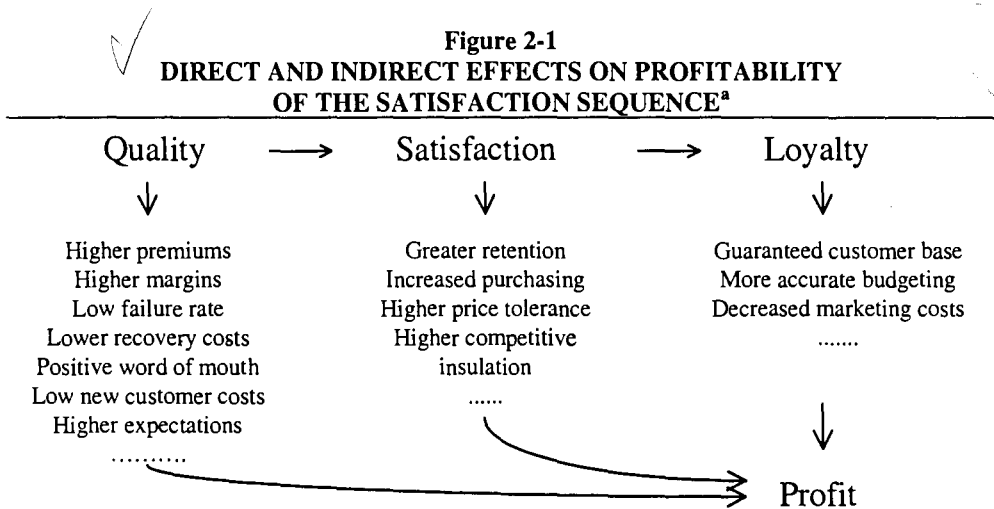
The few positive findings reviewed above do at best show weak correlational evidence of the culture-effectiveness relationship, which led Lim (1995) in HIS review to state that: "the present examination does not seem to indicate a relationship between culture and the short term performance of organizations, much less to show a causal relationship between culture and performance" (p. 20). He admits that some evidence indicates a correlation between "adaptive" cultures and long-term performance, but for lack of additional corroborative evidence and lack of control of the influence of other factors, he suggests that it is a tentative conclusion. In the absence of more rigorous and conclusive findings, he suggests that the most important contribution of culture towards the understanding of organizations "... appears to be as a descriptive and explanatory tool rather than a predictive one" (p. 21).

We thus may conclude that despite the popularity of culture as a means of promoting high performance (cf. Deal and Kennedy 1982; Peters and Waterman 1982), little systematic research (i.e., cross-sectional, standardized measurement) exist on the link between culture or

related concepts of values and normative beliefs and either *organizational* performance or *individual* member responses.

## 2.2 THE IMPORTANCE OF CUSTOMER SATISFACTION TO PERFORMANCE.

A number of authors have proposed compelling arguments and presented data strongly supporting the links that translate satisfaction to profits (Oliver 1997; Fornell 1992; Reichheld and Sasser 1990; Anderson, Fornell, and Lehmann 1994). Oliver (1997), however points out that most are *ceteris paribus* arguments that examine the satisfaction-profitability link in isolation. He suggests that the profitability sequence has four stages with direct as well as indirect effects as depicted in Figure 2-1.



Quality leads to satisfaction, which again leads to loyalty, and all of them lead to profit in relationships that are well researched (for a review see Oliver 1997).

Perhaps the simplest metaphor for the importance of satisfaction and quality is the “bucket of customers with a leak in it” (Rust et al. 1994). The leak represents the exit of current customers who loose interest in the product or leave because of dissatisfaction. Generating new customers, either from competitors or from new customers of the product class, represents new customer volume flowing into the bucket. Gaining new customers in saturated markets is by no means easy (Fornell 1992), and the obvious alternative strategy is customer



retention. A company has two options for plugging the leak (Fornell 1992). First, it can erect leaving or switching barriers like frequent-flier or other loyalty programs aimed at maintaining brand repatronage despite occasional dissatisfactory performance. The second option is radically different. Here the company can create satisfaction and then loyalty so that the consumer does not wish to leave. The erection of exit barriers is not an advisable strategy (Oliver 1997), and our concern is with the latter approach. According to this argument, customers are retained and prevented from leaking through product quality. Quality or satisfaction management are thus crucial to service management. We shall shortly return to service satisfaction management, and the distinguishing factors of services that make service management different from product management. First we shall, however, link culture to satisfaction and performance.

### 2.3 CULTURE, SATISFACTION AND PERFORMANCE

Although our literature review of the relationship between culture and performance showed that there were few positive findings, some recent research does however suggest that the culture-performance link exists (Kotter and Heskett 1992; Yeung et al. 1991; Moorman 1995). The mechanism by which organizational culture is linked to performance is perhaps most simply illustrated by Kotter and Heskett (1992) who hypothesize that strong culture firms will perform better over the long term. They argue that the presence of a strong culture, which they define in terms of the *values and norms shared among members of the organization*, should be associated with higher goal alignment among organizational members, promote an unusual level of motivation among employees, and provide needed controls without the stifling effects of a bureaucracy. They suggest that there are two cause-effect chains for culture - performance: 1) Culture provides control and structure without bureaucracy, and 2) a strong culture may create an unusual level of motivation: Shared values and behaviors make people feel good about working for the firm. Work may become intrinsically rewarding when lack of excessive formal control allows people to get involved in decision making.

In their study, Kotter and Heskett (1992) found strong associations between firm culture strength and performance, but only when the strong culture was also strategically appropriate and characterized by norms that permitted the culture to change. They conclude that "...even contextually or strategically appropriate cultures will not promote excellent performance over

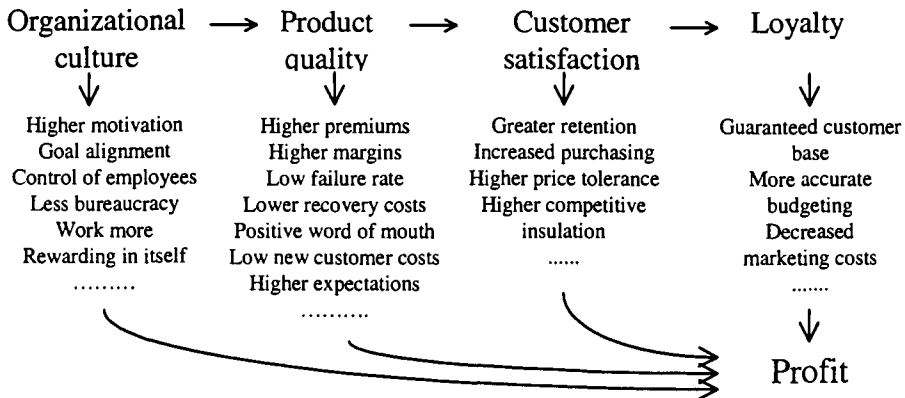
long periods unless they contain norms and values that help firms adapt to a changing environment” (p. 142).

Oliver’s (1997) critique of the customer satisfaction - company profit relationship studies as being by and large *ceteris paribus* and studying the relationship in isolation, can be extended to the organizational culture - performance or profit relationship, which also to a small extent have been concerned with the sequence of effects that leads from culture to performance and profit. We do suggest that Oliver’s (1997) model can be extended to include organizational culture so that the culture - performance relationship is explained (Figure 2-2). Culture manifests itself in the production of products and services, and will influence profit and performance *directly* through lower production costs due to lower cost of control and higher employee motivation, and *indirectly* through the product quality - satisfaction - loyalty link.

The culture - profit relationship quite obviously is not as simple as Figure 2-2 seems to imply. (For a more thorough discussion, see for example Troye 1996). The point we try to illustrate is the importance of organizational culture to performance and profits. The figure also highlights the close relationship of culture to quality.

In this section we have established the importance of organizational culture to customer satisfaction. In the following sections we shall develop an argument for a special importance of organizational culture in services production and customer satisfaction. First we shall examine the uniqueness of services.

**Figure 2-2**  
**THE CULTURE - PROFIT RELATIONSHIP<sup>a</sup>**



<sup>a</sup> Based on Oliver 1997

## 2.4 THE UNIQUENESS OF SERVICES AND THE MANAGEMENT CHALLENGES INVOLVED.

A substantial part of the services marketing literature has been concerned with the ways in which services differ from goods, and the implications of the differences for the production and marketing of services (Bowen and Schneider 1988). In this section we shall look closer at the service - goods dichotomy and introduce the service-related satisfaction management problems that we shall develop further in the next section.

A number of authors have suggested *dimensions* along which goods differ from services (e.g., Shostack 1977; Arndt 1982; Parasuraman et al. 1985; Schneider and Bowen 1984). The following three defining characteristics are among the most used: intangibility, simultaneous production and consumption, and the involvement of the consumer in production and delivery of the service (Bowen and Schneider 1988). These dimensions are thought to classify a product along a "serviceness" to "goodness" continuum.

Intangibility. Whereas products are tangible objects that exist in both time and space, services consist of acts or processes and exist in time only (Berry 1980). Services are experiences that

are rendered; goods are objects that are possessed. Services can not be possessed; they can only be experienced, created, or participated in (Shostack 1977).

Simultaneous production and consumption. Goods tend to be produced, inventoried, sold, then consumed; services are usually sold first, then produced and consumed simultaneously because they cannot be inventoried (Berry 1980). In services there typically are no middlemen or intermediate distribution linkages between production and consumption. Consequently, service operations frequently involve direct face-to-face interactions between the customer/client and producer/employee to complete the transaction (Czepiel et al. 1983; Bowen and Schneider 1988); the service provider is often physically present when consumption takes place (Berry 1980).

Customer participation. Service operations depend upon the customer to provide the information that is the raw material to be transformed to service output, as well as making use of the client's efforts in the transformation process (Mills and Moberg 1982). The participatory role of customers in the service production process is the rationale for labeling customers as "partial employees" of the service organization (e.g., Bowen and Schneider 1985), and customers can serve either as co-producers with the service employee or as sole-producer in the case of self-service alternatives (Bowen and Jones 1986).

On the buyer side, the service literature has highlighted that product offerings are not simply consumed after the buyer has participated in the production of the product, but can more properly be conceived of as inputs into a continued production process also after being purchased (Levitt 1972; Lovelock 1991; Zeithaml et al. 1985; Toffler 1980). This realization changes the view of the buyer, to that of a "prosumer" (Toffler 1980), who both produces and consumes his experiences. What the buyer obtains is not simply a physical product of identifiable, tangible properties, but a prosumption experience. Alternatively, it can be argued that products are merely "frozen potential for performance," and that consumers "choose products but consume performances" (Deighton 1992 p. 362). This emphasis on prosumption processes also tend to "intangibilize" any product. The satisfaction with gym facilities, tennis courts and other facilities are the result of an "interaction" between the customer and the physical facilities in very much the same way as it takes the customer to interact with the service provider to experience "friendliness." The quality and satisfaction resides in the experience, not in the thing that provides the service (Troye et al. 1994a; Troye 1996).

A major implication of intangibility, simultaneous production and consumption, and customer participation concerns the role of employees in the production and marketing of the services. How the services are delivered (and produced when production and consumption occurs simultaneously) becomes critical in the consumers' evaluation of the service (Czepiel et al. 1985). Given that service is delivered is frequently dependent upon an employee, service marketers have made the role of the service deliverer a central figure (Venkatesan et al. 1986). Service management and marketing then, to a large extent, become the management of contact employees.

Although there seem to be widespread agreement on dimensions where products may differ from services, the process of *classifying* an offering as a good or service has been less than satisfactory (Breivik 1995). One approach to the classification of products along the goods - service continuum has been empirical (e.g., Iacobucci 1992), in which *respondents* classify goods and services either by themselves or aided by classification criteria supplied by the researcher. The resulting classification according to "serviceness" levels then serves as a pool for selecting products to include in, for example, goods - products comparative studies. In the other approach, the researcher selects services and goods based on a more or less ad hoc evaluation of whether a product is a good or a service. Both approaches render classifications that are ad hoc and have little to no external validity.

This has led several authors to be critical of the service - good typology of products (Murphy and Enis 1986; Troye and Wilcox 1989a; Troye and Wilcox 1989b; Troye 1990; Breivik 1995). They have been less than comfortable with goods and services as mutually exclusive offering classes, and propose that an offering can simultaneously contain elements of goods *and* services. Furthermore, they have suggested that marketing classifications should be based on consumption experiences. Troye (Troye and Wilcox 1989a; Troye 1990) has proposed a classification schemata especially intended for service provider decision making in the intersection between marketing and satisfaction/quality management which tries to remedy some of the shortcomings of the classifications above. Consistent with Levitt (1991), Troye has recognized that most offerings contain elements of both goods and service, and instead of classifying products as either a good *or* service, he suggests four consumption experience-related product elements that may all be present in varying degrees in each product; *interaction elements* where the customer interacts with employees to co-produce the service (Bowen and Jones 1986), which are easily customized; *structural elements* that the customer

passively experiences, which are not customized; *back stage* elements that are produced for the customer without customer participation, and finally *prosumption elements* where the customer sole-produces (Bowen and Jones 1986) and consumes the service without the provider ever being present. The model is not intended for classifying product offerings as *either* belonging to one *or* the other element, the assumption is that any offering, whether good or service, may contain varying amounts of all the elements, which makes it viable to use *product* as a general term encompassing any delivery from a pure good to a pure service and anything in between. In the rest of this dissertation, we shall use product and service interchangeably, referring to any product element configuration.

The product element model also links *production factors* to consumption experiences, a fact that makes it especially suited for service satisfaction and quality management applications. The importance of *personnel* in service deliveries and product quality is especially highlighted: Employees are argued to affect deliveries directly and indirectly. Directly, employees produce backstage elements and enter into interaction with customers, together co-producing interaction elements. Indirectly they may facilitate the customers' evaluation of structural elements by, for example, highlighting beneficial aspects, and de-emphasizing less favorable elements, and they may provide instructions, scripts, recipes, etc. for the customer's sole-production, thereby decreasing the chance for failure and dissatisfaction (Troye 1990; Troye 1996).

The interaction product elements have all the characteristics of services. They are intangible, and the customer is involved in the production, and production and consumption occur simultaneously. The special management problems involved in satisfaction management of these elements will be discussed further in the next section.

## 2.5 SERVICE DESIGN AND DELIVERY: THE ROLE OF CULTURE

In interpersonal relationships, a major task for the service company is to secure the mutual coordination of appropriate behavior of the employee vis-à-vis the other person. (Thibaut and Kelley 1959). Because selling and other service delivery interaction with the customer is a relatively entrepreneurial and unstructured function, management must decide to what degree it will gain and exert control over employees versus delegate authority, allowing them

discretion (Kelley 1993), and holding them accountable for the results of their actions (Oliver and Anderson 1994).

According to Anderson and Oliver (1987), traditional control and governance systems of organizations are designed to monitor, direct, evaluate and compensate employees in the performance of their job-related tasks (Anderson and Oliver 1987). Typically, formal control systems can monitor performance outcomes or behavior, or both (e.g., Ouchi 1979). Outcome control is essentially a *laissez-faire* approach that assumes that employees are best able to determine their direction and level of effort, and that the customer service thus produced will achieve the firm's goals. Outcome-based control systems are not direct in providing employees with guidance as to the appropriateness of specific activities (Anderson & Oliver 1987), but leave that to the discretion of the employee.

In contrast, behavior control is, in some sense, a paternalistic approach whereby managers dictate that employees provide inputs considered by the manager to be appropriate to achieve the firm's goals. Behavior-based control systems focus on task performance during the process of service delivery, implying high levels of activity monitoring and managerial direction.

Behavior control is the philosophy of keeping the locus of control with the company, letting management guide the way employees carry out tasks, and shifting responsibility for outcomes from the employee interacting with the customer to the firm (Oliver and Anderson 1994). Behavior control is akin to Argote's (1982) programmed means of organizational coordination, in which the activities of organization members are dictated by plans, programs, and relationships specified in advance by the organization, namely rules and authority arrangements. Programmed means of coordination can be applied when activities can be specified in advance (Argote 1982).

The assumptions underlying the presumed effectiveness of formal control are that: (1) Calibrating extrinsic rewards (e.g., compensation, benefits) is possible and such rewards are sufficient and timely enough to direct job-relevant behavior; and (2) subordinates perceive organizational authority, or top-down influence as legitimate and worthy of compliance (O'Reilly and Chatman 1996), implying that behavior-based control systems are characterized by high levels of activity monitoring, a great deal of managerial discretion, and subjective evaluation of activities. Outcome-based control systems are characterized by low levels of monitoring, little managerial direction, and objective measures of the outcome achieved by

individuals. However, intangibility, simultaneous production and consumption, and customer participation introduce special employee management problems in service deliveries (Bowen and Schneider 1988), and may compromise formal control systems (O'Reilly and Chatman 1996). In this section we shall present those problems and suggest how organizational culture may be especially salient to service management.

*Intangibility* leads to difficulty in the development of specific valid output measures in service organizations (Ward 1973 in Bowen and Schneider 1988). There are limited objective reference points for assessing the value of intangible service elements; it is difficult to quantitatively measure output and service quality, and it is difficult to set specific goals for employees (Bowen and Schneider 1988), which again renders almost useless the use of goal-setting and output control to guide and control service employee behavior. *On the individual employee level, goal-setting research has shown consistently that to be effective, goals must be specific and challenging, and they must be accompanied by feedback, which involves output measurement and control* (Locke and Latham 1990b). Goals must comprise both quantity and quality (Bowen and Schneider 1988), but intangibility precludes *apriori* quality inspection (Arndt 1982), so that the only effective interaction quality definitions will have to be based on customer experience (Troye 1990). The measurement of customer reactions during interaction probably can be destructive to the interaction, and procurement of customer based quality data after interactions often is the only viable alternative. However, quality data gathered after the interaction may be more difficult to use as an input to calibrate extrinsic rewards in an attempt to shape employee behavior in complex customer - employee interactions. With post - interaction measurement, the output evaluation will often be too late to be relevant for job-related behavior.

Identifying and rewarding the most significant aspects of a job may be further obscured because more tangible tasks (e.g. production output) are often measured and sanctioned, due to ease of observation, while the less readily assessed tasks (interactions and customer dependent elements) often are ignored. For example, social workers have been found to be evaluated on the basis of the number and timeliness of their visits to clients and the correctness of their calculation of budgets rather than on the quality of their therapeutic casework service (Scott 1969, in O'Reilly and Chatman 1996). Numerous other examples exist that demonstrate the tendency to value a particular outcome but reward a different



behavior - which may preclude the fulfillment of an organization's objectives (O'Reilly and Chatman 1996).

An inherent problem of material rewards in management by goal systems is that they tend to build up employees' self-oriented interests as the basis for conforming to organizational values, rather than convincing them that these values are worthy of internalization in their own right (cf.: O'Reilly and Chatman 1996; Sandelands et al. 1991).

Therefore, it is probably safe to state that the more interaction-dependent the service delivery is, the more ambiguous is the employee performance, and the less feasible is output control.

Intangibility together with *customer participation* and *simultaneous production and consumption* also introduce uncertainty in service production (Larsson and Bowen 1989; O'Reilly and Chatman 1996; Bowen and Schneider 1988), thus complicating an a priori identification of customer needs and wants, and assessment of adequate employee behavior. The employee meets the customer and thus acquires salient information about customer attitudes and preferences that are not easily assessed in advance (Bowen and Schneider 1988). Behavior control strategies thus are less viable in service deliveries. Uncertainty involves the lack of predictability of client arrival, the services they may need, their propensity to participate, and the time they may take to exit the system. (Bowen and Bowers 1986). Uncertainty also derives from a lack of specific knowledge about what to do for different customers to effect customer satisfaction, since customers are heterogeneous and require unique services (Mills and Moberg 1982). The uncertainties and low predictability posed by customer participation and simultaneous production and consumption suggest that service systems with high customer contact are more difficult to control and standardize (Bowen and Schneider 1988).

A "governance by rules" system or bureaucracy (Ouchi 1980) operates fundamentally according to a system of hierarchical surveillance, evaluation and direction. Each superior must thus have a set of standards to which he can compare behavior or output in order to provide control. These standards only indicate the value of the output approximately, and are subject to idiosyncratic interpretation. Employees perceive them as equitable only as long as they believe that they contain a reasonable amount of performance information. When tasks become highly unique, completely integrated or ambiguous for other reasons, then governance by rules fails. It becomes impossible to evaluate externally the value added by any individual.

Any standard which is applicable will by definition be arbitrary and therefore inequitable (Ouchi 1980; O'Reilly and Chatman 1996). In service deliveries, tasks become customized and highly unique. Any governance by rules system that one tries to set up will suffer from not being able to handle the uncertainties involved in service production and the employees' subsequent perceived lack of legitimacy and unworthiness of compliance.

An additional effect of formal control systems is that they tend to signal that work is bad, because if it were good (fun, enjoyable or developmental), explicit rewards and rules would be unnecessary, and employees would spontaneously behave and perform appropriately. Research has shown that the mere labeling of a task as work causes people to spend less time performing the task, and report less enjoyment while they are involved in the task compared to the same task called a leisure pastime (Sandelands 1988). This effect probably is related to findings that it is not clear that people are as motivated by extrinsic rewards as they are by feedback that highlights the intrinsic value of a task (O'Reilly and Chatman 1996). Intrinsic motivation has been conceptualized as the need for a sense of competence and personal determination derived from individuals' motivation to be originators of their own behavior rather than pawns to external forces (Deci and Ryan 1980). If people believe that tasks are performed exclusively "for the money" they may attribute their behavior to external causes. Intrinsic motivation has been shown to be enhancing creativity (Cordova & Lepper 1991 in O'Reilly & Chatman 1996), and that creativity declines when it is extrinsically rewarded (Amabile et al. 1986).

The conclusion is that formal control systems have limited applicability in guiding employees in their task performance, as well as in motivating employees and securing the company's control over employee performance (O'Reilly and Chatman 1996). The intangibility of service output makes it difficult to establish the performance measures needed to validate employee performance. Simultaneity of production and consumption together with customer participation makes it impossible for service management to specify in advance appropriate employee responses to the unpredictable, diverse range of customer demands that may arise in the service encounter (Chase and Bowen 1989).

If formal governance systems to a large extent fail in service deliveries, either because output measurement is ambiguous or because uncertainty makes *a priori* rules specification unfeasible, then the employee is left essentially alone in his customer interactions (Chase and Bowen 1989), and the employer has no alternative but to *trust* the employee not to act

opportunistically, but to the benefit of the company. Zucker (1986) suggests that one important way trust develops is through social similarity or similarity of norms and values (Bradach and Eccles 1989). When formal governance systems fail, the alternative is informal governance, or social control through norms and values (Jones 1983; Ouchi 1980; O'Reilly and Chatman 1996; Bowen and Schneider 1988; Chase and Bowen 1989).

*Organization culture* operates as a form of social control when members of a group or an organization share expectations about values, or what is important, and how these values are to be manifest in norms, that is, in words and action (O'Reilly and Chatman 1996). Then culture influences action by providing the values toward which action is oriented. In addition to providing each individual with values, the organizational culture may also have more immediate behavioral effects through direct social control of behavior (O'Reilly and Chatman 1996). When members agree and care about common, strongly held values, violations of norms that represent these values may be sanctioned by any member, regardless of his or her formal authority or position in the hierarchy. Culture thus may be shaping a repertoire or «tool kit» of habits, skills, and styles from which people construct «strategies of action» (Swindler 1986).

To the extent that norms emerge in all groups (Bettenhausen and Murnighan 1991), it is also true that social control systems operate in all organizations. The question is whether these norms are intensely held, whether they enhance commitment or not, and whether they are aligned with environmental demands, that is, whether they enhance organizational performance and permit adaptation to changing circumstances.

## 2.6 RESEARCH QUESTIONS

As has been demonstrated in the preceding sections, there have been a number of suggestions of the potential importance of organizational culture to service quality and customer satisfaction. The literature also quite clearly reveals that there have been few rigorous, comparative tests of the organizational culture - service satisfaction relationship. Therefore, in this investigation we try to answer the following research questions:

**2.6.1.1 1. Is organizational culture related to service satisfaction?**

Since organizational culture effects will have to be mediated through persons (employees), it is also important to evaluate the effects of organizational culture on employees (see for example Boxx et al. 1991). Our second question is:

**2.6.1.2 2. Are employees' organizational culture perceptions related to work-related affective outcomes?**

Our next chapter contains the theoretical discussion of the concepts and relationships involved in the study while a theoretical model and hypotheses are developed in chapter 5. Methodological problems in organizational culture studies are discussed in chapter 4.



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## **3. CONCEPTUAL LITERATURE**

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In this chapter we shall present the major concepts in our theories on organizational culture and its effects. First we shall briefly introduce the general culture concept and then advance to a discussion of organizational culture. The subsequent section is devoted to customer satisfaction while the last part is devoted to a discussion of variables that can interact with culture's effects on satisfaction.

### 3.1 INTRODUCTION: WHAT IS CULTURE?

Berry (1979) relates culture to the environment where people live. He defines an ecology as consisting of the objects, the resources and the geography of the environment, as well as the ways one can make a living and survive. He suggests that ecology shapes the cultures that emerges in it, and in turn, culture shapes particular kinds of behavior. A simplified way of thinking about culture, then, is to place it between ecology and social behavior, as follows:

Ecology → culture → social behavior

In the quest for environmental control, culture provides humans with beliefs, customs, myths, norms and values that give them a sense of control of the environment. Within this framework, culture can be conceived of as being to society what memory is to individuals (Kluckhohn 1968). Culture thus tells people what worked in the past, and makes it easy for humans to pick behavior that may work again in the present. Cultural development thus becomes similar to Darwinian evolution; people tried this and that, and passed what worked on to others. Elements of culture that have been effective, that is, resulted in satisfying solutions of everyday problems of existence, became shared and were transmitted to following generations (Triandis 1994).

Encyclopedia Britannica defines culture as: «the integrated pattern of human knowledge, belief and behaviour. Culture, thus defined, consists of language, ideas, beliefs, customs, taboos, codes, institutions, tools, techniques, works of art, rituals, ceremonies and other related components» (Encyclopdia Britannica 1998).

Over the years, social scientists and anthropologists have offered a number of other definitions of human culture, reflecting various schools of thought. Edward Burnett Tylor, in his *Primitive Culture* (1871) (cited in Britannica Online 1998), provided what has been termed the classic definition, according to which culture includes *all capabilities and habits acquired by man as a member of society*.

The history and usage of this «exceptionally complex term» (Williams 1981) however, starts with it as a noun of process, - the cultivation of crops or of animals, and by extension the cultivation of the human mind, and does today normally refer broadly to «the whole way of life» of a distinct people or other social group (Williams 1981). The number of definitions of

culture was staggering already in the early fifties (Krober and Kluckhohn 1952), and has been increased by a steady stream of new conceptualizations in the last half century.

Triandis (1994) tries to establish an overview of the myriad of definitions by suggesting that there are three aspects that almost all researchers see as characteristic of culture. First, culture emerges in adaptive interactions, second it consists of shared elements and thirdly, that it is transmitted across periods of time and generations. He eventually defines culture as *a set of human-made objective and subjective elements that in the past have increased the probability of survival and resulted in satisfactions for the participants in an ecological niche, and thus became shared among those who could communicate with each other because they had a common language and they lived in the same time and place* (Triandis 1994)

### 3.2 ORGANIZATIONAL CULTURE

Drawing on theories from anthropology, sociology and social psychology, researchers have made a number of attempts to understand the behavior of individuals and groups in organizations using cultural concepts such as semiotics, rituals, ceremonies, stories and language (e.g., Ouchi and Wilkins 1985; Smircich 1983; Swindler 1986; Trice and Beyer 1984). A fairly general definition would again be Triandis' (1994) definition cited above with "organization" substituted for "ecological niche".

The application of culture concepts to organizations has generated a series of debates over issues such as the definition of "culture," the appropriate methodology for investigating it and the proper level of analysis for its study (O'Reilly et al. 1991). Not surprisingly, this has been more or less the same debate that has been going on within the field of general cultural studies. In this study we shall not investigate the full breadth of the culture concept in detail, and we shall have to choose a narrow part of culture to relate to service satisfaction, but to put our study in perspective, we shall present a short overview of some of the main dimensions of organizational culture and some of the disputed points in the application of the culture concept in organization studies.

As part of this discussion is needed as a basis for our formal definition of organizational culture, our final definition will not be developed until section 3.2.3. Until then, we shall build on the paraphrase of Triandis' definition presented above.



The boundaries of a concept are formed by four notions: Intension, denotation, connotation and extension (Zaltman et al. 1973). Intension deals with the set of attributes and features belonging to the concept, that is what are the properties of culture? Our discussion of intensions of culture deals with two aspects: the domain of the concept and the propinquity to other related constructs.

Perhaps the most fundamental domain question in the study of organizational culture is whether it should be viewed as a *variable* or *root metaphor*, (i.e. as something an organization has or something it is). This question is discussed in section 3.2.1. The second intension aspect discussed is the *level of consciousness* where culture manifests itself: as behavior or artifacts at an observable level, as shared and espoused values, or as unconscious basic assumptions about how the world works (section 3.2.3). The next issue we raise deals with the relationship between individual members and the cultural whole, that is, the *strength* of the culture (section 3.2.5).

In section 3.2.6 we discern between organizational culture and two closely related concepts: climate and market orientation.

Because of the large domain of the culture concept, and the relative incoherence of the study of it, a unifying conceptualization is at present difficult (section 3.2.2). A number of authors, therefore, suggest that there is a continuing need for conceptual openness of the culture concept. We shall heed their warnings against premature closure, and reach conceptual clarity through deliberately choosing some aspects of the culture to include in our study. Section 3.2.8 deals with our choice of the competing values framework for cultural analysis.

The denotation of culture refers to what culture embodies. Who can have a culture? Is it an inherent characteristic of any organization or organization member or does it aggregate to departments, professions or other groups within or above the organization itself (e.g., industry, region etc.)? These questions are discussed in section 3.2.4.

The third concept boundary notion, connotation, is all the properties that are common to the elements of the connotation, that is, the overlap between denotation and intension. In the present literature, there are strong warnings against premature closure of the culture concept that would be inherent in a thorough evaluation of connotation (see section 3.2.2). Consequently, connotation properties go beyond the scope of this dissertation.

The fourth notion, extension, refers to which objects belong to the denotation, or what objects can have a culture. Again, the strong warnings of premature closure in much of the present literature, discourage a thorough discussion of extension properties. However, it is hardly possible to discuss *organizational* culture without reference to what organizational unit will have a culture. Extension aspects relating to the level of analysis and cultural homogeneity are discussed in section 3.2.4.

### 3.2.1 VARIABLE OR ROOT METAPHOR

Organizational culture can be studied within a “functionalist” perspective (Burrell and Morgan 1979), that is, as an attribute of the organization (Smircich 1983). It can be a dependent or independent variable of the study. Culture thus becomes something the organization *has*, and it may be related to other aspects of the organization’s internal functioning or its external relationships to its environment. This view promotes an examination of organizational cultures as systems of shared meanings, assumptions and underlying values (Schein 1992). The desired outcome of research into culture within this perspective is statements of contingent relationships that will have applicability for those trying to manage organizations. Underlying this interest is the search for predictable means for organizational control and improved means for organization management.

Alternatively, culture may serve as a root metaphor for conceptualizing the organization (Smircich 1983). Culture is thus viewed as something the organization *is*. This mode of thought adopts the idea of culture as an epistemological device to frame the study of organizations as a social phenomenon, that is as particular forms of human expressions. This social world is not assumed to have an objective, independent existence that imposes itself on human beings. Instead, the social or organizational world exists only as a pattern of symbolic relationships and meanings sustained through the continued process of human interaction (Smircich 1983). Organizations are then understood and analyzed in terms of their expressive, ideational and symbolic aspects. The research agenda within this perspective is to explore the phenomenon of organization as subjective experience and to investigate the patterns that make organized action possible. Geertz (1973) exemplifies this approach in his statement: “Believing with Max Weber, that man is an animal suspended in webs of significance he himself has spun, I take culture to be those webs, and the analysis of it to be not an experimental science in search of laws, but an interpretive one in search of meaning” (p. 5).

The definition implies that “thick description” (Geertz 1973), or the “native view” (ethnography) is the appropriate method for reaching the goal.

These fundamentally different approaches to the study of organizational culture have led to a number of disputes over definitions and appropriate research methodologies, for example the level of analysis, quantitative or qualitative studies, comparative versus case studies, to which we shall shortly return. The culture concept probably has not reached the developmental stage where a search for a universal, integrating definition will be fruitful. In fact, a number of authors suggest that the concept should be *kept open* (i.e. Hummel & Cook 1990).

### 3.2.2 KEEPING IT OPEN

Reichers and Schneider (1990) suggest that there are three phases in the development of a theoretical perspective:

- Introduction and development
- Evaluation and augmentation
- Consolidation and accommodation

If this model were applied to the field of organizational culture, it could be assumed that the phase of introduction was in the 1970s and elaboration in the 1980s. Since then, to judge by the books and papers that have emerged, there has been plenty of augmentation, but relatively little evaluation. Certainly, the phase of “consolidation and accommodation” has not yet arrived (Hawkins 1997). The culture concept has been borrowed into organization studies from anthropology, and the conceptual development probably has not proceeded far enough to warrant comprehensive evaluation at the time being. Instead, a number of authors warn against premature definitional closure of the concept (e.g., Denison 1996), and what Hawkins (1997) terms “taxonomitus”, a term that describes those addicted to taxonomies and dividing the world into fixed lists and models. As an alternative to conceptual simplicity, Hummel and Cook (1990) suggest that learning to capitalize on the differing perceptions rather than continuing to seek ways to resolve the differences will allow enhancement in the usefulness of the corporate culture concepts. They recommend that both practitioners and academicians be trained in general semantics to enable them to capitalize on culture awareness, development and change as tools to create a competitive edge.

Ott (1989) adds substantial arguments for the idea of not trying to develop a unifying definition. First, he maintains that organizational culture is a concept rather than a thing, implying that ultimate truths about it (the concept) cannot be found or discovered. There is no

final authoritative source or experiment to settle disagreements about what it is or what comprises it. Secondly, he suggests that how one looks at organizational culture largely determines what it is.

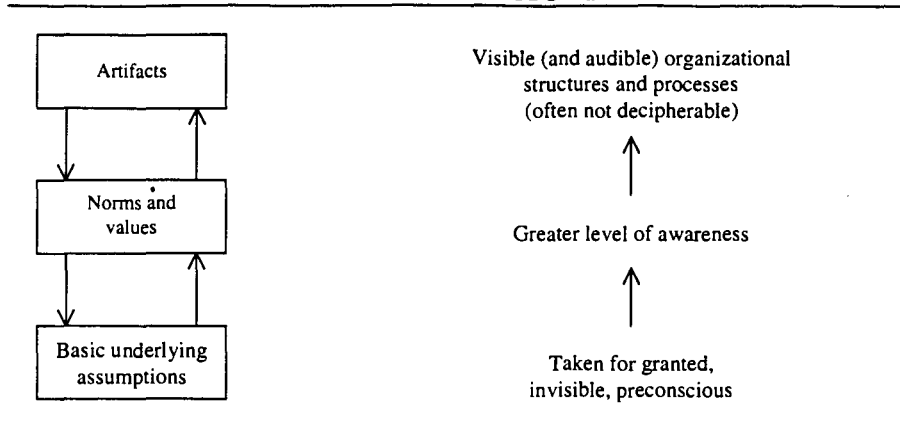
In this study we shall follow the advice against premature closure of the concept, and instead of looking for a universal definition of organizational culture, we shall *choose* a perspective to apply in our work. The first choice is that we view culture as an aspect of an organization, that is, as a variable amenable to comparative study. Like Rousseau (1990a), we acknowledge that some aspects of organizational culture may not be easily accessible, but maintain that certain dimensions of culture may be appropriately studied using quantitative methods, thus offering an opportunity to understand the systematic effects of culture on individual behavior (O'Reilly et al. 1991) that we seek in our effort to explain the organizational culture - customer satisfaction relationship.

### 3.2.3 LEVELS OF ORGANIZATIONAL CULTURE AND A DEFINITION

Ott (1989) in a review of fifty-eight different sources offering definitions of organizational culture identified seventy-three key words and phrases used to define the concept. This gives an impression of the breadth of the culture concept, and indicates that to get an impression of the content, some taxonomy of culture aspects is needed. Edgar H. Schein, in a number of writings, has conceptualized three level of organizational culture (e.g., Schein 1981; 1992): 1) basic underlying assumptions; 2) values and 3) artifacts as depicted in Figure 3-1. The levels refer to the extent to which the cultural phenomena are visible to the observer.

Artifacts include all the phenomena that one sees, hears and feels when one encounters a new organization (Schein 1992). Artifacts would include the visible products of the organization such as the architecture of its physical environment, its language, its technology and products, style embodied in clothing, manners of address, emotional displays, myths and stories told about the organization, the visible behavior of organizational members and so on. The most important point about this level of the culture is that it is easy to observe and difficult to decipher (Schein 1992). The observer can describe what she sees and feels but cannot reconstruct from that alone what those things mean in the given organization, or whether they even reflect important underlying assumptions. Schein argues that it would be especially dangerous to try to infer deeper assumptions from artifacts alone because one's interpretation will eventually be projections of one's own feelings and reactions.

**Figure 3-1**  
**LEVELS OF CULTURE**



<sup>a</sup> Adapted from Schein 1981.

On the other hand, Gagliardi (1990) argues that one's own response to physical artifacts such as buildings and office layouts can lead to the identification of major images and root metaphors that reflect the deepest levels of the culture. This would be especially true if the observer and organization she is deciphering belong to the same larger culture. If the organizational culture is different from the larger culture, the meaning of artifacts will gradually become clear to the observer only if she lives with the group long enough. If one wants to achieve this level of understanding more quickly, one may analyze the values, norms and rules that provide day-to-day operating principles by which members of the organization guide their behavior. We shall shortly return to values, but first we shall address a few comments on basic assumptions. Basic assumptions have become so taken for granted that one finds little variation within a cultural unit (Schein 1992). In fact, if a basic assumption is strongly held, organizational members will find behavior based on any other premise inconceivable. Basic assumptions, in this sense, are similar to what Argyris and Schön (1978) have identified as "theories-in-use:" the implicit assumptions that actually guide behavior, that tell group members how to perceive, think about, and feel about things. A well developed and integrated set of basic assumptions serve as a mental map (Schein 1992) that makes organizational members maximally comfortable with others that share the same set of assumptions and very uncomfortable and vulnerable in situations where different assumptions operate, either because we will not understand what is going on, or worse, misperceive and misinterpret the actions of others.

Basic assumptions are unconscious or preconscious, and thus difficult to assess directly. Any investigation probably will involve clinical research, action research or organization development (Schein 1992). Consequently, basic assumptions do not lend themselves readily to comparative studies.

On the other hand, culture research usually begins with a set of values and assumptions (Enz 1988; Schein 1992; Wiener 1988). These values typically act as the defining element of a culture, and norms, symbols, rituals and other cultural activities revolve around them (Enz 1988). Thus, Parsons argued that cultural tradition emerges around values defined as elements “of a shared symbolic system which serves as a criterion or standard for selection among the alternatives of orientation which are intrinsically open in a situation” (Parsons 1951 p 11-12). Rokeach offered a very similar definition, proposing that “a value is an enduring belief that a specific mode of conduct or end-state existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence” (Rokeach 1973 p 5). In this vein, basic values may be thought of as internalized normative beliefs that can guide behavior (O’Reilly et al. 1991). This implies that one way to assess culture quantitatively is to focus on the central values that may be important to an individual’s self-concept or identity as well as relevant to an organization’s central value system. Wiener (1988) suggested this perspective, noting that when a number of key or pivotal values concerning organization-related behaviors and state-of-affairs are shared across units and levels by members of an organization, an organizational culture or value system can be said to exist.

Values are important constructs for understanding and predicting the affective reactions and performance of *individuals* at work (Meglino et al. 1991). Such values typically act in two different ways. One is through their direct impact on employee perceptions, affect and behavior (cf. Locke 1976). Another is through their influence on various forms of affect through the mechanism of value congruence, that is, the tendency for individuals to express greater positive affect when they encounter others who exhibit values similar to theirs (Krober and Kluckhohn 1952; Meglino et al. 1991; O’Reilly et al. 1991).

Shared values form the basis of the organizational culture, and as such they influence behavioral artifacts of culture and provide the justification of those artifacts. In addition, the continued application of primary organizational values and beliefs leads to their integration into the deepest levels of culture, the underlying assumptions of the culture (Ott 1989; Schein 1992). As central elements of organizational culture, values are purported to play a central role

in an organization's ultimate success (Deal and Kennedy 1982; Kilman et al. 1985; Peters and Waterman 1982).

