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HUMAN RESOURCE PRACTICES AND ORGANIZATIONAL EFFECTIVENESS: AN ORGANIZATION-LEVEL ANALYSIS

A Dissertation

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Doctor of Philosophy

Degree

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DEDICATION

This dissertation is dedicated to my wife, Beth, our son, Graham, our second child who will be born in August of 1997, and our two sets of parents, Dr. and Mrs. Clayton Peters and Reverend and Mrs. L. Wallace Brown.

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This dissertation culminates the long and arduous process of completing "my" dissertation and earning "my" doctor of philosophy degree. I put the word my in quotes because in reality this is "our" dissertation and "our" degree. Many people supported me through this journey and without their help I never would have finished the trip.

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ABSTRACT

This organization-level field study examined the linkages between human resource practices and organizational effectiveness. Three perspectives on how human resource practices can be implemented and managed are presented: emphasis, quality, and alignment. Emphasis refers to the mere existence of human resource practices in an organization. Quality moves beyond emphasis to focus on how well different practices are implemented. Six specific human resource practices; recruitment, selection, performance appraisal, training, compensation, and job design; function as facets of the quality variable. Alignment concerns the relationship between a firm's mission and its human resource practices. The criterion variables reflect organizational effectiveness and include five indicators: overall evaluation, customer service reputation, turnover, employee morale, and objective productivity, as well as a composite scale. Questionnaires were mailed to key informants at 1,052 randomly-selected organizations. Possible spurious industry effects were prevented by drawing the sample from a single industry, college admission offices. In order to comprehensively assess the organizations, multiple strategically-selected key informants (N = 927) from the following positions were used: chief admission officer, professional employee, and dominant coalition outside the organization. These represented 247 organization-level data sets. The utility of using multiple key informants was endorsed by supportive results from analyses of interrater agreement.

Results clearly illustrate the importance of human resource practices in general, and how they are implemented and managed in particular, in organizational effectiveness. The emphasis organizations place on their human resource practices was linked to overall evaluation and the composite criterion. In addition, even after accounting for control variables and the emphasis perspective, the quality with which human resource practices were implemented and managed was strongly related to customer service reputation, employee morale, objective productivity, and the composite criterion. Furthermore, the degree of alignment between human resource practices and organizational mission was associated with overall evaluation, customer service reputation, employee morale, and the composite criterion, even when the control variables and the emphasis and quality perspectives were controlled for. Depending on the criterion, the most predictive specific human resource practices were training, compensation, and job design.

TABLE OF CONTENTS

CHAPTER		PAGE
I	INTRODUCTION	1
	Conceptualization of Human Resource Practices	3
	Organizational Effectiveness	6
	Perspectives on Using Human Resource Practices to Enhance Organizational Effectiveness	11
	The Emphasis Perspective	11
	The Quality Perspective	16
	The Alignment Perspective	31
	Organization-Level Research	36
II	METHODS	41
	Design	41
	Participants	41
	Procedures	45
	Measure	46
	Variables	60
III	RESULTS	63
	Interrater Agreement	63
	Relationships Among the Variables	66
	Summary	75
IV	DISCUSSION	78
	Contributions to Current Knowledge	78
	Limitations	85
	Implications for Research and Practice	87
	Conclusion	90
REFERENCES		93
VITA		114

LIST OF TABLES

TABLE		PAGE
1.	Definitions of the Six Human Resource Practices	7
2.	Descriptions of the Indicators of Organizational Effectiveness	10
3.	Perspectives on Using Human Resource Practices to Enhance Organizational Effectiveness	12
4.	Effective Techniques for the Six Human Resource Practices	28
5.	Hypotheses and Research Question	37
6.	Description of the Schools Served by the Admission Organizations	43
7.	Description of the Key Informants	44
8.	Variable by Key Informant Matrix	48
9.	Chief Admission Officer Questionnaire: Items and Alpha Levels	49
10.	Admission Office Employee Questionnaires I to IV: Items and Alpha Levels	52
11.	Executive Admission Office Questionnaire: Items and Alpha Levels	56
12.	Means, Standard Deviations, Reliabilities, and Correlations for the Variables	64
13.	Levels of Interrater Agreement for Human Resource Practices and Employee Morale	67

TABLE		PAGE
14.	Relationships Between Human Resource Practices and Indicators of Organizational Effectiveness	69
15.	Hierarchical Regression Results for All Criteria	71
16.	Stepwise Regression Results for Indicators of Organizational Effectiveness	74
17.	Results for Hypotheses and Research Question	76

CHAPTER I

INTRODUCTION

The relationships between human resource practices and organizational effectiveness are an important concern for fields such as industrial and organizational psychology and human resource management (Cascio, 1995). Even though the links between human resource practices and organizational effectiveness are a central tenet of these disciplines, only a few studies have tested these linkages. For example, studies in industrial and organizational psychology traditionally have looked at single human resource practices at the individual level of analysis (Becker & Gerhart, 1996), but have neglected to use an organizational level of analysis to test the assumption that these individual-level results transfer to organization-level outcomes (e.g., Guzzo & Bondy, 1983; Katzell, Bienstock, & Faerstein, 1977; Schmidt, Hunter, McKenzie, & Muldrow, 1979; Schmidt, Hunter, Outerbridge, & Trattner, 1986). On the other hand, the human resource management literature contains numerous theoretical insights into how human resources affect organizational outcomes, but yields limited adequate empirical evidence to support these assertions (e.g., Dyer, 1983, 1984; Steffy & Maurer, 1988). Given the fact that productivity levels in the United States have been declining and that organizational effectiveness is an integral part of the American economy, there is a real need to study directly the relationships between human resource practices and effectiveness at the level of the organization (Alluisi & Meigs, 1983; Becker & Gerhart, 1996; Pritchard, 1990; Tuttle, 1983).

This study identifies six key human resource practices and develops three perspectives from which to conceptualizes their implementation--emphasis, quality, and alignment. It then empirically examines the relationships between human resource practices and organizational effectiveness. The first perspective, emphasis, refers to the mere existence of human resource practices in an organization. Quality moves beyond emphasis to focus on how well different practices are implemented. Alignment concerns the relationship between the firm's mission and its human resource practices.

Five different criteria plus a composite scale are used to indicate organizational effectiveness. The first, overall evaluation, refers to productivity as assessed by the organization's dominant coalition. Customer service reputation serves as the second measure of organizational effectiveness. The third indicator is turnover. Employee morale operates as the fourth criterion of effectiveness. The fifth indicator is objective productivity. The composite scale is a combination of the five criteria of organizational effectiveness.

The two ensuing sections in Chapter I will further delineate the human resource practices and indicators of organizational effectiveness, respectively, used in this research. This will be followed by a section outlining the three perspectives by which the human resource practices-organizational effectiveness relationships can be viewed. The final section in this chapter will be devoted to the issue of organization-level research.

Conceptualization of Human Resource Practices

There are a variety of explanations for organizational effectiveness. These explanations often entail factors external to the organization and consequently outside of its control such as the economy, available technology, and environmental circumstances, to name a few (Keats & Hitt, 1988; Lenz, 1981; Staw & Szwajkowski, 1975; Ulrich, 1991). However, one additional important variable concerning organizational effectiveness is the capability of the firm's own human resources (Hansen & Wernerfelt, 1989; Pfeffer, 1995; Schuler & MacMillan, 1984).

The role of human resources in organizational effectiveness is important because it is here that organizations can exert a considerable amount of control. Human resource practices function as the methods organizations use to develop the competencies of their employees (Evans, 1986; Lado & Wilson, 1994; Pfeffer, 1995; Reimann, 1982). Employees are the "preeminent organizational resource and the key to achieving outstanding performance" (Delaney & Huselid, 1996, p. 964). Organizational competencies are the particular human skills possessed by a firm and the ways in which they are used (Reed & DeFillippi, 1990). Following the precepts of resource-based theory, as human resource practices engender organizational competencies that are heterogeneous across organizations and relatively immobile, these practices function as important levers in the enhancement of organizational effectiveness (Barney, 1986, 1991; Becker & Gerhart, 1996; Conner, 1991; Ulrich, 1991; Wernerfelt, 1984). Furthermore, human resource practices are likely to

influence important variables such as employee attitudes and cognitive states and organizational climate (Kopelman, Brief, & Guzzo, 1990).