We thus perceive organizational culture as a *social control system* operating within groups and organizations. Culture as a social control system is based on shared norms and values that set expectations about appropriate attitudes and behavior for members of the group (O'Reilly and Chatman 1996). In our view, culture can be thought of as the normative order, operating through information and social influence, that guides and constrains the behavior of people in collectives. Consistent with other researchers (Kotter and Heskett 1992; Rousseau 1990a), we define organizational culture as:

*a system of shared values (that define what is important) and norms that define appropriate attitudes and behaviors for organizational members (how to feel and behave) (O'Reilly and Chatman 1996).*

To characterize an organization's culture in terms of its central values requires first that the range of relevant values be identified and then that an assessment be made of the intensity and consensus there is among organizational members about those values (Enz 1988; O'Reilly et al. 1991). We shall shortly return to a more thorough discussion of value dimensions (chapter 3.2.8), but first we shall address the questions of a) what entities can have (organizational) cultures, and b) how one can describe individual value dimensions and the cultural whole.

### 3.2.4 LEVEL OF ANALYSIS ISSUES: CULTURAL HOMOGENEITY - INTEGRATION, DIFFERENTIATION OR FRAGMENTATION?

In this section we shall briefly address the denotation of culture question. Namely what units can be said to have a culture? Then we shall delve more deeply into the strength of the culture or the cultural homogeneity and the question of whether the culture is integrated, differentiated or fragmented.

The «what units can have a culture» issue consists of two questions, the first is whether organizational culture is primarily and typically a characteristic of the total organization, or whether it is primarily a characteristic of groups or "subcultures" within the organization (Wilkins and Ouchi 1983). The second question addresses whether the organizational culture is part of a national, regional/geographic, or industry cultures that are background contexts for the organization and thus make cultural differences within such groups negligible (Gregory

1983). Does it make sense to talk about culture at the group, the organization or industry level (O'Reilly and Chatman 1996)?

A start of an answer to this question might be found in a study of three Navajo households in the Southwestern United States cited in Triandis (1994). 578 cultural elements were identified, of which only 154 were shared among two of the households, and only 13 were shared by all three. The rest were unique elements held by only one of the groups. A more superficial analysis would conclude that all groups were Navajos and belonged to the same culture. This example is not cited to imply that any group has a culture. To develop a *culture*, the group would also have to be established for long enough for the shared elements to develop through interaction and learning processes. But, depending on the detail of the study, culture may be a relevant concept for quite small groups.

An *organization* that survives in a competitive economy must, to paraphrase Triandis (1994) definition of culture, occupy an ecological niche (be competitive) and provide satisfaction to employees that have an opportunity to communicate (and live in the same time and place), and thus have the opportunity to develop the human made objective and subjective elements that constitute the culture. An established organization thus has the opportunity to develop a culture. Whether it does or not, how strong or integrated the culture is, how distinct from other cultures the organizational culture eventually becomes, then become empirical questions.

As to the problem of sub-cultures or cultural homogeneity, Martin & Meyerson (1988) suggest that three major perspectives have come to dominate the research on organizational culture: integration, differentiation and fragmentation. The integration perspective portrays culture predominantly in terms of consistency (across the various manifestations of a culture), organization-wide consensus about the appropriate interpretations of those manifestations, and clarity. In contrast, studies congruent with the differentiation perspective portray cultural manifestations as predominantly inconsistent with each other (as for example when a formal policy is undermined by contradictory informal norms). According to these studies, any consensus that might emerge does so only within the boundaries of a sub-culture. In this view, sub-cultures are islands of clarity; ambiguity is channeled outside their boundaries.

The fragmentation perspective views ambiguity as inevitable and pervasive aspect of contemporary life. These studies, therefore, focus predominantly on the experience and



expression of ambiguity within organizational cultures. Any cultural manifestation can be, and is, interpreted in a myriad of ways.

According to Martin and Meyerson, a single study usually focuses on one of these perspectives, although a second or even third perspective may be given attention.

The integration - differentiation - fragmentation issue corresponds to the general question of choosing the appropriate level of analysis in organizational (culture) studies (Dansereau et al. 1984; Dansereau and Markham 1987; Dansereau and Alutto 1990). Mathieu (1991) maintains that to justify aggregating responses within groups it is necessary to demonstrate that individuals within groups exhibit reasonably high levels of agreement. If individuals are the unit of information in culture studies, and individual differences are observed, Dansereau & Alutto (1990) recommend a comprehensive analysis of tracking and identifying the potential linkages among individuals that may occur and then deciding upon which part of the individual variance associates with what levels of analysis. They strongly warn against performing analyses at levels where variance has not been correctly located.

The recommendations of Dansereau & Alutto seem to be firmly based in a kind of integration/differentiation perspective assuming that one is looking for homogenous (sub-)culture(s). In the present study, the question is whether organizational culture is related to product satisfaction in service operations, not whether some lower (or higher) level of aggregation might be homogenous. In modern service operations, all employees may in principle meet customers, and any employee - customer encounter may be important for the perceived quality of the product, thus it is the strength and homogeneity of the overall organizational culture that might be related to customer satisfaction. If the culture is not strong and homogenous, it is of minor importance if the heterogeneity is related to departmental, ethnic or other sub-group differences.

### 3.2.5 CULTURAL STRENGTH

A number of writers distinguish strong from weak cultures (Schein 1992; Louis 1985; Sathe 1985), suggesting that the strength, homogeneity and congruence of a culture is an important point in comparative studies. In the present literature, there is however no general agreement on what "strong culture" implies. Joyce and Slocum (1984) refer to "perceptual agreement" while Deal and Kennedy (1982) suggest that a culture is strong when people know and generally follow the "system of informal rules". O'Reilly (1989), drawing on earlier research

on measuring norms and values noted two important characteristics of strong cultures. One is intensity on the part of organization members, that is, displaying approval or disapproval to those who act in certain ways; the second is the presence of crystallization, or widespread agreement on values among members. If there is no substantial agreement that a limited set of values is important in a social unit, a strong culture cannot be said to exist. If there is strong and widespread agreement about the salience and importance of specific values, a central value system or unit culture may exist (O'Reilly et al. 1991; O'Reilly and Chatman 1996). Louis (1985) suggests that cultural strength is determined by the penetration of focal cultural values. Sociological penetration refers to whether there is one integrative culture or several sub-cultures; psychological penetration is related to how deeply embedded cultural values are in the individual and how shared their understanding of reality is, while historical penetration relates to how long the culture has existed and how stable it has been over the years.

However, if one restricts the discussion of cultural strength to value traits, strength seems to be related to three different aspects: the average of the trait score across organizational members (e.g., Yeung, Brockbank and Ulrich 1991), the agreement of organizational members on the value (i.e., the variance of the score) (e.g., Hofstede, Neuijen et al. 1990), and when there are multiple measures of each trait, the congruence of the set of measures (e.g., Cameron and Freeman 1991). Congruence is observed when all measures rank order traits consistently. (Cameron and Freeman 1991).

### 3.2.6 ORGANIZATIONAL CULTURE AND RELATED CONCEPTS

In this section we shall relate organizational culture to two closely related concepts - organizational climate and market orientation. Over the years a fairly comprehensive literature discussing the relationship between climate and culture has accumulated. There is however no general agreement on which is older, climate or culture research in organizations. Denison (1996) maintains that organizational climate research is older than the organizational culture investigations, while Gamst (1990) dates the origins of anthropological studies in organizations to the Hawthorne studies and the emergence of the human relations movement with its emphasis on understanding the human being as a social individual also in the workplace, and the application of ethnological methods of inquiry. Gamst views the climate research studies as an outgrowth of the human relations movement (p.27), and thus as a continuation of culturally related studies.

There have been numerous attempts to draw a clear line between culture and climate studies (e.g., Schwartz and Davies 1981). Still, culture and climate researchers seem to have been concerned with much of the same organizational phenomena, and Reichers and Schneider (1990) suggest that climate and culture are closely related concepts that have been kept separate by researchers for methodological and political reasons, and suggest that culture and climate in fact may be the same phenomenon with just differing points of view (Denison 1996).

Here we shall first present the traditional conceptual and methodological differences between culture and climate put forth in the literature, and based upon thoughts by Reichers and Schneider (1990) and Denison (1996), we shall suggest a more integrated view of climate and culture.

The study of the market orientation of an organization based upon the conceptualizations of Kohli and Jaworski (1990) and Narver and Slater (1990) is a fairly recent endeavor. Researchers seem to have been more concerned with applying the concept as originally defined by the pioneers than they have been concerned with the systematic integration of the concept into existing literature on climate and culture. Our own analysis shall however lead us to highlight the closeness of market orientation and organizational climate and culture.

### 3.2.6.1 Climate and culture

When the culture perspective burst onto the organizational studies scene in the early eighties, "culture was the code word for the subjective side of organizational life... its study represented an ontological rebellion against the dominant functionalist or "scientific" paradigm". (Meyerson 1991 p. 256). It was a reaction against the pervasive positivism, quantification and managerialism of mainstream organizational studies (Czarniawska-Joerges 1992). At that time the distinction between culture and climate apparently was considered to be quite clear. Schwartz and Davis (1981) perhaps put it most simply when they said that whatever culture is, it is *not* climate. Studying culture required qualitative research methods and an appreciation for the unique aspects of individual social settings. Studying organizational climate, in contrast, required quantitative methods and the assumption that generalization across social settings not only was warranted, but also was the primary objective of research. If researchers carried field notes, quotes or stories and presented qualitative data to support their ideas, then they were studying culture. If researchers carried

computer printouts and questionnaires and presented quantitative analysis to support their ideas, then they were studying climate (Denison 1996). James, James & Ashe (1990) suggest that the distinction between climate and culture is the frame of reference: «...whereas ...OC (organizational climate) has a personal frame of reference, organizational ..... culture appears to employ the system....as the frame of reference» (p. 71). Other differences were that culture researchers were more concerned with the evolution of social systems over time, while climate researchers were less concerned with evolution, but more concerned with the impact that organizational systems have on groups and individuals. Culture research argued for the deep understanding of underlying assumptions through the “native’s or insider’s point of view”, while climate researchers placed greater emphasis on organizational members’ perceptions of “observable” practices and procedures closer to the “surface” of organizational life, and the categorization of these practices into analytic dimensions defined by the researchers.

Climate researchers have their theoretical roots in Lewinian field theory (Lewin 1951) which states that  $B = f(P, E)$ , in which B = behavior, E = the environment, and P = the person. According to this theory, the social world can be divided into B’s, P’s, and E’s (Denison 1996). Thus, in order to study organizational climate from Lewin’s perspective, the person must, by definition, be analytically separated from the social context. People work within a climate, they do not create it, and the process by which the social environment is constructed by individual members is neglected.

Culture research is grounded in the symbolic interaction and social construction perspectives developed by Mead (1934) and Berger & Luckmann (1966), which assume that the individual cannot be analytically separated from the environment and that the members of social systems are best regarded as being agents and subjects simultaneously. Social context is regarded as both the medium and outcome of social interaction (Denison 1996). Table 3-1 presents a summary of the differences.

Lately there have however appeared a number of published works that employ quantitative research methods to the study of culture (e.g.; Calori and Sarnin 1991; Cooke and Rousseau 1988, Deshpandé; Farley, and Webster 1993; Hofstede; Neuijen; Ohayv, and Sanders 1990; Denison and Spreitzer 1991; Quinn and Spreitzer 1991; Gordon 1985; Chatman and Jehn 1994; Moorman 1995; Denison and Mishra 1995; Chatman 1991; Jermier; Slocum; Fry, and Gaines 1991). In general, these authors have applied survey methods to study comparative dimensions of culture in a way that appears to contradict the epistemological foundations of

culture research, and bear a strong resemblance to climate studies that served as the antithesis of culture research a decade ago (Denison 1996). Furthermore, when researchers that describe culture in terms of comparative traits and dimensions, the content of the culture domain begins to take on a strong resemblance to the topics that climate researchers have been concerned with for decades. Table 3-3 presents a partial summary of some of these similarities by examining a set of five dimensions that have been described by seven different authors selected from the two perspectives. The similarities of the dimensions is striking and have lead Schein (1992) to suggest that climate can most accurately be understood as *manifestations of culture*.

**Table 3-1**  
**CONTRASTING ORGANIZATIONAL CULTURE**  
**AND ORGANIZATIONAL CLIMATE RESEARCH PERSPECTIVES<sup>a</sup>**

Differences	Culture Literature	Climate Literature
Epistemology	Contextualized and idiographic	Comparative and nomothetic
Point of view	Emic (native point of view)	Etic (researcher's viewpoint)
Methodology	Qualitative field observation "Thick description"	Quantitative survey data
Level of analysis	Underlying values and assumptions	Surface-level manifestations
Temporal orientation	Historical evolution	Ahistorical snapshots
Theoretical foundations	Social construction; critical theory	Lewinian field theory
Discipline	Sociology and anthropology	Psychology

<sup>a</sup> Based on Denison (1996)

Not only has there appeared cultural studies that have been climate research-like, but climate researchers have also been influenced by the culture perspective. They have been more concerned with the formation of organizational climates, asking the fundamental question, "Where do organizational climates come from?" (e.g., Schneider 1986), and several other authors (e.g., Ashfort 1985; Poole 1985) have taken a social construction approach to the formation of organizational climates and have provided a rationale for viewing "climates" as an outgrowth of the more basic value systems of organizations.

There may also be more pragmatic pressures behind the purely scientific and research reasons for the development of organizational culture studies in a more quantitative direction. When resource allocation is involved, management in its very core is quantitative and managers need quantitative explanations to guide decisions. Staw (1984), while discussing organizational culture, bluntly predicts that managers will lose interest in a concept with no relationship to performance. Also from a scientific standpoint will the culture - performance relationship (and other explanations involving culture) be more precisely explained in quantitative terms (Hunt 1983).

The purpose of the comparison and my pointing out the convergence of some culture and climate research is not to deny differences between the two literatures, but rather to highlight some of the similarities. The separation of concepts that purport to study the same phenomenon, i.e., *the internal social psychological environment of organizations and the relationship of that environment for individual meaning and organizational adaptation* (Denison 1996), may be an artifact of time that will diminish over time (Reichers and Schneider 1990). The work cited above may indicate a trend in the development of both concepts toward a marriage of methods and terminology<sup>2</sup>. If this trend persists, one would expect the next years in the evolution of both concepts to yield an amalgamated climate/culture concept that exhibits many of the conceptual, methodological and practical characteristics that are presently unique to one concept or the other.

Table 3-3 also indicates which cultural phenomena the comparative cultural studies are comparing and generalizing. The authors seem to acknowledge both the existence of "levels of culture", and the limitations of comparative research to truly understand deeper levels of culture such as assumptions and beliefs. Each of the studies selects an "intermediate" level of culture, such as values and cultural traits, about which to generalize (Denison 1996). They do not deny the existence of either deeper level assumptions unique to a culture or the more surface-level practices, artifacts and symbols that may have highly situational meaning.

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<sup>2</sup> A development towards climate and culture research amalgamation is not universally acclaimed. For example, Siehl and Martin (1990) warn against quantitative culture research out of the traditional fear that applications of such methods run the risk of reducing culture to just another variable in existing models of organizational performance instead of representing a very different research paradigm.

### 3.2.6.2 Market orientation and culture

In marketing, the «market orientation» concept has been widely employed and researched (Kohli and Jaworski 1990; Narver and Slater 1990; Jaworski and Kohli 1993; Kohli et al. 1993; Deshpandé et al. 1993; Sandvik 1998). Originally defined by Kohli and Jaworski (1990, p. 6) as *the organization-wide generation of market intelligence pertaining to current and future customer needs, dissemination of the intelligence across departments, and organization-wide responsiveness to it*, it was originally developed without reference to the culture concept. Contrary to this, the second pair of major contributors to the conceptual development of market orientation, Narver and Slater, define market orientation with a specific reference to culture. Market orientation is *the organization culture that most effectively and efficiently creates the necessary behaviors for the creation of superior value for buyers, and thus, continuous superior performance for the business* (Narver and Slater 1990 p. 21). Although they define marketing orientation as a culture, no further reference is made to culture, and they do not apply the culture approach in their further operationalizations, which are focussed on *behavioral components, activities, and efforts* (Sandvik 1998).

Researchers employing the market orientation concept thus seem to be solely concerned with the cultural *behaviors and artifacts* without examining norms and values underlying the behaviors. Kohli and Jaworski (1990) do not include values in their model of market orientation antecedents, while Deshpandé & al. (1993) include the competing values framework of Quinn (1988) as an independent variable together with market orientation in their model of innovativeness. Quite interestingly, they do not model the culture - orientation relationship.

Except from Narver and Slater's (1990) definitional reference to culture, the market orientation concept is neither integrated into culture nor climate concepts. Reviewing the market orientation literature also reveals that the concept has been relatively poorly integrated into theories explaining its antecedents. Perhaps market orientation is a concept looking for theoretical foundations that might be found in the culture/climate literature?

### 3.2.7 CHOOSING AN APPROACH TO CULTURE

In the present study, we focus on the espoused *values* approach to culture for explaining service satisfaction. We do not assume that there is, and do not try to measure some deep unconscious assumption that furthers product quality and customer satisfaction. Neither do we

focus on the symbolic representation of cultural themes that might further product quality and service satisfaction or the particular practices used to manage service themes. Instead we focus on the intermediate level of values as a means to generalize about culture.

The present study falls within the stream of comparative, quantitative culture studies, and as such runs the risk of being attacked from both «conceptual camps». When the research on which this dissertation is based was planned, I did not hesitate to call it a culture study. Now I am not able to give such an unconditional statement. Purist organizational culture researchers will condemn the study as barely scratching the surface of something they hardly would consider terming culture at all, using grossly inadequate methods for thick description of the depths of the culture. On the other hand, the study has just a few references to climate theoretical literature, and does not fit in there either. Still I hope that mainstream culture research will acknowledge the need to avoid the mono-method bias (Martin 1990), and that culture research in business and management has a potential to be brought further by multi-paradigm studies which also include quantitative designs like the present (Reichers and Schneider 1990). Perhaps Reichers and Schneider (1990) eventually will be right when they "...believe that the separation of climate from culture research may be an artifact of time that will diminish in the future" (p. 31).

### 3.2.8 DIMENSIONS OF ORGANIZATIONAL CULTURE: THE COMPETING VALUES FRAMEWORK

Authors have generated many culture dimensions over the past few decades (e.g., Quinn and Rohrbaugh 1981; Denison 1990; Rousseau 1990b; Zammuto and Krakower 1991; O'Reilly et al. 1991; Hofstede et al. 1990; Sackmann 1992). As discussed above, the elements of organizational cultures range from fundamental assumptions through values and behavioral norms to actual patterns of behavior (Rousseau 1990a). Values typically act as the defining element of a culture, and norms, symbols, rituals and other cultural activities revolve around them (Enz 1988). When members of a social unit share values, an organizational culture or value system can be said to exist (Wiener 1988). In this study we shall conceptualize organizational culture as in terms of widely shared and strongly held cultural *values*.

Amidst other existing typologies of organizational culture (e.g., Hofstede 1981; Ouchi 1980; Handy 1984; Rousseau 1990a; Rousseau 1990b), the two most frequently used classifications of cultural *values* within business administration probably have been the Organizational

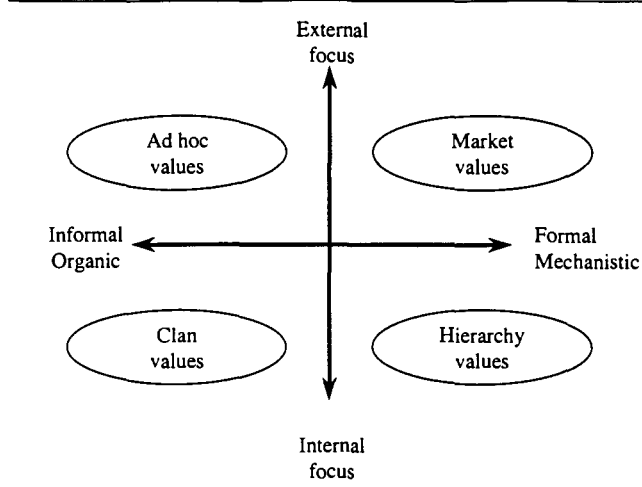


Culture Profile (OCP) of O'Reilly, Chatman & al. (1991) and Caldwell (1991) (e.g., Chatman & Jehn 1994), and the Competing Values Approach (CVA) of Quinn (Quinn and Rohrbaugh 1981), (e.g., Moorman 1995). In addition, Webster (1990) has proposed a specific *marketing* culture that has been slightly less researched. To understand the impact of culture on customer satisfaction and product quality, the competing values model of culture as depicted in Figure 3-2 is adopted in this study (Moorman 1995; Deshpandé et al. 1993; Quinn 1988; Quinn and Rohrbaugh 1981). The competing values framework is a meta-theory that was originally developed to explain differences in the values underlying various organizational effectiveness models (Quinn and Rohrbaugh 1981). The framework focuses on the competing tensions and conflicts inherent in any human system; primary emphasis is placed on the conflict between stability and change, and the conflict between internal organization and the external environment (Denison and Spreitzer 1991). In later works, the framework has been extended to organizational culture studies (Quinn and Kimberly 1984).

The model proposes two predominant dimensions by which cultural values vary. One axis, the informal-formal dimension reflects preferences about the importance of organizational structure and involves a continuum from organic to mechanistic processes. This axis reflects the competing demands of change and stability. One end represents an emphasis on flexibility and spontaneity, whereas the other represents a complementary focus on stability, control and order. This dimension represents a familiar distinction in organizational theory between organic and mechanistic forms of organization (Burns and Stalker 1968).

The second axis, the internal-external dimension, describes whether the emphasis is on the maintenance of an organization's internal socio-technical system or the improvement of its competitive position within the external environment. This axis reflects the conflicting demands created by the internal organization and the external environment. One end of the axis represents a focus on integration and buffering to sustain the existing organizations, while the other represents a focus on competition, adaptation and interaction with the environment. This dimension is also reflected in many classics of organization theory such as Thompson (1967) and Lawrence & Lorsch (1967).

**Figure 3-2**  
**THE COMPETING VALUES FRAMEWORK<sup>a</sup>**



<sup>a</sup> Adapted from Cameron & Freeman 1991

The four cultures resulting from the intersection of the two dimensions have been labeled adhocracies, markets, hierarchies and clans. Each of the four types of cultural orientation represents one of the four major models in organization theory.<sup>3</sup>

*Adhocracies* value both flexibility and their competitive position in their environment (Deshpandé et al. 1993). Hence they tend to emphasize entrepreneurship, creativity and adaptability (Mintzberg 1979). Quinn (1988) notes that adhocracies tend to be effective at acquiring resources and performing boundary spanning functions. Effectiveness criteria include growth, the development of new markets and resource acquisition (Denison and Spreitzer 1991).

<sup>3</sup> Some researchers use similar terms to describe organizational governance modes (Ruekert et al. 1985), and other writers have discussed individual dimension archetypes (see for example Mintzberg 1979; Ouchi 1980; Williamson 1981). However, in the organizational literature, there is an entire stream of work called the competing values view that refers to these four types as organizational cultures (Moorman 1995). In marketing, the competing values framework has been used primarily by Deshpandé, Farley, et al. (1993); Deshpandé and Webster (1989); Moorman(1995); Moorman et al.(1993). It is my preference to remain most closely aligned with the work of these authors that view these four archetypes as organizational cultures. For a conceptual discussion of the distinction and similarities between culture and climate, I refer to chapter 3.2.6 .

**Table 3-2**  
**THE COMPETING VALUES MODEL OF ORGANIZATIONAL CULTURE: FOUR IDEAL TYPES AND THEIR CHARACTERISTICS<sup>a</sup>**

	<i>Clan Culture</i>	<i>Ad hoc Culture</i>	<i>Hierarchy Culture</i>	<i>Market Culture</i>
<i>Value dimension</i>				
Informal vs. Formal	Informal	Informal	Formal	Formal
External vs. Internal	Internal	External	Internal	External
Means	Cohesion, morale	Adaptability, readiness	Information management, communication	Planning, goalsetting
Ends	Development of human resources	Growth, resource acquisition	Stability, control	Production, efficiency
<i>Organizational Characteristics</i>				
Compliance	Affiliation	Ideology	Rules	Contract
Motivation	Attachment	Growth	Security	Competence
Leadership	Concerned, supportive	Inventive, risk-taking	Conservative, cautious	Directive, goal oriented
<i>Organizational Form</i>				
	Clan	Adhocracy	Hierarchy	Market
<i>Strategic Orientation</i>				
	Implementor	Stage II Organization	Defender	Prospector

<sup>a</sup> Adapted from Quinn and Kimberly (1984), Zammuto and Krakower (1991) and Moorman (1995)

*Markets* emphasize goal achievement, productivity and efficiency (Cameron and Freeman 1991; Deshpandé et al. 1993; Moorman 1995), reflecting their external orientation and value for governance systems. Motivating factors include competition and the successful achievement of predetermined ends. Effectiveness criteria include planning productivity and efficiency (Denison and Spreitzer 1991).

*Hierarchies* emphasize order, uniformity, efficiency, certainty, stability and control, reflecting internally oriented and formalized values (Deshpandé et al. 1993; Moorman 1995). Motivating factors include security, order, rules and regulation. Effectiveness criteria include control, stability and efficiency (Denison and Spreitzer 1991).

*Clans* have a primary concern with human relations, stress participation, teamwork and cohesiveness (Ouchi 1980). The emphasis is on the internal organization with development of shared organizational understanding and commitment through participation and trust. Clan

cultures have been found to be high in trust, low in conflict and low in resistance to change (Zammuto and Krakower 1991). Effectiveness criteria include the development of human potential and member commitment (Denison and Spreitzer 1991). The competing values model is summarized in Table 3-2.

Although the number of dimensions and specific content in each dimension varies when different cultural value classifications are compared, there still are some general similarities in major dimensions that seem to indicate a certain universality of the dimensions. It is remarkable that some of the basic cultural value dimensions also are employed by climate researchers (see section 3.2.6.1). Table 3-3 illustrates the similarity of the dimensions in a comparison based on Denison (1996). The number of seemingly overlapping classifications and operationalizations begs for a comprehensive validation study that, unfortunately, is outside the scope of this dissertation. At this stage of progress in the research process, it seems to be more important to establish the usefulness of the culture concept in service management. Which (of the *overlapping* conceptualizations) if proved to be more useful, will be one of a number of viable focuses for further studies.

### 3.2.9 STUDIES RELATING COMPETING VALUES TO ORGANIZATIONAL EFFECTIVENESS.

The competing values framework has been applied in a number of qualitative and quantitative studies. The qualitative applications mostly illustrate the applicability and purported usefulness of the framework, but provide limited rigorous support for a culture performance link (McGraw 1993; Hooijberg and Petrock 1993; DiPadova and Faerman 1993; Cooper and Quinn 1993). In a number of quantitative studies reported in Appendix 1, the competing values have been related to a number of variables, e.g., market information processes (Moorman 1995), human resource practice and competitive performance (Yeung et al. 1991), quality of life (Quinn and Spreitzer 1991), business performance (Deshpandé et al. 1993) and user trust in marketing research (Moorman et al. 1993).

**Table 3-3**  
**A COMPARISON OF SELECTED DIMENSIONS USED BY CULTURE AND CLIMATE RESEARCHERS<sup>a</sup>**

		Culture researchers			Climate researchers		
	Quinn	Hofstede (1991)	O'reilly & Chatman (1991)	Cooke & Rousseau (1988)	Litwin & Stringer (1968)	Hellriegel & Slocum (1974)	Koys & DeCotiis (1991)
<b>Structure</b>	Hierarchy	Authority	Stability	Conventional culture	Structure	Centralization	?
<b>Support</b>	Clan	Power distance	Respect for people	Humanistic culture	Support	Supportiveness	Support
<b>Risk</b>	Ad hoc	Security	Innovation	Avoidance culture	Risk	Innovation	Innovation
<b>Cohesiveness</b>	Clan	Collectivism	Teamwork	Affiliative culture	Identity	Peer relations	Cohesion
<b>Outcome Orientation</b>	Market	Results orientation	Outcome orientation	Achievement culture	Standards	Motivation to achieve	Pressure

<sup>a</sup> Adapted and extended from Denison (1996)

The hypothesized relationships in the studies relate to organizational culture strength and congruence (balanced values) and output measures (Yeung et al. 1991; Cameron and Freeman 1991; Quinn and Spreitzer 1991) as well as relationships between individual value dimensions and outputs (Yeung et al. 1991; Cameron and Freeman 1991; Moorman 1995; Deshpandé et al. 1993; Moorman et al. 1993).

Findings regarding culture strength and congruence (balance of cultural values) are not conclusive. Yeung, Brockbank and Ulrich (1991) found a “strong (weak) comprehensive culture” to be positively (negatively) related to performance and human resource practice, and Quinn and Spreitzer found balanced strong (and weak) cultures to be positively (and negatively) related to employee quality of life; Cameron and Freeman (1991) did not find any culture strength or congruence relationship to effectiveness.

Findings regarding individual cultural values and outcomes are equally inconclusive. Clan values have been found to relate positively to outcomes (Yeung et al. 1991; Cameron and Freeman 1991; Moorman 1995), while other researchers have been unable to find significant results (Deshpandé et al. 1993; Moorman et al. 1993). Ad hoc values have been found to relate positively (Cameron and Freeman 1991), negatively (Yeung et al. 1991), and with no significant relationship to outcomes (Deshpandé et al. 1993; Moorman et al. 1993; Moorman 1995). Quinn and Spreitzer (1991) found a combination of clan and ad hoc values to relate positively to the quality of life of employees.

Deshpandé, Farley and Webster (1993) found market oriented values to be more strongly positively related to business performance than the other value dimensions, while Moorman (1995) and Moorman, Deshpandé and Zaltman (1993) did not find significant relationships relating to market values.

The pattern of relationships for hierarchy values is clearer. All studies that include separate analysis for this value dimension find it to be negatively related to outcomes (Cameron and Freeman 1991; Quinn and Spreitzer 1991; Deshpandé et al. 1993; Moorman et al. 1993).

All studies reviewed in Appendix 1 have cross-sectional designs which do not allow for causal inferences. Competing value dimension measurement is fairly similar, while the choice of outcome measures and measurement techniques vary widely, and may explain some of the variance in the results, but the main impression is still that the findings are inconclusive.

### 3.3 CUSTOMER SATISFACTION

Satisfaction is the consumer's fulfillment response. It is a judgment that a product or service feature, or the product or service itself, provided (or is providing) a pleasurable or unpleasurable level of consumption-related fulfillment, including levels of under- or overfulfillment. (Oliver 1997). Satisfaction thus conceptualized generalizes to satisfaction with individual product elements, overall satisfaction during delivery and consumption, satisfaction with final outcomes and even satisfaction with the level of satisfaction received (Oliver 1997).

For an individual company, satisfaction may refer to an individual customer's satisfaction with a single observation or transaction, sometimes called encounter or transaction specific satisfaction (Anderson et al. 1994; Boulding et al. 1993). At a higher level of abstraction, one may be interested in the consumer's accumulated satisfaction over many samplings (occurrences) of the same experience, sometimes called long-term or summary satisfaction (Oliver 1997), or cumulative satisfaction (Boulding et al. 1993). At a still higher level, the aggregated experiences of a firm's customers (the average satisfaction of a firm's customers) may (as in the present case) be of interest either as an independent variable, that is for their net effect on the company (e.g., on the market share or profits), or as a dependent variable, that is as a consequence of product and service quality, promotion and reputation (Anderson and Fornell 1994).

When products are complex and of some importance to the consumer, satisfaction judgments normally comprise satisfaction with product features as well as overall satisfaction judgments. Determining which are relevant satisfaction features then becomes a problem (Oliver 1997). A number of features classifications have been proposed, e.g., the four rings of Levitt (1983), and the product element model of Troye (1990), that covers the total product and services, and SERVQUAL (Parasuraman et al. 1985), and SERVPREF (Cronin and Taylor 1992) that are specifically designed for service satisfaction and quality measurement.

For the present study, the product element model seems more appropriate. It is more operational than the Levitt model, and it is more general in that it covers any product/service combination as opposed to SERVQUAL and SERVPREF, which only cover service delivery. Furthermore, the product element model links customer experience to supplier production

factors (Troye 1990), and thus also provides a more suitable vehicle for connecting production and culture to customer experience and satisfaction.

The product element model as introduced in Chapter 2 (Troye et al. 1994a; Troye 1990; Troye et al. 1995; Troye 1996; Troye and Øgaard 1997) suggests that the consumption experience may be conceived of as connected to four major groups of features or elements of the product: interaction, backstage, structural and prosumption elements (Troye 1990), as depicted in Figure 3-3.

Interaction or service elements represent the very essence of what is normally considered “service” and is the outcome of customers interacting with service provider’s employees such as salespersons, waiters and receptionists. The customer has to be present in the production of these elements. Back stage elements are produced especially for each customer by the employee(s) without any active involvement of the customer. Examples include tailor-made suits, meals in an a la carte restaurant, valet parking, etc. Structural elements require little or no involvement either on the part of the customer or service provider. Facilities like lounges and guest rooms in the hotel business require presence more than activity on the part of the customers in order to render utility. These product element can not readily be changed in the short run. Prosumption elements are produced when the customer actively utilizes facilities, equipment and other product elements without the presence of the provider. Prosumption elements require more than presence of the customer to be of value; a report from a consultant or an exercise room in a hotel are of value only when the customer is actively utilizing them, to a large extent producing and consuming simultaneously. Personnel is directly involved in the production of interaction and back stage elements, and thus may have a direct impact on satisfaction.

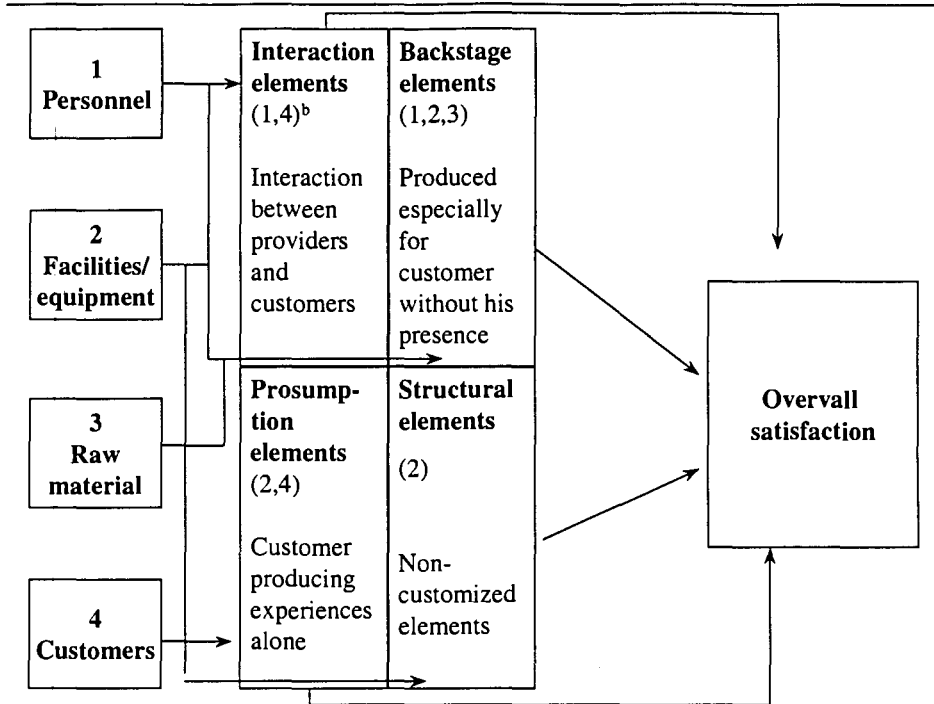
As to the relative importance of respective elements to overall satisfaction, two alternative suggestions have been made. One proposing that satisfaction with interaction elements are more important to overall satisfaction; the other that structural elements have the strongest bearing on overall satisfaction.

There is both theoretical and empirical support for the importance of *interaction* elements to overall satisfaction and quality. Interactions can constitute the very nature of the service offering, thus influencing global evaluation (Bateson 1995). Surprenant and Solomon (1987)



suggest that customer satisfaction and repeat patronage may be determined solely by the quality of the personal encounter (Solomon et al. 1985). Store personnel and sales service are reported to be major determinants of store patronage (Gagliano and Hathcote 1994; King and Ring 1989; Lumpkin and McConkey 1984). It has also been suggested that interaction may have an influence on satisfaction formation of the other elements and thus additional indirect effects on overall satisfaction (Troye et al. 1994a; Troye et al. 1995; Troye et al. 1996; Troye and Øgaard 1997). High quality contact employees (e.g., salespersons, waiters, receptionists etc.) may help customers choose a more fitting product; they may help them get the benefits sought out of the product through guidance and information, and good interaction may create a pleasant ambiance that has a halo-effect on perceptions of other product elements (Murphy and Reynolds 1988; Fisicaro and Lance 1990).

**Figure 3-3**  
**THE PRODUCT ELEMENT MODEL<sup>a</sup>**



<sup>a</sup> Adapted from Troye 1990.

<sup>b</sup> Numbers in parentheses indicate which production factors each set of elements result from.

Bitner (1993) has suggested that the *structural elements* or surroundings of the service encounter, which she terms the “servicescape”, is the most important facet or element of the product for overall satisfaction formation. Her argument is based on environmental psychology, in which the servicescape has the strongest direct influence on overall satisfaction, as well as a strong indirect effect because the servicescape is the stage where interactions take place thus delimiting interaction variability. She also suggests that the servicescape may influence interactions through cues in the environment, cues that employees and customers react to consciously or unconsciously.

A number of cross-sectional studies in the hotel industry seem to indicate that interactions-as-drivers of overall satisfaction formation better explain the data than a number of competing models including the servicescape-as-driver model (Troye et al. 1995; Troye et al. 1996; Troye et al. 1995; Troye and Øgaard 1999), supporting the notion that interactions (and

personnel performance) are important to overall satisfaction formation. In most analyses, interactions *and* structural elements (including servicescapes) are however both related to overall satisfaction (e.g., Øgaard et al. 1998).

### 3.4 ORGANIZATIONAL CULTURE PERCEPTIONS AND EMPLOYEE AFFECTIVE OUTCOMES

One of the most attractive aspects of the competing values culture model is the applicability of the model at several levels of analysis (Denison and Spreitzer 1991). As we move from the aggregate, organizational level to the individual employee level, our focus changes from the organizational culture - customer satisfaction relationship to the individual employee's perceptions of the organizational culture and the relationship of these culture perceptions to employee affective outcomes. As discussed above, an important part of service quality may be determined by the employees' individual performance towards customers, and in dynamic, interactive customer/employee interactions where the employee has little guidance in the company's formal governance structures (e.g., rules and goals), his attitudes and emotional states will have a large potential for influencing his behavior in "the moment of truth". The social control effects of culture will indicate limits for, and guide employee behavior, but not fully explain it. To better understand how organizational culture is related to customer satisfaction, we thus propose that the individual affective implications of organizational culture perceptions must be investigated. Like Oliver and Anderson (1994), we argue that individual employee perceptions of culture are a critical influence on their job-related cognitions, attitudes, and behaviors.

In the literature, the organizational environment has long been recognized as a potent source of influence on individual quality of life in general, and life in the organizational sphere in particular. (Quinn and Spreitzer 1991). Components of the environment that have been included in earlier studies in industrial organization include organizational culture, structure and strategy. Among these, organizational culture has been assumed to have important implications for an individual's affective reactions to organizational life (Harris and Mossholder 1996). These affective outcomes are of particular interest in our service industry context as they have been shown to be related to employee performance in a number of ways (see, for example, Harris and Mossholder 1996), and eventually to organizational effectiveness. In a quantitative review of 55 studies, Organ & Ryer (1995) conclude that job

attitudes (job satisfaction, perceived fairness, organizational commitment and leader support) are robust predictors of organizational citizenship behavior, and Schneider and Bowen (1983) found employee reports of their turnover intentions to be correlated with the turnover intentions of the customers they serve.

Among the most common measures of affective outcomes used in organizational culture studies are: *Job satisfaction* (Shockley-Zalabak and Morley 1989; Odom et al. 1990; Quinn and Spreitzer 1991; Cameron and Freeman 1991; Sheridan 1992; Koberg and Chusmir 1987; Boxx et al. 1991; Harris and Mossholder 1996; Singh et al. 1996; Brown and Peterson 1993), *organizational commitment* (Odom et al. 1990; Quinn and Spreitzer 1991; Cameron and Freeman 1991; Sheridan 1992; O'Reilly et al. 1991; Harris and Mossholder 1996; Singh et al. 1996; Brown and Peterson 1993), *intentions to stay or turnover* (Odom et al. 1990; Quinn and Spreitzer 1991; Cameron and Freeman 1991; O'Reilly et al. 1991; Harris and Mossholder 1996; Singh et al. 1996; Brown and Peterson 1993), *job involvement*: (Harris and Mossholder 1996), *cohesion*: (Boxx et al. 1991), *actual turnover*: (O'Reilly et al. 1991; O'Reilly et al. 1991; Sheridan 1992), and *perceptions of the company's quality and likelihood of survival*: (Shockley-Zalabak and Morley 1989).

Both job- and organization-focused affective outcomes are examined in this study. We have included job satisfaction and intentions to stay with the organization as well as organizational commitment. Particular outcomes were chosen because of their use in previous organizational culture research and relevance for organizational members' well-being and likely motivation to endure in the organization (Harris and Mossholder 1996), as well as their potential for predicting organizational citizenship behavior (Organ and Ryan 1995).

The nature of the relationship between job satisfaction and organizational commitment has been a point of debate among researchers. So far, no conclusive research of the causal ordering of job satisfaction and organizational commitment has been done, results have supported job satisfaction as both a cause and effect of commitment, and a reciprocal relationship has also been found (Mathieu 1991). Consequently, the relationship between job satisfaction, commitment and intentions to leave were not modeled in detail.

Job satisfaction is a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences (Locke 1976). As such, job satisfaction is presumed to be a global construct encompassing such specific facets of satisfaction as satisfaction with work,

pay, supervision, benefits, promotion opportunities, working conditions, co-workers and organizational practices. Some studies examine the effects of these facts separately, others average across facets to create a global measure of job satisfaction. Here we shall take the latter approach because research indicates that that averaging across facets better captures the domain of the job satisfaction construct (Hartline and Ferrell 1996; Brown and Peterson 1993).

Job satisfaction is also an attitude (Griffin and Bateman 1986). Calder and Schurr (1981) have suggested that organizational attitudes like job satisfaction are formed and continually updated by cognitive information processing. Job satisfaction thus becomes a general evaluative summary of more elementary cognitive units of which perceptions of the organizational culture would be one set.

Job satisfaction has been shown to relate to a number of job and organizational characteristics (see, for example, Griffin and Bateman 1986; Harris and Mossholder 1996), including the individual employee's perceptions of organizational culture. The relationship of job satisfaction to standard *performance* measures is however unclear (Griffin and Bateman 1986; Brown and Peterson 1993), meta-analytic research reports a modest correlation of only .15 between employee satisfaction and performance across many studies (Brown and Peterson 1993). However, this weak relationship may be partly due to the fact that most studies

measure employee performance in term of outcomes (i.e., sales volume or quota) rather than in terms of behaviors as effort, friendliness and politeness. It does however relate negatively to absenteeism, intentions to leave, and positively to citizenship behaviors such as helping co-workers or customers and doing extra work (Locke and Latham 1990a; Organ and Ryan 1995), the latter making job satisfaction of particular interest to service management. Schneider (1980) finds evidence that job satisfaction is a primary reason that employees deliver good service. Hartline and Ferrell (1996) found organization level aggregate job satisfaction to be positively related to service quality.

Intentions to stay or turnover is one of the behavioral intention components of the employee's attitudes towards the job (Griffin and Bateman 1986). Research has shown it to be consistently related to job satisfaction (Locke and Latham 1990a) and to organizational culture (Harris and Mossholder 1996).

*Organizational commitment* is the relative strength of an individual's identification with and involvement in a particular organization (Mowday et al. 1979). It is characterized by at least three factors:

- A willingness to exert considerable effort on behalf of the organization.
- A strong belief in and acceptance of an organization's goals and values.
- A strong desire to maintain membership in the organization.

Commitment in Mowday Steers and Porter's definition represents something beyond mere passive loyalty to an organization. «It involves an active relationship with the organization such that individuals are willing to give something of themselves in order to contribute to the organization's well being» (Mowday et al. 1979 p. 226). This definition focuses on attitudes rather than behavior.

Organization researchers have suggested at least two other distinct approaches to commitment. Hrebiniak and Alutto (1972) operationalized commitment as the result of an exchange between two parties: The more favorable the exchange from the participants' point of view, the greater the commitment to the system, which we could term exchange related commitment (Hrebiniak and Alutto 1972). Salancik (1977) describes a third form of commitment he terms behavioral commitment and defines as the degree of commitment that derives from the extent to which a person's behaviors are binding. He suggests that four characteristics of behavioral acts make them binding, and hence determine the extent of commitment: explicitness, revocability, volition, and publicity (Salancik 1977). This conceptualization points to the factors that need to be taken into account to obtain behavioral commitment, that is the process of commitment creation. The *result* of behavioral commitment probably can be measured by the attitudinal approach to commitment.

Research seems to indicate that the exchange related commitment is more strongly related to labor turnover while attitudinal commitment is more linked to effort (see, among others, Meyer and Allen 1984). Since our focus here is more on effort than turnover we will stay with the Mowday Steers and Porter conceptualization which primarily measures attitudinal commitment (Dunham et al. 1994).

Commitment has been found to be positively related to employee performance in a number of studies (for reviews, see for example Brown and Peterson 1993; Singh et al. 1996), and also positively related to customer orientation (see, for example, Kelley 1992). Furthermore, the

striving and extra effort associated with commitment has been shown to be positively related to customer satisfaction (Mohr and Bitner 1995).

In this chapter we have introduced the concepts that are the basic building blocks of our theorizing on organizational culture and customer satisfaction. In chapter 5 we shall build a model that explains the culture - satisfaction relationship in more detail, but first, we shall have to address some of the fundamental methodological problems encountered in organizational culture studies.

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## 4. METHODOLOGICAL ISSUES

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The study of culture brings forth a number of methodological problems. Three are discussed here, which measurement methods should be applied, which subjects should be chosen for culture measurement, and finally the problem of aggregation, how can measures of individual employee perceptions validly be aggregated to form an organizational culture measurement? Eventually, we shall also present the multilevel structural equation modeling approach suggested by Muthen (1989).



## 4.1 INTRODUCTION

As a framework for studying organizational cultures, the competing values model represents a departure from the qualitative approach that has characterized most culture research (Frost et al. 1991; Pettigrew 1979). The model makes the assumption that organizations can be characterized according to cultural traits or dimensions common to all organizations. Similar arguments have been made by others (Denison 1990; Rousseau 1990b; Zammuto and Krakower 1991; O'Reilly et al. 1991; Hofstede et al. 1990; Sackmann 1992), but there have been relatively few attempts to study culture from this perspective. This deficiency probably is related to the debate regarding qualitative versus quantitative research, a dispute that is "deeply felt and hotly contended" (Ouchi and Wilkins 1985, p. 479). Some argue that quantitative techniques are "superficial, simple-minded and cheap" (Ouchi and Wilkins 1985, p. 478), and that they can not assess basic assumptions and values (Frost et al. 1991; Schein 1992). Others suggest that the study of culture must move beyond an anthropological, exploratory focus so that comparative propositions can be developed (Hofstede et al. 1990; Denison and Spreitzer 1991). Our aim is to do a comparative study, and we have chosen to do quantitative analyses.

## 4.2 QUANTITATIVE CULTURE MEASUREMENT METHODS

A large number of different techniques have been used in organizational culture investigations. Ott (1989) and Freytag (1990) have done extensive reviews of culture measurement methods and arrive at fairly similar conclusions; a comparative study of cultural values is best performed by paper-and-pencil individual interviews. In his review, Freytag (1990) found seven methods that have been used to assess organizational culture:

- Individual interviews
- Group interviews
- Researcher's observation and interpretation of artifacts
- Insider's description (i.e. ethnography)
- Questionnaires
- Critical incidents
- Field simulations

Freytag suggests that the following criteria can be used to evaluate the assessment methods:

- Time to perform the assessment
- Number of people that can be included within a reasonable time constraint
- Organizational disruption
- Quantifiability of results
- Variety of content that can be included

Freytag's analysis of the available assessment methods is summed up in Table 4-1 which seem to imply that questionnaires should be a superior organizational culture assessment method. However, Freytag's list of criteria seems to be derived from a stage in the research process where *descriptive* research is done. In an explorative stage, where one is trying to find relevant dimensions of the culture, ways of communicating with organizational members etc., further criteria should be included in the evaluation, and would indicate that other methods would be preferred. Without discussing any addition of evaluative criteria, Freytag (1990) acknowledges the need for multiple methods: «Given the complexity of organizational culture, a multiple-stage assessment technique including many of the methods described above would seem to be appropriate.» This conclusion is fully supported by Ott (1989), who in his extensive review of culture measurements also suggests that "Administering paper-and-pencil instruments" is the major method for deciphering organizational *culture values*.

In this dissertation a semi-explorative research stage was conducted before the descriptive, structured questionnaire-based main study.

### ✕ 4.3 ESPOUSED AND ENACTED VALUES; INFORMANT(S) AND RESPONDENTS.

Organization studies in general, as well as organization culture studies, have often relied on key informant data for assessing organizational traits, or they have limited the data collection to certain organizational levels. Gordon (1985) is a typical representative of this approach when he states: "... we believe that the organizational values held by management are reflected throughout the organization" (p. 104), and accordingly he measures organizational values only through the upper levels of management. A number of authors warn against this approach.

**Table 4-1:  
EVALUATION OF CULTURE MEASUREMENTS<sup>a</sup>**

	Criteria				
	Time	Number	Disruption	Quantifiability	Variety
Individual interviews	-	-	-	-	++
Group interviews	-	-/+	-	-	++
Researcher's observation and interpretation of artifacts	-		+	-	-
Insider's description (i.e. ethnography)	--	+	+	-	+
Questionnaires	+	+	+	+	+
Critical incidents	--	-	-	-	?
Field simulations	-	-	-	-	+/?

<sup>a</sup> Adapted from Freytag 1990

Cultural values may be espoused or they may be enacted (see Argyris and Schön, 1978) . Expressed values are expressed opinions, what cultural members say they think, do or believe the organization values are, or what they think others in their milieu think, believe, or do. Enacted values, in contrast are abstractions that capture aspects of how people actually behave, rather than how they say they behave. Thus, a person may describe his or her organization as valuing rationality and market orientation, while long-term observation of the organization in a wide variety of circumstances may reveal the opposite pattern of actual behavior (enacted values).

The espoused versus enacted distinction is important because people often try to portray themselves attractively - in their own eyes as well as in the eyes of others. Furthermore, their

attitudes about work can affect what they perceive and remember and which opinions they express. These impression management and social desirability biases can affect cognitions, attitudes and reports of action even when anonymity is protected (Siehl and Martin 1990), and thus have to be taken into account in culture analyses. Empirical research on the prevalence of the attitude-behavior inconsistency in organizations (for instance, Zalancik 1977) , clearly indicate that, under most conditions, espoused and enacted values are unlikely to be highly correlated.

Since the basic focus in this dissertation is the social control mechanisms of the shared values, we are primarily interested in enacted values. However, while enacted values may be conceptually appealing, they may be very impractical in empirical work because of the time and cost needed for doing behavioral observations within each organization to assess enacted values, as well as the additional bias and random error introduced in the behavioral classification and observed behavior-to-value inference drawing process. Thus, like almost all cultural value researchers, (e.g., Gordon 1985; Moorman 1995; Deshpandé et al. 1993; Yeung et al. 1991), we will have to rely on espoused values. However, in the operationalization of the competing value dimensions, we try to phrase questions to mimic enacted values, in that most items have been tied to organizational practices that relate to enacted values. This semi-enacted value operationalization, together with a multiple measure and multiple respondent approach discussed below, is believed to reduce problems related to the application of espoused values.

With social desirability and impression management mechanisms influencing espoused value measurement, it may be misleading to rely on a key informant approach (Moriarty and Bateson 1982; Bernstein and Burke 1989; Bagozzi et al. 1991; Schein 1992; Deshpandé et al. 1993; Kohli et al. 1993). Since organizational culture is defined as that which is *shared* within the organization, a census or representative sample of organizational members is called for. Averaging across individuals will then reduce random error and may also contribute to reducing social desirability influences and impression management mechanisms to the extent that effects of those phenomena are randomly distributed throughout employees in one organization.

#### X 4.4 LEVEL OF ANALYSIS ISSUES AND CULTURAL STRENGTH

Organizational culture values are multilevel phenomena. They are defined as values *shared* among organizational members, while they manifest themselves in the individual employee, and should therefore be measured at the individual level. The general problem of aggregating individual scores to a group or organizational level of analysis has been addressed much in the literature (e.g., Dansereau et al. 1984). Similarly, the particular problem of measuring culture *strength* has been extensively debated within the organizational culture tradition (Zammuto and Krakower 1991; Denison and Spreitzer 1991). In this section we shall review approaches to aggregation and cultural strength measurements, and suggest a novel approach to handling the aggregation problem based on work by Muthén (1990).

In the culture literature, there have been two approaches to the problem of aggregation. One rests on the assumption that each organizational member's response, at least to some extent, is a reliable measure of the cultural value trait, and that within organization response differences are true differences and (only partly) due to measurement error (we shall call this the true difference assumption). Alternatively, one can assume that there is one true score for the organization, and that intra group differences are due to measurement error (which we shall call the *true score* assumption).

The *true difference* assumption has probably been brought to culture analyses from climate studies. Here the "unit of theory" is the individual employee (James 1982), and the collective climate is *formed* by individual perceptions. Individual perceptions may then be viewed as "causal indicators" (Cohen et al. 1990; Cohen et al. 1990; Bollen and Lennox 1991) of the aggregate climate. A number of criteria have been suggested to validate the aggregation of individual perceptual experiences and thus reduce the risk of applying concepts to levels where they do not belong (e.g., the organizational level). These criteria include: 1) internal consistency, or agreement of perceptions within groups, 2) discrimination, or demonstrable differences between groups (Roberts et al. 1978), and 3) predictable relationships to organizational and individual performance (Pritchard and Karasick 1973). Some studies have applied all of these three criteria for validating their aggregation of individual scores (e.g., Zammuto and Krakower (1991) while others have applied only criteria 1 and 2 (Sheridan 1992).

Perhaps the most comprehensive approach to multilevel analysis within the true difference approach is proposed by Dansereau, Alutto and Yammarino (1984). They employ an analysis of variance approach and distinguish between four archetypical situations as to the location of the explanation of variance or covariance. What they call a *wholes* situation is characterized by intra-group agreement, and all variance or covariance is explained by group differences, for example, all organizational members agree to what values are important and how important the values are. Wholes correspond to an integrationist (Frost et al. 1991) conceptualization of culture.

In a *parts* situation, each group shows the same (common) differences within itself as do other units, that is, between group variance and covariance is error while the intra-group variance or covariance is systematic. This situation corresponds to organizations characterized by homogenous sub-cultures, or a *differentiation* conceptualization of culture (Martin 1990). An *equivocal* situation exist when both parts and wholes exist simultaneously, and finally, an *inexplicable* situation exists when both intra- and inter-group variation and covariation is error. Both would correspond to a *fragmentation* conceptualization of culture of Frost & al. (1991).

Dansereau, Alutto and Yammarino (1984) together with a number of other authors (e.g., Zammuto and Krakover 1991; James 1982) do not recommend aggregating scores unless a wholes situation exist, that is, a large amount of the variance is explained between groups of aggregation, and that individuals within groups exhibit reasonably high levels of agreement (Mathieu 1991; James 1982). This is analogous to not performing aggregate level analysis on the means unless there is an integrated culture.

A number of indicators have been proposed for evaluating intra-group agreement, e.g., *intra-class correlation* with respondents within a group as “groups”, (Winer 1971), which is most directly interpreted as the average correlation among any two respondents ratings of a variable (James 1982; Zammuto and Krakower 1991), the *E-ratio* of Dansereau, Alutto and Yammarino (1984), which basically is the total scores correlated with group means (between eta), divided by the correlation between total score and the within cell score (between eta), and finally, a variation of the *Spearman-Brown general prophesy formula* ( e.g., O’Reilly et al. 1991).

*The true score assumption*, on the other hand, assumes that each raters' estimate of the organizational value is a reflective measurement of the organizational value, implying that the mean of the responses is a more accurate representation of the true score for the organization on the perceptual value, with less error variance than the perceptions of single raters. If the referent of the perceptions is a stable organizational characteristic like numbers of employees, organizational practices etc., (i.e., aspects that are the same for all employees), then differences at the individual level can be assumed to be measurement error, and aggregation is appropriate even without agreement at the individual level (Lord and Novick 1968; James 1982). If a true organizational score is assumed, the question of whether to aggregate and perform aggregate level analyses or not, is determined by the amount of variance that is explained at the aggregated level (James 1982; Muthén 1997; Gustafsson and Stahl 1995), with intraclass correlation values being the most common indicator of group differences (Harnqvist et al. 1994; Muthén 1989; Muthén 1990; Muthén 1991; Muthén 1994; Muthén 1997; Gustafsson and Stahl 1995; Gustafsson 1996).

In addition to the standard consistency measures mentioned above, Kim S. Cameron has adapted an homogeneity of responses instrument specifically for competing value assessment. The evaluation is based on scenarios describing each of four characteristics of the value dimensions (Cameron 1978; Quinn 1988; Cameron and Freeman 1991; Zammuto and Krakower 1991). Cameron and Freeman (1991) define cultural *congruence* in the following way: "Cultural congruence is present in an organization when the dominant characteristics<sup>4</sup> ..... all are consistent with another" (Cameron and Freeman 1991 p. 30). Relying on key informant data, they operationally define congruent cultures as those in which all four characteristics pertaining to one value type consistently received the most points in an ipsative distribution of 100 points between scenarios describing each cultural value on each characteristic. Then they proceed by defining a strong culture as one which is congruent and where each of the four characteristics received at least 50 of the one hundred points for distribution. In addition to the problems with ipsative scales in relation to quantitative data analysis (for a discussion, see Quinn and Spreitzer 1991), these scales are also problematic in that they do not allow independent assessment of cultural dimensions. It becomes impossible

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<sup>4</sup> Characteristics employed by Cameron and Freeman (1991) were: Leadership style, Organizational glue, Institutional characteristics, and Organizational emphases.

to rate an organization high or low across all cultural values, which may result in unrealistic and even incorrect culture descriptions (Quinn and Spreitzer 1991).

In applications of the competing values framework, both sets of measurement structure assumptions have been applied without, at least to the knowledge of this author, any substantial discussion of which might be more closely in line with reality. True differences have been assumed by, for example, Cameron and Freeman (1991) and Zammuto and Krakower (1991), while Quinn and Spreitzer (1991), Yeung, Brockbank and Ulrich (1991), and Moorman (1995) have assumed an organizational true score. Arguments for a true score position are that with organizational culture comparative studies, the “unit of theory” is the organization. If one assumes that organizational culture is something not too volatile, then individual perceptions might differ only because of measurement error. On the other hand, the culture does not exist without the members, and it is formed by what is shared by members, implying that there is no “true score” independent of them. Under these circumstances, the descriptive value of the mean is strongly dependent on the variance of the mean, and we have a true difference situation.

Glick (1985) is critical to the composition rules that can lead to some organizations being assigned a value for a dimension because they meet the compositional criteria, while others are not assigned values, because they fail on some criterium. Instead of composition rules, he recommends using traditional construct validation and measurement reliability assessment criteria.

The “true difference and true score dilemma” can also be addressed from a situational and an empirical point of view. In the competing values approach we are interested in *organizational* values, that are relatively stable. If items measuring the value dimensions are worded with the organization as a referent, it may be reasonable to assume a true score situation.

A number of writers distinguish strong from weak cultures (Schein 1992; Louis 1985; Sathe 1985). Basically, organizational culture strength relates to the average score (level) of employees in a culture bearing entity, and the variance of that score. The strength issue is also dependent on measurement assumptions. With an assumed organizational trait true score, the average alone is a strength indicator (e.g., Moorman 1995; Moorman et al. 1993; Deshpandé et al. 1993). If, on the other hand, differences between individual respondents of the same organization are assumed to be true, then both the variance and the mean of the scores are



relevant for strength assessment. With the average and mean largely independent of each other, both have to be taken into consideration simultaneously. At present there does not seem to be any agreement on how mean and variance should be combined to form an aggregated strength score. Some authors seem to base their evaluations on only one aspect, e.g., the inverse of the standard deviation (Hofstede et al. 1990), the intraclass correlation (Zammuto and Krakower 1991), or just the average of the scores (e.g., Cooke and Rousseau 1988), while others require intra-organizational data to demonstrate some agreement before aggregating and analyzing mean differences (e.g., O'Reilly et al. 1991; Zammuto and Krakower 1991; James 1982).

#### 4.5 DATA ANALYSIS; MULTILEVEL MODELING.

When we collect data from individuals within a set of organizations and analyze the data both at the individual and organizational level, a number of problems arise that require consideration. A traditional approach has been to aggregate individual scores and perform separate analyses of individual and aggregate data, an approach that may lead to erroneous conclusions as discussed below.

In the model proposed for this study, we have multiple measures of a number of the constructs, and a simultaneous estimation of structural and measurement models are called for (Jøreskog and Sörbom 1982). *Multilevel* structural equation modeling was for many years not possible, but recently, structural models for multilevel data have been proposed by Goldstein & McDonald (1988); Muthén (1990); Muthén (1989); Muthén & Satorra (1989). This literature does however make clear that a general multilevel structural equation model is too complicated to be practically feasible for the time being. It is, however, possible to formulate less than perfectly general models as originally suggested by Cronbach (1976) and developed and put within a framework of maximum likelihood estimation by Muthén (1989, 1990). The model is introduced below.

Conventional modeling approaches assume that the P-element vectors of observations for each subject ( $Y_i$ ) are Independently and Identically Distributed (i.i.d.). This assumption will normally not hold when a set of N respondents are responding to only one each of G different stimulus objects (organizations). Multilevel Structural Equation Modeling relax the i.i.d.-assumption (Muthén 1989), and offers an alternative to conventional approaches. From the

observations of the P variables, three matrices of relationships may be computed. First, the matrix used in traditional one-level analysis:

$$S_r = (N - 1)^{-1} \sum_{g=1}^G \sum_{i=1}^{N_g} (y_{gi} - \bar{y})(y_{gi} - \bar{y})'$$

Then the pooled-within covariance matrix ( $S_{PW}$ ) which is computed as an ordinary covariance matrix except that deviations of the individual scores are computed from group means rather than from the grand mean:

$$S_{PW} = (N - G)^{-1} \sum_{g=1}^G \sum_{i=1}^{N_g} (y_{gi} - \bar{y}_g)(y_{gi} - \bar{y}_g)'$$

The actual number of observations of  $S_{PW}$  is N-G. The other matrix is the between groups covariance matrix ( $S_B$ ) which is computed from the group means' deviations from the grand mean. This matrix is thus based on G observations:

$$S_B = (G - 1)^{-1} \sum_{g=1}^G N_g (y_g - \bar{y})(y_g - \bar{y})'$$

As shown by Muthén (Muthén and Satorra 1989; Muthén 1990),  $S_{PW}$  is an unbiased and consistent estimator of the population matrix  $\Sigma_W$ . It is, however, not possible to model  $S_B$  to capture only between group differences.  $S_B$  is a function of both the population between matrix ( $\Sigma_B$ ) and the population within matrix ( $\Sigma_W$ ).  $S_B$  is a consistent and unbiased estimator of  $\Sigma_W c \Sigma_B$  where c is a function of the group sizes (Muthén and Satorra 1989; Muthén 1990):

$$c = \left( N^2 - \sum_{g=1}^G N_g^2 \right) [N(G - 1)]^{-1}$$

For balanced data, c is the common group size, while for unbalanced data and a large number of groups, c is close to the mean of the group sizes.

Since  $S_{PW}$  is an unbiased and consistent estimator of  $\Sigma_W$ , an estimate of  $\Sigma_B$  is  $c^{-1}(S_B S_{PW})$ . This model may be formulated as a two-group model with one group based on the  $S_B$  matrix and the other on the  $S_{PW}$  matrix that yields maximum likelihood estimates when group sizes are equal. With unequal group sizes, the Muthen Approximate Maximum Likelihood Estimator (MUML) yields only approximate maximum likelihood estimates that however are consistent, but standard errors and tests of model fit are not quite correct. It has been shown that the

amount of error is quite small in normal situations (Muthén 1990; Muthén 1994). It is also possible to construct a full information maximum likelihood estimator, but this requires a model with as many groups as there are group sizes, which makes this estimator quite impractical (Muthén 1990).

As mentioned above, conventional organizational level analysis is often done on  $S_B$ , which might lead to erroneous conclusions, as may an individual (lower) level analysis of  $S_T$  without the group differences removed. In this dissertation we shall be careful to base our analysis on the correct matrices, and we shall employ the MUML estimator. This dissertation is, to the best knowledge of the author, the first application of multilevel structural equation modeling to the competing values framework.

This chapter has addressed methodological problems involved in organizational culture measurement and analysis, and approaches for handling these dilemmas have been selected. In the following chapter we shall present the theoretical model and hypotheses that shall guide our empirical research.

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## 5. MODEL AND HYPOTHESES

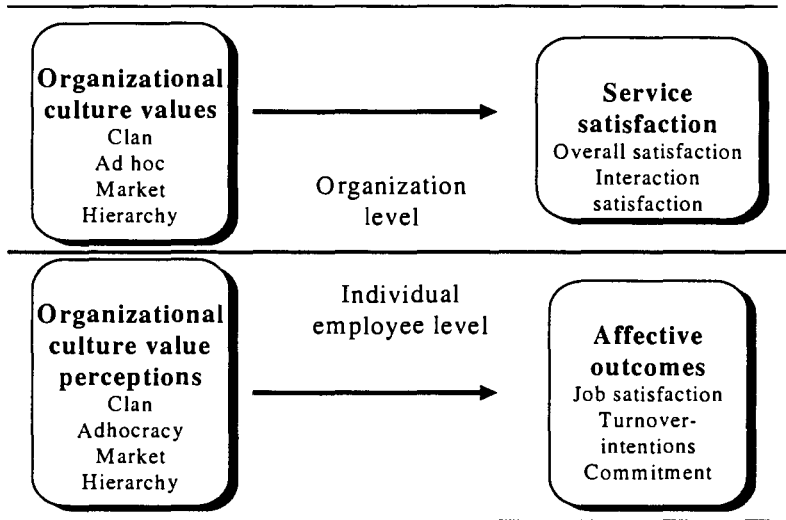
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In this chapter we shall develop the hypothesized model for the study of the relationship between cultural values and customer satisfaction. The major concepts of the model were discussed in the preceding chapter. Now we shall put the concepts together in a model and develop detailed research hypotheses covering the satisfaction effects of «strong» cultures (section 5.2), as well as individual value effects (section 5.2.2) and balanced values (section 5.2.3), at the hotel level before we turn to the individual level to hypothesize effects of value perceptions on individual employee affective outcomes (section 5.3). A quick review of the hypotheses is presented in section 5.4.

## 5.1 CONCEPTUAL MODEL

Figure 5-1 outlines the two-level conceptual model developed in chapter two and three. At the organizational level, organizational culture values were assumed to be related to service satisfaction. At the individual employee level, cultural value perceptions were assumed to be related to employee affective outcomes.

**Figure 5-1**  
**CONCEPTUAL MODEL FOR THE STUDY**



## 5.2 ORGANIZATIONAL CULTURE AND SATISFACTION

In this section we shall discuss the relationship between organizational culture and customer satisfaction. Our starting point shall be the relationship of «strong» and «weak» overall cultures to customer satisfaction. Then we shall discuss the relationships of each individual value to satisfaction, followed by an investigation of the effects of balanced values.

### 5.2.1 PERFORMANCE DIFFERENCES BETWEEN “STRONG” AND “WEAK” ORGANIZATIONAL CULTURES.

The integration perspective (Frost et al. 1991) on organizational culture asserts that a culture that is strong, congruent and supports the structure and strategies of the organization is more

effective than a weak, incongruent and disconnected culture (Frost et al. 1991; Cameron and Freeman 1991). Furthermore, a number of authors (i.e., Peters and Waterman 1982; Deal and Kennedy 1982) have asserted that a strong culture is associated with organizational excellence.

Not all cultures are conducive to effectiveness. The integration of the culture may be around a set of norms that do not contribute to performance, turning the consistency into a double-edged sword (Denison 1990). In the worst case, integration may be around values that are detrimental to effectiveness as well as resistant to change. The core values selected for this study are however based on effectiveness considerations (Quinn and Rohrbaugh 1981). They are based on central concepts of organizational behavior and culture, and will most likely be positively related to effectiveness (Deshpandé et al. 1993).

The competing values approach clearly does not belong to the integrationist perspective, but it is a basic premise of Quinn (1988) that, although he postulates four sub-dimensions of organizational culture, he also asserts that all four probably are needed for a company to succeed in the long run, which again implies that companies that have a high score on all of the competing value dimensions, should be more effective than companies with lower and inconsistent scores. Consequently, researchers applying the competing values approach to organizational culture have added the scores for each competing value dimension to form a measure of overall cultural strength (Yeung et al. 1991) that has been related to effectiveness. Findings have however been inconclusive, with some studies that find a significant, positive relationship between organizational culture strength and performance (see, for example, Yeung et al. 1991; Denison and Spreitzer 1991), and others finding no significant relationship (Cameron and Freeman 1991). The majority of theories and findings do, however, indicate a positive relationship.

The concept of organizational culture *strength* relates to two dimensions; how much of a cultural attribute an organization possesses (the *average* of the responses from organizational members), and the homogeneity or consistency of organizational members' culture assessment (i.e., the variance of that average)(Denison 1990). The higher the average and lower the variance, the stronger the culture. Both may be necessary, but none of them are alone sufficient conditions for culture strength, and may most likely be interacting to produce service satisfaction.

Based upon the above review it seems reasonable to assume that there is a positive association between total organization culture strength and service satisfaction, and we propose the following hypotheses:

H 1: Organizations with stronger overall culture have more satisfied customers.

H1a: The higher the average culture score, the more satisfied the customers are.

H1b: The lower the variance of the culture, the more satisfied the customers are.

## 5.2.2 INDIVIDUAL CULTURAL DIMENSIONS AND SATISFACTION

Within the Competing Values Approach it is assumed that a balance of the values are needed for sustained success, but since the framework is well integrated in the organization literature, it is also viable to formulate hypotheses for independent value effects on customer satisfaction (c.f. Moorman 1995; Moorman et al. 1993; Yeung et al. 1991; Deshpandé et al. 1993). A number of classificatory or cluster studies have also found one cultural dimension to dominate within an organization (e.g., Yeung et al. 1991; Cameron and Freeman 1991; Zammuto and Krakower 1991; Denison and Spreitzer 1991; Quinn and Spreitzer 1991), and they have found those dimensions to be related to internal functioning and external efficiency of the investigated organizations.

### 5.2.2.1 Clans and service satisfaction.

Organizations operating in uncertain and complex environments are probably most effective if they are clans (Ouchi 1980; Wilkins and Ouchi 1983). It is suggested that a service firm that wants to satisfy customers can not achieve this without a genuine concern for its own employees. The reason for this is that the employee is a vital part of the service product, and a frustrated ticket agent, an over-worked bank teller, or a stock broker in a branch office who gets no response to queries sent to headquarters, cannot be expected to ensure customer satisfaction (Parasuraman 1986). Service firms should strive to create an organizational climate in which employees can "feel at home" and take pride in their work, and it must foster feelings of togetherness and mutual respect among employees. Furthermore, clan orientations and the accompanying human resource practices will allow employees to devote their energies and resources to serving customers. In other words, when employees perceive their organization as one that facilitates performance, enhances career opportunities, provides positive supervision, and so on, they are then free to do the organizations main work of serving customers (Schneider and Bowen 1985), creating a positive relationship between a clan culture and customer satisfaction.

The clan - customer satisfaction relationship may be dependent on the degree of environmental uncertainty facing the organization (Bowen and Bowers 1986). Markets for services characterized by low intangibility of the service and low customer contact, probably can be served better by a more mechanistic (hierarchical) structure. Bowen and Bowers do however suggest that hotel customers probably are better served by a hybrid structures that encompass mechanistic organization forms for efficient routine service production, as well as organic forms capable of handling the uncertainty of customer heterogeneity. (Bowen and Bowers 1986).

A number of findings support a positive relationship between a clan orientation and efficiency (Yeung et al. 1991; Cameron and Freeman 1991; Moorman 1995; Quinn and Spreitzer 1991), while a few studies have found the relationship to be non-significant (Moorman et al. 1993; Deshpandé et al. 1993). Employee perceptions of human resource practices have also been demonstrated to correlate with customer reports of the services they receive (Schneider and Bowen 1985).

The above reasoning and review lead to the following hypothesis:

H 2: There is a positive relationship between clan cultures and customer satisfaction.

#### 5.2.2.2 *Adhocracies and service satisfaction*

Innovation and adaptation has long been recognized to be promoted by less rigid organizational structures (Zaltman et al. 1973). There is also a broad base of support for using an organic as opposed to mechanistic organizational structures when an organization is operating in a dynamic and complex environment (e.g., Mintzberg 1979; Bowen and Bowers 1986). The argument put forth is based on the premise that rigid structures do not allow the organization the flexibility it needs to adapt to the environment. With intangibility of services, the uncertainty of customer needs, the uncertainty of his/her disposition, willingness and ability to participate as a prosumer, and the simultaneous production and consumption, the service industry often faces great uncertainty, and the service employee alone must *determine* and *meet* the needs of the customer. Employees must have a high degree of flexibility within the system to make these decisions (Bowen and Bowers 1986).

Findings in studies based on the competing values framework have not been consistent. Cameron and Freeman (1991) found adhocracies to be closely related to students' academic



and career development in a study of university effectiveness, while Yeung, Brockbank and Ulrich (1991) found a negative relationship of ad hoc values to performance. However, the sample of the latter study consisted of general “businesses” with no record of the number of service industry or other businesses where uncertainty might be an important environmental factor. A number of studies have not found statistically significant relationships between ad hoc values and performance (Moorman 1995; Deshpandé et al. 1993; Moorman et al. 1993). We do however feel that the strong theoretical support and findings from other areas warrant the following hypothesis:

H 3: There is a positive relationship between ac hoc values and customer satisfaction.

### *5.2.2.3 Markets and service satisfaction*

Market and rational values should be positively related to product satisfaction. First, a market orientation implies that satisfaction assessments in the company are based on customer data. Secondly, product development and adaptation will be based on the satisfaction assessments while considering the competitive situation. Consequently, a company characterized by strong market values should be striving for services that have unique benefits and product values to the customer (see, for example, Moorman 1995).

Within the market orientation tradition (e.g., Narver and Slater 1990), a string of studies have shown market orientation to be positively related to a number of effect and efficiency criteria (e.g., product adaptation , sales, overall performance and profitability), (for a review see Sandvik 1998).

Findings in studies based on the competing values framework have generally been inconclusive as to the relationship between market aspects of culture and performance. One reason for this is that the organization culture classification or clustering studies have failed to identify cultures that are predominantly market oriented (Yeung et al. 1991; Zammuto and Krakower 1991; Cameron and Freeman 1991; Quinn and Spreitzer 1991). Yeung, Brockbank et al. (1991) note that all culture types their and other studies had discovered, had moderate scores on market orientation, and speculate that a rational market oriented culture is essential for survival. Hence, companies with low scores on market values would also be hard to find in a competitive economy.

However, Deshpandé, Farley and Webster (1993) did find market orientation to be significantly more positively related to performance than the other cultural values. We do feel

that the large number of positive findings from the market orientation and other fields warrants the following hypothesis:

H 4: There is a positive relationship between market culture and customer satisfaction.

#### 5.2.2.4 Hierarchies and service satisfaction

The advantage of hierarchies (i.e., governance by rules and procedures), lies in the opportunity to achieve production efficiency (Thompson 1967). In services, Ted Levitt advocates the “industrialization of service” (Cui and Van Den Berg 1991), and a “production line approach to services” (Levitt 1972). He states:

Manufacturing thinks technocratically, and that explains its success...By contrast, service looks for solutions in the performer of the task. This is the paralyzing legacy of our inherited attitudes; the solution to improved service is viewed as being dependent on improvements in the skills and attitudes of the performers of that service.

While it may pain and offend us to say so, thinking in humanistic rather than technocratic terms ensures that the service sector will be forever inefficient, and that our satisfaction will be forever marginal (Levitt 1972 p. 43).

What he recommends is a simplification of tasks, clear division of labor, substitution of equipment and systems for employees, and little decision making discretion afforded to employees. In short, he suggests that management should design systems and employees should execute them (Bowen and Lawler 1992). Bowen and Bowers (1986) suggest that a mechanistic organization may be most efficient for organizations with low customer contact and low intangibility of the product (i.e., budget motel).

Based on reviews of agency theory, organization theory, transaction cost analysis, and cognitive evaluation theory, Anderson and Oliver (1987), in their seminal evaluation of outcome (goals) versus behavior (rules) based systems for sales control, do however suggest that behavior governance is predicted by most theories under conditions of environmental uncertainty. Behavior control may possess a number of advantages compared to output control, for example that nonsales goals, such as account maintenance and service may be pursued, longer time perspectives can be assumed because immediate results can be balanced with long-term sales relationships and outcomes (Oliver and Anderson 1994).

Hierarchies open up for standardization, production efficiency, administrative effectiveness and efficiency, and customer satisfaction through lower prices. The effectiveness of an organization dominated by hierarchical values in service deliveries, is however suggested to depend on the product, customer, and market characteristics in which they operate (Bowen and Schneider 1988). Intangibility of the service, simultaneous production and consumption, and customer participation introduce uncertainty that may make specification of hierarchical rules unfeasible, and if attempted, may prove to be dysfunctional and result in lower service satisfaction (Bowen and Bowers 1986; Schneider and Bowen 1984; Bowen and Lawler 1992; Bowen and Schneider 1988).

Within the competing values framework, some amount of hierarchical values are assumed to be needed for organizational efficiency (i.e., Quinn 1988). Mechanistic organizational forms may also be needed for effective implementation of innovations (Zaltman et al. 1973), and in the “structural routinization” of changes (Quinn and Kimberly 1984).

Findings in studies employing the competing values framework have not supported a positive hierarchy value - performance relationship. On the contrary, significant findings have mostly been negative (Cameron and Freeman 1991; Deshpandé et al. 1993; Moorman et al. 1993). The negative findings make it reasonable to suggest the following hypothesis:

H 5: There is a negative relationship between hierarchy values and customer satisfaction.

### 5.2.3 BALANCED VALUES AND SATISFACTION

In the competing values framework, a basic assumption is that a balance of the competing values is needed for long range success (Quinn 1988). The competitive tension between values is thought to bring at least two major benefits for service operations. The first relating to external competencies; competing values will allow organizations to both effectively and efficiently cater to customer and market heterogeneity; market and rational values will imply a customer focus, and together with hierarchy values generate efficient, reliable, and consistent production. Ad hoc values will allow individual employee adaptation and customization of service deliveries, while clan values will align organizational and individual goals and values, and be positively related to employees' self confidence and team spirit. The second benefit of competing values relates to internal innovativeness and change. Kotter and Heskett (1992) conclude their study: “...even contextually or strategically appropriate cultures will not promote excellent performance over long periods unless they contain norms and values that

help firms adapt to a changing environment” (p. 142). When values are competing, it is probably easier to achieve a cultural re-orientation by shifting the relative weight of values in line with changing market and competitive demands. If one value is dominant, it may prove more resistant to change (Quinn 1988).

It is a basic assumption of a number of authors that customer, production, administrative and competitive conditions may require hybrid organizational forms Zaltman et al. (1973). Jones (1983) and Bowen and Bowers (1986) suggest that a mix of organic and mechanistic processes may be needed for hotels in particular. This is due to the conflicting needs for standardization to achieve efficient production and customization to cater for customer heterogeneity.

Findings of balanced values effects in studies employing the competing values framework are scarce. This is probably due to the fact that most studies have focused more upon identifying one dominating value dimension and relating that to performance than looking at effects of balanced values (i.e., Cameron and Freeman 1991; Moorman 1995; Deshpandé et al. 1993; Moorman et al. 1993). Yeung, Brockbank and Ulrich (1991) did however find a strong comprehensive culture to outperform any other cultural configuration, while Quinn and Spreitzer (1991) in a study with quality of life of employees as the dependent variable found both a strong and a weak comprehensive culture to be positively related to different employee quality of life domains. This finding opposes Yeung & al. (1991) that found weak comprehensive cultures to be negatively related to both human resource practice and organizational performance. It is however rather counter-intuitive that a balanced weak culture systematically should result in service satisfaction, and we propose the following hypothesis:

H 6: Organizations with strong, *balanced* values have better service satisfaction than organizations with unbalanced values.