Human resource practices are defined as those activities an organization uses to acquire, develop, and motivate its employees (Lado & Wilson, 1994). Their goal is to enhance organizational effectiveness and satisfy the needs of the individual workers (Noe, Hollenbeck, Gerhart, & Wright, 1994). Human resource practices can be understood broadly as a single concept or more precisely as distinct practices. As a single concept, human resource practices are framed from a macro standpoint and indicate a gestalt. In this way, they have been articulated as a single, unitary system of activities.

Human resource practices can also be understood as discrete activities. A number of authors have identified some of the distinct activities that are associated with the term human resource practices. For example, Tsui and Milkovich (1987) factor analyzed 101 activities related to human resource work to come up with eight dimensions. Those dimensions are: staffing/planing, organization/employee development, employee support, legal requirements/compliance, labor/union relations, administrative service, compensation/employee relations, and policy adherence. Fisher (1989) elected to review the categories of selection, performance appraisal, training and development, and compensation when discussing human resource management. Schuler and MacMillan (1984) state that the major purpose of human resource activities is to attract, retain, and motivate employees. They list planning,

staffing (recruitment, selection, and socialization), appraising, compensation, training and development, and union-management relationships as key human resource practices. Schneider (1984) identified selection, training, and motivation as topics traditionally associated with industrial and organizational psychology. Cook and Ferris (1986) mention recruitment/termination, training and development, evaluation, and reward processes as important human resource issues. Finally, Devanna, Fombrun, and Tichy (1984) divide human resource functions into four categories: selection, evaluation, rewards, and development.

A review and synthesis of the literature suggests that six activities can be identified as core psychologically-oriented human resource practices for this study (Cook & Ferris, 1986; Schuler & MacMillan, 1984; Tsui & Milkovich, 1987). These practices were selected for the following four reasons: (a) they are closely aligned with typical industrial and organizational and human resource management interests, (b) they can be understood conceptually under the three broader headings mentioned previously (i.e., acquisition, development, and motivation), (c) they identify frequently discussed human resource activities, and (d) there is a body of micro-level research with which to develop standards of excellence for each practice, an important factor in measuring the quality perspective discussed later in this paper.

The six specific practices of interest are: (a) recruitment, (b) selection, (c) performance appraisal, (d) training, (e) compensation, and (f) job design. Employee recruitment and selection are closely aligned and function together as the ways in

which organizations acquire their human resources. Performance appraisal and training fall within the development category. They operate as the processes geared toward developing employees. Compensation and job design are the two practices that serve to motivate employees by rewarding them and enhancing the quality of their work life. Each practice is discussed in greater detail in a later section of this paper. Table 1 provides definitions of these human resource practices.

Organizational Effectiveness

The outcome variables in this study fall under the umbrella term organizational effectiveness, which is a general concept that refers to the overall success of an organization. Five important dimensions of organizational effectiveness have been supported in the literature and will be used in this study. They are: (a) overall evaluation, (b) customer service reputation, (c) turnover, (d) employee morale, and (e) objective productivity (Cameron & Whetten, 1983; Hage, 1984; McEvoy & Cascio, 1985; Reimann, 1982; Roznowski & Hulin, 1992; Williams & Hazer, 1986). In addition, the five criteria are combined to form a composite criterion of overall organizational effectiveness (Schmidt & Kaplan, 1971).

The first outcome variable, overall evaluation, identifies ratings provided by the dominant coalition about the productivity of the organization. Although subjective in nature, they are salient ingredients in an evaluation of organizational effectiveness (Becker & Gerhart, 1996; Pritchard, 1992). For example, following the

Table 1. Definitions of the Six Human Resource Practices

Human Resource Practice	Definition
Recruitment	Activities that influence the number or type of applicants and/or whether a job offer is accepted (Boudreau & Rynes, 1985; Breaugh, 1992).
Selection	The process of collecting and analyzing information about an individual in order to make a job offer (Gatewood & Feild, 1994).
Performance appraisal	The identification, observation, measurement, and development of performance (Cardy & Dobbins, 1994).
Training	A planned effort by the organization to facilitate employees' learning of job-related behaviors (Wexley & Latham, 1991).
Compensation	Direct financial payments plus indirect payments in the form of fringe benefits made to employees (Cascio, 1991).
Job design	Employee perceptions concerning the degree to which their job is enriched (Miner, 1980).

pattern established by Lawrence and Lorsch (1969), Reimann (1982) found executive (i.e., dominant coalition) ratings to be excellent predictors of organizational growth and survival. Ratings by the dominant coalition are also significant because evaluations by individuals endowed with power over the organization are likely to have implications for how the organization's future will unfold.

The second criterion of overall organizational effectiveness is customer service reputation. Customer service indicates how well an organization satisfies its external constituents and generally contains both attitudinal and behavioral components (Hogan, Hogan, & Busch, 1984). Authors such as Hage (1984) have argued that criteria such as customer service are important in that they widen the traditional view of outcomes beyond the usual input-output models of the industrial era.

Turnover is an important factor in organizational effectiveness. It represents a severe response by employees to external, personal, and/or organizational factors, costing organizations large amounts of time and money (Steers & Mowday, 1981). Regarding organizational causes, turnover often results from problems such as low pay, role ambiguity, dissatisfaction, and unenriched jobs (Cotton & Tuttle, 1986; McEvoy & Cascio, 1985).

Employee morale, the fourth indicator of organizational effectiveness, refers to the overall level of job satisfaction among the workers as a unit. Some authors promote satisfaction as one of the most important constructs in all of organizational psychology (Roznowski & Hulin, 1992). Although often used as a criterion at the

individual level of analysis, satisfaction is expanded to the organizational level in order to better fit the nature of this organization-level study.

The final dimension of organizational effectiveness consists of objective productivity data obtained from archival sources. Productivity is an organization-level concept and should not be confused with the term performance, which refers to behaviors and outcomes for individuals (Borman, 1991; Campbell & Campbell, 1988; Pritchard, 1990, 1992). Productivity remains a somewhat evasive construct that can be operationalized in many different ways (Mahoney, 1988; Tuttle, 1983). In this study it is determined by two indicators: (a) the organization's level of achievement on salient factors indigenous to the industry and (b) the growth/decline from one year to the next on the factors. Thus, the objective productivity indicator of effectiveness focuses on level of achievement and changes in level of achievement on indices relevant to the current sample.

Specific outcome variables can also be combined to form a composite criterion of organizational effectiveness. In support of the scientist-practitioner ideal, Schmidt and Kaplan (1971) argue for using both the homogenous, multiple criteria approach as discussed above as well as the heterogenous, composite approach used for the composite criterion. Multiple criteria allow for increased psychological understanding whereas a single composite criterion is useful for economic and overall validation purposes. Table 2 lists the indicators of organizational effectiveness used in this study along with their descriptions.

Table 2. Descriptions of the Indicators of Organizational Effectiveness

Effectiveness Indicator	Description
Overall evaluation	Ratings of overall organizational performance by a member of the dominant coalition from outside the organization.
Customer service reputation	Nominations of organizations with the highest level of customer service from key informants at peer organizations.
Turnover	Average annual percent of professional employees who voluntarily left the organization the previous three years.
Employee morale	Overall level of job satisfaction for all employees combined as evaluated by current employees.
Objective productivity	Mean of five key objective archival indicators of organizational productivity indigenous to the sample.
Composite criterion	Mean of the standardized scores for the five specific indicators.

Perspectives on Using Human Resource Practices to Enhance Organizational Effectiveness

Based on a review and synthesis of extant research, this section will proffer the argument that three perspectives emerge from the literature on how human resource practices have been, or can be, effectively linked to organizational effectiveness. The three perspectives are emphasis, quality, and alignment. Table 3 presents a summary of each perspective.

The Emphasis Perspective

This perspective characterizes a recent trend in the literature of looking empirically at the relationship between an amalgam of human resource practices and organizational productivity (referred to as performance in many studies). Emphasis refers to the importance organizations ascribe to human resource practices, often operationalized as a single system. In other words, studies espousing this perspective are characterized by a basic focus on the existence (or prevalence) of human resource practices as a composite in the organization.