### **5.3 ORGANIZATIONAL CULTURE PERCEPTIONS AND EMPLOYEE AFFECTIVE OUTCOMES**

There is neither theoretical agreement nor systematic empirical support for the relationships between organizational values and employee affective outcomes. This probably is a field of “competing theories”, of which we shall present a few.

Quinn (1988) suggests that a balance of the competing values is important in achieving individual effectiveness and well-being. He hypothesizes that imbalances may be

dysfunctional, and lead to narrowness. "Perhaps effectiveness is the result of maintaining creative tension between contrasting demands in the social system.....When tension is lost., systems begin to lose necessary positive tensions.." (Quinn 1988 p. 106). This would imply that all competing values would be positively related to commitment and job satisfaction, and negatively related to intentions to leave.

Role stress theories, on the other hand, systematically find that role ambiguity and role conflict are negatively related to job satisfaction (Brown and Peterson 1993). This would imply that the more "competing" the values are, the more conflict will be felt, and the less job satisfaction and commitment will be experienced. While Quinn hypothesizes a uniform positive relationship between culture and outcomes, stress research results indicate that only one value at a time (or values that are commensurate) can be positively related to affective outcomes.

The relationship between clan, ad hoc values and affective outcomes is probably the least disputed. Traditional organizational development values suggest that an emphasis on human relations and open system values is a key element for enhancing satisfaction and fulfillment in individuals (Mirvis 1988). From these theories it would be expected that a strong emphasis on group and ad hoc values would result in greater individual well-being and lower intentions to leave the organization.

Concerning hierarchy perceptions, and Quinn (1988) and Oliver and Anderson (1994) assumptions of a positive relationship to affective outcomes, two mechanisms are possible.

- One is the Weberian assumption that would support a positive relationship, namely that subordinates perceive organizational authority or top-down influence, as legitimate and worthy of compliance, and that they will obey orders from their superiors (e.g., Halaby, 1986 in O'Reilly and Chatman 1996, Oliver and Anderson 1994). Oliver and Anderson (1994) hypothesize that a salesperson governance structure characterized by *behavior control* leads to the salesperson's commitment and gratefulness to the employer who assumes risk for them and give them a more nurturant climate. Thus, within bounds, there will be a positive relationship between hierarchy and job satisfaction, and negative one between hierarchy and intentions to leave the organization. There are also studies that seem to indicate that individual characteristics (e.g., high desire for power) may be associated with high job satisfaction in hierarchies (Koberg and Chusmir 1987).

(2) The other mechanism is based on the premise that people have a strong desire to maintain their freedom of action, and when confronted with influence attempts from others, experience strong reactance and actually shift their attitudes and behaviors in a direction opposite to those being advocated or demanded (Brehm 1972 in O'Reilly and Chatman 1996), leading to a negative relationship between hierarchy and job satisfaction. In the service setting, it seems reasonable to assume that hierarchies with the inherent rules and regulations may cause role conflict between the flexibility needed to satisfy customers and the rigidity of the organizational hierarchy (Bowen and Bowers 1986). This role conflict in turn leads to reactance especially among personnel who come in contact with customers. They are face to face with the customer, and hierarchy probably will hamper their functioning in the service delivery and lead to lower job satisfaction, commitment and higher intentions to leave.

Affective outcomes of a *market orientation* can also be both positive and negative depending on the configuration of other cultural values, practices, human resource management, etc. Market/rational values in an organization that is strongly market oriented probably will afford a number of psychological and social benefits to employees. Specifically, a market orientation is argued to lead to a sense of pride in belonging to an organization in which all departments and individuals work toward the common goal of satisfying customers (Kohli and Jaworski 1990). Accomplishment of this objective is posited to result in employees sharing a feeling of worthwhile contributions, a sense of belongingness, and, therefore, commitment to the organization (Jaworski and Kohli 1993)

Market and rational values may also be negatively related to individual employee affect. A market culture that is not supported by other organizational values may lead to role ambiguity and role conflict that may be negatively related to affective outcomes (See Singh & al. 1996 for a review). Boundary personnel stress is probably especially important in service deliveries, where employees who deal with customers operate independently in "the moment of truth". If they do not feel that they have the discretion and support needed to fulfill customer needs, stress is inevitable, and job satisfaction and commitment will be reduced while intentions to leave will increase.

Few studies have investigated the relationship between competing organizational culture value perceptions and employee affective outcomes (a notable exception is Quinn and Spreitzer 1991). Findings in the few studies that have been conducted, as well as findings in related studies, are not unequivocal. Furthermore, most research in this field has focused on

consequences of person-culture *fit*, often termed congruence studies (e.g., O'Reilly et al. 1991; Chatman 1991; Boxx et al. 1991; Mathieu 1991; Harris and Mossholder 1996). The computation of congruence measures does however pose severe methodological problems that rarely, if ever, are appropriately addressed (Edwards 1995; Edwards 1994), necessitating that findings from these studies must be evaluated with caution.

Empirical support for a positive relationship between clans, ad hoc values and affective outcomes has been almost unanimous (Quinn and Spreitzer 1991; Cameron and Freeman 1991). In a meta-analysis of 59 job-satisfaction studies that, however, did not include organizational culture directly, Brown and Peterson (1993) found that greater amounts of consideration, feedback and communication, close supervision and contingent approving were all associated with greater salesperson job satisfaction, and that job satisfaction was negatively related to turnover intentions. Their findings seem to relate to a positive clan - job satisfaction relationship. In a study based on a conceptualization of organizational culture very similar to three of the competing values, Koberg and Chusmir also found innovative (ad hoc) and supportive (Clan) cultures to be positively related to job satisfaction, and negatively to a propensity to leave. They also found that individual factors like need for achievement, need for power, and need for affiliation moderated the culture perception - affective outcome relationship (Koberg and Chusmir 1987).

In the results from a congruence study that deals with some of the congruence measurement problems (i.e., the multidimensionality of the culture construct), Harris and Mossholder (1996) found ideal-current culture discrepancies on all four competing values dimensions to explain significant amounts of variance in organizational commitment; increasing congruence was associated with more organizational commitment. Findings regarding job turnover intentions and job satisfaction were fairly consistent, but not significant over the culture dimensions. Only the clan discrepancy explained a significant part of the variance in job satisfaction, and only the ad hoc and market discrepancies explained significant variance in job turnover intentions.

Findings regarding hierarchies are more ambiguous. Zammuto and Krakower (1991) found hierarchies to be associated with conflict and scapegoating, and Quinn and Spreitzer (1991) found executives in units with a profile that was skewed towards hierarchies to be highly dissatisfied with their work.

On the other hand, Oliver and Anderson (1994) found behavior based control (hierarchies) to be positively related to job satisfaction and commitment, and Harris & Mossholder (1996) found hierarchies to be positively related to commitment.

Research results concerning market values are less ambiguous. Jaworski and Kohli (1993) found market *orientation* to be positively related to commitment; a finding that was supported by Harris and Mossholder 1996, who also found market organizational values to be positively related to commitment. Configuration studies (archetype studies), where one tries to empirically identify archetype distributions of organizational values, have so far not identified cultures that are predominantly market oriented (Quinn and Spreitzer 1991; Cameron and Freeman 1991; Zammuto and Krakower 1991; Yeung et al. 1991). This probably implies that few of the studied organizations have market orientations strong enough to cause role conflicts and stress of employees. Hence the indeterminate findings in this stream of research.

The above theory and findings seem to warrant the following hypotheses:

- H 7: Clan, ad hoc and market cultures are positively related to job satisfaction.
- H 8: Clan, ad hoc and market cultures are negatively related to turnover intentions.
- H 9: Hierarchies are negatively related to job satisfaction and positively to turnover intentions.
- H 10: Clan, ad hoc, market and hierarchy cultures are positively related to organizational commitment.

## 5.4 SUMMARY OF HYPOTHESES

Several hypotheses were presented in this chapter together with their theoretical and empirical arguments. This section provides only a summary of the stated hypotheses.

The first group of hypotheses (H 1 to H 6) are the organization level hypotheses linking organizational culture to service satisfaction, while the second group (H 7 - H 10) covers the hypothesized individual employee level effects of culture perceptions.



**Table 5-1**  
**SUMMARY OF HYPOTHESES**

Constructs	Hypothesized relationship	Hypothesis number, text section reference
<i>Culture - Service satisfaction</i>		
Culture strength	+	H 1 (5.2)
Clan	+	H 2 (5.2.2)
Ad hoc	+	H 3 (5.2)
Market	+	H 4 (5.2.2)
Hierarchy	-	H 5 (5.2.2)
Balanced values	+	H 6 (5.2.3)
<i>Culture perceptions and affective outcomes</i>		
Job satisfaction:		
Clan	+	H 7 (5.3)
Ad hoc	+	H 7 (5.3)
Market	+	H 7 (5.3)
Hierarchies	-	H 9 (5.3)
Turnover intentions:		
Clan	-	H 8 (5.3)
Ad hoc	-	H 8 (5.3)
Market	-	H 8 (5.3)
Hierarchies	+	H 9 (5.3)
Commitment:		
Clan	+	H 10 (5.3)
Ad hoc	+	H 10 (5.3)
Market	+	H 10 (5.3)
Hierarchies	+	H 10 (5.3)

In this chapter, we have presented the model that our empirical research shall rest on, and we have formulated our research hypotheses. In the following chapter, we shall develop the research design for our empirical work.

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## **6. RESEARCH DESIGN**

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Designing an adequate data collection plan involves almost brutal compromises between what one should or want to do, and what, on the other hand, is practically possible to do. In this section we shall discuss and plan the research design employed in our data collection. The first section is devoted to overall design considerations, while the second concerns the empirical setting and sample. The third section discusses the measures chosen for the theoretical constructs, and the fourth and last section describes the data collection process.

## 6.1 OVERALL DESIGN

The research questions and hypotheses would, in an ideal world, *determine* the research design. In the real world, resource constraints make the designs we employ far less than ideal. The problem of designing a study then becomes more an art of quality optimization within constraints than of global quality maximization. The ultimate goal of social scientists is to establish causal laws (see, for example, Hunt 1983) with fully controlled causal studies being the ideal. When we design studies that fall short of these requirements, we feel obliged to explain why, and develop designs that minimize the effects of deviations from the ideal. That is the case also here.

In our study, the basic relationship *is* causal - we are interested in how organizational culture influences customer satisfaction and service satisfaction. Consequently, the design should have been causal. Shall one be able to draw causal inferences, the research design must meet three requirements (Cook and Campbell 1979). 1) It must establish covariation between the putative cause and effect. 2) It must secure that the cause - effect chain is not spurious (i.e., it must rule out alternative cause - effect explanations), which implies control of alternative causes, and 3) It must demonstrate the temporal antecedence of the cause which implies a longitudinal design.

Practical considerations have led to the choice of a simpler design, mainly because the latter two requirements of a causal design are particularly difficult to meet in the present context. To secure *non-spuriousness*, control of the cause (organizational culture) would be needed. The strictest form of control would involve cause (treatment) manipulation in an experimental setting (Cook and Campbell 1979). Organizational culture manipulation is feasible, but extremely resource demanding to perform, and would only allow us to investigate a very limited number of cases. That small number of cases would again not allow us to test for the great number of competing value configurations that are possible, and would definitely not allow quantitative conclusions which are of major importance in the present study.

Even though culture manipulation is feasible, it is extremely difficult to carry out within the time frame of an ordinary dissertation, and it may take years before a new competing value configuration is established and fully disseminated throughout the focal organizations.

To establish temporal antecedence of the cause, a longitudinal design is needed. Organizational cultures do not change rapidly, not even with interventions, so again the stress on our limited time resources would be too great to allow two periods of data collection with ample time for the culture to change in between.

With these limitations to the study, we end up with a correlational design that does not handle the direction of influence, and only to some extent handles the control/isolation requirements. The lack of control for causal ordering probably is of minor concern here. The direction of the causality between organizational culture and customer satisfaction is at present not disputed in the literature. It is however feasible that in long lasting customer relationships, there might be a reciprocal relationship between organizational culture and customer satisfaction, at least for major customers. However, in the hotel setting we have chosen, the number of customers of each hotel is large, and the average interaction time that could influence the organizational culture is short, so there are small possibilities of satisfaction influencing culture.

Since it was limited resources that prevented us from choosing a longitudinal design, we might add that our design choice does not rule out longitudinal studies should the direction of influence become disputed. The present correlational study can serve as a starting point for a longitudinal panel design with one or more follow-up studies that would allow causal structures to be more thoroughly studied (Cook and Campbell 1979).

The correlational design can only to a certain extent provide control for the elimination of alternative explanations for the observed associations. Without the opportunity of manipulating one of the variables, it is always possible that an observed correlation is spurious. Standard techniques for achieving control are 1) full randomization, 2) to use a homogenous population and 3) to control for or cancel out effects of assumed third variable influences (control variables). Here we have opted for a combination of 2 and 3. We have chosen to conduct the study within one industry (the hotel industry), but within that industry we have tried to achieve some randomization when selecting organizations, and we have tried to survey all employees of each participating hotel (see section 6.2 for further sample discussions). We did not include control variables *a priori*. Our fully independent measurement of organizational culture in the hotels and the satisfaction of the customers minimizes some of the spuriousness concerns, and a lack of powerful theories for guiding control variable selection would make that operation rather haphazard.

Consequently, a survey was found appropriate for addressing the research questions of this dissertation.

## 6.2 EMPIRICAL SETTING AND SAMPLE

The hotel industry was considered an adequate arena for testing organizational culture - customer satisfaction relations. Our theory is general, it should hold for any empirical setting, and can be rejected if it is falsified in any sub group, for example the hotel industry. A possible lack of external validity to other service operations will then have to be remedied in subsequent studies.

We thus ended up with a single industry/single country (Norway) sample which has some benefits and some potential disadvantages. The major benefit, apart from practical ones, is the elimination of industry differences that might confound findings (Calder et al. 1981). Sampling over industries introduces industry specific variance which, to be handled appropriately, would involve introducing another level of analysis in our two-level analysis. At present, structural equation modeling is not developed far enough to allow for simultaneous three-level analysis (Muthén 1989), and one would have to rely on much simpler analysis techniques without the possibilities of simultaneous modeling of the measurement and structural model. Plus, the sample would become very large to comprise a sufficient number of industries. Since Structural Equation Modeling makes it easier to account for random and systematic *measurement* errors (Jøreskog and Sörbom 1982), and thus, to avoid errors that may lead to biased and attenuated relationship estimates, we decided to stay with a sampling plan that would collect data suitable for MSEM analysis.

Staying within one industry also allows one to use a single set of operationalizations of variables. With more industries covered, the focal variable operationalizations, especially the customer satisfaction instrument, would have to be adapted to each industry thereby crating an opening for increased measurement error.

The drawback of doing a one-industry analysis is mainly twofold. First there may be a reduced variance of variables, especially the independent organizational culture variables (Chatman and Jehn 1994). Appropriately, Lovelock (1983) calls for more cross-industry research in the service sector. However, we tried to maximize variance within our hotel sample by including a wide spectrum of hotel operations, from chains to independent operators, from small units

(three employees) to large (more than 200 employees), from city locations to very remotely located hotels. We have included hotels with large and lower employee turnover, from very profitable to extremely unprofitable operations, and finally we have included business and convention, as well as leisure market operators.

The second drawback is that findings may be industry specific and have low validity outside the hotel business. This may be of particular concern in organizational culture studies since the culture - performance link may vary over different environments (Triandis 1994). Fornell (1992) has also suggested that the degree of competition may affect the importance of delivering products that match the needs of customers. However, Lovelock asserts that the hotel industry services represent “tangible” as well as “intangible” actions directed both to people’s bodies and minds (Lovelock 1983), and thus may represent a viable testing ground for services research. The delivery of hotel services requires considerable customer contact (Hartline and Ferrell 1996), and the hotel product is complicated in that it comprises a number of other elements, for example physical facilities, surroundings, and other physical products like food. The hotel product is thus similar to a number of other services like retailing, banking, and other travel products etc., where customer - employee interactions constitute a part of the total product. The hotels chosen also face different environments since a very heterogeneous selection of hotels have been included in the sample. Furthermore, other studies of the same hotel population have shown Norwegian hotels to have different profitability (Troye et al. 1995), and that product quality and service satisfaction also differ for the hotels (Henjesand 1996), and finally that the market orientation of the hotels also varies (Sandvik 1998). If the theory suggested in this study has any merit, some of these differences may be traced back to differences in the hotels organization culture.

The consequence is that this study has been designed to contain elements of both theory test applications and effects applications (Calder et al. 1981). Theory testing requires maximally homogenous units of analysis to improve control, while effects applications require samples with real-world like variance for external validity.

The total hotel population in Norway was 1179 in 1995 (The Norwegian Hotel and Restaurant Association 1996). However, the number of hotels listed in the Hotels in Norway database for

1996-97<sup>5</sup>, was 673, and the number of incorporated hotels submitting mandatory annual reports to the Register of Business Enterprises in 1995 was 594, indicating that there are a number of small hotels.

As this research requires considerable effort from a number of hotel employees, we were strongly advised by the industry not to collect data during the peak season. Consequently, we tried to survey the hotels in lower intensity seasons where both the number of guests and part-time employees is lower.

The multilevel structure of the study makes the sampling plan rather complicated. First, hotels to be included in the study will have to be sampled. Then, a sample of guest will have to be selected for satisfaction ratings, and finally, a census or sample of employees will have to be interviewed for organizational culture perceptions and intervening variables evaluations. The demands on participation organizations is also rather heavy considering that most Norwegian hotels are small and have a limited number of employees in management positions to manage the data collection. A pilot study showed that it was difficult to achieve a reliable random sample, as a large number of hotels contacted refused to participate, and among those that volunteered, there turned out to be a high proportion that were unable to conduct both surveys satisfactorily with adequate numbers of respondents. Consequently, instead of trying to achieve a random sample that would be compromised by non-response, an alternative strategy was chosen.

We chose three Norwegian hotel chains by the following characteristics; the hotels should be independently owned and operated, the chains should be heterogenous, and if possible, cover a large part of the population variance. Eventually we were able to establish cooperation with three chains; IACC, Inter Nor Hotels and Best Western Hotels. In addition, two tourist destinations with hotels operating both in the tourist and business markets were included. The method of selecting hotel chains, as a means of establishing contact with hotels, has been used in a number of other studies, i.e, Henjesand (1996), Hartline and Ferrell (1996), and Troye, Øgaard & al. (1995).

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<sup>5</sup> The database is available through the Norwegian Hotel and Restaurant Association.

## 6.2.1 SAMPLE SIZE

Sample size determination in our multilevel multi-constituency (employees and customers) case is also a multifaceted decision involving the determination of required sample sizes for the hotel sample, the customer sample for each hotel and the employee sample for each hotel. Each involved different considerations for appropriate sampling.

First, the number of hotels to include has to be decided. Larger sample sizes allow for greater precision in parameter estimates (and/or a larger number of free parameters) (Bollen 1989), but is also associated with a smaller confidence interval in test statistics for the overall model fit (i.e.,  $\chi^2$ ), making the theory test of the entire model riskier. Bentler and Chou (1987) suggest a minimum of a 5:1 ratio between sample size and the number of free parameters to be estimated. However, hotel level indicators are averages of individual responses, implying that measurement error is considerably lower, item reliability higher (Muthén 1997), and accordingly, reliable parameter estimates may be obtained with much lower sample sizes. However, Muthén (1997) suggests that the multilevel ML estimator (MUML) does not perform too well with sample sizes much less than 50. Accordingly, a hotel sample of 50 should allow for a few drop-outs and still provide significant estimates and a reliable estimation procedure.

The number of employees needed per hotel relate to two sample considerations, one is the total number of respondents needed for individual level modeling which is addressed below, and the other relates to the number of employees needed per hotel. MUML is based on equal group sizes, but Muthén (1997) suggests that it also performs well with unbalanced data. The estimators do however have problems of convergence in small group sizes and small intraclass correlations (Muthén and Satorra 1995), but Muthén suggests that for intraclass correlations of .10 and groups averaging 7, the estimator performs well even with a number of groups that is not considerably lower than 50. Consequently, the sampled number of employees per hotel should not be lower than 7.

Individual level modeling of culture perceptions and outcomes should however be amenable to conventional sample size considerations. With up to 30 indicators (5 each for 4 cultural value perceptions, and up to 10 outcome indicators), a minimum sample needed would be approximately 3-400.



With an estimated median number of employees per hotel of 16 and 50 hotels in the planned sample, the necessary employee sample is close to half the total number of employees in the hotels. Therefore it was decided to aim for a census of hotel employees. In the data collection, one will have to rely on hotels to cooperate in gathering employee data, and a census was also considered easier to handle for the hotel than administering a *sample* of employees.

Customer data are needed for the assessment of the average customer satisfaction at the hotel level. If one assumes a normal distribution of respondents, and no measurement error, a mean estimate for one single item of a scale (i.e., one question in the questionnaire) with a 95% probability of getting within +/- 10% of the true score would require a sample of  $n \geq (1.96/.1)^2(1/3)^2 \approx 43$  respondents per hotel. This sample size would lead to very precise estimates that are probably not needed because our customer satisfaction constructs each comprise several items that, when averaged, would have lower variance. On the other hand, we do have measurement error that would inflate the number of cases needed considerably. The data collection procedure was eventually simplified by setting a target of 100 customer questionnaires for each hotel. This target is only attainable for the larger hotels, as the smaller and smallest hotels do not get that number of guests in the off - peak seasons chosen in this research.

## ✓ 6.3 MEASURES

The measurement process is according to Bollen (1989), the process of a) give the meaning of each concept, b) identify the dimensions and latent variables to represent it, c) form measures, and d) specify the relationship between the measures and the constructs. The two first steps are addressed in the literature review, while the latter two will be addressed here. Churchill (1979) recommends that measures should be adopted and adapted from other studies where they have been validated. This ensures across-study comparability, and efficient measurement development. To our best effort we shall follow that advice here. Measures are reported below and in Appendix 2 and 3

### 6.3.1 ORGANIZATIONAL CULTURE MEASUREMENT

Two general approaches to the response format of organizational culture questions have been used in published studies employing the competing values framework. The first was developed by Cameron (1978), later employed by, for example, Quinn (1988), Cameron and

Freeman (1991), Zammuto and Krakower (1991), and is based upon respondents being presented with scenarios relating to each of the four competing values and then asked to divide 100 points among the four scenarios in question. Using the scenarios, four questions address various components of the organization's culture including the organizations general culture characteristics, leadership style, institutional bonding and strategic emphasis. Problems involved in the ipsative measurement in this method led Quinn and Spreitzer (1991) to suggest a Likert response format that have statistical properties better suited for complex quantitative analysis.

The wording of items has also varied in published studies. One major difference is the extent of "scenarioization" of individual questions, or the complexity of the questions. One example of a complex question is found in Deshpandé, Farley and Webster (1993); "The glue that holds my organization together is loyalty and tradition. Commitment to the company runs high." (p. 34). For the respondent, this may be an equivocal question. In a cultural transition, tradition may be strong while loyalty and commitment run low. In fact, the use of periods and conjunctions within a question to enter equal footing sentences and phrases is relatively high in most studies, thereby introducing interpretation and response problems for the respondent and eventually opening for an increase in measurement error.

To avoid the danger of equivocal questions, we used the Cameron and Freeman (1991) and Quinn and Spreitzer (1991) wordings and tried to split equivocal questions. The response format was an 11 point scale ranging from -5 (Very poor description ) to +5 (Very good description). Items are presented in Appendix 2.

### ✓ 6.3.2 CUSTOMER SATISFACTION

Satisfaction with service product elements and overall satisfaction were both measured with questions developed and refined by Troye and associates (Henjesand 1996; Troye et al. 1993; Troye and Henjesand 1992; Troye and Øgaard 1997). Interaction satisfaction was measured with four items:

- 1) "The friendliness of employees at check in and check out";
- 2) "The servicemindedness of the employees";
- 3) "The employees ability to solve problems";
- and 4) "The ability to offer quick service."

Overall satisfaction was also measured with four items of which two rate the overall satisfaction with the hotel, with an eleven point response scale ranging from -5 (very unsatisfied) to +5 (very satisfied). The other two items tapped the respondent's estimation of

his or her likelihood of choosing the hotel on other occasions, or recommending it to others. The response scale ranged from 1 (very unlikely) to 11 (very likely).

### 6.3.3 EMPLOYEE AFFECTIVE OUTCOMES

*Job satisfaction* was measured using two items adapted from the Michigan Organizational Assessment Questionnaire -MOAQ (Cammann et al. 1983; Harris and Mossholder 1996): “All in all I am satisfied with my job,” and “I would recommend a good friend to apply for work in this organization”. Similar operationalizations have been used by for example Rousseau (1990).

*Intentions to stay with the organization* were measured with one of the three MOAQ items (Price and Mueller 1986; Harris and Mossholder 1996). As the item was embedded in a string of questions measuring positive affect towards the organization (i.e. *job satisfaction* and *organizational commitment*), a negative wording of leave intentions was chosen: “I do not consider leaving the organization”. Similar items have been used by O’Reilly & al. (1991), Rousseau (1990), and as measures of intentions in service choice (Ajzen and Driver 1992).

*Organizational commitment* was measured using the short form of the Organizational Commitment Questionnaire (Mowday et al. 1979) which measures affective or attitudinal commitment (Mathieu and Zajac 1990). In order to avoid potential item wording confounds, only the nine positively worded items were used from the original 15 item scale (cf. Mathieu 1991). Examples of items used are as follows: “For me, this organization is the best of all possible organizations for which to work,” “I talk up this organization to my friends as a great organization to work for,” “I am proud to tell others that I am part of (the organization),” and “I would accept almost any type of job assignment in order to keep working for (the organization).”

All employee affective outcomes were rated on the same, 11 point response scale ranging from -5 (very poor description ) to +5 (very good description).

The measures listed above have been developed and fitted to the hotel setting in iterative explorative studies. They have been refined through discussions with academics as well as practitioners, and fine-tuned in successive pre-tests of the measurement instruments. This procedure, together with scientific journal and conference proceedings publications, conference presentations and a number of unpublished Ph.D. dissertations (e.g., Henjesand

1996), have contributed to a comprehensive face and content validation of the measures. A full list of items is reported in appendix 2. The final measures in Norwegian are found in the questionnaire in Appendix 3.

## 6.4 DATA COLLECTION

Data were collected by means of pen and paper questionnaires administered to employees and customers by participating hotels. The two surveys within each hotel were not more than two months apart, but the whole process of data collection covered more than five years (1992 - 1997).

### 6.4.1 ORGANIZATION DATA

As discussed above, the individual employee data were collected by doing a survey of all employees in the hotels. The questionnaires were fully structured (see appendix 3 for questionnaire copies). With a large number of part-time work in the hotel industry, the term "employee" is in no way clear. After discussions with industry representatives and taking into consideration the time span and contact intensity needed to be socialized into the organizational culture, the term «employee» was defined to include persons with at least an average of 15 hours of work for the hotel per week.

Because of the long time span of this research effort, there was some development of the measurements included. When we started out, the survey did not include *commitment* (13 hotels of the final sample) and later on, some did not include items VU2 (friendliness of employees) and VU6 (ability to offer quick service) of the interaction items (9 hotels).

Contact with the hotels was established via the hotel chains and the destinations. In a telephone briefing with the hotel managers, the correct number of employees was assessed and a contact person responsible for the distribution and collection of questionnaires appointed. It turned out that some of the hotels included were very small, with as little as two full-time employees, the rest being part-time seasonal workers. In all there were four hotels with less than seven employee questionnaires returned. Since this however did reflect the actual number of employees, it was decided to keep these small hotels in the sample as well.

In all, we received 992 employee questionnaires from 54 hotels. Vacations and part-time employees' work schedules introduce some uncertainty in response rate calculations. Based

upon the hotels' own reports of their number of employees, response rates range from 35% to 100% with a mean of 62%. The average number of respondents pr. hotel was 17, which compared to a key informant approach is overwhelming. A check of non-response in a sample of hotels revealed that the majority of non-responders were part-time employees.

#### 6.4.2 CUSTOMER DATA

Customer satisfaction data were gathered by a survey of business and leisure travelers in each hotel. The questionnaires were fully structured. Questionnaires were planned to be distributed to 100 customers in each hotel over the three week research period by systematic random sampling at check-in. The questionnaires were administered by the receptionists at each hotel and collected at departure. In all, we received 2 469 usable answers. However, we did not receive a sufficient number of customer questionnaires from 6 of the 54 hotels, thus reducing the usable sample of hotels to 48.

The final sample consisted of 48 hotels with 784 employees and 2.190 customers.

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## 7. DATA DESCRIPTION, EVALUATION ✓ AND SCALE CONSTRUCTION

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In this chapter we shall present the collected data and develop the measurement model. The analyses start with an investigation of missing values and the distributional properties of individual items followed by a control of the unidimensionality of constructs by means of principal component analyses. The next step involves structural equation modeling where the measurement model first is fitted and refined to the  $S_T$  matrix, and then the bi-level structure of the data is taken into account, and the measurement model is fitted and refined to the  $S_{PW}$  and  $S_B$  matrices simultaneously.

## 7.1 SAMPLE DESCRIPTION

Statistics describing the sample are presented in Appendix 3. Three aspects are of particular importance: the amount of missing information, the variance of the answers to each question, and the univariate normality of the distribution of answers.

Multivariate analysis is based upon a multinormal assumption, of which a necessary condition is that each of the variables has a skewness and kurtosis that approach values for normally distributed variables (Bollen 1989). Muthén and Kaplan (1995) suggest that variables with skewnesses and kurtoseses between -1 and 1 appear to provide acceptable model estimates. When kurtosis and skewness values exceed absolute value 1, the reliability of the data analysis decreases. Consequently, highly non-normal variables should not be entered into the analysis.

Missing values do not appear to be a large problem in the employee culture data sample, as 786 of the cases are complete for culture items. The number of cases with non-missing Affective outcome data is smaller. This is due to the aforementioned unfortunate fact that a number of hotel surveys did not include the commitment and feed-back questions.

The general impression of the distribution characteristics of the items is that they, with a few exceptions, have considerable standard deviations ( $>2$ ), and are normally to slightly non-normally distributed. Most are negatively skewed with absolute kurtosis values larger than zero. The positive averages of almost all items seem to indicate that they perhaps may have been too easy to agree with, but ceiling effects do not seem to be an overwhelming problem.

A few items do however depart heavily from the normal distribution and need further comment. Five of the seven market culture items have high kurtoseses and also quite high skewnesses. They also have very high averages and low standard deviations, indicating a ceiling effect. Deleting all five items from further analysis would pose serious problems with the domain width of the market culture construct, and eventually it was decided to delete only the three most heavily non-normal items: MARK5: "My needs are subordinate to the customers", MARK4; "We are supposed to respond immediately to customers' requests", and MARK7; "Our hotel is very concerned with efficiency."<sup>6</sup> A couple of items left in the scale

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<sup>6</sup> One might speculate that these items represent some of the minimum market orientation criteria for survival in a competitive economy (Yeung et al. 1991).

for further analysis still have high kurtoses (4.3 and 3.5) and also fairly high skewnesses (1.9 and 1.8), and parameter estimates will have to be treated with caution.

Also HIER3 (“It is important to follow company rules in my work”) of the hierarchy items has a relatively high kurtosis of 3.65, which again may be due to ceiling effects as the mean is high with a negative skewness. Once again it was decided to keep this item in the analysis, but rather treat standard errors of parameter estimates with caution.

Ad Hoc and clan items on the other hand, all seem to be close to normally distributed, and only COM8 («I really care about the fate of this organization») of the affective outcomes items deviate seriously from a normal distribution. COM8 was deleted from further analysis.

The customer satisfaction items have moderate skewnesses and kurtoses with substantial, but not too large standard deviations for each hotel. Thus, the individual scores may be aggregated to form a hotel average customer satisfaction score. The distributional characteristics of the aggregates<sup>7</sup> are also reported in Appendix 3. Here the VU2\_1 (the servicemindedness of the employees) item is so heavily non-normal that it was deleted from further analysis.

After deletion of the four items discussed above, 23 of the remaining 42 employee items have skewnesses larger than one, all of which are negative with a highest value of -1.89 (MARK4). 27 of the 42 items have kurtoses larger than one while 15 are smaller than one. 16 of the 42 items have kurtoses with absolute values larger than one. The conclusion is then that about half of the employee items exceed the values of acceptable kurtosis or skewness. The degree of non-normality in the distributions is not considerable in general, but some of the variables will have to be treated with caution.

The general impression of the aggregated customer data is that some items are negatively skewed with positive kurtoses reflecting the positive evaluation tendency. Some of the skewnesses are slightly above one while most kurtoses clearly are above one, implying that one has to be cautious in the analysis of some of the items.

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<sup>7</sup> Hotel level scores (aggregated scores) are identified by the “\_1” suffix (e.g., Clan1\_1).



## 7.2 SCALE CONSTRUCTION AND VALIDATION

Anderson and Gerbing (1988) suggest that the measurement model should be fitted to the data before the test of the structural model. Our test of the measures will be performed in two steps. First, the items purporting to measure each construct at the individual employee level are analyzed separately to ascertain a minimum level of unidimensionality of the measures. The further analysis strategy follows the recommendations by Muthén (1994) and is as follows: First, the bi-level structure of the data is ignored and the measurement model is fitted and refined to  $S_T$ . Secondly, the between-groups variation is estimated to check if  $\Sigma_B = 0$  by inspection of the intraclass correlations for each variable.<sup>8</sup> Finally, the bi-level structure of the data is taken into account and multilevel analysis is performed by fitting the full measurement models to the two levels simultaneously. Model respecifications are considered at various stages.

The principal component factor analyses reported in Appendix 5 indicate that all constructs are fairly unidimensionally measured by respective items, that one factor captures a reasonable amount of the variance of each item, and that a considerable amount of the total item variation is captured by a single factor for each construct. Consequently, we proceeded to structural equation modeling and fitting of a measurement model. The measurement model is evaluated for the basic culture - service satisfaction relationship covering hypotheses H1 - H5.

### 7.2.1 STRUCTURAL EQUATION MODELING TEST PROCEDURE

The testing of the measurement model is an evaluation of how well the latent variables are reflected by the measures. A good measurement model should be able to reproduce the observed variances and covariances in the population or sample. Structural equation modeling can be used to test a theory's ability to reproduce an observed covariance matrix. Formally stated, the smaller the discrepancy between the estimated covariations  $\Sigma(\theta)$  derived from the specified model (measurement model or theoretical model), and the true covariations  $\Sigma$ , the more likely the model is to be true for the population.

The measurement model is a confirmatory factor analysis model without constraints on the relationships between the latent variables. Thus, it tests the specified relationship between

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<sup>8</sup> Intraclass correlation =  $c^{-1}(S_B^2 - S_W^2)(c^{-1}(S_B^2 - S_W^2) + S_W^2)^{-1}$

indicators and latent variables without any influence of the structure of the hypothesized theoretical model (Anderson and Gerbing 1988).

A large number of goodness-of-fit measures have been proposed in the literature (e.g., Browne and Cudeck 1993). The basic test statistic is the Chi-square which is a measure of perfect fit accounting for sampling error. The strength of the test is a function of sample size, with larger sample sizes leading to smaller confidence intervals of  $H_0 (\Sigma = \Sigma(\theta))$ . With a sample size close to 800 at the individual employee level, a lack of perfect fit will be heavily penalized, and other fit indices will be needed. Following recommendations by Browne and Cudeck (1993), we will employ the root mean square error of approximation (RMSEA) which is based on the distribution of the  $\sqrt{(F_0/d)}$  where  $F_0$  is the Chi-square distributed fit function of the model, and  $d$  is the degrees of freedom. Since RMSEA has the degrees of freedom in the denominator, it rewards parsimonious models, and thus may be of particular value in the development of measurement models. According to Anderson and Gerbing (1988), a measurement model is less theory driven than a structural model, and thus, post hoc respecifications are often needed. RMSEA may thus be a good help in the effort of balancing the need for a parsimonious and well-fitting measurement model.

In addition to the absolute fit indices Chi-square and RMSEA, we also report two relative fit indices recommended by Gerbing and Anderson (1993); the Non Normed Fit Index (NNFI) and the Comparative Fit Index (CFI). Both are based on a comparison of the proposed model to the "null model" which is a model with uncorrelated variables, and differ to the extent in which they are population (CFI) or sample based (NNFI), favor simple models (NNFI), and are dependent on sample size (CFI). They may thus be considered complementary.

## 7.2.2 MEASUREMENT MODEL DEVELOPMENT

The a priori measurement model consists of all initial measures except items that have been deleted for distribution inadequacies (see chapter 7.1). The initial model has neither cross-loadings nor correlated error terms. As mentioned above, the measurement model may need modification, which indeed is the case here. As illustrated in Table 7-1, the a priori measurement model has a rather poor fit. Anderson and Gerbing (1988) suggest a modification procedure starting with the deletion of items with weak and/or inconsistent loadings. That recommendation has to be heeded cautiously in the present setting where we have constructs with large domains. Our sampling of the domains of the constructs when

measures were generated, certainly has included items that are located far from each other in the domain of the concept (and therefore they may be relatively weakly correlated). Deleting those items would imply a narrower domain, and render analysis results with overall low validity. Although some of our items have low loadings, they were nevertheless judged to be acceptable, and no items were deleted because of low factor loadings.

As an alternative to deleting items, we also checked for residual variance that might be accounted for by error term correlations within each construct. Three such correlations were eventually included as they also make sense conceptually. The development of the measurement model is documented in Table 7-1<sup>9</sup>, and is discussed below. As mentioned above, the a priori measurement model does not fit the data very well (Model 1 in Table 7-1). However, modification indices showed that items CLAN3 and CLAN4 shared more variance than could be accounted for by their common relationship to the CLAN construct. These questions are the only two in this scale that relate to information; «Management has an open door policy» (CLAN4), and «We can safely express our opinions on any matter» (CLAN3). Consequently, their error terms were allowed to correlate in Model 2. Likewise, items AH3 (My job is always changing) and AH4 (We are expected to be innovative in our jobs) both refer to innovation and change while the other AH-items mainly refer to discretion of the employee, and modification indices of Model 2 suggested that improvements in model fit could be gained by allowing their error terms to correlate. That correlation was incorporated in Model 3. Here, modification indices indicated that items HIER3 (It is important to follow company rules in my work) and HIER4 (Management is carefully monitoring mistakes I might make in my work) shared more variance than could be accounted for by their common relationship to the HIER construct. These questions are distinct to the other HIER items in that they relate to degrees of importance put in rule-abiding behavior. Consequently their error terms were also allowed to correlate rendering the final measurement model (Model 4).

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<sup>9</sup> The development of the measurement model can also be performed with a two-level analysis where individual manifest items at level two are free to correlate while the measurement model is developed at level one. This analysis is documented in appendix 6 and leads to the same modifications and final measurement model as the present analysis.

**Table 7-1**

**DEVELOPMENT OF THE MEASUREMENT MODEL: ONE-LEVEL ANALYSIS**

Model Number	Specifications	Goodness-of-Fit
Model 1	A priori measurement model	$\chi^2_{179} = 1\,097.40^a$ RMSEA = .081 NNFI = .83 CFI = .86
Model 2	The error terms for CLAN3 and CLAN4 are allowed to correlate	$\chi^2_{178} = 806.04^a$ RMSEA = .067 NNFI = .88 CFI = .90
Model 3	The error terms for AH3 and AH4 are allowed to correlate	$\chi^2_{177} = 711.70^a$ RMSEA = .062 NNFI = .90 CFI = .92
Model 4	The error terms for HIER3 and HIER4 are allowed to correlate	$\chi^2_{176} = 665.02^a$ RMSEA = .060 NNFI = .91 CFI = .92

<sup>a</sup> N=784

Model 4 is the final one-level measurement model with a fair overall fit except for the sample size sensitive  $\chi^2$ . A nonsignificant  $\chi^2$  value should not be of too much concern with the considerable sample size we employ here. The Critical N is 264 indicating that with a sample size of 264 or less, the model would have been significant at the 1% level for the Chi-square value of the model. The RMSEA value is .060 which is slightly above the .05 cut-off for close fit (Browne and Cudeck 1993). The NNFI and CFI values are .91 and .92 respectively which are well above the .90 requirement suggested by Hu and Bentler (1999). Improving model fit further would involve cross-loadings (i.e., items loading on more than one construct) or allowing for error terms to correlate across constructs, both of which would influence reliability and discriminant validity discussed below. Model fit could also be improved by deleting items, but, as discussed above, that would reduce the width of the domain covered for each construct. Therefore, we were reluctant to embark on those strategies. Furthermore, the one-level analysis disregards the hierarchical nature of our data, and the one-level analysis is just performed as an introductory check. Accordingly, Model 4 was felt to meet the

requirements of an adequately-fitting model at this stage and will be employed in the further analyses.

The initial principal component analysis results with significant factor loadings for all items and no cross loadings nor correlated error terms across constructs in the structural equation modeling, demonstrate a satisfactory unidimensionality of the measures.

### 7.2.3 RELIABILITY AND DISCRIMINANT VALIDITY

Bagozzi and Yi (1988) suggest three reliability measures: item reliability, average variance extracted and composite reliability. Details of reliability measures of the measurement model are reported in Table 7-2.

Item reliability is the squared standardized factor loading, that is the ratio of item variance explained by the construct to total item variance. Bagozzi and Yi suggest that item reliabilities should be above .5, but they are very careful not to specify non-acceptable values. As can be seen in Table 7-2, a number of items do not meet the .5 criterion for item reliability. As discussed above, this probably may be, at least partly, due to the richness of the constructs involved. A multifaceted construct (e.g., an organizational culture dimension like market values), may manifest itself in many different ways, and not necessarily with the same magnitude in all corners of its domain. When items are sampled across the domain, one thus might experience a lot of variance in the item reliabilities. This problem is not alleviated by only using measures with high inter-correlations if the measures are not capable of capturing all facets of the construct (Bollen and Lennox 1991). Additionally, lack of high reliability is to some extent accounted for in structural equation modeling (Jøreskog and Sörbom 1982), and this may be even better explained in the multilevel analysis further on. Consequently, we decided to keep all items in the model.

**Table 7-2**  
**MEASUREMENT MODEL OF S<sub>T</sub>**

Construct/Item	Loading <sup>a</sup>	T-values	Error Term	Item reliability	Average variance extracted	Composite reliability
<b>Market values</b>					.31	.64
MARK3	.48		.77	.23		
MARK6	.60	10.08	.64	.36		
MARK8	.64	10.34	.59	.41		
MARK9	.50	10.34	.75	.25		
<b>Hierarchy values</b>					.43	.74
HIER1	.77		.41	.59		
HIER2	.79	17.54	.38	.62		
HIER3	.61	14.98	.63	.37		
HIER4	.36	8.92	.87	.13		
<b>Ad hoc values</b>					.39	.79
AH1	.69		.52	.48		
AH2	.70	16.47	.51	.49		
AH3	.50	12.17	.75	.25		
AH4	.60	14.52	.64	.36		
AH5	.63	15.15	.60	.40		
AH6	.57	13.92	.67	.33		
<b>Clan values</b>					.57	.87
CLAN1	.79		.38	.62		
CLAN2	.89	26.20	.21	.79		
CLAN3	.69	19.64	.53	.47		
CLAN4	.72	21.71	.49	.51		
CLAN5	.69	19.81	.52	.48		
<b>Job satisfaction</b>					.62	.76
JOB3	.74		.45	.55		
JOB4	.82	16.27	.32	.68		

<sup>a</sup> Fully standardized coefficients

Bagozzi and Yi (1988) further suggest that average variance extracted (average reliability) for the items of each construct also should exceed .5. With the relatively low individual item reliabilities of Market and Ad hoc values, they also fail to meet this criterion, while the other constructs pass this criterion. The composite reliability should exceed .6 (Bollen and Lennox 1991). All constructs have adequate composite reliabilities.

Although all scales do not meet all of the reliability requirements of Bagozzi and Yi, we nevertheless will argue that the reliability of our relatively complex constructs is fair enough to warrant further analysis.

Furthermore, the constructs satisfy most convergent validity and discriminant validity criteria. All items have substantial and significant factor loadings (Bagozzi and Yi 1988). The average variance extracted for each construct is in most cases larger than the square of the correlations between the constructs (Fornell and Larcker 1981)(see Table 7-3 for construct correlations). The only exceptions are the Hierarchy/Market and Ad hoc/Clan correlations which squared are slightly larger than the Market and Clan estimated average variance figures respectively. Furthermore, construct correlations are significantly different from 1. The  $\chi^2$ -difference between the model with construct correlations fixed to unity and the model with free construct correlations is 326.53. With 10 degrees of freedom, this is clearly significant. Tests of the individual correlation coefficient's 95 % confidence intervals also show that they do not include 1.

**Table 7-3**  
**CONSTRUCT CORRELATIONS**

	Market	Hierarchy	Ad hoc	Clan
Hierarchy	.59 <sup>a</sup> (.07) <sup>b</sup>			
Ad hoc	.57 (.07)	.26 (.05)		
Clan	.45 (.06)	.37 (.05)	.69 (.06)	
Job satisfaction	.40 (.06)	.44 (.05)	.49 (.06)	.66 (.06)

<sup>a</sup> Standardized estimated correlation coefficients

<sup>b</sup> Standard error

## 7.2.4 INTRACLASS CORRELATIONS

The discussion above has demonstrated that the one-level measurement model has fairly well documented reliability as well as convergent and discriminant validity. Our next step is then to assess the homogeneity of the hotel samples of employees by inspection of the intraclass correlation. The intraclass correlation for each manifest variable is given in Appendix 6. They vary between .012 and .151. Some of these values may seem small, but the estimates tend to underestimate the actual amount of difference between the hotels. Intraclass correlations are attenuated by measurement error (Muthén 1994). Thus values down to .02 can be of

theoretical and practical interest. Gustafsson (1996)<sup>10</sup> and Muthén (1997) suggest that our values are well within what one could expect for «attitudinal data». The values therefore indicate that the hotels in this study are similar, but not identical. There is a certain amount of variability between hotels, and a conventional analysis could lead to erroneous conclusions (Muthén 1994, Muthén 1997). Clan aspects of the culture vary more between hotels than the other cultural elements. A multilevel analysis is clearly called for.

### 7.2.5 MULTILEVEL MEASUREMENT MODEL ASSESSMENT

The multilevel measurement model is validated and developed in the following steps: First, the culture dimensions are validated as hotel-level constructs through a comparison where 1) a baseline model with the measurement model from the analysis of  $S_T$  at level one with no factor structure at level two (where all culture manifest variables are allowed to covary) is compared to 2) a model with the  $S_T$ -measurement model factor structure at both levels<sup>11</sup>. Only the culture constructs are modeled at the second level while the culture constructs and the job satisfaction constructs are modeled at the individual level. Results of this comparison are shown in Table 7-4. The  $\chi^2$  difference of 222.09 with a difference in degrees of freedom of 146 indicates that the level-one measurement model does fit quite well at level two, which is also evident in the improvement in the RMSEA and CFI which both favor parsimonious models. The sample size dependent CFI is however marginally better in the baseline model.

Table 7-4 shows that the same measurement model fits quite well at both levels, and that the two-level measurement model has a considerably lower RMSEA-value than the one-level model. Appendix 6 reports details of the two-level measurement model. Two factor loadings are marginally non-significant at the .05 level (MARK9 and HIER4), and some modification indices point to measurement model improvements that may improve overall  $\chi^2$ .

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<sup>10</sup> Even smaller intraclass correlations (.01 in four groups of 25 observations) have been shown to lead to Type I errors that are much larger (.17) than the nominal alpha level (.05) (Barcikowski 1981 in Hox & Kreft 1994).

<sup>11</sup> The correlations between the error terms were omitted at the hotel level.



**Table 7-4**  
**TEST OF FACTOR STRUCTURE AT LEVEL TWO.**

Test statistic	Baseline model ( <i>Manifest</i> culture items at level two free to covary)	Level one measurement model at both levels (Culture value constructs free to covary at level two) <sup>a</sup>	Test statistic difference
$\chi^2$	693.32	915.41	222.09
degrees of freedom	215	361	146
RMSEA	.053	.044	
NNFI	.85	.90	
CFI	.92	.91	

<sup>a</sup> The correlations between error terms are omitted at level two.

When evaluating the  $\chi^2$  difference indicated by modification indices at level two, the low number of observations should however be kept in mind. This causes low power as well as a test statistic that is only approximately  $\chi^2$ -distributed (Gustafsson and Stahl 1995). Therefore, to avoid capitalizing on chance, no further model adjustments were made. This model will be used in the following analyses.

Compared to the one-level model, the following should be noted: RMSEA, which measures model-fit independently of model and sample size, is improved from .060 to .044, indicating that the two-level model has a better fit to the data. Furthermore, Appendix 7 reveals that the one-level model appears to over estimate factor loadings of manifest variables. This is due to the differences in means between hotels that increase reliable variance in conventional analysis of  $S_T$ , and our result is in line with well known findings from psychometrics that reliabilities are lower in more homogenous groups (i.e. where between group variance has been removed (Lord and Novick 1968, Muthén 1997)).

When we compare the two-level and one-level measurement models, the differences are small; the two-level model fits the data slightly better, and the one-level model has slightly overestimated factor loadings due to the inclusion of between group differences in the  $S_T$  matrix (Muthen 1997).

In the hotel-level measurement model, only one of the correlations between the culture dimension constructs is significant at the  $p \leq .05$  level, i.e. the correlation between Ad hoc and Clan, which was estimated to .92. To check if the two constructs really are different, the correlation between them was fixed to unity in a rerun of the model. This increased  $\chi^2$  by 6.24 at a gain of one degree of freedom which indicates that the constructs are slightly different,

and they will be kept separate in the following analyses. However, the high intercorrelation does not allow for stable estimates of the individual relationships of Clan and Ad hoc to hotel-level dependent variables, and where needed we shall include just one of them in the model at a time.

In this chapter we have described the data we have collected and investigated the quality of the measurement model. Only minor adjustments were made to the original model. In Chapter 8 we shall embark on the hypothesis testing.



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## 8. HYPOTHESIS TESTING

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This chapter presents the main findings of the study. We shall first discuss and choose appropriate methods for testing each of the hypotheses, then we shall report the results of the testing procedure. The presentation is divided in three sections. First, the main effects of individual cultural values and perceptions of the values are presented in section 8.2, then the culture strength and homogeneity hypotheses are tested in section 8.3. The chapter concludes with a recapitulation of the hypotheses testing results in Table 8-5.

## 8.1 TESTING PROCEDURE

In our theory and hypotheses testing we shall use a number of different analysis techniques. Where possible, we shall rely, however, on Structural Equation Modeling (SEM) as the primary approach. There are two reasons for this choice. First, SEM allows for simultaneous estimation of the measurement and structural models. Thus one avoids interpreting structural parameters for a model with unknown construct reliability and validity which can lead to misleading conclusions. Furthermore, the measurement model of this study has constructs with less than perfect reliability, which, in a multiple regression analysis, might cause bias problems (Bollen 1989). However, the estimation of structural effects for constructs with measurement error is believed to be less biased when SEM is applied.

Second, SEM estimates the overall model and provides *statistical tests* of the overall model-fit as well as parameter estimates and significance levels for each of the free model parameters. Jøreskog (1993) warns against interpreting «significant» parameters from a model with an unknown fit. A number of factors can lead to a significant path (Meehl 1990), so the whole theory should hold before one embarks on parameter estimate evaluation.

Hypotheses H2 - H5 and H7 - H10 are all amenable to SEM testing and will be addressed first. Since the hypotheses address issues both at the individual, that is the employee level, and at the organizational level, the structural model analysis will be a two-level approach, testing for effects at each level simultaneously. When hotel-level effects are tested, the basic employee-level model will be specified at the individual level with culture perceptions as the independent variables, and job satisfaction as the dependent variable. Individual-level testing will be performed with the basic cultural value/customer overall satisfaction model at the hotel-level, as well as a hotel-level model where we include only cultural values, and let the cultural values be free to intercorrelate at that level.

Testing will proceed through the following steps:

- Direct effects of culture (H2-H5) and cultural perceptions (H7-H10) are first tested with multilevel SEM.
- Testing of hypothesis H1 is based on a simple correlation approach, while H6 tests are based upon an analysis of variance, and will be performed last.

The measurement model tested and described in the preceding chapter only covers the basic core of the models needed to evaluate the full breadth of our hypotheses. For each new

variable that enters the analysis, basic statistics for the measurement model-fit will be reported. All model tests at the aggregated (hotel) level involve double tests with two different dependent variables, Overall satisfaction and Interaction satisfaction, that are entered into the model one at a time.

## 8.2 CULTURE AND PERCEPTIONS OF CULTURE; DIRECT EFFECTS

Hypotheses H2-H5 concern the impact of cultural values on customer satisfaction. Clan, Ad hoc and Market values were hypothesized to relate positively to customer satisfaction, while Hierarchy values were assumed to be negatively related to customer satisfaction. H7-H10 cover the relationship of cultural value perceptions and employee affective outcomes in a rather complicated pattern that will be reviewed below. To evaluate these relationships, a measurement model, based upon the measurement model evaluated in the preceding chapter with the four overall customer satisfaction items included at level two (see appendix 2 for item descriptions), was tested prior to the structural model tests. The analysis was performed by LISREL 8 (Jøreskog and Sörbom 1993) within the STREAMS environment (Gustafsson and Stahl 1995). The measurement model had a reasonably good fit with  $\chi^2_{443} = 1055.00$ ,  $p < .001$ , RMSEA = .042, NNFI = .87, CFI = .91. The number of cases were 736 at level one and 48 at level two. Modification indices suggested that the S9 (The price /quality relationship of the hotel), and S10 (Overall satisfaction) shared more variance than was captured by their common relation to the Overall satisfaction construct. Since these two items both relate to overall satisfaction, while the other two items of this construct tap a slightly different aspect of overall satisfaction (i.e., behavioral intentions: the willingness to *revisit* or *recommend* the hotel), error terms of S9 and S10 were allowed to correlate, thus improving the model-fit to  $\chi^2_{442} = 1011.20$ ,  $p < .001$ , RMSEA = .041, NNFI = .88, CFI = .91. All customer satisfaction items were significantly related to the Customer satisfaction construct.

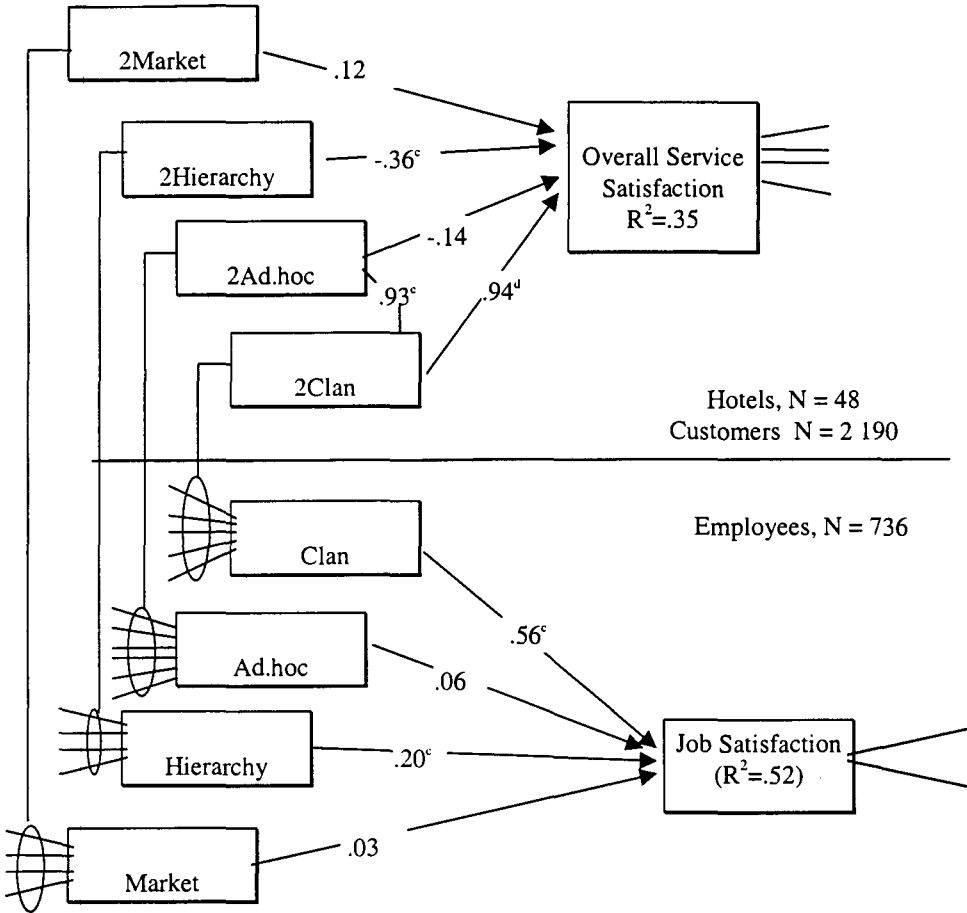
However, the only significant intercorrelation between culture constructs at level two were between 2Clan and 2Ad hoc. Consequently, the remaining correlations between culture dimensions at level two were omitted and further analyses were based on this measurement model.

When Interaction satisfaction items were substituted for Overall satisfaction items, the measurement model had a fit of  $\chi^2_{420} = 922.89$ ,  $p < .001$ , RMSEA = .041, NNFI = .89, CFI = .91. All customer interaction satisfaction items were significantly related to the Interaction satisfaction construct. No modifications were done to this model.

Results from the analyses are presented in Figure 8-1 and Figure 8-2 with Overall satisfaction and Interaction satisfaction as dependent variables respectively. Both models fit the data satisfactorily, with only the NNFI fit index slightly below the suggested requirement. RMSEA on the other hand is safely below the required .05 cut-off point. Below we shall first present the hotel-level results before we turn to the individual level.

The collective impact of the cultural values on service satisfaction is quite considerable with slightly more of the Interaction satisfaction variance explained by cultural values (55%) than Overall service satisfaction (35%). If we turn to the individual cultural value effects, the high intercorrelation between the 2Clan and 2Adhoc constructs invalidate the estimation of their individual effects on customer satisfaction. This warrants some comments and some ad hoc adjustments of the analysis plan. First we must maintain that the observed correlation seems to be empirical, and not due to an overlap of the domains of the constructs. Our careful selection of items based on measurement procedures employed in a large number of studies, and our careful validation procedure should rule this out. Inspection of the clan and ad hoc items should also add face validity with respect to the difference of the constructs (Appendix 2). To this date, I know of no published studies of the competing values framework analyzed by Multilevel Structural Equation Modeling, neither in the hotel industry nor any other industry. We are thus unable to evaluate whether the high correlation is some artifact of the situation or measurements employed, and whether it is industry specific or not. For the time being we shall just have to accept the finding at face value.

**Figure 8-1**  
**PATH COEFFICIENTS TWO LEVEL MODEL**  
**JOB SATISFACTION AND OVERALL SERVICE SATISFACTION<sup>ab</sup>**



Model fit:  $\chi^2_{447} = 1\,032.10$ , RMSEA = .041, NNFI = .88, CFI = .91

<sup>a</sup> Parameter estimates are completely standardized.

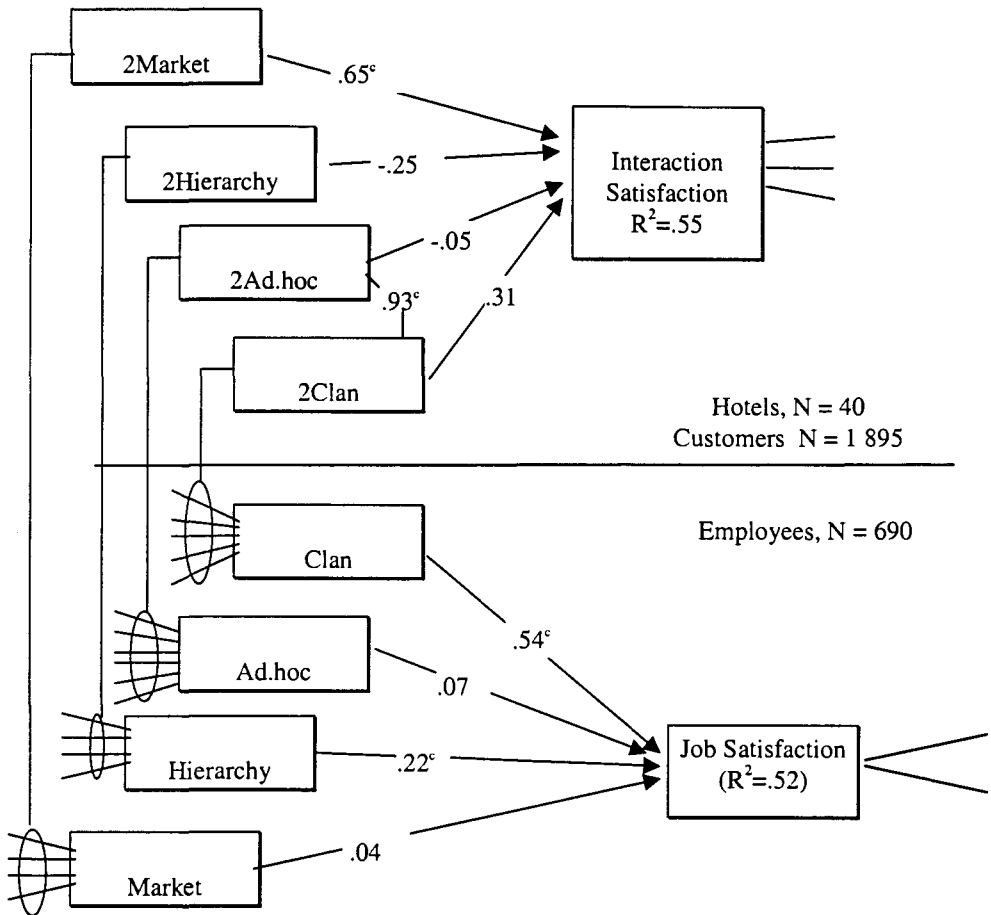
<sup>b</sup> Culture dimensions at employee level are free to correlate.

<sup>c</sup>  $p \leq .05$

<sup>d</sup>  $p \leq .10$ .



**Figure 8-2**  
**PATH COEFFICIENTS TWO LEVEL MODEL:**  
**JOB SATISFACTION AND INTERACTION SATISFACTION<sup>ab</sup>**



Model fit:  $\chi^2_{425} = 941.68$ , RMSEA = .041, NNFI = .89, CFI = .91

<sup>a</sup> Parameter estimates are completely standardized.

<sup>b</sup> Culture dimensions at employee level are free to correlate.

<sup>c</sup>  $p \leq .05$

With the low number of cases at level two (and the relative substantial correlation between Ad hoc<sup>12</sup> and Clan), only two paths are originally significant at the .05 level, that is the negative impact of Hierarchy values on Overall service satisfaction supporting H5, and the positive path between Market values and Interaction satisfaction, supporting H4. Due to the high intercorrelation, the parameter values of the Clan and Ad hoc constructs in Figure 8-1 and Figure 8-2 should be, however, interpreted with caution. In an attempt to shed some more light on their relationships to customer satisfaction, two additional analyses were performed, that is, the full models were estimated with one of the paths from either Clan or Ad hoc to Overall satisfaction respectively fixed at level two. Results from these analyses are presented in Table 8-1. Estimates for the employee-level parameters changed only marginally from the initial analyses presented in Figure 8-1 and Figure 8-2 and are not included in Table 8-1.

H → 2 - 5

**Table 8-1**  
**INDIVIDUAL CULTURE VALUES' IMPACT ON CUSTOMERS' SATISFACTION<sup>a</sup>**

Culture value	Overall satisfaction			Interaction satisfaction		
	1) Ad hoc and Clan <sup>b</sup>	2) Ad hoc only <sup>b</sup>	3) Clan only <sup>b</sup>	4) Ad hoc and Clan <sup>b</sup>	5) Ad hoc only <sup>b</sup>	6) Clan only <sup>b</sup>
Market	.12	.13 <sup>d</sup>	.12	.65 <sup>c</sup>	.66 <sup>c</sup>	.65 <sup>c</sup>
Hierarchy	-.36 <sup>c</sup>	-.37 <sup>d</sup>	-.36 <sup>c</sup>	-.25	-.25	-.25
Ad hoc	-.14	.80 <sup>c</sup>		-.05	.26 <sup>d</sup>	
Clan	.94 <sup>d</sup>		.81 <sup>c</sup>	.31		.26 <sup>d</sup>

<sup>a</sup> Coefficients at the individual level change only marginally, and are not reported (c.f., Figure 8-1 and Figure 8-2). Models 2 (5) and 3 (6) are identical to model 1 (4) except that in model 2 (5), the path from Clan to Overall (Interaction) satisfaction is fixed, and in model 3 (6), the path from Ad hoc to Overall (Interaction) satisfaction is fixed.

<sup>b</sup> Completely standardized path coefficients.

<sup>c</sup>  $p \leq .05$ , one-tailed.

<sup>d</sup>  $p \leq .10$ , one-tailed.

Table 8-1 reveals that the very large effect of Clan values, and the negative effect of Ad hoc values observed in Figure 8-1 and Figure 8-2 probably are due to their intercorrelation. When the path from Ad hoc to Overall satisfaction is fixed, Clan values are significantly related to Overall satisfaction (Model 3) and less strongly, but still significantly ( $p \leq .10$ ), related to Interaction satisfaction (model 6). Hypothesis H2 is thus supported. When the path from Clan values to Overall satisfaction is fixed, Ad hoc values are positively and significantly related to dependent variables, thus supporting H3.

<sup>12</sup> In the following presentations we shall omit the prefix "2" of level two constructs when we are discussing models at the hotel-level.

At the individual employee level, perceptions of cultural values explain 52% of the Job satisfaction variance (Figure 8-1 and Figure 8-2). Perceptions of Clan and Hierarchy values are both significantly and positively related to Job satisfaction supporting H7 but contradicting H9. The

Table 8-2

H7-9

**INDIVIDUAL LEVEL EFFECTS: THE RELATIONSHIPS OF CULTURE PERCEPTIONS TO INDIVIDUAL LEVEL OUTCOMES<sup>a</sup>**

Dependent variable	Model Fit	Independent variables							
		Market Values		Hierarchy Values		Ad hoc Values		Clan Values	
		Path Coefficient <sup>b</sup>	T-value	Path Coefficient <sup>b</sup>	T-value	Path Coefficient <sup>b</sup>	T-value	Path Coefficient <sup>b</sup>	T-value
Job satisfaction (R <sup>2</sup> =.52)	$\chi^2_{442} = 915.41, p < .001$ RMSEA = .044 NNFI = .90 CFI = .91	.02	.31	.22	3.55	.06	.91	.55	8.69
Turnover intentions (R <sup>2</sup> =.28)	$\chi^2_{323} = 839.94, p < .001$ RMSEA = .045 NNFI = .89 CFI = .91	.05	.67	-.19	-2.95	-.23	-3.18	-.29	-5.07
Commitment (R <sup>2</sup> =.53)	$\chi^2_{637} = 1,430.90, p < .001$ RMSEA = .048 NNFI = .88 CFI = .89	.09	1.00	.19	2.64	.19	2.56	.44	6.65

<sup>a</sup> Two-level analysis with culture constructs free to correlate at level two.

<sup>b</sup> Completely standardized coefficients.

results of substituting Turnover intentions and Commitment for Job satisfaction in the two-level model is shown in Table 8-2. In these comparisons, level two cultural constructs are free to correlate, and no level two dependent variables are included. Table 8-2 (and Figure 8-1 and Figure 8-2) show that Clan value perceptions' relationships to other values are as predicted. Furthermore, Ad hoc value perceptions are as predicted negatively related to Intentions to leave and positively to Commitment, but they are not significantly related to Job satisfaction. Contrary to hypothesis H9, Hierarchy value perceptions are significantly *positively* related to Job satisfaction and *negatively* related to Intentions to leave while they, as predicted, are positively related to Commitment. Market value perceptions are not significantly related to any outcome variable. H7, H8 and H10 are thus only partially supported while H9 is contradicted

### 8.3 CULTURE STRENGTH AND HOMOGENEITY

H1 postulated a positive relationship between culture strength customer satisfaction, and testing of this hypothesis involved two different analyses. To test H1a (the culture *strength* hypothesis), a parcel consisting of the sum of all cultural values was formed for each hotel, and to test H1b (the culture *homogeneity* hypothesis), the standard deviation of that parcel for each hotel was treated as a variable. Both were correlated with the customer satisfaction variables Interaction satisfaction and Overall satisfaction. Results are reported in Table 8-3.

**Table 8-3**  
**CORRELATIONS BETWEEN OVERALL CULTURE STRENGTH,  
 OVERALL CULTURE HOMOGENEITY AND CUSTOMER SATISFACTION**

	Culture strength (Culture composite)	Culture Heterogeneity (Culture composite standard deviations)
Interaction satisfaction	.07	-.34 <sup>a</sup>
Overall satisfaction	.50 <sup>b</sup>	-.15

<sup>a</sup> p < .05.

<sup>b</sup> p < .01.

Both H1a and H1b are partially supported. Culture strength is significantly related to Overall satisfaction in the hypothesized direction while the relationship to Interaction satisfaction is not significant. Cultural heterogeneity is, on the other hand, negatively and significantly related to Interaction satisfaction but not significantly related to Overall satisfaction.

The *balanced values* hypothesis (H6) was tested by comparisons of the customer satisfaction of three hotel groups; the first group including 11 hotels with above average values on all cultural dimensions (High), the second with 30 hotels with inconsistent cultural values (Inconsistent), and the third including 7 hotels with below average values on all cultural values (Low). Results are presented in Table 8-4. The groups do not differ in score on Interaction Satisfaction, while the «Low consistent» group has a significantly lower Overall satisfaction score than the «High» and «Inconsistent» groups. The «High» and the «Inconsistent» groups did however not differ in Overall satisfaction score. Hypothesis 6 is thus only partially supported.

Table 8-4

**BALANCED CULTURAL VALUES AND CUSTOMER SATISFACTION**

	Cultural value comparison groups	Difference	T-value	df	Significance (1-tailed)
Interaction Satisfaction	High - Inconsistent	.45	.81	37	.211
	High - Low	1.27	1.41	37	.084
	Inconsistent - Low	.81	.98	37	.167
Overall Satisfaction	High - Inconsistent	-.67	-.52	45	.304
	High - Low	3.72	2.12	45	.020
	Inconsistent - Low	4.40	2.88	45	.003

**8.4 SUMMARY**

In chapter 6 we presented a hypothesized two-level model of the relationship between organizational culture and customer satisfaction and employee outcomes respectively. The model contained 10 main hypotheses that together with sub-hypotheses added up to 23 hypotheses altogether. Table 8-5 lists a summary of the hypotheses together with the results from the empirical tests. Nine of the 27 hypotheses were clearly supported while four more were partly or weakly supported. 10 hypotheses were not supported with any statistical significance. Of those 10, two were contradicted in that observed effects were significant and contrary to hypothesized effects. Of the remaining eight unsubstantiated hypotheses, effects in the specified direction were observed, but effects were not strong enough to become significant at an acceptable level. With the small number of cases at level two, effects have to be fairly substantial to become statistically significant. The findings are nevertheless interesting. Cultural values have been shown to be related to Overall satisfaction, and they have also been shown to have different effects on different customer satisfaction measures. We have also demonstrated that the cultural values that make *employees* satisfied with and committed to their jobs, are in some degree different than the values that make *customers* satisfied with services delivered.

The next chapter includes a discussion of the findings and their implications.

**Table 8-5**  
**SUMMARY OF RESULTS**

Hypothesis number	Constructs	Hypothesized relationship	Findings	Significance level <sup>g</sup>	Conclusion
<i>Culture and service satisfaction</i>					
H1	Culture strength	+	.50 <sup>a</sup>	p<.01	Partially supported
	Culture homogeneity	+	.34 <sup>a</sup>	p<.05	Partially supported
H2	Clan - Overall satisfaction	+	.94 <sup>bc</sup> /.81 <sup>bd</sup>	p<.10/ p<.05	Supported
	Clan - Interaction satisfaction	+	.31 <sup>bc</sup> /.26 <sup>bd</sup>	NS/p<.10	Partially supported
H3	Ad hoc - Overall satisfaction	+	-.14 <sup>bc</sup> /.80 <sup>bc</sup>	NS/p<.05	Partially supported
	Ad hoc - Interaction satisfaction	+	-.05 <sup>bc</sup> /.26 <sup>bc</sup>	NS/p<.10	Partially supported
H4	Market - Overall satisfaction	+	.12 <sup>bc</sup>	NS	Not supported
	Market - Interaction satisfaction	+	.65 <sup>bc</sup>	p<.05	Supported
H5	Hierarchy - Overall satisfaction	-	-.36 <sup>bc</sup>	p<.05	Supported
	Hierarchy - Interaction satisfaction	-	-.25 <sup>bc</sup>	NS	Not supported
H6	Balanced values	+			Partially supported
<i>Culture perceptions and employee affective outcomes</i>					
Job satisfaction:					
H7	Clan	+	.55 <sup>ef</sup>	p<.001	Supported
H7	Ad hoc	+	.06 <sup>ef</sup>	NS	Not supported
H7	Market	+	.02 <sup>ef</sup>	NS	Not supported
H9	Hierarchies	-	.22 <sup>ef</sup>	p<.001	Contradicted
Turnover intentions:					
H8	Clan	-	-.29 <sup>ef</sup>	p<.001	Supported
H8	Ad hoc	-	-.23 <sup>ef</sup>	p<.01	Supported
H8	Market	-	.05 <sup>ef</sup>	NS	Not supported
H9	Hierarchies	+	-.19 <sup>ef</sup>	p<.01	Contradicted
Commitment:					
H10	Clan	+	.44 <sup>ef</sup>	p<.001	Supported
H10	Ad hoc	+	.19 <sup>ef</sup>	p<.01	Supported
H10	Market	+	.09 <sup>ef</sup>	NS	Not supported
H10	Hierarchies	+	.19 <sup>ef</sup>	p<.01	Supported

<sup>a</sup> Correlation coefficients.

<sup>b</sup> Completely standardized path coefficients.

<sup>c</sup> Path coefficient when Clan and Ad hoc paths to dependent variables both are set free at level two.

<sup>d</sup> Path coefficient when the path from Ad hoc to the dependent variable is fixed at level two.

<sup>e</sup> Path coefficient when the path from Clan to the dependent variable is fixed at level two.

<sup>f</sup> Only culture values included at level two. They are free to correlate.

<sup>g</sup> One-tailed tests



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## 9. DISCUSSION AND IMPLICATIONS

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In this chapter we shall first present a short summary of the objectives and design of the empirical research reported in this study. The following two sections present discussions of each of the main research questions addressed. In section four we discuss possible confounding effects from intervening variables, while section five is devoted to the implications of our findings. Section six presents the limitations of the study and suggestions for future research, while the last section is devoted to management implications.



## 9.1 SUMMARY OF THE STUDY.

This dissertation is concerned with the relationship between organizational culture and customer satisfaction. The theoretical discussion of the organizational culture construct made in Chapter 2 revealed that there are numerous conceptualizations of the construct, and the competing values framework was chosen as a promising approach to understanding and predicting employee behavior in customer contact. Two general research questions were posed: 1) Is organizational culture related to service satisfaction? 2) Are employees' organizational culture perceptions related to work related affective outcomes?

To answer these questions, two surveys were conducted. 48 hotels were selected, and a total of 736 employees and 2,190 customers returned questionnaires that were usable in the final analysis. Most analyses were conducted taking the multilevel structure of the data into account by applications of the MUML-estimator of Muthén (Muthén and Satorra 1989; Muthén 1990) in structural equation modeling. In the sections that follow, summaries of findings from the analyses are presented and discussed.

## 9.2 IS ORGANIZATIONAL CULTURE RELATED TO SERVICE SATISFACTION?

The most important finding to recapitulate here is that the cultural values do explain a fair amount of the variance of both Overall satisfaction (35%) and Interaction satisfaction (55%).

Our primary research question may thus be answered affirmatively, organizational culture *is* related to customer satisfaction.

We also specified a number of more detailed hypotheses for this part of the empirical analysis. First it was hypothesized that a 1) strong, 2) balanced and 3) homogenous culture would be associated with more satisfied customers. The summary in Table 9-1 shows that not all hypotheses regarding the relationship between organizational culture *strength* and *balance*, and customer satisfaction are supported. Culture strength is however related to overall satisfaction ( $p < .01$ ) and cultural homogeneity is related to interaction satisfaction ( $p < .05$ ). Strong balanced values are not associated with better customer satisfaction than unbalanced values, but balanced low values are associated with the poorest performance.

Secondly, we hypothesized relationships between individual cultural values and customer satisfaction. Findings here reveal that Hierarchy is, as predicted, negatively related to Overall satisfaction, while Market values are related positively to Interaction satisfaction. In addition, Clan values are significantly positively related to Overall satisfaction, while the remaining hypotheses only are partially supported. Hierarchy values are however not significantly related to Interaction satisfaction. Except for the multicollinearity-problems, all findings are in the

**Table 9-1**  
**ORGANIZATIONAL CULTURE AND CUSTOMER SATISFACTION**

Constructs	Hypothesized relationship	Findings	Significance level <sup>c</sup>
<i>Overall culture strength and homogeneity</i>			
Culture strength - Overall satisfaction	+	.50 <sup>a</sup>	p<.01
Culture strength - Interaction satisfaction	+	.07 <sup>a</sup>	NS
Culture homogeneity Overall satisfaction	+	.15 <sup>a</sup>	NS
Culture homogeneity - Interaction sat.	+	.34 <sup>a</sup>	p<.05
Balanced values	+	Balanced low performs poorly	p<.08 - .003
<i>Individual values</i>			
Clan - Overall satisfaction	+	.94 <sup>bc</sup> /.81 <sup>bd</sup>	p<.10/
Clan - Interaction satisfaction	+	.31 <sup>bc</sup> /.26 <sup>bd</sup>	p<.05
Ad hoc - Overall satisfaction	+	-.14 <sup>bc</sup> /.80 <sup>bc</sup>	NS/p<.10
Ad.hoc - Interaction satisfaction	+	-.05 <sup>bc</sup> /.26 <sup>bc</sup>	NS/p<.10
Market - Overall satisfaction	+	.12 <sup>bc</sup>	NS
Market - Interaction satisfaction	+	.65 <sup>bc</sup>	p<.05
Hierarchy - Overall satisfaction	-	-.36 <sup>bc</sup>	p<.05
Hierarchy - Interaction satisfaction	-	-.25 <sup>bc</sup>	NS

<sup>a</sup> Correlation coefficients.

<sup>b</sup> Completely standardized path coefficients.

<sup>c</sup> Path coefficient when Clan and Ad hoc paths to dependent variables both are set free at level two.

<sup>d</sup> Path coefficient when the path from Ad hoc to the dependent variable is fixed at level two.

<sup>e</sup> Path coefficient when the path from Clan to the dependent variable is fixed at level two.

<sup>f</sup> Only culture values included at level two. They are free to correlate.

<sup>g</sup> One-tailed tests

hypothesized direction.

Prior to discussing the overall implications of the findings for this part of the study, it is imperative to discuss possible explanations for the lack of support for parts of the strong culture - performance relationship hypothesis as well as the individual culture - performance relationships. The difference in the amount of explained variance for Overall satisfaction and Interaction satisfaction also warrants a few comments.

### 9.2.1 OVERALL CULTURE VALUES AND BALANCED VALUES EFFECTS.

The difference in the amount of explained variance for Interaction and Overall satisfaction probably is what one would expect. The production of interaction product elements is primarily dependent on the production factor embodying the organization culture, namely employees and their performance. Overall satisfaction is in addition to interaction elements based upon satisfaction with a number of other product elements (e.g., structural and back-stage elements) that are produced by production factors that are not as dependent on organization culture (e.g., facilities and raw materials, Troye 1991). Hence we should expect a closer relationship between organizational culture and Interaction satisfaction than between organizational culture and Overall satisfaction.

2) With regard to the balanced values and overall satisfaction hypotheses, the findings are as predicted for high vs. low balanced groups. The balanced low group performs poorly, which is well in line with some of the earlier findings (Yeung et al. 1991). However, the inconsistent group does not perform significantly different than the high group. These inconsistencies may be due to the multifaceted aspects of the *competing* cultural values included in this study. Both our theory discussion and findings reported in Table 9-1 reveal that the individual competing values are differentially related to performance. The consistent high values groups thus includes hotels that are high on values beneficial to performance as well as values that are negatively related to performance (i.e., Hierarchy values). Although Quinn (1988) suggests that a balance of the values is needed for a company to be effective and succeed in the long run, our study indicates that, at least in the short run, hierarchy values are negatively related to customer satisfaction. The «balanced values proposition» thus becomes rather questionable in cross sectional studies. Our study falls in line with a number of other studies with inconsistent findings (e.g., Yeung et al. 1991; Quinn and Spreitzer 1991).