Huselid's (1995) study provides an excellent example of how an emphasis on human resource practices relates to organizational outcomes. He looked at the influence of High Performance Work Practices on organizational outcomes across a wide variety of organizations. High Performance Work Practices consist of activities such as employee recruitment, selection, compensation, training, and performance management systems. The results were significant; High Performance Work

Table 3. Perspectives on Using Human Resource Practices to Enhance Organizational Effectiveness

Perspective	Description
Emphasis	A macro orientation concerning relationships between the pervasiveness/importance of human resource practices as a composite and organizational outcomes.
Quality	A micro orientation focusing on the validity of human resource practices and individual-level criteria.
Alignment	A strategic orientation centering on the match between human resource practices and the organizational mission.

Practices led to reduced turnover, increased productivity, and improved corporate financial performance.

Arthur (1994) aggregated human resource activities into two broad categories of human resource systems--control and commitment--and looked at their relationships to performance and turnover in steel minimills. Control systems attempt to reduce costs and improve efficiency by enforcing employee compliance with rules and procedures. Commitment systems shape employee behaviors via fostering psychological connections between the employee and the organization. Arthur found that those organizations with commitment human resource systems had higher productivity, lower scrap rates, and lower turnover than those with control human resource systems.

In a study of manufacturing plants, Katz, Kochan, and Weber (1985) examined the influence of industrial relations systems on organizational criteria. Industrial relations systems consist of factors such as grievance rates, disciplinary actions, and worker attitudes. Results support the positive association between industrial relations systems and firm economic performance, their measure of organizational effectiveness.

Perceptual measures of firm performance served as the criteria in a study by Delaney and Huselid (1996) on human resource management practices and organizational performance. Their work illustrates the important role that human

resource practices play in perceptions of both overall organizational performance and market performance.

Delery and Doty's (1996) work partially falls within the emphasis perspective in that they assessed the emphasis placed on human resource practices. However, they also used finer-grained analyses to look at individual practices separately. Results indicate that human resource practices as a composite, and select individual practices, explained significant amounts of variance in two economic performance outcomes in branches of banks.

Two additional studies tangentially illustrate the emphasis perspective. First, the pervasiveness of, and emphasis placed on, training in retail stores predicted organizational outcome measures such as sales volume per employee and store image in a study conducted by Russell, Terborg, and Powers (1985). Although they employed only one facet of a human resource system, training, this study exemplifies the point that a simple emphasis on human resource practices can lead to organizational effectiveness. Additionally, Lawler, Mohrman, and Ledford (1992) examined the degree to which organizations use employee involvement and total quality management principles. In general, these programs were associated with perceived positive organizational results. Although the Lawler et al. study did not employ the human resource practices used in this study, their research illustrates that various types of personnel systems can have an impact on organizational outcomes.

Limitations. The primary limitation concerning studies falling within the emphasis perspective is that they tend to assess human resource practices in a broad, superficial manner. In general, human resource practices have been measured by items focusing on their existence or pervasiveness in the organization. Little inquiry as to the quality or implementation effectiveness of human resource practices has been made. For example, Huselid (1995) asked the single question, "What proportion of the work force receives formal performance appraisals?" to measure performance management. The measurement of human resource practices in these studies consists of very general questions relating to organizations' emphasis on human resource activities. This highlights the point that the perspective of some studies is to attend primarily to organizations' basic emphasis on human resource practices via assessing the existence/prevalence of the practice in the organization.

A second limitation is that human resources practices typically have been lumped together as a whole. Researchers have often conceptualized and studied human resource practices as if they are only one or two broad units rather than a set of many discrete activities.

In spite of the limited assessment of human resource practices and gross conceptualization that punctuate the emphasis perspective, the conclusion that can be drawn from these studies is that an emphasis on human resource practices is linked to organizational effectiveness. Hypothesis 1 addresses the proposition that the

emphasis placed by organizations on human resource practices is related to organizational effectiveness.

Hypothesis 1: The level of emphasis organizations place on their human resource practices will be positively associated with organizational effectiveness.

If a basic emphasis on human resource practices predicts organizational outcomes, then the emphasis perspective begs the question, Does the quality of implementation also predict organizational effectiveness? The quality perspective addresses this question.

The Quality Perspective

The quality perspective differs from the emphasis perspective in a number of ways. First, research falling within the quality perspective generally follows a discrete conceptualization of human resource practices. In other words, particular human resource practices are identified and then tested, one at a time. Second, there is a plethora of empirical studies that examine a single practice and one or more criteria. The purpose of many of these studies has been to find ways to increase the predictive validity of the human resource practice as an independent variable. Third, research falling within the quality perspective has focused almost exclusively on individual-level predictors and outcomes. In summary, studies contained in the quality category have been interested in identifying quality human resource practices, one at a time, at the individual level of analysis.

The best and perhaps only way to measure the quality of an organization's human resource practices is to develop benchmarks against which its existing practices can be compared. This is analogous to Sackett and Mullen's (1993) presentation of expanded ways to evaluate training outcomes. They argue that evaluation should move beyond the traditional method of using change scores to an assessment of how well an established level of performance is met. Becker and Gerhart (1996) state, "researchers have much to learn about what constitutes a high performance HR strategy" (p. 784). Pursuant to this need, each of the following subsections reviews the literature in one of the six human resource practice areas contained in this study. Through this review, numerous techniques shown to be effective will be identified and used to develop standards of excellence. The extent to which an organization reaches the standards of excellence for each practice separately, and for all six practices combined, will function as measures of the quality of its human resource practices

Recruitment. Recruitment has been one of the least considered components of human resource management (Gatewood & Feild, 1994; Rynes & Boudreau, 1986; Terpstra & Rozell, 1993). However, although research findings in the somewhat limited literature on recruitment remain somewhat equivocal, two factors related to effective recruiting seem to garner the most support.

First, characteristics of recruiters seem to influence job candidates. Affective recruiter characteristics such as warmth, enthusiasm, concern, and empathy have been

associated with the likelihood of job acceptance (Maurer, Howe, & Lee, 1992) as has the amount of information provided to candidates by recruiters (Rynes, 1991). Recruiters who are from those organizational work units seeking applicants are viewed more favorably or credibly and also enhance the candidate's view of the company (Gatewood & Feild, 1994; Rynes, Bretz, & Gerhart, 1991) and to a lesser extent, recruiters who share demographic characteristics with candidates (e.g., sex, age, and race) are sometimes more effective.

Second, the sources from which job candidates are drawn has been researched. Two factors are relevant. First, internal recruiting produces employees who perform better, stay longer, and carry more positive job attitudes than do external sources (Breaugh, 1992; Gatewood & Feild, 1994). Second, applicants hired via employee referrals tend to have less turnover than applicants recruited using other methods (e.g., newspaper advertisements). Realistic job preview (Wanous, 1980) has been an extremely popular subject in the recruitment literature (Rynes, 1991). However, research indicates that this recruiting technique is only modestly related to turnover and does not need to be considered a primary factor in recruitment (McEvoy & Cascio, 1985).

Selection. Unlike recruitment, selection has received a great deal of research attention for many years. Three general techniques are related to effective employee selection. First, much of the attention in the selection literature has focused on the role of pre-employment testing. For example, Schmidt et al. (1986) found that the

job performance of various government employees selected using cognitive ability tests was approximately half a standard deviation higher than that for employees selected using other methods (e.g., education and experience). Studies such as this contribute to one of the most robust finding in industrial and organizational psychology: that general cognitive ability predicts performance in all types of jobs (Hunter, 1986; Schmidt & Hunter, 1981).

However, other types of selection testing also are effective at predicting the potential of job applicants (Guion, 1991; Hunter & Hunter, 1984). Examples include personality measures (Barrick & Mount, 1991; Day & Silverman, 1989; Tett, Jackson, & Rothstein, 1991) and assessment centers (Byham & Thornton, 1986; Gaugler, Rosenthal, Thornton, & Bentson, 1987), to name two.