3) The reasons for the good performance of the unbalanced group is perhaps better illuminated through a look at average scores on the cultural values in each group (Table 9-2). This table reveals that the balanced high group also is very high on Hierarchy values that are detrimental to performance and that the inconsistent group, while being lower on the positive Clan/Ad hoc

values is also much lower on Hierarchy values<sup>13</sup>.

**Table 9-2**  
**MEANS OF CULTURAL VALUES**  
**IN BALANCED VS. UNBALANCED VALUE GROUPS**

Group	N	Market	Hierarchy	Ad hoc	Clan
Balanced high	11	12.80	12.33	13.50	13.64
Inconsistent	30	9.81	10.52	7.70	8.56
Balanced low	7	7.90	7.49	4.78	.45
Grand mean	48	10.22	10.50	8.60	8.54

For the overall culture *strength* and *homogeneity* relationships, the overall finding is clear.

Cultures that are strong *and* homogenous perform better. It is however surprising that culture

strength is positively related to Overall satisfaction, but not significantly related to Interaction

satisfaction, and that homogeneity is more strongly related to Interaction satisfaction than to

Overall satisfaction. A tentative explanation for the latter finding may be that heterogeneity of

the culture is firstly and most strongly noticed by customers in the interaction with employees.

The quality of that interaction and the customers' satisfaction with it is thus directly dependent

on employee performance. Overall satisfaction on the other hand, is, as discussed above,

dependent on a number of product elements besides interaction, for example architecture and

design (structural elements), food and extra services (backstage elements) and the customers

own activities at the hotel (prosumption elements). All of those are, to a lesser extent,

immediately dependent on employee performance, and thus may thin out effects of a

heterogeneous culture and lead to a weaker relationship between heterogeneity and Overall

satisfaction.

Explanations for the overall culture strength findings are probably found in the differential

effects of the culture elements comprising the overall aggregated culture score, and the

configuration of those values in our sample. In the balanced values analysis discussed above,

it was observed that only Overall satisfaction was different for the consistent high group

compared to the consistent low group. Interaction satisfaction was not different. Thus one

<sup>13</sup> An interesting observation in Table 9-2 is that Market and Hierarchy values seem to have a higher average than Clan and Ad hoc values. This seems to confirm the assumption of Yeung & al. (1991) that a fair amount of formal/mechanistic values (i.e., Hierarchy and Market values) are essential for efficient production and survival in a competitive economy.

should expect a stronger relationship between Overall culture strength and Overall customer satisfaction than for Overall culture strength and Interaction satisfaction, which is what is observed here.

Our theoretical discussions and findings in fact put the strong culture - performance hypothesis (e.g., Deal and Kennedy 1982; Peters and Waterman 1982) into an interesting perspective. Acknowledging that organizational culture is a multifaceted construct (e.g., Hummel and Cook 1990), and that some of these values may be detrimental to performance (Denison 1990), a strong and homogenous culture does not have to be the only culture configuration that leads to organizational excellence. Other configurations (e.g., the unbalanced values group that is high on values that are positively related to performance and low on detrimental values) may be just as excellent, which is indeed what was observed in our study. Aggregating across the values to form an overall culture strength score may thus not be warranted, and may lead to inconsistent results such as those documented in our study as well as in other studies employing the competing value framework (e.g., Cameron and Freeman 1991). Also Quinn's suggestion (Quinn 1988) that companies need balanced values to perform well are not supported in our cross sectional design. Only Clan and Ad hoc values are empirically significantly correlated in the present study. The four values thus do not show any reliability that should warrant forming a composite measure.

The overall-culture-value and balanced-values-effects part of our study discussed above was conducted within the «integrationist» perspective on organizational culture (Frost et al. 1991), that is, that we have been ignoring the possibility of sub-cultures. As we have found cultural variance within each hotel, sub-cultures may exist. Future studies should perhaps try to incorporate analyses of subcultures especially relevant for the production of each product element, that is, the culture of customer contact personnel (interaction elements), of cleaning and maintenance (structural elements) etc., and also try incorporating customer satisfaction ratings of those elements, thus getting an even deeper understanding of the culture - performance link.

## 9.2.2 INDIVIDUAL VALUES EFFECTS

We hypothesized a positive relationship between Clan, Ad hoc and Market cultural values and customer satisfaction, and a negative relationship between Hierarchy values and customer satisfaction. The findings are recapitulated in Table 9-3. Again, we must remind the reader of

the strong correlation between Ad hoc and Clan values which lead to multicollinearity problems and make their separate effects difficult to discern. Therefore, Table 9-3 reports path coefficients for two different analyses as discussed in chapter 8.

**Table 9-3**  
**INDIVIDUAL CULTURE VALUES' IMPACT ON CUSTOMERS' SATISFACTION<sup>a</sup>**

Culture value	Overall satisfaction			Interaction satisfaction		
	Ad hoc and Clan free <sup>b</sup>	Ad hoc free <sup>b</sup>	Clan free <sup>b</sup>	Ad hoc and Clan free <sup>b</sup>	Ad hoc free <sup>b</sup>	Clan free <sup>b</sup>
Market	.12	.13 <sup>d</sup>	.12	.65 <sup>c</sup>	.66 <sup>c</sup>	.65 <sup>c</sup>
Hierarchy	-.36 <sup>c</sup>	-.37 <sup>d</sup>	-.36 <sup>c</sup>	-.25	-.25	-.25
Ad hoc	-.14	.80 <sup>c</sup>		-.05	.26 <sup>d</sup>	
Clan	.94 <sup>d</sup>		.81 <sup>c</sup>	.31		.26 <sup>d</sup>

<sup>a</sup> Coefficients at the individual level change only marginally, and are not reported (c.f., Figure 8-1 and Figure 8-2).

<sup>b</sup> Completely standardized path coefficients.

<sup>c</sup>  $p \leq .05$ , one-tailed.

<sup>d</sup>  $p \leq .10$ , one-tailed.

Starting with individual values' effects on *Overall satisfaction*, the pattern of findings is as predicted. The relationship of Market values to Overall satisfaction are, however, slightly insignificant. While the model 2 parameter is marginally significant, the model 1 and model 3 parameters have T-values of 1.27 that are marginally below a .10 significance level (1.28). This finding is well in line with earlier studies of Market values within the competing values framework which have also been inconclusive as to the effect of market values (e.g., Yeung et al. 1991; Zammuto and Krakower 1991; Cameron and Freeman 1991; Quinn and Spreitzer 1991), but contrary to the generally positive findings of the effects of the market orientation (e.g., Sandvik 1998). We suggest that possible explanation for these discrepancies may be found in two areas. First, Market cultural values and market orientation are not the same construct, and are not measured by the same items. Although we have not performed any quantitative construct validation that would establish a convergence or high correlation between the two constructs, an inspection of items included in their respective measurements reveal that they do seem, however, to cover much of the same organizational phenomenon, albeit that Market values are measured at a more general level than Market orientation. The Market orientation construct thus is probably closer to organizational culture artifacts (Schein 1981), or the «organizational practice» conceptualization of organizational culture by, for example, Hofstede & al. (1990) or Denison (1990), and thus could be expected to be more closely related to overt behavior.

If we turn to the results for Interaction satisfaction as the dependent variable, the relationship between Market values and Interaction satisfaction is significant and as predicted. Ad hoc, Clan and Hierarchy values are not significantly related to interaction satisfaction, but the effect is in the predicted direction..

The different patterns of relationships between cultural values and Overall satisfaction and values and Interaction satisfaction respectively are perhaps the most surprising results in these analyses. These differences may of course be due to the different referents of the two satisfaction measures, but further insight may be gained from looking at the differences in the production factors that enter into the manufacturing of the two elements. Interaction elements are co-produced by the customer and the employee. The more immediate influence on employee performance probably comes from the customer himself, and the extent to which the employee takes customer input into consideration to customize the interaction and deliver satisfaction, and this seems to be at least partly influenced by the degree of market cultural values in the organization. Ad hoc and Clan values, on the other hand, do not relate so directly to the immediate interaction, and consequently are not that strongly related to customer's satisfaction with the interaction. Market (or customer orientation values) take precedence in the interaction. The same argument might apply to Hierarchy values. With the customer present, the negative effect of hierarchy values seems to be dampened. Perhaps it is not so easy for an employee facing the customer to fall back on «standard operating procedures»?

If we turn to the Overall satisfaction, relationships are as predicted, but the difference from the Interaction satisfaction results needs a few comments. Overall satisfaction comprises the Interaction satisfaction, as well as satisfaction with other product elements. Studies by Troye, Øgaard & al. (Troye et al. 1994b; Troye et al. 1995; Troye et al. 1996; Øgaard et al. 1998) have demonstrated *structural product elements* (i.e., architecture, surroundings and room design) to have a strong and direct effect on hotel customers' Overall satisfaction. While interaction elements involve co-production of employees and customers, the production of structural elements does not involve the customer in the production process further than requiring his presence in the consumption process (Troye 1990). The lower uncertainty in structural elements production thus allows for traditional control and governance systems to function more appropriately, leading to a lower direct impact from Market cultural values. Structural elements probably can be effectively produced even with employees that are not too market oriented.

Hierarchy values, that would be related to governance by rules, are on the other hand negatively related to Overall satisfaction, implying that governance by (too much) rules and monitoring of behavior may not be operating very effectively in Overall satisfaction production. The primary advantage of hierarchies lies in the opportunity to achieve production efficiency (Thompson 1967). Product standardization, when customers are heterogenous, may lead to lower service quality, that to be optimal should be compensated for by sharing the cost savings with the customer. Our Overall satisfaction measurement is both indirectly and directly influenced by cost considerations (see items in appendix 2), and production efficiencies shared with the customer should be reflected in that measure. In the present case, the possible cost savings from hierarchies do however not appear to be substantial enough, or at least not shared with the customer to an extent that would outweigh the negative impact of the standardization.

The discussion above suggests that the differences in the patterns of effects for cultural values and Overall satisfaction and Interaction satisfaction respectively may be due to the differences in the production process of product elements comprised by Overall and Interaction satisfaction respectively. The co-production and the closeness of the customer and employee in interaction elements production make the Market values take precedence over other values, while the more mixed production of the other elements that are included in the Overall satisfaction allow the negative effects of Hierarchy values and positive effects of the combined Ad hoc and Clan values to come into play. Likewise, Market values were less strongly related to Overall satisfaction than to Interaction satisfaction because customer input to the production process for other product elements is less immediate. Hierarchy values do not seem to generate enough cost savings and/or the savings are not shared with the customer to an extent that can balance the reduced customization accompanying hierarchy values.

The high correlation between Ad hoc and Clan values observed in our empirical analysis should, until it has been confirmed in similar studies, be interpreted with the outmost caution. If taken at fact value, it may however indicate that the internal/external focus dimension of the competing values framework (see Figure 3-2) that would distinguish Clans from Ad hocracies is less important in the hotel industry when there is an informal, organic and people-oriented culture, that is, when Clan/Ad hoc values are important.



### 9.3 ARE EMPLOYEES' ORGANIZATIONAL CULTURE PERCEPTIONS RELATED TO WORK-RELATED AFFECTIVE OUTCOMES?

The second fundamental research question may also be answered affirmatively: organizational culture perceptions *are* related to employees' affective outcomes. Value perceptions explain 52% of the variance in Job satisfaction, 28% of Turnover intentions' variance and 53% of commitment variance. Clan values are consistently the most important variable for explaining employee affective outcome variance. In this part of the study, we further hypothesized a rather complex structure of relationships that are recapitulated in Table 9-4 together with the standardized path coefficients of the structural equation models. Two sets of findings are, however, contrary to expectations and warrant further discussion. First there are a series of non-significant relationships, and secondly, hierarchy values are, contrary to expectations, positively related to job satisfaction and negatively related to turnover intentions.

Market value perceptions are not significantly related to any outcome variable. Our findings here contradict findings from the market orientation studies (e.g., Kohli et al. 1993), but are, to some extent, in line with the configurations studies' findings (cf. Harris and Mossholder 1996). Two opposing mechanisms may be operating simultaneously to produce the results observed here. A positive relationship may be brought about through the Market values

**Table 9-4**  
**CULTURE PERCEPTIONS AND INDIVIDUAL LEVEL OUTCOMES:**  
**HYPOTHESES AND PATH COEFFICIENTS<sup>a</sup>**

	Job satisfaction		Turnover intentions		Commitment	
	Hypothesis	Path coefficient <sup>b</sup>	Hypothesis	Path coefficient <sup>b</sup>	Hypothesis	Path coefficient <sup>b</sup>
Market	+	.02	-	.05	+	.09
Hierarchy	-	.22 <sup>c</sup>	+	-.19 <sup>c</sup>	+	.19 <sup>c</sup>
Ad hoc	+	.06	-	-.23 <sup>c</sup>	+	.19 <sup>c</sup>
Clan	+	.55 <sup>c</sup>	-	-.29 <sup>c</sup>	+	.44 <sup>c</sup>

<sup>a</sup>Two-level analysis with culture constructs free to correlate at level two.

<sup>b</sup>Completely standardized coefficients.

<sup>c</sup>p≤ .01 one-tailed.

leading to a sense of pride in belonging to the organization in which everybody is working towards a common goal of satisfying customers. Accomplishment of that objective may lead to employees sharing a feeling of worthwhile contributions, job satisfaction, a sense of belongingness and also commitment to the organization (Jaworski and Kohli 1993). However,

Kohli and Joworski (1990) do suggest that a positive relationship between a market orientation and employee affective outcomes may be dependent on a harmonious configuration of the market orientation in that all departments and individuals should work toward the common goal. If that is not so, the relationship may not be that clear. A negative relationship between Market cultural values and individual employee affect is also suggested and found in the literature, and may be due to the emerging role ambiguity and role conflict when the market values are not supported by other organizational values (Singh et al. 1996). Boundary person stress may be especially important in service deliveries with organizational efficiency demands conflicting with customer heterogeneity and need for service customization. An indication of the ambiguity/conflict/stress mechanism operating in our sample may be the observed positive relationship between Hierarchy values and Job satisfaction/Turnover intentions discussed below. If role ambiguity and role conflict are present, the resulting stress may be alleviated by rules and operating procedures for customer interaction. That stress may also counterbalance the putative positive effect of the Market values.

These findings once more highlight the problems of doing key informant studies of Market values as well as market orientation. Key informant studies, with informants typically sampled from management, may not detect the ambiguity, conflict and stress that might emerge for front-line personnel when the market orientation/Market values are strong.

Ad hoc values are, as predicted, positively related to Commitment, and negatively related to turnover intentions, but contrary to expectations, they have no significant relationship to job satisfaction. The last result is surprising for two reasons: first, significant and positive relationships between ad hoc values and affective outcomes have been fairly well documented in the literature (e.g., Brown and Peterson 1993; Quinn and Spreitzer 1991; Cameron and Freeman 1991), and secondly, satisfaction, commitment and intentions to leave have been found to be consistently related to each other (Brown and Peterson 1993). Harris and Mossholder (1996) in a congruence study did however find differential effects of the competing values on job satisfaction, commitment and intentions to leave, and for developmental (Ad hoc values), they found exactly the same pattern that was observed here.

There are no obvious reasons why Ad hoc values should not be related to job satisfaction, but one might speculate that the different foci or referents of job satisfaction on one hand and turnover intentions and commitment on the other may be involved. Job satisfaction is a

pleasurable or unpleasant emotional state resulting from an appraisal of the job experiences (Locke 1976). Ad hoc orientation of the organization may, in the short run, involve both pleasurable and unpleasant experiences for employees because «Newness orientation» and need for innovation and change may involve demands on the employee that at times may lead to stress and failure to perform adequately (Brown and Peterson 1993). The empowerment and delegation involved in Ad hoc values may however offer the employee control of the situation that in itself might be satisfying and also moderate the demand - stress relationship (Karasek and Theorell 1990).

Job satisfaction may thus be influenced by countervailing effects of Ad hoc values, and may, as a temporary evaluation, be influenced by experiences close to the moment when a person forms the evaluation (e.g., is asked to do so in the questionnaire). Hence the lack of a significant relationship between Ad hoc values and Job satisfaction. Turnover intentions on the other hand, may, in addition to labor market appraisals, involve a global job satisfaction evaluation as well as evaluations of the *company* as a viable future employer. Ad hoc values may be considered a positive job related aspect in the long run and a preferred aspect of an employing organization although it in the short run may also involve negative job related experiences. Organizational commitment also has the organization as referent, and consequently is positively related to Ad hoc values.

Perhaps the most surprising results in our analyses of the individual level effects of cultural values perceptions are the positive effects of Hierarchy values on the employee affective outcomes. As predicted, Hierarchy value perceptions are positively related to commitment, but, contrary to expectations, they are also positively related to job satisfaction and negatively related to turnover intentions. The latter finding may be at least partly explained by two psychological mechanisms. First, a number of authors have suggested that boundary person governance structures characterized by behavior control may lead to gratefulness and commitment to the employer who assumes risk, and secondly that the curtailed freedom of action is accepted in line with the Weberian assumption that subordinates perceive organizational authority legitimate and worthy of compliance (Oliver and Anderson 1994). In the present case, the positive effect of perceived hierarchy values with rules for an uncertain customer interaction situation seems to outbalance the need for freedom of action, independence and possible reactance mechanisms.

## 9.4 SOME FURTHER VALIDATION OF THE CULTURE - PERFORMANCE RELATIONSHIP

The need for employee self-regulation in customer interactions is a basic premise for our interest in organizational culture in service management. However, the link between organizational culture and performance is not simple (Whipp et al. 1989). The organizational values are but one factor explaining self-regulation and performance. A number of authors have suggested numerous models including an impressive number of factors explaining employee performance (e.g., Locke and Latham 1990b; Wood and Bandura 1989). If the variables which might intervene between culture and performance only have linear effects, they should not interfere with the findings in this study. If there are interaction effects of culture and intervening factors, our findings may be dependent upon and confounded by the intervening variables, and these variables should be controlled for. This study was not designed to control for the vast number of possible intervening factors, but we have included Organizational Commitment, albeit as an individual level construct only. Commitment has however been shown to be positively related to customer satisfaction (Mohr and Bitner 1995), and positively related to customer orientation (e.g., Kelley 1992) *at the organizational level*. These findings suggest that there may be an interaction effect of culture and commitment, and one may suggest that the higher the commitment, the higher the striving to follow and implement cultural values. If such an interaction effect exists, it should be most clearly evident for Market values. Higher striving to realize Market values should result in a stronger relationship between Market values and customer satisfaction. This proposition is testable with the present research design, and we used moderated regression analysis in a preliminary test (Arnold 1982)<sup>14</sup>. Moderated regression analysis is generally regarded as a conservative method for identifying interaction effects since the interaction term is not tested for significance until the main effects of the independent variables (i.e., one of the organizational values at a time and Commitment) are estimated in the regression equation. Interaction effects are significant only if they add explanatory power to the regression model (Cohen and Cohen 1983), that is, that  $R^2$  is significantly improved. To avoid computational problems in the

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<sup>14</sup> Ping (1995) suggests that there are three general categories of approaches to estimate interaction effects involving latent variables: product term regression analysis, subgroup analysis and indicant (item) product analysis. The small number of cases at level two makes product term regression analysis the only viable testing method here (Ping 1995).

model estimation, independent variables were centered before being entered into the regression (Cronbach 1987).

With four cultural values, respectively, and commitment as independent variables and Interaction satisfaction as well as Overall satisfaction as dependent variables, eight pairs of regressions were run altogether. The analysis revealed that *none* of the interaction terms significantly improved explained variance of Interaction satisfaction and Overall satisfaction, and that *none* of the interaction terms had significant regression parameters. Commitment did however have a main effect on Overall satisfaction.

This test does not rule out possible interactions of extraneous variables, but we have demonstrated that Commitment, that has wide theoretical as well as empirical support for being related to performance, does not *interact* with culture. Future studies should however be careful to include a more comprehensive modeling of intervening variables to control for possible interactions.

## 9.5 IMPLICATIONS

The design and findings of this study have a number of interesting implications for organization studies in general and service management research in particular. First, we have confirmed the usefulness of the competing values conceptualization of organizational culture in (service) organizations research. Furthermore, we have shown the organization culture - performance relationship to be much more complicated and diverse than suggested in the «in search of excellence» literature. We found that a strong overall culture is not always beneficial to performance, and that different cultural themes, that is individual values or groups of the competing values, may further as well as hamper organizational performance. We also found customer satisfaction with the Overall service to be differently related to cultural values of the providing organization than the Interaction dependent part of the service. Interaction satisfaction is first and foremost related to the extent of Market- and customer oriented values of the providing organization, while Overall satisfaction is positively related to Clan/Ad hoc values and negatively related to Hierarchy values. These differences are probably due to production differences. Interaction elements are produced with direct contact between employees and customers, while Overall satisfaction is based upon ~~satisfaction with the~~

interaction as well as satisfaction with other product elements of which some are produced without customer involvement in the production process itself.

At the individual employee level, we again did not find a homogenous pattern of relationships between perceptions of cultural values and employee affective outcomes. This quite clearly indicates that «strong culture» organizations are not necessarily associated with positive affective outcomes of employees. More specifically, we found Market values to be unrelated to affective outcomes, and Clan plus Ad hoc values generally to be positively associated with employee affect. Most surprisingly, we found Hierarchy values to be positively related to individual employee affect.

The overall implication is that cultural aspects that are associated with customers satisfaction differ from aspects that are associated with employee satisfaction and commitment. If cultural management is feasible, it obviously can not be a simple pursuit of some strong integrated or monolithic culture.

Methodologically, our design is an early application of multilevel structural equation modeling to the study of organizational culture where individual employee affective and perception processes are modeled simultaneously with organization level processes of customer satisfaction. This design and analysis technique has allowed for a more complete modeling of organizations as collectives of individuals. The amount of variance within each organization included in the study together with the differences in results at the individual employee level and organization level, clearly indicate that culture studies relying on simplified designs (e.g. key informant studies) may lead to skewed or erroneous results. Here we can probably safely make a general suggestion: Future organizational studies that rely on collecting perceptual data from organization members should always consider using a multilevel approach.

## 9.6 LIMITATIONS AND FUTURE RESEARCH

The planning and execution of any study involves a number of choices where one tries to maximize strengths and minimize threats and limitations resulting from these choices. In this section we will address some limitations associated with the study together with suggestions for future research. Limitations and recommendations are considered collectively because limitations of one study may be the most efficient method for identifying opportunities for

improvement of future studies. Limitations and future study suggestions within the following areas are addressed: theoretical perspective and choice of organizational culture conceptualization, research design, measurement, sample and data collection, and finally, method of analysis.

### 9.6.1 THEORETICAL PERSPECTIVE AND CHOICE OF ORGANIZATIONAL CULTURE CONCEPTUALIZATION

The main focus of this study has been on the effects of organizational culture in service operation. To perform an effect evaluation we were concerned with comparative cultural analysis that involves quantitative culture assessment. We chose to analyze the shared values level of the culture, and more specifically, we chose the competing values framework of Quinn and Rohrbaugh (1981) as our cultural value conceptualization. Furthermore, we chose customer satisfaction and employee affective outcomes as dependent variables. The cultural values and effect variables studied in this investigation are a subset of the universe of culture and effects conceptualizations available. Other theoretical perspectives and choices might have led to a focus on different variables and research methodologies.

First, we have chosen the «functionalist» approach to organizational culture, and our conceptualization of culture as an attribute of the organization or «something the organization *has*» is in itself disputed in the literature, and has been criticized for being superficial and not penetrating to the deeper levels of the culture. An alternative approach would be to view culture as a root metaphor for conceptualizing the organization, or something the organization *is*. The organization thus conceptualized exists only as a pattern of symbolic relationships and meanings among individuals, and could be studied only in terms of the expressive ideational and symbolic aspects of the subjective experiences, or through «thick description» (Geertz 1973), and qualitative studies.

Schein (1981) has suggested a tripartite classification of culture; artifacts, shared norms and values and basic underlying assumptions, of which we have chosen shared values as our level of study. A study of artifacts would involve a comprehensive interpretation and deciphering of the symbolic meaning of the artifacts (e.g., Karlsen 1990), and studies of basic underlying assumptions would involve intense personal and group interviewing in attempts to elicitate the often preconscious assumptions. Both would render insight into different aspects of the cultures, but would also have to rely on explorative and qualitative research techniques that

would make quantitative comparative studies extremely costly. However, there is always a continuing need for in-depth, exploratory and qualitative research that might probe deeper into the cultures of service organizations and ultimately structure new areas for more confirmatory quantitative analysis.

There are a number of alternatives to the competing values classifications and conceptualizations of organizational values. Although we in chapter 2 have claimed that a number of these classifications seem to be fairly overlapping, one can not *a priori* be assured that they meet the basic demands of a useful classification schemata; that the classification is useful, that the classification comprises the full domain of the concept, and that classes are collectively exhaustive (Hunt 1983). None of the classifications discussed in this dissertation are specifically developed for the service or hotel industry, and future research might involve an elicitation of cultural value themes that are more adapted to this industry.

Our complex findings as regards the relationships of individual cultural values and customer satisfaction and our tentative findings of direct effects of intervening variables at the hotel level, clearly indicate that future studies might be well advised to include a more comprehensive model of intervening factors, opening for direct as well as indirect effects of Job satisfaction, Commitment and, for example, goals and feed-back, efficacy, management and training (Locke and Latham 1990b).

At the individual level, we have suggested that both Ad hoc and Market values might have dual effects. Strong Market and rational values are assumed to lead to a sense of pride in belonging to the organization, and accomplishment of a true market orientation is assumed to lead to feelings of worthwhile contributions, belongingness and commitment (Jaworski and Kohli 1993). Market values also put demands on the employee. Demands that might lead to stress. Likewise, Ad hoc values raise demands that might be stressful, but may also be satisfying in themselves, and might offer the individual control of his work situation that may reduce stress (Karasek and Theorell 1990). The duality of the effects of these concepts and the indeterminate findings in our study may indicate that further conceptual classification development may be needed to fully capture the effects of these value constructs. From the discussion above, it should also be evident that in future studies one should consider incorporating the stress construct in modeling efforts.



Turning to dependent variables, we chose to incorporate two customers *satisfaction* measures: satisfaction with the interaction and overall satisfaction. Although our overall satisfaction measures include price considerations, we have no efficiency measures included. Being effective and achieving customer satisfaction does not imply that a company is efficient. Future studies could perhaps also be concerned with the cost - effectiveness of cultural values. Are some cultural values associated with more profitable operations?

### 9.6.2 RESEARCH DESIGN

Although our research questions have been centered around effects of cultural values, we chose a cross-sectional design that does not allow for causal inference. Given more adequate resources, a longitudinal or causal design *could* be attempted. We do however feel that our cross-sectional design has answered a fair amount of question, furthered our insight, and led to a large number of new and more precise questions that can also be investigated with cross-sectional designs. Major questions like the dimensionality of organizational culture; which processes are linking culture to performance; and the role of stress in the process of individual employee culture perceptions, performance and job satisfaction formation, are all at a level of development where they may be most efficiently investigated with explorative and cross-sectional designs.

Resource scarcity restricted the study to the hotel industry and also limited the number of hotels investigated to a maximum of 48, which of course led to lower power in our hotel-level analysis. Replications are necessary to verify the generality of our findings in different empirical settings, and an ample selection of control variables will open for an assessment of the non-spuriousness of our findings. Future research will be well advised to do cross-industry studies with larger samples and more comprehensive models. If service satisfaction or quality measures are included, they should be measured at the individual customer level.

### 9.6.3 MEASUREMENT

Most measurement scales employed in this study were adapted from published work. Variables central to the study (i.e., cultural values, service satisfaction and affective outcomes) were also subjected to rigorous construct validation analyses. All measures therefore, do possess face validity, and most have also been shown to score high on convergent, discriminant and nomological validity.

Our measures of the cultural values differed slightly from all the (heterogenous) suggestions in the literature. We propose that the main difference in received operationalizations can be described along a continuum of holistic «scenarioization» versus a reductionist «itemization». With four cultural values, a number of dimensions forming each value, a number of relevant levels of each dimension, and no grounded *a priori* theory of predictable value correlation, we felt that the «scenarioization» would be too complex or could impose correlations (or configurations) on culture dimensions where none were warranted. Consequently we opted for the «itemization» of measurements. We tried to form independent, single meaning items covering the same areas as the more complex items presently used. Our measures proved to have acceptable characteristics, but again, have not been employed in exactly this fashion and certainly need further validation in follow-up studies.

#### 9.6.4 SAMPLE AND DATA COLLECTION

The sample included in this study is not a random sample of the population of organizations we would like to generalize to. This of course introduces possibilities of our findings being sample specific. Later studies should include other service operations and eventually other industries in the samples.

Because of the high intercorrelation between the Ad hoc and Clan cultural values observed in this sample, multicollinearity problems emerged that neither the multilevel structural equation modeling employed here, nor any other multivariate technique could handle directly, and the relative importance of Clan and Ad hoc values to customer satisfaction remains to be decided. Again, it still is an open question if the Clan/Ad hoc correlation is a sample specific phenomenon or a more general regularity. Future studies should be especially carefully designed to establish the discriminant validity of Ad hoc and Clan values in a multitude of empirical settings.

#### 9.6.5 METHOD OF ANALYSIS

Multilevel Structural Equation Modeling (MSEM) based on the Muthén maximum likelihood estimator was used in the most important analyses in this study. The advantages are numerous and have been commented upon earlier. Here we can only conclude that with the development of these techniques, that allows for simultaneous estimation of the measurement and structural models at *two* levels (i.e., the study of organizational culture

as a collective comprising individual behavior, perceptions, cognitions, values and assumptions in particular, and many other organizational processes in general), has made a great stride ahead.

The comparatively small number of cases at the second level of this study did not allow for comprehensive model development. In the discussion above we did however do some preliminary analysis of interaction effects of Job satisfaction and Commitment on the culture - customer satisfaction relationship and were confined to simpler regression techniques with the inherent inadequacy in simultaneous measurement- and structural model testing. Future research should be designed to benefit from MSEM testing of more complex models at the organization level.

## 9.7 MANAGEMENT IMPLICATIONS

The complexity of the relationships we have found offers the service marketing manager no quick “cultural fixes” to satisfied customers and satisfied and committed employees. Our findings only moderately support the strong/homogenous overall culture as being beneficial to performance, and quite clearly indicate that the different cultural values relate differently to customer satisfaction and employee affective outcomes. Our findings are presented and discussed above, and are well accessible for any interested manager. Here we shall only briefly recapitulate the main findings bearing in mind that a manager that wants to diagnose and invest in cultural development has to consider effects on customers and employees simultaneously. Based upon standardized estimated parameter magnitudes, we would recommend service marketing management to focus on:

1. Market values, that are strongly related to Interaction satisfaction, and thus may be a crucial tool for service quality improvement. Perceptions of Market values are also relatively unrelated to employees’ affective outcomes, so they can change (at least to some extent) without internal effects on employees’ affective outcomes.
2. Clan values, that are strongly positively related to employee affective outcomes, and thus are important for achieving satisfied and committed employees that are not looking for alternative employment. Clan values are also related to customer satisfaction, and a development of Clan values should have dual benefits.

3. Hierarchy values that are positively associated with employee affective outcomes, and thus should offer a potential for dual effects: more satisfied employees and Improved operational efficiencies through standardization and “industrialization of service” (Levitt 1976), that is, gaining operational efficiency through standardization, rules and procedures. However, our findings indicate a *negative* relationship between Hierarchy values and customer satisfaction, implying that managers must be very careful to share operation efficiency gains with customers to offset the cost of reduced customization inherent in Hierarchy values. Then Hierarchy values have a potential for positive effects at both levels.
3. ~~Ad hoc values~~ that are positively related to customer satisfaction, and also positively related to intentions to stay with the organization and organizational Commitment, but which is unrelated to job satisfaction. Empowerment, innovation and change inherent in Ad hoc values thus have a potential for improving customer satisfaction, and also for improving employee affect. However, we suggested that Ad hoc values might also be associated with boundary person stress. Stress should be carefully monitored if Ad hoc values are focused on for development.



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# LITERATURE LIST

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- Ajzen, Icek and B. L. Driver. 1992. "Application of the Theory of Planned Behavior to Leisure Choice." *Journal of Leisure Research* 24(3):207-24.
- Amabile, T., B. Hennessy, and B. Grossman. 1986. "Social Influence on Creativity: The Effects of Contracted-for Reward." *Journal of Personality and Social Psychology* 50:14-23.
- Anderson, Erin and Richard L. Oliver. 1987. "Perspectives on Behavior-Based Versus Outcome-Based Salesforce Control Systems." *Journal of Marketing* 51(4):76-88.
- Anderson, Eugene W. and Claes Fornell. 1994. "A Customer Satisfaction Research Prospectus." Pp. 241-68 in *Service Quality: New Directions and Practice*, eds. Roland T. Rust and Richard L. Oliver. Thousand Oaks, California: Sage.
- Anderson, Eugene W., Claes Fornell, and Donald R. Lehmann. 1994. "Customer Satisfaction, Market Share and Profitability: Findings From Sweden." *Journal of Marketing* 58(3):53-66.
- Anderson, James C. and David W. Gerbing. 1988. "Structural Equation Modelling in Practice: A Review and Recommended Two-Step Approach." *Psychological Bulletin* 103(3):411-23.
- Argote, Linda. 1982. "Input Uncertainty and Coordination in Hospital Emergency Units." *Administrative Science Quarterly* 27:420-434.
- Argyris, Chris and Donald Schön. 1978. *Organizational Learning*. Reading: MA.
- Arndt, Johan. 1982. "Markedsføring Av Tjenester - Erfaringer Av Teori Og Praksis." Pp. 15-23 in *Markedsføring Av Tjenester: Teori Og Praksis*, Editors Johan Arndt and Alfred Friman. Oslo: Bedriftsøkonomens forlag A/S.
- Arnold, H. J. 1982. "Moderator Variables: A Clarification of Conceptual, Analytical and Psychometric Issues." *Organizational Behavior and Human Behavior* 29(2):143-74.
- Ashfort, B. 1985. "Climate Formation: Issues and Extensions." *Academy of Management Review* 10:837-47.
- Bagozzi, Richard P. and Youjae Yi. 1988. "On the Evaluation of Structural Equation Models." *Journal of the Academy of Marketing Science* 16(1 (Spring)):74-94.
- Bagozzi, Richard P., Youjae Yi, and Lynn W. Phillips. 1991. "Assessing Construct Validity in Organizational Research." *Administrative Science Quarterly* 36(3):421-58.

- Barney, John B. 1986. "Organizational Culture: Can It Be a Source of Sustained Competitive Advantage?" *Academy of Management Review* 11(3):656-65.
- Bateson, John E. G. 1995. *Managing Services Marketing*. Orlando, Florida: The Dryden Press.
- Bentler, Peter M. and C-p. Chou. 1987. "Practical Issues in Structural Modeling." *Sociological Methods and Research* 16:78-117.
- Berger, P and T Luckmann. 1966. *The Social Construction of Reality*. New York: Penguin.
- Bernstein, William M. and W. W. Burke. 1989. "Modelling Organizational Meaning Systems." Pp. 117-59 in *Research in Organizational Change and Development*, vol. 3, Editors Richard W. Woodman and William A. Pasmore. Greenwich, Connecticut: JAI Press Inc.
- Berry, J. W. 1979. "A Cultural Ecology of Social Behavior." Pp. 177-207 in *Advances in Experimental Social Psychology*, vol. 12, Editor L. Berkowitz. New York: Academic Press.
- Berry, Leonard L. 1980. "Service Marketing Is Different." *Business*(3):24-29.
- Bettenhausen, Kenneth L. and J. K. Murnighan. 1991. "The Development of an Intragroup Norm and the Effects of Interpersonal and Structural Challenges." *Administrative Science Quarterly* 36(1):20-35.
- Bitner, Mary J. 1993. "Servicescapes: The Impact of Physical Surroundings on Customers and Employees." *Journal of Marketing* 56(April):57-71.
- Bollen, Kenneth A. 1989. *Structural Equations With Latent Variables*. New York: John Wiley & Sons.
- Bollen, Kenneth A. and Richard Lennox. 1991. "Conventional Wisdom on Measurement: A Structural Equation Perspective." *Psychological Bulletin* 110(2):305-14.
- Boulding, William, Ajay Kalra, Richard Staelin, and Valarie A. Zeithaml. 1993. "A Dynamic Process Model of Service Quality: From Expectations to Behavioral Intentions." *Journal of Marketing Research* 30(1):7-17.
- Bowen, David E. and Gareth R. Jones. 1986. "Transaction Cost Analysis of Service Organization-Customer Exchange." *Academy of Management Review* 11(2):428-41.
- Bowen, David E. and Edward E. Lawler. 1992. "The Empowerment of Service Workers: What, Why, How and When." *Sloane Management Review*(Spring):31-39.
- Bowen, David E. and Benjamin Schneider. 1988. "Services Marketing and Management: Implications for Organizational Behavior." Pp. 43-80 in *Research in Organizational Behavior: An Annual Series of Analytical Essays and Critical Reviews*. vol. 10, Eds. Larry L. Cummings and Barry M. Staw. Greenwich, Connecticut: JAI Press Inc.

- Bowen, David E. and Benjamin E. Schneider. 1985. "Boundary Spanning Role Employees and the Service Encounter: Some Guidelines for Management and Research." *The Service Encounter*, Editors John A. Czepiel, Michael R. Solomon, and Carol F. Suprenant. Lexington, MA: D.C. Heath.
- Bowen, John and Michael R. Bowers. 1986. "A Marketing Contingency Approach to Service Organizational Structure." *Creativity in Services Marketing: What's New, What Works, What's Developing* M Venkatesan, Diane M. Schmalensee, and Claudia Marshall. Chicago: American Marketing Association.
- Boxx, W. R., Randall Y. Odom, and Mark G. Dunn. 1991. "Organizational Values and Value Congruency and Their Impact on Satisfaction, Commitment, and Cohesion: An Empirical Examination Within the Public Sector." *Public Personnel Management* 20(2):195-205.
- Bradach, Jeffrey L. and Robert G. Eccles. 1989. "Price, Authority, and Trust: From Ideal Types to Plural Forms." *Annual Review of Sociology* 15:97-118.
- Breivik, Einar. 1995. "Evaluation Differences Between Goods and Services: The Role of Product Intangibility." Doctoral dissertation, The Norwegian School of Economics and Business Administration, Bergen .
- Brown, Steven P. and Robert A. Peterson. 1993. "Antecedents and Consequences of Salespeprson Job-Satisfaction - Metaanalysis and Assessment of Causal Effects." 30(1):63-77.
- Browne, Michael W. and Robert Cudeck. 1993. "Alternative Ways of Assessing Model Fit." *Testing Structural Equation Models*, Eds. Kenneth A. Bollen and J. S. Long. Newbury Park, California: Sage Publications.
- Burns, T and G. M. Stalker. 1968. *The Management of Innovation*. London: Travistock.
- Calder, Bobby J., Lynn W. Phillips, and Alice W. Tybout. 1981. "Designing Research for Application." *Journal of Consumer Research* 8(September):197-207.
- Calder, Bobby J. and P. H. Schurr. 1981. "Attitudinal Processes in Organizations." Pp. 283-302 in *Research in Organizational Behavior*, vol. 3, Editors Larry L. Cummings and Barry M. Staw. Greenwich CT: JAI Press Inc.
- Calori, R. and P. Sarnin. 1991. "Corporate Culture and Economic Performance: a French Study." *Organization Studies* 12(1):49-74.
- Cameron, Kim S. 1978. "Measuring Organizational Effectiveness in Higher Education." *Administrative Science Quarterly* 23:604-32.
- Cameron, Kim S. and Sarah J. Freeman. 1991. "Cultural Congruence, Strength and Type: Relationships to Effectiveness." Pp. 23-58 in *Research in Organizational Change and Development*, vol. 5, Editors Richard W. Woodman and William A. Pasmore. Greenwich, Connecticut: JAI Press Inc.