Second, the manner in which the pre-employment interview is conducted has a significant bearing on the efficacy of this ubiquitous selection practice. Huffcutt and Arthur (1994) found that increased structure led to incremental validity for the interview. Moreover, the validity of the structured interview was comparable to that for cognitive ability tests. Thus, up to a certain point, the more standardized the interview procedure is across applicants, the more the interview operates as an effective selection technique.

The third selection factor associated with quality selection is person-organization fit. Both practitioners and academicians often recommend that applicants be evaluated in terms of their fit with the company's environment,

including its values, norms, and culture (Bretz & Judge, 1994; Rynes & Gerhart, 1990). O'Reilly, Chatman, and Caldwell (1991) used the Organization Culture Profile to assess person-organization fit. Their results show that fit is linked to organizational commitment, turnover, and job satisfaction. Caldwell and O'Reilly (1990) assessed the fit between employee competencies and job requirements. Their results also provide support for the contention that job performance and satisfaction are associated with person-situation fit.

Most experts view recruitment and selection as complex two-way processes that affect each other (Breaugh, 1992). For example, Schwab (1982) stated, "the distinction between recruiting and selection becomes tenuous. Selection, or at least self-selection, goes on during recruiting, and recruiting goes on during the evaluation process" (p. 103). Thus, for conceptual purposes, recruitment and selection can be grouped together as the ways in which organizations acquire their human resources

Performance appraisal. Performance appraisal clearly has an effect on employee performance. A meta-analysis of the effects of psychologically based interventions highlighted the influence of performance appraisal on employee output, withdrawal, and disruptions (Guzzo, Jette, & Katzell, 1985). In this study, the overall effect size of performance appraisal and feedback was .35 of a standard deviation. Similarly, Katzell and Guzzo (1983) tabulated the effects of 11 different psychological approaches on improving productivity. Their review showed

that a vast majority of published articles found that performance appraisal and feedback had a positive relationship with various outcome measures.

Three techniques concerning performance appraisal are relevant to performance. First, performance appraisal feedback provided to employees is associated with satisfaction, performance, and motivation (DeGregorio & Fisher, 1988; Dorfman, Stephan, & Loveland, 1986; Ilgen & Moore, 1987). In fact, Chapanis (1964) called the positive influence of feedback on performance one of the most dependable findings in psychology. Moreover, Ashford and Cummings (1983) argue that individuals often seek feedback to reduce goal attainment uncertainty, address performance errors, and resolve the uncomfortable state of uncertainty, further reinforcing the value of frequent feedback. Second, participation in the performance appraisal process is important. Research on employee participation in the feedback discussion shows that subordinates perceive this type of performance appraisal feedback more favorably than performance appraisal with no feedback or top-down only feedback (DeGregorio & Fisher, 1988). Third, performance appraisals that include feedback and employee participation imply observation by the performance appraiser. In order to meet the requirements of effective performance appraisal, the rater must spend adequate time observing the individual being rated (Murphy & Cleveland, 1991).

Training. A natural follow-up to performance appraisal is training. Training also has a significant effect on employee performance. The meta-analysis by Guzzo

et al. (1985) on psychologically-based interventions highlights the influence of training on individual criteria such as output, withdrawal, and disruptions. In this study, the overall effect size of training interventions was .78 of a standard deviation. This was larger than any other psychologically-based program included in the study. In addition, research by Hanisch and Hulin (1994) showed that training added incremental validity to ability in predicting task performance. In a rare organization-level study, Russell et al. (1985) found that training was correlated with sales volume per employee and store image in a sample of retail outlet stores.

One characteristic espoused by research as a key factor in training success is the necessity of managerial and organizational support (Baldwin & Ford, 1988; Wexley & Latham, 1991). For example, Baldwin and Ford's (1988) summary of the transfer of training literature contains research that generally endorses the value of leadership and organizational environments that are supportive of training. A second important factor in the success of a training system is resources. A company must make the necessary investment in training time and materials in order to realize positive results (Goldstein, 1991; Noe & Ford, 1992; Wexley & Latham, 1991). Third, effective training programs are systematic and continuous. In other words, training must be viewed as a long-term process, not just an infrequent and/or haphazard event (Tannenbaum & Yukl, 1992; Wexley & Latham, 1991). Fourth, assessments of employee and organizational needs as well as business strategies should be conducted and then used in selecting training methods and participants

(Goldstein, 1991). Training programs that are consistent with employee and organizational goals and needs and fit with the business strategy will meet with greater success than those that are not (Wexley & Latham, 1991).

Ideally, employees will be trained based on the results of assessments of their work. Cascio (1991) stated that performance appraisal should serve as a development tool for personnel. Similarly, Cardy and Dobbins (1994) said, "performance appraisal should be more than simply the assessment of the past. It should also focus on the future and on the skill level of the ratees" (p. 2). Because of the interplay between performance assessment and training, these human resource functions can be considered together as developmental activities.

Compensation. Probably the most fundamental tenet in the compensation literature is that compensation makes a difference in individual and organizational outcomes (Heneman, 1973; Milkovich, 1988). Level of pay has usually been associated with attraction and retention of employees. Pay level refers to the average compensation paid by a firm in comparison to their competitors. Gerhart and Milkovich (1992) claim that pay level may be the critical factor when it comes to attracting applicants. In addition, they state that pay level can be a determinant of employee effort.

A review of merit pay research by Heneman (1990) showed that merit pay is related to employee attitudes such as job satisfaction. For example, Koppelman (1976) found a relationship between merit pay and satisfaction in three technology-

based companies. Similarly, Jenkins and Lawler (1981) showed that job satisfaction increased in a manufacturing environment following the implementation of a merit pay plan.

Although Heneman's (1990) conclusions did not support a relationship between merit pay and performance, a number of studies do exist which support such a relationship. For example, Wright (1992) tested the hypothesis that incentive type and incentive level were associated with valence, goal commitment, and performance. His results support the contention that incentive pay leads to increased levels of performance. Locke, Feren, McCaleb, Shaw, and Denny (1980) found that financial incentives increased median productivity by 30%, which was more than the three other methods of improving job performance included in the study (i.e., goal setting, participation in decision making, and job enrichment). Markham (1988) examined the pay-for-performance relationship at both the individual and group levels of analysis. Although there was no relationship at the individual level of analysis, at the group level of analysis he found a link between performance and merit pay. Finally, Zenger (1992) states that performance-based pay is beneficial because it increases effort and attracts talent. Cascio (1991) summarized the incentive pay issue by saying that when applied correctly, incentives result in productivity gains, but if used indiscriminately they could result in lower productivity. In general, job satisfaction and work performance have been found to be associated with both level of pay and merit pay.

Job design. The last of the six human resource practices covered in this study is job design. Job design was selected because it compliments the first five human resource topics. That is to say, unlike the other human resource practices used in this study, job design focuses on employee perceptions of jobs rather than actual practices; it provides a unique view of the influence of a different type of human resource work on organizational outcomes. In addition, job design has garnered a substantial amount of research interest at the individual level of analysis and needs to be examined from an organizational perspective.

The job characteristics model of motivation (Hackman & Lawler, 1971; Hackman & Oldham, 1976) overwhelmingly characterizes the past 25 years of research on job design (Champoux, 1991; Johns, Xie, & Fang, 1992; Kelly, 1992; Taber & Taylor, 1990). In a survey by Miner (1984) it received high scores on both usefulness in application and scientific validity. Consequently, the job characteristics theory will be used as the foundation for examining the role of job design in organizational effectiveness. Thus, different from the reviews of the first five human resource topics, job design will center around only one theoretical outline.

The job characteristics theory proposes that five core dimensions of job content--skill variety, task identity, task significance, autonomy, and feedback--influence three critical psychological states--experienced meaningfulness, responsibility, and knowledge of results--which in turn affect performance,

motivation and job satisfaction. This is especially true for individuals with a higher order need for growth (Hackman & Lawler, 1971; Hackman & Oldham, 1976).

In general, there seems to be at least modest support for the job characteristics model of employee motivation (Fried & Ferris, 1987). Although some reviews have been more critical (e.g., Salancik & Pfeffer, 1978), calling attention to measurement limitations and cognitive distortions that may influence results, other studies have supported the theory's propositions (Champoux, 1991) or at least partially supported its propositions (Campion & McClelland, 1991; Johns, et al., 1992; Kelly, 1992). For example, in Kelly's review of 31 job characteristics studies, the theory was generally supported concerning satisfaction, but not strongly supported concerning work performance criteria. In one of the few tests of the complete model, Johns et al. provided substantial support for the theory. Their results, based on a sample of 300 managers, highlight the relationship between job characteristics and outcomes as well as the moderating roles of the psychological states.

Compensation and job design can be considered as opposite sides of the same coin. That is to say, compensation is an extrinsic attempt to motivate (as well as reward) and job design is the pursuit of motivation via intrinsic psychological states (Hackman & Lawler, 1971; Miner, 1980). Together, they offer complimentary means of elevating organizational productivity through motivation.

Table 4 lists the effective techniques just described for the six human resource practices. These 19 techniques comprise the standards of excellence benchmarks for the quality perspective outlined in this study.

Limitations. Two limitations are inherent in studies within the quality perspective. First, whereas the studies characterized by simply placing an emphasis on human resource activities have been conducted at the organizational level of analysis, research designed to perfect the quality of human resource practices and techniques traditionally has been performed at the individual level of analysis. As Russell et al. (1985) state, "Industrial and organizational psychology is obsessed with the evaluation of personnel functions at the individual level of performance" (p. 849).

As a result, the research on human resource practices is overwhelmingly characterized by studies examining predictors and criteria at the individual level of analysis. The problem with this is that the notion underlying this expansive literature is one of isomorphism: that interventions designed to affect individual performance also lead to organizational effectiveness (Milkovich, 1988; Pritchard, 1992; Russell et al., 1985; Schmitt & Schneider, 1983; Schneider, 1984; Wallace, 1983).

House, Rousseau, and Thomas-Hunt (1995) reflect this thought by discussing the (inappropriate) leap many researchers make by interpreting their results in terms of organizational outcomes when, in fact, their research only measured predictors and/or criteria at the individual level. Utility analysis is another example of this problem. Based on calculations of individual gains, utility formulas extrapolate these

Table 4. Effective Techniques for the Six Human Resource Practices

Human Resource Practice	Effective Techniques
Recruitment	• Recruiter characteristics • Candidate sources
Selection	• Pre-employment testing • Interview format • Person-organization fit
Performance appraisal	• Feedback • Employee participation • Supervisory observation
Training	• Support • Resources • Time perspective • Needs assessment
Compensation	• Level • Merit pay
Job design	• Skill variety • Task identity • Task significance • Autonomy • Feedback

data and speak in terms of organizational gains (e.g., Schmidt et al., 1979; Schmidt et al., 1986), incorrectly assuming a one-to-one correspondence between individual performance and organizational productivity (Campbell & Campbell, 1988; Pritchard, 1994). Harris (1994) used the term "productivity paradox" when describing the arcane phenomenon of how positive changes for individuals are not clearly translated into similar changes for the organizations in which those individuals work.

In an effort to confront this concern of isomorphism a number of authors have called for studies that focus directly on the relationships between human resource practices and organizational effectiveness (Arthur, 1994; Bamberger, Bacharach, & Dyer, 1989; Becker & Gerhart, 1996; Earley & Brittain, 1993; Evans, 1986; House et al., 1995; Lengnick-Hall & Lengnick-Hall, 1988; Russell et al., 1985; Steffy & Maurer, 1988; Tuttle, 1983). For example, in calling for more organization-level research Schneider (1984) stated, "This perspective makes it quite clear that a narrow focus on worker productivity narrowly defined will fail to advance our understanding of how organizations grow, function, and decline" (p. 199). However, in spite of this concern, little has been done to act on this recommendation.

A second limitation of studies contained within the quality perspective is that they typically look at one specific human resource practice at a time. Little has been done to examine more than one practice in a study. While it is logical to expect that multiple human resource interventions would have a greater impact than a single intervention, it is also possible that the effects are somewhat redundant (Delaney &

Huselid, 1996). This redundancy has two sources. First, there is probably some multicollinearity among human resource practices. Second, there may be a ceiling effect for the variance human resource practices are able to explain and a single practice may approach this limit, making multiple practices unnecessary in some instances. Thus, questions remain regarding the unique value of multiple human resource practices, each implemented in a quality manner, over a single practice also implemented in a quality manner.

As these literature reviews show, there is substantial evidence that when implemented effectively, the six human resource practices considered in this study influence individual performance. However, due to limitations in the literature there are a number of interesting unexplored hypotheses concerning an organizational level of analysis that this study will test. Hypothesis 2 suggests that quality is associated with organizational effectiveness. Hypothesis 3 concentrates on the unique variance accounted for by the quality perspective over that explained by the emphasis perspective. Hypothesis 4 postulates that quality could also moderate the emphasis-organizational effectiveness relationships. This is because when human resource activities are implemented in an effective manner the emphasis an organization places on them has a clear channel by which to impact organizational effectiveness. Conversely, when the quality of human resource practices is low, emphasis can become a mute point since ineffectively implemented practices will dilute the value

of organizational emphasis. The research question focuses on the relative value of each of the specific human resource practices.

Hypothesis 2: The level of quality of organizations' human resource practices will be positively associated with organizational effectiveness.

Hypothesis 3: The level of quality of organizations' human resource practices will add uniquely to the emphasis organizations place on their human resource practices in predicting organizational effectiveness.

Hypothesis 4: The higher the level of quality of organizations' human resource practices, the stronger the relationships will be between emphasis and organizational effectiveness.

Research Question: Which human resource practice best predicts organizational effectiveness?

Thus far it has been posited that the emphasis and quality perspectives are useful for understanding how human resource practices can be implemented and managed to predict organizational effectiveness. However, in addition to these perspectives, it is intuitively appealing and theoretically founded to posit that the strategic alignment between human resource practices and organizational mission is also a factor in organizational effectiveness.

The Alignment Perspective

This perspective moves from the "best practices" underpinnings of the first two perspectives to focus on strategic relationships involving human resource

practices. Literature identified by the alignment perspective contains arguments for an integration between an organization's mission or strategy and its human resource practices. In other words, there must be a match between human resource practices and overall organizational strategies.

Numerous authors have emphasized the importance of an integration of human resource practices with organizational mission or strategy. For example, Wright and McMahan (1992) refer to strategic human resource management as a macro-organizational approach that places human resource management within the context of the larger organization. In other words, strategic human resource management is a "pattern of planned human resource deployments and activities intended to enable an organization to achieve its goals" (p. 298). Wright and McMahan go on to state that this entails a vertical linking of human resource practices with the strategic management processes of the organization as well as horizontal coordination among the various human resource practices.

Schuler and Jackson (1987) delineate different strategies an organization can use to compete in the marketplace. They support the perspective of mission alignment by providing rationales for hypothesized effective linkages between their organizational strategies and human resource practices. By doing so they affirm the importance of fit between business strategy or mission and human resource practices.

According to the Devanna et al. (1984) model, mission strategy, human resource management, and organizational structure operate as interrelated systems.

They argue that human resource systems are an integral part of the successful implementation of strategic organizational objectives. Once an organization determines its optimal structure, it must attract and retain people that will help it pursue its overall mission.

Cappelli and Singh (1992) state that the fields of human resources and strategic management have historically ignored each other. However, their separate paths are converging on a common approach where business strategy and human resource practices become integrated. A unique point to this discussion is that these authors reverse the direction of the fit perspective by stating that employee management processes may in part explain business strategy. This is in line with the reciprocal interdependence between business strategy and human resource strategy proposed by Lengnick-Hall and Lengnick-Hall (1988).

In a rare empirical study, the efficacy of a match between strategy and human resources was illustrated by Wright, Smart, and McMahan (1995). They found that among National Collegiate Athletic Association basketball teams, the degree of agreement between the coach's preferred strategy and the particular capabilities of each team's players was important in maximizing performance.

Using a case analysis methodology, Cook and Ferris (1986) looked at the human resource management practices in three industries experiencing declines, the airline, non-food retail, and oil industries. They concluded that the higher performing companies in all three industries utilized a longer-term focus consistent with the

company's strategy. In other words, the high performers exhibited a more strategic human resource orientation than the low performers.