- Cammann, C., M. Fichman, G. D. Jenkins, and J. R. Klesh. 1983. "Assessing the Attitudes and Perceptions of Organizational Members." *Assessing Organizational Change*, Editors S. D. Seashore, Edward E. Lawler, P. H. Mirvis, and C. Cammann. New York: Wiley & Sons.
- Chase, Richard B. and David E. Bowen. 1989. "Integrating Operations and Human Resource Management in the Service Sector." Pp. 273-95 in *Strategy, Organization Design, and Human Resource Management*, Editor Charles C. Snow. Greenwich, Connecticut: JAI Press Inc.
- Chatman, Jennifer A. 1991. "Matching People and Organizations: Selection and Socialization in Public Accounting Firms." *Administrative Science Quarterly* 36(3):459-84.
- Chatman, Jennifer A. and Karen A. Jehn. 1994. "Assessing the Relationship Between Industry Characteristics and Organizational Culture: How Different Can You Be?" *Academy of Management Journal* 37(3):522-53.
- Churchill, Gilbert W. jr. 1979. "A Paradigm for Developing Better Measures of Constructs." *Journal of Marketing Research* 16(1):64-73.
- Cohen, Jacob and Patricia Cohen. 1983. *Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences*. Hillsdale NJ: Lawrence Erlbaum Associates.
- Cohen, Patricia, Jacob Cohen, Jeanne Teresi, Margaret Marchi, and C. N. Velez. 1990. "Problems in the Measurement of Latent Variables in Structural Equations Causal Models." *Applied Psychological Measurement* 14(2):183-96.
- Cook, Thomas D. and Donald T. Campbell. 1979. "Quasi-Experimentation: Design & Analysis Issues for Field Settings ." Boston.: Houghton Mifflin Co.
- Cooke, Robert A. and Denise M. Rousseau. 1988. "Behavioral Norms and Expectations: A Quantitative Approach to the Assessment of Organizational Culture." *Group & Organization Studies* 13(3):245-73.
- Cooper, Randolph B. and Robert E. Quinn. 1993. "Implications of the Competing Values Framework for Management Information Systems." *Human Resource Management* 32(1):175-201.
- Cronbach, Lee J. 1976. *Research on Classrooms and Schools: Formulations of Questions, Design and Analysis*. Stanford, California: Stanford Evaluation Consortium.
- . 1987. "Statistical Tests for Moderator Variables: Flaws in Analysis Recently Proposed." *Psychological Bulletin* 102:414-17.
- Cronin, J. J. and Steven A. Taylor. 1992. "Measuring Service Quality; A Reexamination and Extension." *Journal of Marketing* 56:55-68.
- Cui, Geng and Sjef Van Den Berg. 1991. "Testing the Construct Validity of Intercultural Effectiveness." *International Journal of Intercultural Relations* 15:227-41.

- Czarniawska-Joerges, Barbara. 1992. *Exploring Complex Organizations: A Cultural Perspective*. Newbury Park, California: SAGE Publications Inc.
- Czepiel, John A., Michael R. Solomon, Carol F. Suprenant, and Evelyn G. Gutman. 1983. *Service Encounters: An Overview*. Lexington, Mass.: Lexington Books.
- Czepiel, John A., Michael R. Solomon, Carol F. Suprenant. 1985. *The Service Encounter: Managing Employee/Customer Interaction in Service Businesses*. Lexington, Massachusetts: Lexington Books.
- Dansereau, Fred and Joseph A. Alutto. 1990. "Level-of-Analysis Issues in Climate and Culture Research." Pp. 193-236 in *Organizational Climate and Culture*, Editor Benjamin Schneider. San Francisco, California: Jossey-Bass.
- Dansereau, Fred, Joseph A. Alutto, and Francis J. Yammarino. 1984. *Theory Testing in Organizational Behavior: The Variet Approach*. Englewood Cliffs N.J.: Prentice-Hall Inc.
- Dansereau, Fred and Steven Markham. 1987. "Levels of Analysis in Personnel and Human Resources Management." Pp. 1-50 in *Research in Personnel and Human Resource Management*, vol. 5 Kendrith M. Rowland and Gerald R. Ferris. Editors Greenwich, Conn: JAI Press Inc.
- Deal, Terrence E. and Allan A. Kennedy. 1982. *Corporate Cultures: The Rites and Rituals of Corporate Life*. Reading, Mass.: Addison-Wesley.
- Deci, E. L. and R. M. Ryan. 1980. "The Empirical Exploration of Intrinsic Motivational Processes." Pp. 39-79 in *Advances in Experimental Social Psychology*, 13 ed. vol. 18, Editor L. Berkowitz. San Diego, CA: Academic Press.
- Deighton, John. 1992. "The Consumption of Performance." *Journal of Consumer Research* 19(3):362-72.
- Denison, Daniel R. 1984. "Bringing Corporate Culture to the Bottom Line." *Organizational Dynamics* 13:5-22.
- Denison, Daniel R. 1990. *Corporate Culture and Organizational Effectiveness*. New York: John Wiley & Sons.
- Denison, Daniel R. 1996. "What Is the Difference Between Organizational Culture and Organizational Climate? A Native's Point of View on a Decade of Paradigm Wars." *Academy of Management Review* 21(3):619-54.
- Denison, Daniel R. and Aniel K. Mishra. 1995. "Toward a Theory of Organizational Culture and Effectiveness." *Organization Science* 6(2):204-23.
- Denison, Daniel R. and Gretchen M. Spreitzer. 1991. "Organizational Culture and Development: A Competing Values Approach." Pp. 1-21 in *Research in Organizational Change and Development*, vol. 5, Editors Richard W. Woodman and William A. Pasmore. Greenwich, Connecticut: JAI Press Inc.

- Deshpandé, Rohit, John U. Farley, and Frederick E. Jr. Webster. 1993. "Corporate Culture, Customer Orientation, and Innovativeness in Japanese Firms: A Quadrant Analysis." *Journal of Marketing* 57 (January):23-37.
- DiPadova, Laurie N. and Sue R. Faerman. 1993. "Using the Competing Values Framework to Facilitate Managerial Understanding Across Levels of Organizational Hierarchy." *Human Resource Management* 32(1):143-74.
- Dunham, Randall B., Jean A. Grube, and Maria B. Castaneda. 1994. "Organizational Commitment: The Utility of an Integrative Definition." *Journal of Applied Psychology* 79(3):370-380.
- Edwards, Jeffrey R. 1994. "THE STUDY OF CONGRUENCE IN ORGANIZATIONAL-BEHAVIOR RESEARCH - CRITIQUE AND A PROPOSED ALTERNATIVE." *Organizational Behavior & Human Decision Processes* 58(1):51-100.
- Edwards, Jeffrey R. 1995. "Alternatives to Difference Scores As Dependent Variables in the Study of Congruence in Organizational Research." *Organizational Behavior & Human Decision Processes* 64(3):307-24.
- Encyclopaedia Britannica, Inc. 1998. "Britannica Online" [Web Page]. Accessed 8 May 1998. Available at <http://www.eb.co.uk:180/cgi-bin/g?DocF=micro/153/45.html>.
- Enz, Cathy A. 1988. "The Role of Value Congruity in Intraorganizational Power." *Administrative Science Quarterly* 33(2):284-304.
- Fiscaro, Sebastiano A. and Charles F. Lance. 1990. "Implications of Three Causal Models for the Measurement of Halo Error." *Applied Psychological Measurement* 14(4):419-29.
- Fornell, Claes. 1992. "A National Customer Satisfaction Barometer: The Swedish Experience." *Journal of Marketing* 56(1):6-21.
- Fornell, Claes and David F. Larcker. 1981. "Evaluating Structural Equation Models With Unobservable Variables and Measurement Error." *Journal of Marketing Research* 18(February):29-50.
- Freytag, Walter R. 1990. "Organizational Culture." Pp. 179-96 in *Psychology in Organizations: Integrating Science and Practice*, Editors Kevin R. Murphy and Frank E. Saal. Hillsdale, New Jersey: Erlbaum.
- . 1991. *Reframing Organizational Culture* Peter J. Frost, Larry F. Moore, Meryl R. Louis, Craig C. Lundberg, and Joanne Martin. California: SAGE Publications Inc.
- Gagliano, Kathryn B. and Jan. Hathcote. 1994. "Consumer Expectations and Perceptions of Service Quality i Retail Apparel Speciality Stores." *Journal of Services Marketing* 8(1):60-69.
- Gagliardi, Pasquale, Editor. 1990. "Symbols and Artifacts: Views of the Corporate Landscape." New York: de Gruyter.

- Gamst, Frederick C. 1990. "Industrial Ethnological Perspectives on the Development and Characteristics of the Study of Organizational Cultures." *Studies in Third World Societies*. 42(Feb.):13-47.
- Geertz, Clifford. 1973. *The Interpretation of Cultures*. London: Fontana Press.
- Gerbing, David W. and James C. Anderson. 1993. "Monte Carlo Evaluations of Goodness-of-Fit Indices for Structural Equation Models." Pp. 40-65 in *Testing Structural Equation Models*, eds. Bollen Kenneth A. and J. S. Long. Newbury Park, Ca.: Sage.
- Gist, Marilyn E., Catherine Schwoerer, and Benson Rosen. 1989. "Effects of Alternative Training Methods on Self-Efficacy and Performance in Computer Software Training." *Journal of Applied Psychology* 74(6):884-91.
- Glick, William H. 1985. "Conceptualizing and Measuring Organizational and Psychological Climate: Pitfalls in Multilevel Research." *Academy of Management Review* 10(3):601-16.
- Goldstein, H. and R. McDonald. 1988. "A General Model for the Analysis of Multilevel Data." *Psychometrika* 53:455-67.
- Goodman, P. S., R. S. Atkin, and F. D. Schoorman. 1983. "On the Demise of Organizational Effectiveness Studies." Pp. 163-83 in *Organizational Effectiveness: A Comparison of Multiple Models*, Editors K. S. Cameron and D. A. Whetten. New York: Academic Press.
- Gordon, George G. 1985. "The Relationship of Corporate Culture to Industry Sector and Corporate Performance." Pp. 103-25 in *Gaining Control of the Corporate Culture*, Editors Ralph H. Kilman, Mary J. Saxton, Roy Serpa, and Associates. San Francisco: Jossey-Bass.
- Gregory, Kathleen L. 1983. "Native-View Paradigms: Multiple Cultures and Culture Conflicts in Organizations." *Administrative Science Quarterly* 28(September):359-76.
- Griffin, Ricky W. and Thomas S. Bateman. 1986. "Job Satisfaction and Organizational Commitment." *International Review of Industrial and Organizational Psychology*, Editors Cary. L. Cooper and Ivan T. Robertson. Chichester: John Wiley & Sons Ltd.
- Gustafsson, Jan-Eric. 1996. "Measurement Characteristics of the IEA Reading Literacy Scales for 9-10 Year-Olds at Country and Individual Levels." .
- Gustafsson, Jan-Eric and Per A. Stahl. 1995. *STREAMS User's Guide*. Mølndal: MultivariateWare.
- Handy, C. B. 1984. *Understanding Organizations*. 3 ed. Middlesex: Penguin.
- Hansen G.S. and Wernerfelt. 1989. "Determinants of Firm Performance: The Relative Importance of Economic and Organizational Factors." *Strategic Management Journal* 19(5).

- Harnqvist, Kjell, Jan-Eric Gustafsson, Bengt O. Muthén, and Ginger Nelson. 1994. "Hierarchical Models of Ability at Individual and Class Levels." *Intelligence* 18:165-87.
- Harris, Stanley G. and Kevin W. Mossholder. 1996. "The Affective Implications of Perceived Congruence With Culture Dimensions During Organizational Transformation." *Journal of Management* 22(4):527-47 .
- Harrison, J. R. and Glenn R. Carroll. 1991. "Keeping the Faith: A Model of Cultural Transmission in Formal Organizations." *Administrative Science Quarterly* 36:552-82.
- Hartline, Michael D. and O. C. Ferrell. 1996. "The Management of Customer-Contact Service Employees: An Empirical Investigation." *Journal of Marketing* 60(October):52-70.
- Hawkins, Peter. 1997. "Organizational Culture: Sailing Between Evangelism and Complexity." *Human Relations* 50(4):417-40.
- Hellriegel, D. and John W. Slocum. 1974. "Organizational Climate: Measures, Research, and Contingencies." *Academy of Management Journal* 17:255-80.
- Henjesand, Inge J. 1996. "Spørsmål Og Svar i Spørreskjemaundersøkelser. Eksperimenter i Forbindelse Med Valg Av: Ordlyd i Spørsmålsstilling, Benevnelse På Svarskala Og Rekkefølge På Spørsmål." Doktorgradsavhandling, Norges Handelshøyskole, Bergen.
- Hofstede, Geert. 1981. "Culture and Organizations." *International Studies of Management and Organizations* X(4):15-41.
- Hofstede, Geert, Bram Neuijen, Denise D. Ohayv, and Geert Sanders. 1990. "Measuring Organizational Cultures: A Qualitative and Quantitative Study Across Twenty Cases." *Administrative Science Quarterly* 35(2, June):286-316.
- Hooijberg, Robert and Frank Petrock. 1993. "On Cultural Change: Using the Competing Values Framework to Help Leaders Execute a Transformational Strategy." *Human Resource Management* 32(1):29-50.
- Hoyle, Rick H. 1995. *Structural Equation Modelling*. London: Sage Publications.
- Hrebiniak, L. C. and Joseph A. Alutto. 1972. "Personal and Role-Related Factors in the Development of Organizational Commitment." *Administrative Science Quarterly* 17:555-72.
- Hu, Li-Tse and Peter M. Bentler. 1999. "Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria Versus New Alternatives." *Structural Equation Modeling* 6(1):1-55.
- Hummel, Vera M. and Roy A. Cook. 1990. "Using General Semantics Principles to Clarify the Corporate Culture Concept." *Bulletin of the Association for Business Communication*; 53(4, Dec.):38-42.
- Hunt, Shelby D. 1983. "Marketing Theory : The Philosophy of Marketing Science." Homewood, Ill.: R.D. Irwin.

- Hunt, Shelby D. 1983. "Marketing Theory : The Philosophy of Marketing Science." Homewood, Ill.: R.D. Irwin.
- Iacobucci, Dawn. 1992. "An Empirical Examination of Some Basic Tenets of Services: Goods-Services Continua." *Advances in Service Marketing and Management*, vol. 1, Editors Teresa A. Swartz, Bowen David E., and Stephen W. Brown. Greenwich, Conn.: JAI Press Inc.
- James, Lawrence R. 1982. "Aggregation Bias in Estimates of Perceptual Agreement." *Journal of Applied Psychology* 67(2):219-29.
- Jaworski, Bernard J. and Ajay K. Kohli. 1993. "Market Orientation: Antecedents and Consequences." *Journal of Marketing* 57(July 1993):53-70.
- Jermier, John M., John W. Slocum, L. Fry, and J. Gaines. 1991. "Organizational Cultures in a Soft Bureaucracy: Resistance Behind the Myth and Facade of an Official Culture." *Organization Science* 2:170-194.
- Jones, Gareth R. 1983. "Transaction Costs, Property Rights, and Organizational Culture: An Exchange Perspective." *Administrative Science Quarterly* 28(September):454-67.
- Jøreskog, Karl G. 1993. "Testing Structural Equation Models." Pp. 294-316 in *Testing Structural Equation Models*, eds. Bollen Kenneth A. and J. S. Long. Newbury Park, Ca.: Sage.
- Jøreskog, Karl G. and Dag Sørbom. 1982. "Recent Developments in Structural Equation Modeling." *Journal of Marketing Research* 19(November):404-16.
- . 1993. *LISREL 8*. Chicago, Ill.: Scientific Software.
- Joyce, William F. and John W. jr. Slocum. 1984. "Collective Climate: Agreement As a Basis for Defining Aggregate Climates in Organizations." *Academy of Management Journal* 27(4):721-42.
- Karasek, Robert A. and Tørres Theorell. 1990. *Healthy Work: Stress, Productivity and the Reconstruction of Working Life*. New York: Basic Books.
- Karlsen, Jan E. 1990. *Pegasus Og Sigarkassen: Myter Og Symbolsk Ledelse i Oljevirksomheten*. Oslo: Universitetsforlaget.
- Kelley, Scott W. 1992. "Developing Customer Orientation Among Service Employees." *Journal of the Academy of Marketing Science* 20(1):27-36.
- . 1993. "Discretion and the Service Employee." *Journal of Retailing* 69(1 (Spring)):104-26.
- Kilman, Ralph H., Mary J. Saxton, and Roy Serpa. 1985. "Introduction: Five Key Issues in Understanding and Changing Culture." Pp. 1-16 in *Gaining Control of the Corporate Culture*, Editors Ralph H. Kilman, Mary J. Saxton, Roy Serpa, and Associates. San Francisco: Jossey-Bass.

- King, C. W. and L. J. Ring. 1989. "Market Positioning Across Retail Fashion Institutions: A Comparative Analysis of Store Types." *Journal of Retailing* 56(1):37-55.
- Kluckhohn, C. 1968. "Culture and Behavior." Pp. 921-76 in *Handbook of Social Psychology*, vol. 2, Editor G. Lindzey. Cambridge, Mass.: Addison-Wesley.
- Koberg, Christine S. and Leonard H. Chusmir. 1987. "Organizational Culture Relationships With Creativity and Other Job-Related Variables." *Journal of Business Research* 15(5):397-409.
- Kohli, Ajay K. and Bernard J. Jaworski. 1990. "Market Orientation: The Construct, Research Propositions, and Managerial Implications." *Journal of Marketing* 54(April):1-18.
- Kohli, Ajay K., Bernard J. Jaworski, and Ajith Kumar. 1993. "MARKOR: A Measure of Market Orientation." *Journal of Marketing Research* 30(4 November):467-77.
- Kotter, John P. and James L. Heskett. 1992. *Corporate Culture and Performance*. New York: The Free Press.
- Koys, Daniel J. and Thomas A. DeCotiis. 1991. "Inductive Measures of Psychological Climate." *Human Relations* 44(3):265-85.
- Kreps, D. 1986. "Corporate Culture and Economic Theory." *Technology, Innovation and Business Strategy*, Editor M. Tsuchiya. Tokyo: Nippon Keizai Shimbunsha Press.
- Krober, A. L. and C Kluckhohn. 1952. "Culture. A Critical Review of Concepts and Definitions." *Papers of the Peabody Museum of American Archaeology and Ethnology*, vol. XLVII, Cambridge, Mass.: Harvard University.
- Langan-Fox, Janice and Philomena Tan. 1997. "Images of a Culture in Transition: Personal Constructs of Organizational Stability and Change." *Journal of Occupational & Organizational Psychology* 70(3):273-93.
- Larsson, Rikard and David E. Bowen. 1989. "Organization and Customer: Managing Design and Coordination of Services." *Academy of Management Review* 14(2):213-33.
- Lessem, Ronnie. 1990. *Managing Corporate Culture*. Aldershot, UK: Gower.
- Levitt, Theodore. 1972. "Production-Line Approach to Services." *Harvard Business Review*(5):41-52.
- . 1976. "Industrialization of Service." *Harvard Business Review*(5):63-74.
- . 1983. *The Marketing Imagination*. New York: Free Press.
- Lewin, Kurt. 1951. *Field Theory in Social Science*. New York: Harper & Row.
- Lim, Bernard. 1995. "Examining the Organizational Culture and Organizational Performance Link." *Leadership & Organization Development Journal* 16(5):16-21.

- Litwin, G. and Stringer. 1968. *Motivation and Organizational Climate*. Cambridge MA: Harvard University Press.
- Locke, Edwin A. 1976. "The Nature & Causes of Job Satisfaction." Pp. 1297-345 in *Handbook of Industrial and Organizational Psychology*, Editor M. D. Dunnette. Chicago: Rand McNally Publishing Co.
- Locke, Edwin A. and Gary P. Latham. 1990a. "Work Motivation and Satisfaction: Light at the End of the Tunnel." *Psychological Science* 1(4):240-246.
- . 1990b. "Work Motivation: The High Performance Cycle." Pp. 4-25 in *Work Motivation*, Editor Uwe e. al. Kleinbeck. Hillsdale, N.J.: Erlbaum Associates.
- Lord, Frederic M. and Melvin R. Novick. 1968. *Statistical Theories of Mental Test Scores*. Reading, MA: Addison-Wesley.
- Louis, Meryl R. 1985. "An Investigator's Guide to Workplace Culture." Pp. 73-93 in *Organizational Culture*, Eds. Peter J. Frost, Larry F. Moore, Meryl R. Louis, Craig C. Lundberg, and Joanne Martin. Beverly Hills: Sage Publications.
- Lovelock, Christopher H. 1983. "Classifying Services to Gain Strategic Marketing Insights." *Journal of Marketing* 47(Summer):9-20.
- . 1991. *Services Marketing*. Englewoods Cliffs New Jersey: Prentice Hall.
- Lumpkin, J. R. and McConkey. 1984. "Identifying Determinants of Store Choice of Fashion Shoppers." *Akron Business and Economic Review* 15(4):30-35.
- Martin, Joanne. 1990. "Breaking Up the Mono-Method Monopolies in Organizational Research." *The Theory and Philosophy of Organization: Critical Issues and New Perspectives*. John Hassard and Denis Pym. London: Ruthledge & Keegan Paul.
- Martin, Joanne and Debra E. Meyerson. 1988. "Organizational Culture and the Denial, Channeling, and Acknowledgement of Ambiguity." *Managing Ambiguity and Change*, Editors L. R. Pondy, R. J. jr. Boland, and H Thomas. New York: John Wiley.
- Mathieu, John E. 1991. "A Cross-Level Nonrecursive Model of the Antecedents of Organizational Commitment and Satisfaction." *Journal of Applied Psychology* 76(5):607-18.
- Mathieu, John E. and D. M. Zajac. 1990. "A Review and Meta-Analysis of the Antecedents, Correlates and Consequences of Organizational Commitment." *Psychological Bulletin* 108:171-94.
- McGraw, Rodney B. 1993. "Union-Management Interface: Using the Competing Values Framework As a Diagnostic Tool to Bring Increased Involvement at the Plant Level." *Human Resource Management* 32(1):51-73 Illus: Appendix; Equations; References.
- Mead, M. 1934. *Mind, Self and Society*. Chicago: University of Chicago Press.



- Meehl, Paul E. 1990. "Appraising and Amending Theories: The Strategy of Lakatosian Defense and Two Principles That Warrant It." *Psychological Inquiry* 1(2):108-41.
- Meglino, Bruce M., Elizabeth C. Ravlin, and Cheryl L. Adkins. 1991. "Value Congruence and Satisfaction With a Leader: An Examination of the Role of Interaction." *Human-Relations* 44(5, May):481-95.
- Meyer, J and N. Allen . 1984. "Testing the "Side-Bet Theory" of Organizational Commitment: Some Methodological Considerations." *Journal of Applied Psychology* 69:372-78.
- Meyerson, Debra E. 1991. "Acknowledging and Uncovering Ambiguities in Cultures." Pp. 254-70 in *Reframing Organizational Culture*, Peter J. Frost, Larry F. Moore, Meryl R. Louis, Craig C. Lundberg, and Joanne Martin. California: SAGE Publications Inc.
- Mills, P. K. and D. J. Moberg. 1982. "Perspectives on the Technology of Service Operations." *Academy of Management Review*(7):467-78.
- Mintzberg, Henry. 1979. *The Structuring of Organizations: A Synthesis of Research*. Englewood Cliffs NJ: Prentice Hall.
- Mirvis, P. H. 1988. "Organizational Development: Part I - An Evolutionary Perspective." *Research in Organizational Change and Development* , vol. 2, Eds. William A. Pasmore and Richard W. Woodman. Greenwich CT: JAI Press Inc.
- Mohr, Lois A. and Mary J. Bitner. 1995. "The Role of Employee Effort in Satisfaction With Service Transactions." *Journal of Business Research* 32(3):239-52.
- Moorman, Christine. 1995. "Organizational Market Information Processes: Cultural Antecedents and New Product Outcomes." *Journal of Marketing Research* XXXII(3):318-35.
- Moorman, Christine, Rohit Deshpandé, and Gerald Zaltman. 1993. "Factors Affecting Trust in Market Research Relationships." *Journal of Marketing* 57(1):81-101.
- Moriarty, Rowland T. and John E. G. Bateson. 1982. "Exploring Complex Decision Making Units: A New Approach." *Journal of Marketing Research* 19(May):182-91.
- Mowday, Richard T., Richard M. Steers, and Lyman W. Porter. 1979. "The Measurement of Organizational Commitment." *Journal of Vocational Behavior* 14:224-47.
- Murphy, Kevin. R. and Douglas. H. Reynolds. 1988. "Does True Halo Affect Observed Halo?" *Journal of Applied Psychology* 73:235-38.
- Murphy, Patrick E. and Ben M. Enis. 1986. "Classifying Products Strategically." *Journal of Marketing* 50(3):24-42.
- Muthén, Bengt O. 1989. "Latent Variable Modeling in Heterogenous Populations." *Psychometrika* 54:557-87.
- . 1990. "Mean and Covariance Structure Analysis of Hierarchical Data." Los Angeles: University of California.

- . 1991. "Multilevel Factor Analysis of Class and Student Achievement Components." *Journal of Educational Measurement* 28(4):338-54.
- . 1994. "Multilevel Covariance Structure Analysis." *Sociological Methods and Research* 22(3):376-98.
- . 1997. "Latent Variable Modeling of Longitudinal and Multilevel Data." *Sociological Methodology* 27:453-80.
- Muthén, Bengt O. and A. Satorra. 1989. "Multilevel Aspects of Varying Parameters in Structural Models." Pp. 87-99 in *Multilevel Analysis of Educational Data*, Editor R. D. Bock. San Diego: Academic Press.
- Muthén, Bengt O. and Albert Satorra. 1995. "Complex Sample Data in Structural Equation Modeling." *Sociological Methodology* 25:267-316.
- Narver, John C. and Stanley F. Slater. 1990. "The Effect of a Market Orientation on Business Profitability." *Journal of Marketing* 54(4, October):20-35.
- O'Reilly, Charles A. and Jennifer A. Chatman. 1996. "Culture As Social Control: Corporations, Cults, and Commitment." Pp. 157-200 in *Research in Organizational Behavior*, vol. 18, Eds. Barry M. Staw and Larry L. Cummings. Greenwich, Conn: JAI Press Inc.
- O'Reilly, Charles A., Jennifer A. Chatman, and David F. Caldwell. 1991. "People and Organizational Culture: A Profile Comparison Approach to Assessing Person-Organization Fit." *Academy of Management Journal* 34(3):487-516.
- Odom, Randall Y., W. R. Boxx, and Mark G. Dunn. 1990. "Organizational Cultures, Commitment, Satisfaction, and Cohesion." *Public Productivity & Management Review* 14(2):157-69.
- Øgaard, Torvald, Sigurd V. Troye, Einar Breivik, and Inge J. Henjesand. 1998. "Service Satisfaction and Service Quality: A Multilevel Approach." Stavanger: Stavanger College.
- Oliver, Richard L. 1997. *Satisfaction: A Behavioral Perspective on the Consumer*. New York: McGraw-Hill.
- Oliver, Richard L. and Erin Anderson. 1994. "An Empirical Test of the Consequences of Behavior- and Outcome-Based Sales Control Systems." *Journal of Marketing* 58(4):53-67.
- Organ, D. W. and K. Ryan. 1995. "A Meta-Analytic Review of Attitudinal and Dispositional Predictors of Organizational Citizenship Behavior." *Personnel Psychology* 48:775-802.
- Ott, Steven J. 1989. *The Organizational Culture Perspective*. Pacific Grove California: Brooks/Cole Publishing Company.

- Ouchi, William G. 1980. "Markets Bureaucracies and Clans." *Administrative Science Quarterly* 25(March):129-41.
- Ouchi, William G. and Alan L. Wilkins. 1985. "Organizational Culture." *American Sociological Review* 11:457-83.
- Parasuraman, A. 1986. "Customer-Oriented Organizational Culture: A Key to Successful Services Marketing." Pp. 73-77 in *Creativity in Services Marketing: What's New, What Works, What's Developing* M Venkatesan, Diane M. Schmalensee, and Claudia Marshall. Chicago: American Marketing Association.
- Parasuraman, A., Valarie A. Zeithaml, and Leonard L. Berry. 1985. "A Conceptual Model for Service Quality and Its Implications for Future Research." *Journal of Marketing* 49:41-50.
- Parsons, Talcott. 1951. *The Social System*. New York: Free Press.
- Pascale, R. T. 1985. "The Paradox of "Corporate Culture" : Reconciling Ourselves to Socialization." *California Management Review* 27(2, Winter):26-41.
- Peters, T. and R. Waterman. 1982. *In Search of Excellence*. Harper and Row.
- Pettigrew, Andrew M. 1979. "On Studying Organizational Cultures." *Administrative Science Quarterly* 24(December):570-581.
- . 1990. "Organizational Climate and Culture: Two Constructs in Search of a Role." Pp. 413-34 in *Organizational Climate and Culture*, Editor Benjamin Schneider. San Francisco, California: Jossey-Bass.
- Poole, M. S. 1985. "Communication and Organization Climates." Pp. 79-108 in *Organizational Communications: Traditional Theme and New Directions*, Editors R. D. McPhee and P. K. Thompkins. Beverly Hills, CA: Sage Publications.
- Price, J. L. and C. W. Mueller. 1986. *Handbook of Organizational Measurement*. Marshfield, MA.: Pitman.
- Pritchard, R. D. and B. W. Karasick. 1973. "The Effects of Organizational Climate on Managerial Job Performance and Job Satisfaction." *Organizational Behavior and Human Performance* 9:126-46.
- Quick, J. C. 1992. "Crafting an Organizational Culture: Herb's Hand at Southwest Airlines." *Organizational Dynamics* 21(2):45-56.
- Quinn, Robert E. 1988. "Beyond Rational Management : Mastering the Paradoxes and Competing Demands of High Performance ." San Francisco.: Jossey-Bass.
- Quinn, Robert E. and John R. Kimberly. 1984. "Paradox, Planning and Perseverance: Guidelines for Managerial Practice." *Managing Organizational Transitions*, Eds. John R. Kimberly and Robert E. Quinn. Homewood Ill.: Richard D. Irwin.

- Quinn, Robert E. and John Rohrbaugh. 1981. "A Competing Values Approach to Organizational Effectiveness." *Public Productivity Review*(June):122-40.
- Quinn, Robert E. and Gretchen M. Spreitzer. 1991. "The Psychometrics of the Competing Values Instrument and an Analysis of the Impact of Organizational Culture on Quality of Life." Pp. 115-42 in *Research in Organizational Change and Development*, vol. 5, Editors Richard W. Woodman and William A. Pasmore. Greenwich, Connecticut: JAI Press Inc.
- Reichers, Aron E. and Benjamin Schneider. 1990. "Climate and Culture: An Evolution of Constructs." *Organizational Climate and Culture*, Editor Benjamin Schneider. San Francisco, California: Jossey-Bass.
- Roberts, K. H., C. L. Hulin, and Denise M. Rousseau. 1978. *Developing an Interdisciplinary Science of Organizations*. San Francisco: Jossey-Bass.
- Rokeach, M. 1973. *The Nature of Human Values* . New York: Free Press.
- Rousseau, Denise M. 1990a. "Assessing Organizational Culture: The Case for Multiple Methods." *Organizational Climate and Culture* , Editor Benjamin Schneider. San Francisco, California: Jossey-Bass.
- . 1990b. "Normative Beliefs in Fund-Raising Organizations: Linking Culture to Organizational Performance and Individual Responses." *Group & Organization Studies* 15(4):448-60.
- Rust, Roland T., Anthony J. Zahorik, and Timothy L. Keiningham. 1994. *Return on Quality: Measuring the Financial Impact of Your Company's Quest for Quality*. Chicago: Probus.
- Sackmann, Sonja A. 1992. "Culture and Subcultures: An Analysis of Organizational Knowledge." *Administrative Science Quarterly* 37(1):140-161.
- Salancick, G. R. 1977. "Commitment and the Control of Organizational Behavior and Belief." *New Directions in Organizational Behavior*, Editors Barry M. Staw and G. R. Salancick. Chicago: St.Clair Press.
- Salancik, G. R. 1977. "Commitment and the Control of Organizational Behavior and Belief." *New Directions in Organizationla Behavior*, Editors Barry M. Staw and G. R. Salancik. Chicago: St.Clair Press.
- Sandelands, Lloyd E. 1988. "Effects of Work and Play Signals on Task Evaluation." *Journal of Applied Social Psychology* 18:1032-48.
- Sandelands, Lloyd E., M. A. Glynn, and J. R. Larson. 1991. "Control Theory and Social Behavior in the Workplace." *Human Relations* 44:1107-30.
- Sandvik, Kåre. 1998. "The Effects of Market Orientation." Doctoral dissertation, The Norwegian School of Economics and Business Administration, Bergen.

- Sathe, V. 1985. *Culture and Related Corporate Realities*. Homewood Illinois: Richard D. Irwin.
- Schein, Edgar H. 1981. "Does Japanese Management Style Have a Message for American Managers?" *Sloane Management Review* 23(Fall):55-68.
- . 1992. *Organizational Culture and Leadership*. San Francisco, California: Jossey-Bass Inc.
- Schneider, Benjamin. 1986. "Notes on Climate and Culture." Pp. 63-67 in *Creativity in Services Marketing: What's New, What Works, What's Developing* M Venkatesan, Diane M. Schmalensee, and Claudia Marshall. Chicago: American Marketing Association.
- Schneider, Benjamin and David E. Bowen. 1984. "New Services Design, Development and Implementation and the Employee." Pp. 82-101 in *Developing New Services*, Eds. William R. George and Claudia Marshall. Chicago, Ill.: American Marketing Association.
- . 1985. "Employee and Customer Perceptions of Service in Banks: Replication and Extensions." *Journal of Applied Psychology* 70(3):423-33.
- Schwartz, Howard and Stanley M. Davis. 1981. "Matching Corporate Culture and Business Strategy." *Organizational Dynamics*(Summer):30-48.
- Sheridan, John E. 1992. "Organizational Culture and Employee Retention." *Academy of Management Journal* 35(5):1036-56.
- Shockley-Zalabak, Pamela and Donald D. Morley. 1989. "Adhering to Organizational Culture: What Does It Mean? Why Does It Matter?" *Group & Organization Studies* 14(4):483-500.
- Shostack, G. L. 1977. "Breaking Free From Product Marketing." *Journal of Marketing*(April):73-80.
- Siehl, Caren and Joanne Martin. 1990. "Organizational Culture: A Key to Financial Performance?" Pp. 241-81 in *Organizational Climate and Culture*, Editor Benjamin Schneider. San Francisco, California: Jossey-Bass.
- Singh, J., W. Verbeke, and G. K. Rhoads. 1996. "Do Organizational Practices Matter in Role Stress Processes? A Study of Direct and Moderating Effects for Marketing-Oriented Boundary Spanners." 60(3):69-86.
- Smircich, Linda. 1983. "Concepts of Culture and Organizational Analysis." *Administrative-Science-Quarterly* 28(3, September):339-58.
- Solomon, Michael R., Carol F. Suprenant, John A. Czepiel, and Evelyn G. Gutman. 1985. "A Role Theory Perspective on Dyadic Interactions: The Service Encounter." *Journal of Marketing* 49:99-111.

- Staw, Barry M. 1984. "Organizational Behavior: A Review and Reformulation of the Fields' Outcome Variables." Pp. 627-66 in *Annual Review of Psychology*, vol. 35, eds. M Rosenzweig and Lyman W. Porter.
- Stevens, Betsy. 1996. "Using the Competing Values Framework to Assess Corporate Ethical Codes." *Journal of Business Communication* 33(1):71-84.
- Surprenant, Carol F. and Michael R. Solomon. 1987. "Predictability and Personalization in the Service Encounter." *Journal of Marketing* 51(2):86-96.
- Swidler, Ann. 1986. "Culture in Action: Symbols and Strategies." *American Sociological Review* 51(April):273-86.
- Thibaut, J. W. and H. H. Kelley. 1959. *The Social Psychology of Groups*. New York: John Wiley & Sons Inc.
- Thompson, James D. 1967. *Organizations in Action*. New York: McGraw-Hill Inc.
- Toffler, Alvin. 1980. *The Third Wave*. New York: Willam Morrow.
- Triandis, Harry C. 1994. *Culture and Social Behavior*. New York: McGraw-Hill.
- Trice, Harrison M. and J. Beyer. 1984. "Studying Organizational Cultures Through Rites and Ceremonials." *Academy of Management Review* 9:653-66.
- Troye, Sigurd V. 1990. *Markedsføring: Styling Av Kvalitet*. Oslo: Universitetsforlaget.
- . 1996. *Markedsorientering Av Servicebedrifter*. Oslo: TANO.
- Troye, Sigurd V., Einar Breivik, Torvald Øgaard, and Inge J. Henjesand. 1995. "Service Encounters Versus Physical Facilities As Drivers of Customer Satisfaction: An Empirical Test of Competing Models." .
- . 1996. "Drivers of Customer Satisfaction: A Test of Two Alternative Perspectives." Pp. 1143-61 in *Marketing for an Expanding Europe* (Budapest, 14 May-17 May), Editors Jozsef Beracs, Andreas Bauer, and Judit Simon. Budapest: Budapest University of Economic Sciences.
- Troye, Sigurd V. and Inge J. Henjesand. 1992. "Marketing As Quality Management: An Integrated Perspective on Product and Service Quality." .
- Troye, Sigurd V., Inge J. Henjesand, and Torvald Øgaard. 1993. "What Constitutes a Product and Its Quality? Toward a Typology of Product Elements." Pp. 277-86 in *18th IAREP Colloquium* (Moscow, Jul), Editor Serge V. Malakhov. Moscow: Academy of National Economy.
- Troye, Sigurd V. and Torvald Øgaard. 1997. "Gjestetilfredshet Og Hotellkvalitet." Pp. 321-35 in *Turisme. Fenomen Og Næring*, Eds. Jens Kr. Steen Jacobsen and Viken Arvid. Oslo: Universitetsforlaget.

- Troye, Sigurd V. and Torvald Øgaard. 1999. "The Many Effects of Service: An Empirical Study of Service and Product Quality in the Hospitality Industry." *The Nordic School of Quality Management*, Eds. Bo Edvardsson and Anders Gustafsson. Stockholm: Studentlitteratur.
- Troye, Sigurd V., Torvald Øgaard, and Inge J. Henjesand. 1994a. "The Hidden Impact of Service: An Alternative Model of Service and Product Quality ." .
- . 1994b. "Service and Product Quality: An Alternative Perspective and Empirical Findings." Pp. 259-95 in *Marketing Perspectives* Andreas W. Falkenberg. Bergen: Fagbokforlaget.
- Troye, Sigurd V., Trovald Øgaard, and Inge J. Henjesand. 1995. "The Triple Importance of Service: An Empirical Test of Service and Product Quality in the Hospitality Industry." Pp. 1135-45 in *Marketing Today and for the 21st Century* (Paris, ), Editor M Bergadaa. Paris: Ecole Superieure des Sciences Economiques et Commerciales.
- Troye, Sigurd V., Ole Skalpe, Torvald Øgaard, Kjetil F. Larsen, Inge J. Henjesand, Olav Kvitastein, and Nils Risholm. 1995. "The Economics of Service Quality." *Fourth Annual Frontiers in Services Conference* (Nashville Tennessee, 5 Oct-7 Oct).
- Troye, Sigurd V. and James B. Wilcox. 1989a. "A Framework for Assessing and Managing Quality of Product and Service Offerings: A Taxonomy of Quality and Product Elements." .
- Troye, Sigurd V. and James B. Wilcox. 1989b. "Tjenestemarkedsføringens Iboende Gjenstridighet: Noen Kjetterske Påstander Om Tjenestekvalitet Samt Empirisk Belegg." *Beta* 1:37-52.
- Van de Ven, Andrew. 1983. "Review of *In Search of Excellence*." *Administrative Science Quarterly* 29:621-24.
- Van Maanen, John and Stephen R. Barley. 1984. "Occupational Communities: Culture and Control in Organizations." Pp. 287-365 in *Research in Organizational Behavior*, vol. 6Greenwich, Connecticut: JAI Press Inc.
- Venkatesan, M., Diane M. Schmalensee, and Claudia Marshall. 1986. *Creativity in Service Marketing*. Chicago: American Marketing Association.
- Whipp, R., R. Rosenfeld, and Andrew M. Pettigrew. 1989. "Culture and Competitiveness: Evidence From Two Mature UK Industries." *Journal of Management Studies* 26(6, November):561-85.
- Wiener, Yoash. 1988. "Forms of Value Systems: A Focus on Organizational Effectiveness and Cultural Change and Maintenance." *Academy of Management Review* 13(4):534-45.
- Wilkins, Alan L. and William G. Ouchi. 1983. "Efficient Cultures: Exploring the Relationship Between Culture and Organizational Performance." *Administrative Science Quarterly* 28(September):468-81.