Nkomo (1987) examined differences between companies using formal human resource planning, including linking human resource planning and business strategy, and those that did not. Results indicate that there are no performance differences. However, a major limitation of this study was the lack of an attempt to assess the quality of the human resource plans. The study simply assessed the absence or presence of human resource processes, which was likely to have curtailed the sensitivity of the study's measurement system.

Limitations. The alignment perspective has two primary limitations. First, the theoretical literature is far ahead of the empirical literature. Accordingly, Fisher (1989) stated, "Prescriptive studies to this effect abound; empirical studies are substantially more rare" (p. 158). There is an enticing logic regarding integrating human resource systems and organizational mission. Unfortunately, only a few researchers have undertaken the task of adequately measuring and empirically exploring the theoretical propositions (Venkatraman & Grant, 1986).

Operationalization ambiguity is the second limitation inherent in the literature (Fisher, 1989; Van de Ven & Drazin, 1985). The human resources literature seems to have adopted at least two meanings for the terms alignment or fit between human resource practices and organizational mission. First, although not explicitly stated, some authors seem to suppose that mission alignment has a direct effect on

organizational effectiveness. For example, implying a direct effects model, Cappelli and Singh (1992) asked the question whether better fit between human resource practices and business strategy predicts performance. Similarly, Cook and Ferris (1986) concluded that human resource systems with a strategic orientation would be reflected by higher firm performance.

Second, researchers have invoked models using moderation to examine the role of alignment in organizational effectiveness (e.g., Wright et al., 1995). To illustrate, Huselid (1995) used external fit (correspondence between the company's system of High Performance Work Practices and its competitive strategy) and internal fit (consistency among human resource policies and practices) as moderators of the relationship between human resource practices and organizational outcomes. In a related vein, Delery and Doty (1996) used interactions to test the influence of different types of organizational strategies on the human resource practices-organizational performance relationships.

Hypothesis 5 posits that alignment predicts organizational effectiveness. Hypothesis 6 expresses the influence of alignment in predicting organizational effectiveness after controlling for emphasis and quality. In other words, emphasis on human resource practices is an important first step in predicting organizational effectiveness, quality adds to the value of emphasis, and alignment further refines how human resource practices can be implemented to enhance organizational

effectiveness. Hypotheses 7 and 8 present alignment as a moderator. This is the appropriate test because the focus is on criterion variables (Venkatraman, 1989).

Hypothesis 5: The degree of alignment between organizations' human resource practices and their mission will be positively associated with organizational effectiveness.

Hypothesis 6: The degree of alignment between organizations' human resource practices and their mission will add uniquely to the emphasis organizations place on their human resource practices and the quality of their human resource practices in predicting organizational effectiveness.

Hypothesis 7: The closer the alignment between organizations' human resource practices and their mission, the stronger the relationships will be between emphasis and organizational effectiveness.

Hypothesis 8: The closer the alignment between organizations' human resource practices and their mission, the stronger the relationships will be between quality and organizational effectiveness.

All hypotheses and the research question are presented in Table 5.

Organization-Level Research

Three issues are important when conducting organization-level research. The first issue concerns the type of population from which the sample organizations are drawn--the bandwidth vs. fidelity dilemma. Some organization-level studies cut

Table 5. Hypotheses and Research Question

Number	Hypothesis or Research Question
1	The level of emphasis organizations place on their human resource practices will be positively associated with organizational effectiveness.
2	The level of quality of organizations' human resource practices will be positively associated with organizational effectiveness.
3	The level of quality of organizations' human resource practices will add uniquely to the emphasis organizations place on their human resource practices in predicting organizational effectiveness.
4	The higher the level of quality of organizations' human resource practices, the stronger the relationships will be between emphasis and organizational effectiveness.
5	The degree of alignment between organizations' human resource practices and their mission will be positively associated with organizational effectiveness.
6	The degree of alignment between organizations' human resource practices and their mission will add uniquely to the emphasis organizations place on their human resource practices and the quality of their human resource practices in predicting organizational effectiveness.
7	The closer the alignment between organizations' human resource practices and their mission, the stronger the relationships will be between emphasis and organizational effectiveness.
8	The closer the alignment between organizations' human resource practices and their mission, the stronger the relationships will be between quality and organizational effectiveness.
Research Question	
	Which human resource practice best predicts organizational effectiveness?

across a variety of unrelated industries (e.g., Cook & Ferris, 1986; Huselid, 1995) while other organizational research has been conducted within one industry, but only considered branch locations of a single company (e.g., Katz et al., 1985). More attention needs to be paid to the types of samples used in organization-level research. Industry based contingencies can have a powerful yet spurious impact on results (Bamberger et al., 1989; MacDuffie, 1995; Prescott, 1986). In order to prevent this confound common to organization-level research, it can be useful to focus on a single industry which contains a large number of organizations. A single-industry study offers greater fidelity (albeit a tighter bandwidth) and proactively eliminates the need to account for industry effects, thereby reducing the number of control variables needed and allowing a much clearer examination of the variables of interest (Becker & Gerhart, 1996; Delery & Doty, 1996; Reimann, 1982). This study accounts for differences among industries by in-depthly concentrating on a single industry consisting of many distinct organizations, college admission offices.

Second, the types of informational sources used is a salient issue for organization-level research. A number of researchers have argued that respondents report personal data such as feelings or behaviors, but are often uninformed concerning organization-level constructs. Key informants, on the other hand, are viewed as knowledgeable research participants who are in a position to provide useful data on generalized organization-level constructs (Kumar, Stern, & Anderson, 1993; Reimann, 1982; Seidler, 1974).

In order to provide a comprehensive view of the organizations in the sample, multiple strategically-selected key informants who are associated in different ways with the organizations can be used. For example, in this study key informants representing at least three different positions were sought. Chief admission officers served as the first key informant. They possess the most intimate knowledge of the organization, especially its human resource practices. A second type of key informant was professional (exempt) employees in the admission office. These individuals offered the primary perspective on perceptions of job design and employee morale and a subordinate perspective on human resource practices. The third type of key informant was an executive-level administrator associated with the organization, but external to its day-to-day operations. These persons provided evaluative data on indices of organizational effectiveness.

The third important topic in organization-level research is the controversial issue of aggregation (Campion, Medsker, & Higgs, 1993). If organizational data sets are to be enriched through the use of multiple key informants with diverse perspectives, such as in this study, then information from these individuals occasionally must be aggregated (Becker & Gerhart, 1996). Aggregation is appropriate when there is sufficient theoretical rationale and supporting statistical justification for it (James, Demaree, & Wolf, 1984; Joyce & Slocum, 1984). Furthermore, Van de Ven and Ferry (1980) recommend that items be written to allow those providing information to play the role of informants offering data about the

organization rather than the role of respondents who provide data about themselves. For example, following this suggestion, Campion et al. measured constructs such as potency (motivation) and participation at the group level by making the focus of their items the group rather than the individuals themselves, as would typically be done for these constructs. This study aggregated reports from key informants when theoretically necessary (i. e., for job design and employee morale). Indicators of interrater agreement were used to illustrate the appropriateness of aggregation as well as to verify the accuracy of reports from single key informants when they alone were the most appropriate data source (i. e., for human resource practices).

CHAPTER II

METHODS

Design

A field study used survey questionnaires mailed to key informants at admission offices of randomly selected 4-year colleges and universities in the United States. In addition, archival data were obtained to measure the objective productivity indicator of organizational effectiveness.

Predictor variables consist of the three perspectives: emphasis, quality, and alignment. The six specific human resource practices; recruitment, selection, performance appraisal, training, compensation, and job design; function as facets of the quality variable. Quality also is represented by a scale which combines all human resource practices. The criterion variables reflect organizational effectiveness and include five indicators: overall evaluation, customer service reputation, turnover, employee morale, and objective productivity, as well as a composite scale.

Participants

Organizations. One thousand and fifty-two 4-year post-secondary schools were randomly selected from a data base provided by a national company recommended by the most prominent professional organization representing college

and high school admission offices, the National Association for College Admission Counseling (NACAC). Participating organizations were admission offices at 247 of these institutions which provided useable data from the necessary key informants. These admission organizations range in size from just one or two employees for very small schools to approximately 40 employees for very large institutions. Table 6 provides demographic information about the schools which the admission offices serve.

Key informants. Key informant participation was sought and obtained from the following types of key informants at each institution: (a) chief admission officer, (b) up to three professional employees in the admission office, and (c) executive-level administrator.

Useable responses were obtained from 247 chief admission officers representing a 23% return rate. Because chief admission officers responded to questions most integral to the study, their questionnaires served as the starting point for developing organizational data sets. From these 247 organizations, professional employees returned 519 useable questionnaires. This is a 70% return rate based on the three professional employee questionnaires sent to each of the participating organizations. Useable questionnaires were returned from 161 executive-level administrators at the schools from which the chief admission officer returned a questionnaire for a 65% return rate. The total number of questionnaires used in this

Table 6. Description of Schools Served by the Admission Organizations

Variable	Description
School type	Public = 34% Private = 66%
Undergraduate enrollment	$\bar{X}$ = 4,554 SD = 5,412 Range = 94 to 27,507
Geographic location	Rural = 8% Small town = 36% Suburban = 36% Urban = 20%

Table 7. Description of the Key Informants

Key Informant	Typical Title	N	Mean N Per Organization	Mean Tenure
Chief admission officer	Director of Admission Director of Enrollment Management Dean of Admission Dean of Enrollment Management	247	1.00	9.37
Professional admission employee	Admission Counselor Assistant Director of Admission Associate Director of Admission	519	2.10	5.41
Executive	Vice-President for Student Affairs Vice-President for Academic Affairs Provost President	161	0.65	8.25
Combined		927	3.75	6.96

study is 927. This translates into a average of 3.75 key informants per school representing 247 organizational data sets. Table 7 describes the characteristics of the key informants.

Procedures

College admission offices work on a clearly defined work cycle with summer signaling the end of their recruiting season and a slower work period. In line with this cycle, questionnaire packets were mailed in July to the chief admission officers at the 1,052 college admission offices.

The first mailing contained one questionnaire and explanatory cover letter for the chief admission officer and three questionnaires and explanatory cover letters for professional employees in the organization. The chief admission officer distributed the appropriate questionnaires to employees in the organization. In order to ensure confidentiality, all informants returned their questionnaires independently in postage-paid return envelopes included in the packet. Follow-up questionnaires were sent approximately one month after the initial mailing to non-respondents. Questionnaires for executive-level administrators were sent to the supervisors of chief admission officers from whom questionnaires were received, on a rolling basis, as chief admission officers responded. Non-responding executives were sent follow-up questionnaires approximately one month after the initial mailing. The objective

archival productivity data came from two published books containing detailed information on students at colleges and universities in the United States.

Measures

Six different questionnaires were used in the study. The first, called "Admission Office Questionnaire," was for the chief admission officer. It contained 53 items targeting the three predictor variables--emphasis, quality (i.e., recruitment, selection, performance appraisal, training, and compensation), and alignment--and peer ratings of customer service.

Four different questionnaires were employed for the professional employees. They were titled "Admission Officer Employee Questionnaire I" through "Admission Office Employee Questionnaire IV." The job design and employee morale items were exactly the same in both wording and placement throughout all four questionnaires. However, each of the four versions of the professional employee questionnaire was different in that it also contained approximately one fourth of the human resource practice items used in the questionnaire for the chief admission officer. Specifically, the first employee questionnaire contained the performance appraisal items, the second contained the recruitment items, the third included the training items, and the fourth had the compensation and selection items. Including the job design and employee morale items common to all four employee questionnaires, professional employee questionnaires I through IV had 27, 23, 30,

and 33 items, respectively. The human resource practice items were included in the employee questionnaire in order to offer an opportunity to statistically check the ratings provided by the chief admission officer on these practices. Items were split into four groups for the employee questionnaires because of space and practical considerations.

The sixth questionnaire, also called "Admission Office Questionnaire," targeted the executive-level key informant. It contained 12 items focusing on overall productivity and employee turnover. Table 8 summarizes which key informant or archival source provided data for each variable. Table 9 contains the items and alpha levels related to the questionnaire directed toward the chief admission officer. Table 10 lists items and alpha levels for the four versions of the professional employee questionnaire. Table 11 contains the items and alpha level for the executive questionnaire.

For all questionnaires, instructions asked the key informants to "consider the performance of the Admission Office as a whole." Instructions also assured participants of the confidentiality of their responses and offered them a summary report of the study as a sign of gratitude for their participation. Unless stated otherwise, informants were asked to indicate their level of agreement/disagreement with the statement according to the following symmetrical anchors: strongly disagree (1), mostly disagree (2), somewhat disagree (3), neutral (4), somewhat agree (5), mostly agree (6), and strongly agree (7).

Table 8. Variable by Key Informant Matrix

	Key Informant							
Variable	CAO	PE1	PE2	PE3	PE4	E	Peer	Archival
Emphasis	X	--	--	--	--	--	--	--
Quality								
Recruitment	X	--	X	--	--	--	--	--
Selection	X	--	--	--	X	--	--	--
Performance appraisal	X	X	--	--	--	--	--	--
Training	X	--	--	X	--	--	--	--
Compensation	X	--	--	--	X	--	--	--
Job design	--	X	X	X	X	--	--	--
Alignment	X	--	--	--	--	--	--	--
Overall evaluation	--	--	--	--	--	X	--	--
Customer service	--	--	--	--	--	--	X	--
Turnover	--	--	--	--	--	X	--	--
Employee morale	--	X	X	X	X	--	--	--
Objective productivity	--	--	--	--	--	--	--	X

Note. CAO = Chief admission officer; PE1 = Professional employee group I; PE2 = Professional employee group II; PE3 = Professional employee group III; PE4 = Professional employee group IV; E = Executive-level administrator; Peer = Peer chief admission officer; Archival = Data from published sources.

Table 9. Chief Admission Officer Questionnaire: Items and Alpha Levels

Variable (Alpha)	Items
Emphasis (4 items; α = .79)	■ We place a great deal of emphasis on human resource practices such as employee recruitment, hiring, training, compensation, etc. ■ Implementing effective human resource practices is one of our most important priorities. ■ Human resource practices are the key emphasis in this Office. ■ Human resource practices (e.g., compensation, performance appraisal, hiring, etc.) are extremely important in making this Office effective.
Quality	
Recruitment (5 items; α = .65)	■ Employees of the Admission Office are actively involved in non-interview interactions with job candidates (e.g., lunch, campus tours, etc.). ■ Our friendliest and most positive employees always meet with our viable job candidates. ■ Only people who have attended or worked at this school are hired in our Admission Office. ■ This Admission Office primarily fills job vacancies with employees/ graduates from this school. ■ Our Office always hires internally (i.e., current employees or graduates of this school).
Selection (9 items; α = .79)	■ Job candidates undergo some form of pre-employment testing (e.g., cognitive ability or personality tests, presentation skills, job simulation exercise, etc.). ■ Job applicants complete a selection test or exercise before being hired in this Admission Office. ■ A pre-employment test or exercise is used in our hiring process. ■ When interviewing job candidates, structured interviews with predetermined questions are employed. ■ Job applicants are interviewed using a standardized interview format. ■ A structured questioning format is followed when interviewing job candidates.

Table 9 (continued)

Variable (Alpha)	Items
	■ When making hiring decisions, the exact "fit" between job candidates and our Office is extremely important. ■ We hire only individuals who match the corporate culture of this Office exactly. ■ Only applicants who share the same work attitudes as our current employees are hired to work here.
Performance appraisal (9 items; α = .82)	■ Supervisors in this Office give employees feedback on their job performance at least once a month. ■ Employees frequently are given specific feedback concerning their job performance. ■ Employees frequently hear positive feedback from a boss. ■ Admission Office employees are encouraged to actively participate in their performance appraisal discussions. ■ Workers in this Office play an active role in discussing their job performance with supervisors. ■ Supervisors and subordinates in this Office openly engage in two-way communication during the performance appraisal process. ■ Supervisors spend at least half a day a month observing their subordinates perform their job. ■ Supervisors frequently observe their subordinates performing their job. ■ Admission Office employees' work behavior is observed very often by their boss.
Training (12 items; α = .92)	■ The administration does whatever it can to facilitate the training of the Admission staff. ■ Our Admission Office receives all the institutional support it needs for training. ■ The top administrators at this school are very supportive of our training efforts. ■ Our budget includes sufficient funds for training. ■ The Admission Office training budget is more than adequate.