- Williams, Michael R. and Jill S. Attaway. 1996. "Exploring Salespersons' Customer Orientation As a Mediator of Organizational Culture's Influence on Buyer-Seller Relationships." *Journal of Personal Selling & Sales Management* 16(4):33-52.
- Williams, Raymond. 1981. *Culture*. Glasgow: Fontana.
- Winer, B. J. 1971. *Statistical Principles for Experimental Designs*. New York: McGraw-Hill.
- Wood, Robert and Albert Bandura. 1989. "Social Cognitive Theory of Organizational Management." *Academy of Management Review* 14(3):361-84.
- Yeung, Arthur K. O., J. W. Brockbank, and David O. Ulrich. 1991. "Organizational Culture and Human Resource Practices: An Empirical Assessment." Pp. 59-82 in *Research in Organizational Change and Development*, vol. 5, Editors Richard W. Woodman and William A. Pasmore. Greenwich, Connecticut: JAI Press Inc.
- Zaltman, Gerald, Robert Duncan, and Jonny Holbek. 1973. *Innovations and Organizations*. New York: John Wiley and Sons.
- Zaltman, Gerald, Christian R. A. Pinson, and Reinhard Angelmar. 1973. *Metatheory and Consumer Research*. New York: Holt, Reinhart and Winston.
- Zammuto, Raymond F. and Jack Y. Krakower. 1991. "Quantitative and Qualitative Studies of Organizational Culture." Pp. 83-114 in *Research in Organizational Change and Development*, vol. 5, Editors Richard W. Woodman and William A. Pasmore. Greenwich, Connecticut: JAI Press Inc.
- Zammuto, Raymond F. and Edward J. O'Connor. 1992. "Gaining Advanced Manufacturing Technologies' Benefits: The Roles of Organization Design and Culture." *Academy of Management Review* 17(4):701-28.
- Zeithaml, Valarie A., A. Parasuraman, and Leonard L. Berry. 1985. "Problems and Strategies in Services Marketing." *Journal of Marketing* 49(2):33-45.
- Zucker, Lynne G. 1986. "Production of Trust: Institutional Sources of Economic Structure, 1840-1920." Pp. 53-111 in *Research in Organizational Behavior*, vol. 8, Editors Larry L. Cummings and Barry M. Staw. Greenwich, Conn.: JAI Press Inc.





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# APPENDICES

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# Appendix 1: EMPIRICAL STUDIES OF THE EFFECTS OF COMPETING VALUES

Since the late eighties, a number of studies have investigated the effects of organizational culture as conceptualized in the competing values framework (see chapter 2 and 3). Here we shall review some of the research. We shall, however, have to limit the review to external effects of competing values, and it is based upon studies identified by searching ABI-inform, Helecon and Sociofile. References appearing in relevant publications were searched for additional studies that might be included. A number of the studies listed in the searches were less scientifically than application oriented and were excluded from the review together with purely explorative studies (e.g., Hooijberg and Petrock 1993; McGraw 1993; DiPadova and Faerman 1993; Cooper and Quinn 1993; Stevens 1996). For the more eclectic studies, only the main results have been reported.

Authors	Hypotheses <sup>a</sup>	Findings, individual values <sup>a</sup>	Findings, OC strength and balanced values	Design
Yeung, Brockbank and Ulrich (1991)	OC +> Performance (P) OCV +>Performance	C +> P AH -> P	Significant +Balanced strong - Balanced weak	N=1064 business units (Fortune 500) 10300 respondents Cross sectional study
	OCV > Human resource practice (HRP)	C +> HRP AH -> HRP	+Balanced strong - Balanced weak	

Cameron and Freeman (1991)	OC - Effectiveness (E) (No direction) OCV - E	H → E C → E AH → E	Not supported	N=334 colleges and universities 3406 respondents Cross sectional study
	OC congruence - E	Close OCV to E-dimension correspondence.	Not supported	
Moorman (1995)	AH → Market information acquisition processes C → Market information transmission processes C → Organizational conceptual utilization processes M → Organizational instrumental utilization processes	Not supported Partial support Significant Not supported	C scored highest on all dimensions, H scored lowest	N=92 top 200 advertisers 92 vice presidents of marketing responded Cross sectional study
Quinn and Spreitzer (1991)	OC → Quality of Life (QL) (a number of dimensions)	(C, AH) → QL H → QL	Balanced weak and balanced strong are both positively related to QL domains	N=86 Utility companies 796 respondents Cross sectional study
Deshpandé, Farley and Webster (1993)	Rank ordering of relationship strength of cultures to business performance (P) 1. M 2. AH 3. C 4. H	Significant NS NS Significant		50 firms sampled from Nikkei stock exchange 100 marketing executives responded Cross sectional study

Moorman Deshpandé and Zaltman (1993)	Relationship of perceived OC of market research suppliers to trust in research.		N=779 dyads of marketing researchers and marketing managers selected from the top 200 US advertisers
AH → User trust in market researchers (T)		NS	779 internal general, and marketing managers that evaluated internal and external researchers.
C → T		NS	
M → T		NS	
H → T		Supported (p<.10)	

<sup>a</sup> OC = Organizational culture.

OCV = Organizational culture value(s).

C = Clan values, AH = Ad hoc values, M = Market values, H = Hierarchy values.

+> = Positive relationship, -> = Negative relationship, > = Mixed or unspecified relationship.

## Appendix 2: ITEMS USED IN CONSTRUCT MEASUREMENT

### Culture Items:

**Market values** (Response scale: Disagree completely (-5) ... Agree completely (+5))

- MARK3 We are expected to do all we can to satisfy customers.
- MARK4 We are expected to respond immediately to customer demands.
- MARK5 My needs are subordinate to customers' needs.
- MARK6 Our organization puts a lot of emphasis on measuring the results of our work.
- MARK7 In my work I am very concerned with efficiency.
- MARK8 In our organization there is a heavy emphasis on profitability.
- MARK9 We are closely watching our competitors.

**Hierarchy values** (Response scale: Disagree completely (-5) ... Agree completely (+5))

- HIER1 There are rules and procedures for my work.
- HIER2 My tasks are clearly defined.
- HIER3 It is important to follow company rules in my work.
- HIER4 Management is carefully monitoring mistakes I might make.

**Ad hoc** (Response scale: Disagree completely (-5) ... Agree completely (+5))

- AH1 It is important to discover improvements in the ways we do things.
- AH2 It is important to test new ideas in our work.
- AH3 My job is always changing.
- AH4 We are expected to be innovative in our jobs.
- AH5 I have full discretion in choosing means for getting the job done.
- AH6 I am authorized to correct things that are wrong even if they are outside my responsibility.

**Clan** (Response scale: Disagree completely (-5) ... Agree completely (+5))

- CLAN1 We are careful not to hurt each other.
- CLAN2 Everybody in this hotel is important.
- CLAN3 We can safely express our opinions on any matter.
- CLAN4 The management has an open door policy towards subordinates.
- CLAN5 In this hotel there is a strong team spirit.

**Employee affective outcomes scales:**

**Job Satisfaction** (Response scale: Disagree completely (-5) ... Agree completely (+5))

- JOB3 I am happy with this job.
- JOB4 I would recommend a friend to work here.

**Intentions to stay** (Response scale: Disagree completely (-5) ... Agree completely (+5))

- JOB5 I am not considering leaving this job.

**Commitment** (Response scale: Disagree completely (-5) ... Agree completely (+5))

- COM1 I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful.
- COM2 I talk up this organization to my friends as a great organization to work for.
- COM3 I would accept almost any type of job assignment in order to keep working for this organization.
- COM4 I find that my values and the organization's values are very similar.
- COM5 I am proud to tell others that I am part of this organization.
- COM6 This organization really inspires the very best in me in the way of job performance.
- COM7 I am extremely glad that I chose this organization to work for over the others I was considering at the time I joined.
- COM8 I really care about the fate of this organization.
- COM9 For me, this is the best of all possible organizations to work for.

**Customer satisfaction items:**

**Interaction items** (How satisfied are you with .... Response scale -5 --+5)

- vu1 The friendliness of employees at check in and check out.
- vu2 The servicemindedness of the employees.
- vu4 The employees ability to solve problems.
- vu6 The ability to offer quick service.

**Overall satisfaction items** (How satisfied are you with .... Response scale -5 --+5)

- s9 The price /quality relationship of the hotel.
- s10 Overall satisfaction.

(How likely is it that you will ... Response scale 1-11)

- s11 Choose this hotel on an other occasion.
- s12 Recommend the hotel to others.



**Appendix 3: QUESTIONNAIRE ORGANIZATION  
SURVEY (IN NORWEGIAN)**

## ***Medarbeiderundersøkelse Inter Nor Hotellene***

***Kjære hotellmedarbeider!***

***Vi håper at du tar deg tid til å svare på vedlagte spørsmål om deg selv og hotellet. Du skal svare på spørsmålene ut fra din oppfatning av hvordan forholdene er her.***

***Denne undersøkelsen gjennomføres på din bedrift sammen med en rekke andre hotell- og reiselivsbedrifter i Norge. Arbeidet gjøres som del av et større forskningsprosjekt ved Høgskolen i Stavanger og Norges Handelshøgskole. Formålet er å gjøre norske bedrifter mer konkurransedyktige, og din bedrift vil få en rekke nyttige opplysninger som kan hjelpe til med å styrke konkurranseevnen.***

***Alle opplysninger vil bli behandlet konfidensielt, og det vil ikke være mulig å finne ut hva du personlig har svart. Du vil forbli anonym.***

***Når du er ferdig ber vi deg legge spørreskjemaet i vedlagte konvolutt og levere det i Resepsjonen. Start med å fylle inn navnet på hotellet nedenfor.***

***På forhånd takk for hjelpen.***

***Torvald Øgaard.***

Navn på hotellet: \_\_\_\_\_

Først vil vi gjerne vite litt om deg selv. Du svarer på de fleste spørsmål ved å sette ring rundt tallet ved svaret som passer best for deg.

1. **Kjønn**

Kvinne.....	= 1
Mann .....	= 2
  
2. **Alder** (skriv antall år)
 

_____	År
-------	----
  
3. **Stilling**

Daglig leder	= 1
Avdelingsleder	= 2
Annen Medarbeider	= 3
  
4. **Arbeidsområde**

Hotelladministrasjon:	
Kryss av for det viktigste arbeidsområdet.	salg..... = 1
	annen ledelse, økonomi etc. = 2
	Restaurant..... = 3
	Værelser (husøkonom)..... = 4
	Resepsjon..... = 5
	Kjøkken..... = 6
	Konferanse..... = 7
	Vedlikehold..... = 8
	Annet (skriv)_____ = 9
  
5. **Ansettelsesforhold**

Heltidsansatt.....	= 3
Deltidsansatt.....	= 2
Ekstrahjelp etter behov (timeansatt).....	= 1
  
6. **Varighet av arbeidsforhold:**

Hvor mange år har du vært ansatt ved dette hotellet? (Skriv antall år.) \_\_\_\_\_ År

Her er vi interessert i å få vite hvordan forholdene er ved hotellet ditt. Du skal verken "forskjønne" eller "svartmale", men forsøke å beskrive hvordan du opplever bedriften. Beskrivelsen er lagt opp slik at vi har laget en rekke utsagn, og du skal merke av for hvor godt du synes utsagnene beskriver forholdene i bedriften din. Sett en sirkel rundt tallet som best viser hvor godt du mener beskrivelsen passer for din bedrift.

Et eksempel:	Svært dårlig Beskrivelse										Svært god beskrivelse					
Målene for mitt arbeid er klare.	-5	-4	-3	-2	-1	0	1	2	3	4	5					
Denne personen mener at målene for hans arbeid ikke er helt klare.											Svært god					
	Svært dårlig beskrivelse										Svært god					
1. Vår bedrift har mål for hva som skal oppnås i min avdeling.	-5	-4	-3	-2	-1	0	1	2	3	4	5					
2. Jeg kjenner godt til bedriftens mål innenfor mitt arbeidsområde.	-5	-4	-3	-2	-1	0	1	2	3	4	5					
3. Målene for mitt arbeid er klare.	-5	-4	-3	-2	-1	0	1	2	3	4	5					
4. Jeg synes bedriftens målsettinger på mitt område er fornuftige.	-5	-4	-3	-2	-1	0	1	2	3	4	5					
5. Bedriften er opptatt av å måle resultatene av arbeidet vårt.	-5	-4	-3	-2	-1	0	1	2	3	4	5					
6. I mitt arbeid er jeg svært opptatt av effektivitet.	-5	-4	-3	-2	-1	0	1	2	3	4	5					
7. Hos oss legges det svært stor vekt på lønnsomhet.	-5	-4	-3	-2	-1	0	1	2	3	4	5					
8. Vi er svært opptatt av hva våre konkurrenter foretar seg.	-5	-4	-3	-2	-1	0	1	2	3	4	5					
9. Den viktigste målsetting for bedriften er å tilfredsstille gjestene.	-5	-4	-3	-2	-1	0	1	2	3	4	5					
10 Dersom det oppstår problemer for en gjest under besøket hos oss, er det viktigste for oss å hjelpe vedkommende med å løse dem.	-5	-4	-3	-2	-1	0	1	2	3	4	5					
11 Det forventes at jeg skal yte noe ekstra til gjestene.	-5	-4	-3	-2	-1	0	1	2	3	4	5					
12 Vi forventes å behandle alle henvendelser fra gjester med en gang.	-5	-4	-3	-2	-1	0	1	2	3	4	5					
13 Gjestens behov kommer før mine egne.	-5	-4	-3	-2	-1	0	1	2	3	4	5					

	<b>Svært dårlig beskrivelse</b>							<b>Svært god beskrivelse</b>				
14. Hos oss har gjesten alltid rett	-5	-4	-3	-2	-1	0	1	2	3	4	5	
15. Bedriften har regler og prosedyrer for hvordan arbeidet mitt skal utføres.	-5	-4	-3	-2	-1	0	1	2	3	4	5	
✓ 16. Jeg har klart definerte arbeidsoppgaver.	-5	-4	-3	-2	-1	0	1	2	3	4	5	
17. Det er viktig at jeg følger bedriftens regler i arbeidet mitt.	-5	-4	-3	-2	-1	0	1	2	3	4	5	
18. Ledelsen er nøye med å passe på når jeg gjør feil.	-5	-4	-3	-2	-1	0	1	2	3	4	5	
✓ 19. Jeg har en svært selvstendig jobb.	-5	-4	-3	-2	-1	0	1	2	3	4	5	
20. Jeg må ofte snakke med mine overordnede for å vite hva jeg skal gjøre.	-5	-4	-3	-2	-1	0	1	2	3	4	5	
21. Jeg har stor myndighet til selv å bestemme hvordan ting skal gjøres i min jobb.	-5	-4	-3	-2	-1	0	1	2	3	4	5	
22. Vi er opptatt av ikke å blande oss i hverandres arbeidsoppgaver.	-5	-4	-3	-2	-1	0	1	2	3	4	5	
23. Det er viktig for bedriften at jeg ser og gjør noe med muligheter for forandringer og forbedringer i produktene og tjenestene vi tilbyr gjestene.	-5	-4	-3	-2	-1	0	1	2	3	4	5	
24. I hotellet legger vi vekt på å prøve ut nye ideer.	-5	-4	-3	-2	-1	0	1	2	3	4	5	
25. Innholdet i jobben min endres stadig.	-5	-4	-3	-2	-1	0	1	2	3	4	5	
26. Det forventes at jeg skal være oppfinnsom med hensyn til hvordan jobben min skal utføres.	-5	-4	-3	-2	-1	0	1	2	3	4	5	
27. Jeg har stor frihet til selv å bestemme hva som må gjøres for å nå målene for mitt arbeidsområde.	-5	-4	-3	-2	-1	0	1	2	3	4	5	
28. Når jeg legger merke til noe som ikke er helt riktig, har jeg myndighet til å gjøre noe med det straks, selv om det ikke skulle ære innen mitt arbeidsområde.	-5	-4	-3	-2	-1	0	1	2	3	4	5	

	<i>Svært dårlig beskrivelse</i>					<i>Svært god beskrivelse</i>					
29. Her i hotellet tar man hensyn til personlige følelser.	-5	-4	-3	-2	-1	0	1	2	3	4	5
30. Hver enkelt ansatt behandles som en viktig del av bedriften.	-5	-4	-3	-2	-1	0	1	2	3	4	5
31. Jeg kan trygt si min mening til mine overordnede.	-5	-4	-3	-2	-1	0	1	2	3	4	5
32. Mine sjefer/ledere har alltid "døren åpen" for meg.	-5	-4	-3	-2	-1	0	1	2	3	4	5
33. Samarbeidet i bedriften er preget av god "lagånd".	-5	-4	-3	-2	-1	0	1	2	3	4	5
34. Arbeidet mitt har stor betydning for bedriftens omdømme.	-5	-4	-3	-2	-1	0	1	2	3	4	5
35. Når jeg mangler informasjon om hva eller hvordan jeg skal gjøre ting, klarer jeg alltid å finne ut av det av meg selv.	-5	-4	-3	-2	-1	0	1	2	3	4	5
36. Når jeg møter vanlige gjester klarer jeg alltid å gjøre en utmerket jobb overfor dem.	-5	-4	-3	-2	-1	0	1	2	3	4	5
37. Jeg er den helt riktige person for jobben min	-5	-4	-3	-2	-1	0	1	2	3	4	5
38. Dersom det er konflikter mellom det som gjestene ønsker og det som er riktig for bedriften, klarer jeg alltid å finne riktige løsninger.	-5	-4	-3	-2	-1	0	1	2	3	4	5
39. Når gjestene er ekstra kravfulle klarer jeg som regel å gi dem positive opplevelser.	-5	-4	-3	-2	-1	0	1	2	3	4	5

Nå vil vi gjerne vite litt om hva du mener om LEDELSEN ve hotellet.

	<i>Svært dårlig beskrivelse</i>					<i>Svært god beskrivelse</i>					
42. Ledelsen har god oversikt over hvordan de forskjellige ansatte fungerer i jobbene sine.	-5	-4	-3	-2	-1	0	1	2	3	4	5
43. Ledelsen er flinke til å følge opp at ting blir gjort slik de skal.	-5	-4	-3	-2	-1	0	1	2	3	4	5
44. Når noen gjør en ekstrainsats er ledelsen som regel klar over det.	-5	-4	-3	-2	-1	0	1	2	3	4	5

	<i>Svært dårlig beskrivelse</i>							<i>Svært god beskrivelse</i>				
45. Jeg fikk god opplæring og innføring i bedriften da jeg begynte i jobben.	-5	-4	-3	-2	-1	0	1	2	3	4	5	
46. Jeg har et godt nok tilbud av opplærings- og videreutviklingsmuligheter.	-5	-4	-3	-2	-1	0	1	2	3	4	5	
47. Ledelsen gir ofte tilbakemeldinger om hvordan jeg og andre jobber.	-5	-4	-3	-2	-1	0	1	2	3	4	5	
48. Ledelsens tilbakemeldinger er rettferdige.	-5	-4	-3	-2	-1	0	1	2	3	4	5	
49. Ledelsen er flinke til å støtte meg i mitt arbeid for å gjøre jobben min bedre.	-5	-4	-3	-2	-1	0	1	2	3	4	5	

Nå vil vi gjerne vite litt om arbeidsforholdene i din nåværende jobb. Vær vennlig å lese gjennom utsagnene nedenfor og sett en sirkel rundt svaralternativet som passer best.

	<i>Svært dårlig beskrivelse</i>							<i>Svært god beskrivelse</i>				
<b>Ved hotellet vårt...</b>												
1. kan medarbeidere komfortabelt håndtere ukjente situasjoner.	-5	-4	-3	-2	-1	0	1	2	3	4	5	
2. bringer hver dag nye utfordringer.	-5	-4	-3	-2	-1	0	1	2	3	4	5	
3. yter folk det maksimale i jobben.	-5	-4	-3	-2	-1	0	1	2	3	4	5	
4. har folk en uformell omgangsform.	-5	-4	-3	-2	-1	0	1	2	3	4	5	
5. er man mer opptatt av hvordan vi gjør ting enn av at ting blir gjort.	-5	-4	-3	-2	-1	0	1	2	3	4	5	
6. deltar ansatte i viktige avgjørelser.	-5	-4	-3	-2	-1	0	1	2	3	4	5	
7. er bedriften bare interessert i hva ansatte yter.	-5	-4	-3	-2	-1	0	1	2	3	4	5	

	<i>Svært dårlig beskrivelse</i>							<i>Svært god beskrivelse</i>				
<b>Ved hotellet vårt..</b>												
8. er det lite oppmerksomhet på de ansattes personlige problemer.	-5	-4	-3	-2	-1	0	1	2	3	4	5	
9. fattes beslutninger på toppen.	-5	-4	-3	-2	-1	0	1	2	3	4	5	
10. er hotellet mer orientert mot jobben som skal gjøres enn av personene som skal utføre den.	-5	-4	-3	-2	-1	0	1	2	3	4	5	

11.	har folk privatlivet sitt i fred.	-5	-4	-3	-2	-1	0	1	2	3	4	5
12.	er kvalifikasjonene for jobben det eneste man bryr seg om når man ansetter nye folk.	-5	-4	-3	-2	-1	0	1	2	3	4	5
13.	belønnes folk direkte etter innsats.	-5	-4	-3	-2	-1	0	1	2	3	4	5
14.	finnes planer som går tre eller flere år inn i framtiden.	-5	-4	-3	-2	-1	0	1	2	3	4	5
15.	er det vanlig med samarbeid og tillit mellom avdelingene.	-5	-4	-3	-2	-1	0	1	2	3	4	5
16.	identifiserer folk seg mer med den jobben de gjør enn det hotellet de arbeider for.	-5	-4	-3	-2	-1	0	1	2	3	4	5
17.	er det bare spesielle personer som passer inn i organisasjonen.	-5	-4	-3	-2	-1	0	1	2	3	4	5
18.	er organisasjonen og folk lukket og hemmelighetsfulle.	-5	-4	-3	-2	-1	0	1	2	3	4	5
19.	trenger nyansatte mer enn ett år for å føle seg hjemme.	-5	-4	-3	-2	-1	0	1	2	3	4	5
20.	er ledelsen smålig.	-5	-4	-3	-2	-1	0	1	2	3	4	5
21.	er kommunikasjonsklimaet ikke særlig åpent.	-5	-4	-3	-2	-1	0	1	2	3	4	5
22.	er alle kostnadsbevisste.	-5	-4	-3	-2	-1	0	1	2	3	4	5
23.	blir møtetidspunkter overholdt punktlig.	-5	-4	-3	-2	-1	0	1	2	3	4	5
24.	omtaler alle firmaet og jobben med stor respekt.	-5	-4	-3	-2	-1	0	1	2	3	4	5



		<i>Svært dårlig beskrivelse</i>					<i>Svært god beskrivelse</i>					
<b>Ved hotellet vårt....</b>												
25.	er medarbeiderne meget velstelte.	-5	-4	-3	-2	-1	0	1	2	3	4	5
26.	er der strenge skrevne og/eller uskrevne regler for påkledning og atferd.	-5	-4	-3	-2	-1	0	1	2	3	4	5
27.	gjøres ting alltid på en etisk forsvarlig måte.	-5	-4	-3	-2	-1	0	1	2	3	4	5
28.	er det viktigste å tilfredsstille gjestenes behov.	-5	-4	-3	-2	-1	0	1	2	3	4	5
29.	er resultater viktigere enn regler.	-5	-4	-3	-2	-1	0	1	2	3	4	5
30.	bidrar bedriften lite til samfunnet.	-5	-4	-3	-2	-1	0	1	2	3	4	5
31.	er ledelsen svært gjesteorientert.	-5	-4	-3	-2	-1	0	1	2	3	4	5

Nå vil vi gjerne vite litt om hvordan du vurderer din egen innsats og hvor tilfreds du er med jobben du nå har. Vær vennlig å lese gjennom utsagnene nedenfor og sett en sirkel rundt tallet for svaralternativet som passer best.

		<i>Svært dårlig beskrivelse</i>					<i>Svært god beskrivelse</i>					
1.	Sammenlignet med andre ansatte i dette hotellet gjør jeg en svært god jobb.	-5	-4	-3	-2	-1	0	1	2	3	4	5
2.	Sammenlignet med andre personer i andre hotell med samme jobb som meg selv, gjør jeg en svært god jobb overfor gjestene.	-5	-4	-3	-2	-1	0	1	2	3	4	5
3.	Alt i alt er jeg svært tilfreds med jobben min i dette hotellet	-5	-4	-3	-2	-1	0	1	2	3	4	5
4.	Jeg ville gjerne anbefale en god venn å søke jobb i dette hotellet.	-5	-4	-3	-2	-1	0	1	2	3	4	5
5.	Jeg tenker ikke på å slutte.	-5	-4	-3	-2	-1	0	1	2	3	4	5

Nå vil vi gjerne vite litt om hvilke *følelser* du har overfor hotellet. Vær vennlig å lese gjennom utsagnene nedenfor og sett en sirkel rundt tallet for svaralternativet som passer best.

	<b>Absolutt uenig</b>						<b>Absolutt enig</b>				
1.	Jeg er villig til å anstrenge meg mer enn hva som er ventet for at det skal gå godt for hotellet.										
	-5	-4	-3	-2	-1	0	1	2	3	4	5
2.	Jeg forteller ofte mine venner for et utmerket hotell dette er å arbeide for.										
	-5	-4	-3	-2	-1	0	1	2	3	4	5
3.	Jeg ville godta nesten hvilken som helst jobb bare for å kunne fortsette å jobbe i dette hotellet.										
	-5	-4	-3	-2	-1	0	1	2	3	4	5
4.	Hotellet står for de samme verdier som meg.										
	-5	-4	-3	-2	-1	0	1	2	3	4	5
5.	Jeg er stolt av å kunne si at jeg arbeider ved dette hotellet.										
	-5	-4	-3	-2	-1	0	1	2	3	4	5
6.	Hotellet inspirerer meg virkelig til å yte mitt beste i jobben.										
	-5	-4	-3	-2	-1	0	1	2	3	4	5
7.	Jeg er glad for at jeg valgte å arbeide ved dette hotellet framfor de andre steder jeg kunne valgt.										
	-5	-4	-3	-2	-1	0	1	2	3	4	5
8.	Jeg bryr meg om hva som skjer med hotellet.										
	-5	-4	-3	-2	-1	0	1	2	3	4	5
9.	Jeg synes dette hotellet er best!										
	-5	-4	-3	-2	-1	0	1	2	3	4	5

Til slutt er vi interessert i å få vite hvordan ditt generelle inntrykk av hotellet er. Tenk deg at bedriften er en person. Hvilke egenskaper er mest framtreddende med denne "personen"? Hvordan er personligheten? Bruk linjene nedenfor til å beskrive de viktigste egenskapene til "personligheten".

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**Takk for at du tok deg tid til å fylle ut skjemaet. Husk å legge det i konvolutten og levere det i resepsjonen!**

**Appendix 4: DESCRIPTIVE STATISTICS**

## Descriptive Statistics: Culture Items

	N	Mean	Std. Dev.	Skewness	Kurtosis
MARK3 Expected to do all to satisfy	903	3.82	1.55	-1.888	4.270
MARK4 Respond immediately to customer	905	3.77	1.55	-2.164	6.514
MARK5 My needs subordinate to customer's	903	4.29	1.36	-3.279	14.435
MARK6 Measurement of work	891	2.18	2.50	-1.072	.603
MARK7 Concerned with efficiency	903	3.81	1.35	-1.896	5.565
MARK8 Profitability emphasis	899	3.33	1.97	-1.755	3.500
MARK9 Concerned competitors	893	1.66	2.51	-.805	.185
HIER1 Rules and procedures	900	2.59	2.44	-1.415	1.551
HIER2 Task clearly defined	894	2.81	2.38	-1.482	1.808
HIER3 Important to follow rules	893	3.36	1.93	-1.776	3.650
HIER4 Monitoring mistakes	891	1.72	2.78	-.772	-.276
AH1 Important to discover improvements	900	2.57	2.51	-1.330	1.326
AH2 Important to test new ideas	902	1.55	2.68	-.810	-.101
AH3 Job always changing	895	.12	3.13	-.211	-1.111
AH4 Expected to be innovative	893	1.42	2.87	-.774	-.359
AH5 I independently choose means	905	2.10	2.73	-1.054	.302
AH6 Authorized to correct	898	.85	3.15	-.468	-.954
CLAN1 Careful not to hurt another	901	.43	2.97	-.445	-.895
CLAN2 Everybody important	905	1.11	3.03	-.576	-.826
CLAN3 Safely express opinion	905	2.21	3.07	-1.094	-.027
CLAN4 Open door policy	898	2.42	2.88	-1.153	.303
CLAN5 Strong team spirit	899	1.77	2.89	-.852	-.306
Valid N (listwise)	786				

## Descriptive Statistics: Employee Affective Ourcomes Items

	N	Mean	Std. Dev.	Skewness	Kurtosis
COM1 Effort beyond normal	640	3.10	2.13	-1.693	3.138
COM2 Talk up organization	637	2.12	2.50	-.862	.123
COM3 Accept any job	635	-1.81	3.15	.562	-.990
COM4 Very simila values	619	.82	2.71	-.319	-.632
COM5 Proud of being part	640	2.49	2.39	-1.079	.757
COM6 Inspires the best	636	1.51	2.75	-.660	-.524
COM7 Glad to have chosen	635	2.22	2.51	-.879	.163
COM8 Care about fate	638	3.74	1.67	-2.163	5.906
COM9 Best org. to work for	634	2.43	2.53	-1.095	.705
JOB3 Happy with job	895	2.75	2.23	-1.441	1.869
JOB4 Recommend friend to work here	895	2.32	2.71	-1.233	.739
JOB5 Do not consider leaving	892	1.80	3.37	-.772	-.699

## Descriptive Statistics: Customer Satisfaction Items

	N	Mean	Std. Dev.	Skewness	Kurtosis
VU1 Friendliness at check-in and -out	2223	3.42	1.85	-1.600	2.562
VU2 Servicemindedness	2084	3.57	1.68	-1.765	3.466
VU4 Ability to solve problems	1535	2.87	2.16	-1.030	.455
VU6 Ability to serve quickly	1725	3.12	1.89	-1.259	1.371
S9 Price / Quality	2231	2.42	2.08	-.834	.244
S10 Overall satisfaction	2407	3.13	1.62	-1.296	2.137
S11 Choose again	2408	8.87	1.97	-1.541	2.589
S12 Recommend to others	2408	8.77	2.05	-1.415	1.959
Valid N (listwise)	1157				

## Descriptive Statistics: Aggregated Customer Satisfaction

	N	Mean	Std. Dev.	Skewness	Kurtosis
VU1_1 Friendliness	48	3.2610	.6669	-.676	1.587
VU2_1 Servicemindedness	40	3.1394	.9357	-2.385	9.062
VU4_1 Problem solving ability	46	2.6083	.9425	-.933	1.318
VU6_1 Quick service	40	2.7908	.8659	-1.212	2.272
S9_1 Price/quality	48	2.2959	.8714	-.409	-.046
S10_1 Overall satisfaction	48	2.8596	.8247	-1.180	1.861
S11_1 Choose later	48	8.4598	1.0313	-1.249	2.084
S12_1 Recommend	48	8.3399	1.1585	-.776	1.454
Valid N (listwise)	39				

## Appendix 5: MEASUREMENT MODEL DEVELOPMENT: PRINCIPAL COMPONENT ANALYSIS.

### Principal components: Market Value Items:

#### Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.906	47.658	47.658	1.906	47.658	47.658
2	.807	20.171	67.829			
3	.718	17.962	85.791			
4	.568	14.209	100.000			

Extraction Method: Principal Component Analysis.

#### Component Matrix <sup>a</sup>

	Component
	1
MARK3 Expected to do all to satisfy	.607
MARK6 Measurement of work	.715
MARK8 Profitability emphasis	.770
MARK9 Concerned competitors	.659

Extraction Method: Principal Component Analysis.

<sup>a</sup>. 1 components extracted.



**Principal components: Hierarchy Value Items:**

**Total Variance Explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.271	56.783	56.783	2.271	56.783	56.783
2	.848	21.204	77.987			
3	.509	12.732	90.718			
4	.371	9.282	100.000			

Extraction Method: Principal Component Analysis.

**Component Matrix <sup>a</sup>**

	Component
	1
BUR1 Rules and procedures	.819
BUR2 Task clearly defined	.800
BUR3 Important to follow rules	.787
BUR4 Monitoring mistakes	.583

Extraction Method: Principal Component Analysis.

<sup>a</sup>. 1 components extracted.

## Principal components: Ad hoc Value Items

### Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.086	51.431	51.431	3.086	51.431	51.431
2	.818	13.627	65.058			
3	.707	11.778	76.836			
4	.569	9.491	86.327			
5	.443	7.388	93.715			
6	.377	6.285	100.000			

Extraction Method: Principal Component Analysis.

### Component Matrix <sup>a</sup>

	Component
	1
AH1 Important to discover improvements	.743
AH2 Important to test new ideas	.702
AH3 Job always changig	.675
AH4 Expected to be innovative	.766
AH5 I independently choose means	.739
AH6 Authorized to correct	.672

Extraction Method: Principal Component Analysis.

<sup>a</sup>. 1 components extracted.

**Principal components: Clan Value Items**

**Total Variance Explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.436	68.718	68.718	3.436	68.718	68.718
2	.647	12.949	81.668			
3	.465	9.299	90.967			
4	.266	5.318	96.285			
5	.186	3.715	100.000			

Extraction Method: Principal Component Analysis.

**Component Matrix <sup>a</sup>**

	Component
	1
CLAN1 Careful not to hurt another	.813
CLAN2 Everybody important	.872
CLAN3 Safely express opinion	.844
CLAN4 Open door policy	.853
CLAN5 Strong team spirit	.758

Extraction Method: Principal Component Analysis.

<sup>a</sup>. 1 components extracted.

## Principal components: Commitment Items

### Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.734	59.175	59.175	4.734	59.175	59.175
2	.797	9.965	69.140			
3	.664	8.301	77.441			
4	.497	6.208	83.649			
5	.417	5.217	88.866			
6	.353	4.418	93.284			
7	.293	3.664	96.948			
8	.244	3.052	100.000			

Extraction Method: Principal Component Analysis.

### Component Matrix <sup>a</sup>

	Component
	1
COM1 Effort beyond normal	.637
COM2 Talk up organization	.811
COM3 Accept any job	.548
COM4 Very simila values	.772
COM5 Proud of being part	.864
COM6 Inspires the best	.850
COM7 Glad to have chosen	.808
COM9 Best org. to work for	.807

Extraction Method: Principal Component Analysis.

<sup>a</sup>. 1 components extracted.

**Principal components: Efficacy Items**

**Total Variance Explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.579	51.580	51.580	2.579	51.580	51.580
2	.782	15.649	67.229			
3	.656	13.115	80.344			
4	.543	10.864	91.207			
5	.440	8.793	100.000			

Extraction Method: Principal Component Analysis.

**Component Matrix <sup>a</sup>**

	Component
	1
EFF1 I am important to reputation	.615
EFF2 Can sort things out myself	.670
EFF3 Can serve customers well	.781
EFF4 Right person for this job	.729
EFF5 Can balance cust. and company	.781

Extraction Method: Principal Component Analysis.

<sup>a</sup>. 1 components extracted.

**Principal components: Goal Items**

**Total Variance Explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.093	77.323	77.323	3.093	77.323	77.323
2	.392	9.798	87.122			
3	.296	7.411	94.533			
4	.219	5.467	100.000			

Extraction Method: Principal Component Analysis.

**Component Matrix <sup>a</sup>**

	Component
	1
GOAL1 Goals for department	.902
GOAL2 Familiar with goals	.902
GOAL3 Unequivocal goals	.876
GOAL4 Reasonable goals	.836

Extraction Method: Principal Component Analysis.

<sup>a</sup>. 1 components extracted.

## Principal components: Feedback Items

### Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.248	74.932	74.932	2.248	74.932	74.932
2	.440	14.678	89.610			
3	.312	10.390	100.000			

Extraction Method: Principal Component Analysis.

### Component Matrix <sup>a</sup>

	Component
	1
MAN3 Management notice extra effort	.864
MAN6 Frequent feedback	.841
MAN7 Fair feedback	.892

Extraction Method: Principal Component Analysis.

<sup>a</sup>. 1 components extracted.

## Principal components: Customer Interaction Satisfaction Items

### Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.352	78.406	78.406	2.352	78.406	78.406
2	.428	14.250	92.657			
3	.220	7.343	100.000			

Extraction Method: Principal Component Analysis.

### Component Matrix <sup>a</sup>

	Component
	1
VU1 Friendliness at check-in and -out	.837
VU4 Ability to solve problems	.904
VU6 Ability to serve quickly	.913

Extraction Method: Principal Component Analysis.

a. 1 components extracted.



## Principal components: Customer Overall Satisfaction Items

### Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.038	75.954	75.954	3.038	75.954	75.954
2	.627	15.678	91.633			
3	.224	5.592	97.225			
4	.111	2.775	100.000			

Extraction Method: Principal Component Analysis.

### Component Matrix <sup>a</sup>

	Component
	1
S9 Price / Quality	.824
S10 Overall satisfaction	.875
S11 Choose again	.881
S12 Recommend to others	.905

Extraction Method: Principal Component Analysis.

<sup>a</sup>. 1 components extracted.

## Appendix 6 TWO-LEVEL DEVELOPMENT OF THE INITIAL LEVEL ONE MEASUREMENT MODEL

### TWO-LEVEL DEVELOPMENT OF THE INITIAL LEVEL ONE MEASUREMENT MODEL

Model Number	Specifications	Goodness-of-Fit
Model 1	<i>A priori</i> measurement model	$\chi^2_{226} = 1\,090.40^a$ RMSEA = .070 NNFI = .64 CFI = .87
Model 2	The error terms for CLAN3 and CLAN4 are allowed to correlate	$\chi^2_{225} = 840.60^a$ RMSEA = .059 NNFI = .75 CFI = .90
Model 3	The error terms for AH3 and AH4 are allowed to correlate	$\chi^2_{224} = 754.84^a$ RMSEA = .055 NNFI = .78 CFI = .92
Model 4	The error terms for HIER3 and HIER4 are allowed to correlate	$\chi^2_{223} = 704.75^a$ RMSEA = .053 NNFI = .80 CFI = .93

<sup>a</sup>  $N_B = 48$ ,  $N_{PW} = 736$ .

*Manifest* items at level two free to correlate. (Including overall satisfaction items)

## Appendix 7: INTRACLASS CORRELATIONS

### INTRACLASS CORRELATIONS

MARK3	.019
MARK6	.056
MARK8	.056
MARK9	.061
HIER1	.048
HIER 2	.057
HIER 3	.012
HIER 4	.032
AH1	.056
AH2	.126
AH3	.036
AH4	.021
AH5	.035
AH6	.043
CLAN1	.115
CLAN2	.151
CLAN3	.120
CLAN4	.099
CLAN5	.137
JOB3	.012
JOB4	.066

## Appendix 8: TWO LEVEL MEASUREMENT MODEL<sup>a</sup>

Construct/Item	Loading <sup>b</sup>		T-value		Item reliability		Loading <sup>b</sup>		T-value	
	S <sub>T</sub>	S <sub>SPW</sub>	S <sub>SPW</sub>	S <sub>SPW</sub>	S <sub>SPW</sub>	S <sub>SPW</sub>	S <sub>B</sub>	S <sub>B</sub>	S <sub>B</sub>	S <sub>B</sub>
<b>Market values</b>										
MARK3	.48	.48		.24		.12				
MARK6	.60	.55	9.68	.36		.24			2.32	
MARK8	.64	.61	10.03	.45		.22			2.30	
MARK9	.50	.49	8.94	.24		.14			1.86	
<b>Bureaucracy values</b>										
HIER 1	.77	.75		.62		.14				
HIER 2	.79	.74	17.34	.62		.30			2.81	
HIER 3	.61	.60	15.00	.38		.11			2.53	
HIER 4	.36	.35	9.01			.06			1.20	
<b>Ad hoc values</b>										
AH1	.69	.65		.44		.22				
AH2	.70	.62	14.65			.34			5.77	
AH3	.50	.49	11.61	.38		.10			2.32	
AH4	.60	.59	13.94			.09			2.23	
AH5	.63	.62	14.40	.48		.12			3.02	
AH6	.57	.54	12.84	.39		.19			4.44	
<b>Clan values</b>										
CLAN1	.79	.72		.60		.30				
CLAN2	.89	.81	23.12	.78		.34			10.48	
CLAN3	.69	.61	17.14	.47		.30			8.12	
CLAN4	.72	.67	18.83	.52		.26			7.68	
CLAN5	.69	.62	18.18	.51		.29			6.13	

<sup>a</sup> N<sub>B</sub> = 48, N<sub>SPW</sub> = 755

<sup>b</sup> Fully standardized coefficients.