Table 9 (continued)

Variable (Alpha)	Items
	■ The Admission Office receives enough financial resources to offer all needed training. ■ This Office establishes long-range training goals for employees. ■ The training for Admission Office employees consists of a series of coordinated training steps. ■ This Office looks far ahead to map out training objectives. ■ Before implementing training programs for employees, an analysis of training needs is conducted. ■ We study exactly what our needs are before offering training. ■ We carefully determine our needs prior to implementing any training program.
Compensation (6 items; α = .80)	■ This Office offers above average salaries compared to salaries at peer admission offices. ■ Employees of this Admission Office are paid slightly more than employees at comparable admission offices. ■ Our Admission Office offers salaries that are lower than those at peer admission offices. ■ Pay raises for employees of this Admission Office are based on appraisals of their performance. ■ Performance evaluations are tied to rewards (e.g., pay, recognition, perks, etc.) in this Admission Office. ■ Merit-based incentives are used in this Admission Office.
Alignment (4 items; α = .83)	■ We always select, train, and motivate our employees with our overall Admission Office mission in mind. ■ All of our human resource practices are directed toward helping us fulfill our mission in this organization. ■ The overall objectives of this Office greatly influence how employees are hired, trained, and managed. ■ The ways in which employees are hired, developed, and motivated is dictated by the mission of this Office.

Table 10. Admission Office Employee Questionnaires I to IV: Items and Alpha Levels

Variable (Alpha)	Items
	Admission Office Employee Questionnaire I
Performance appraisal (9 items; α = .92)	■ Supervisors in this Office give employees feedback on their job performance at least once a month. ■ Employees frequently are given specific feedback concerning their job performance. ■ Employees frequently hear positive feedback from a boss. ■ Admission Office employees are encouraged to actively participate in all performance appraisal discussions. ■ Workers in this Office play an active role in discussing their job performance with supervisors. ■ Supervisors and subordinates in this Office openly engage in two-way communication during the performance appraisal process. ■ Supervisors spend at least half a day a month observing their subordinates perform their job. ■ Supervisors frequently observe their subordinates performing their job. ■ Admission Office employees' work behavior is observed very often by their boss.
Job design (15 items; α = .88)	■ Our jobs require us to use a number of complex or high-level skills. ■ The professional jobs in this Office require quite complex and diverse abilities. ■ Professional jobs in this Office involve a wide variety of tasks and skills. ■ The professional jobs in this Office provide us the chance to completely finish the pieces of work we begin. ■ Our jobs are arranged so that we have the chance to do an entire piece of work from beginning to end. ■ Professional employees are able to do a "whole" and identifiable piece of work with a clear beginning and end. ■ Professional jobs in this Office are extremely significant and greatly affect the lives of other people. ■ The professional jobs in this Office are very significant and important.

Table 10 (continued)

Variable (Alpha)	Items
	■ Our jobs are ones where a lot of other people can be affected by how well the work gets done. ■ Our jobs deny us any chance to use our personal initiative or judgement in carrying out the work. ■ We all have a great deal of autonomy and freedom in our jobs. ■ The jobs in this Office give us considerable opportunity for independence and freedom in how we do the work. ■ The job itself provides very few clues about whether or not we are performing well. ■ Just doing the work required by the job provides many chances for us to figure out how well we are doing. ■ The jobs in this Office provide us with direct feedback about our performance.
Employee morale (3 items; α = .87)	■ Generally speaking, everyone in this Office is very satisfied with their job. ■ Most people in this Office are very satisfied with their job. ■ Overall, there is a high level of job satisfaction in this Office.
	Admission Office Employee Questionnaire II
Recruitment (5 items; α = .58)	■ Employees of the Admission Office are actively involved in non-interview interactions with job candidates (e.g., lunch, campus tours, etc.). ■ Our friendliest and most positive employees always meet with our viable job candidates. ■ Only people who have attended or worked at this school are hired in our Admission Office. ■ This Admission Office primarily fills job vacancies with employees/ graduates from this school. ■ Our Office always hires internally (i.e., current employees or graduates of this school).

Table 10 (continued)

Variable (Alpha)	Items
	Admission Office Employee Questionnaire III
Training (12 items; α = .95)	■ The administration does whatever it can to facilitate the training of the Admission staff. ■ Our Admission Office receives all the institutional support it needs for training. ■ The top administrators at this school are very supportive of our training efforts. ■ Our budget includes sufficient funds for training. ■ The Admission Office training budget is more than adequate. ■ The Admission Office receives enough financial resources to offer all needed training. ■ This Office establishes long-range training goals for employees. ■ The training for Admission Office employees consists of a series of coordinated training steps. ■ This Office looks far ahead to map out training objectives. ■ Before implementing training programs for employees, an analysis of training needs is conducted. ■ We study exactly what our needs are before offering training. ■ We carefully determine our needs prior to implementing any training program.
	Admission Office Employee Questionnaire IV
Selection (9 items; α = .77)	■ Job candidates undergo some form of pre-employment testing (e.g., cognitive ability or personality tests, presentation skills, job simulation exercise, etc.). ■ Job applicants complete a selection test or exercise before being hired in this Admission Office. ■ A pre-employment test or exercise is used in our hiring process. ■ When interviewing job candidates, structured interviews with predetermined questions are employed.

Table 10 (continued)

Variable (Alpha)	Items
	■ Job applicants are interviewed using a standardized interview format. ■ A structured questioning format is followed when interviewing job candidates. ■ When making hiring decisions, the exact "fit" between job candidates and our Office is extremely important. ■ We hire only individuals who match the corporate culture of this Office exactly. ■ Only applicants who share the same work attitudes as our current employees are hired to work here.
Compensation (6 items; α = .67)	■ This Office offers above average salaries compared to salaries at peer admission offices. ■ Employees of this Admission Office are paid slightly more than employees at comparable admission offices. ■ Our Admission Office offers salaries that are lower than those at peer admission offices. ■ Pay raises for employees of this Admission Office are based on appraisals of their performance. ■ Performance evaluations are tied to rewards (e.g., pay, recognition, perks, etc.) in this Admission Office. ■ Merit-based incentives are used in this Admission Office.

Note. Alpha statistics represent the professional employee with the longest tenure in the organization. Job design and employee morale items are presented for Admission Office Employee Questionnaire I only in order to conserve space.

Table 11. Executive Admission Office Questionnaire: Items and Alpha Level

Variable (Alpha)	Items
Overall evaluation (11 items; α = .91)	■ The Admission Office does very well when it comes to achieving the goals set for it. ■ Prospective students and their families are always extremely impressed by our Admission Office. ■ We definitely have a high performing Admission Office. ■ Our Admission Office offers superb service to prospective students and families. ■ The Admission Office is very effective in fulfilling its purpose at this school. ■ One of the real strengths of the Admission Office is the level of customer service it provides to prospective applicants. ■ The Admission Office always exceeds my expectations regarding its mission at this school. ■ Concerning the ***freshman class of 1995***, the Admission Office exceeded its goal for number of completed applications. ■ Concerning the ***freshman class of 1995***, the Admission Office exceeded its goal for number of freshman enrolled. ■ Concerning the ***freshman class of 1995***, the Admission Office exceeded its goal for the average GPA/class rank. ■ Concerning the ***freshman class of 1995***, the Admission Office exceeded its goal for the average test score (ACT/SAT).
Turnover	■ The following question concerns voluntary turnover among the professional (exempt) employees in your Admission Office. In other words, what percent of the professional employees (on average the past three years) in the Admission Office are new each year (i.e., what percent of the exempt staff voluntarily leave each year)? For example, if two (2) professional employees, on average, choose to leave each year in an office with 10 professionals, the answer would be 20 percent. ***Our average voluntary turnover rate the past three years has been approximately _____ percent.*** fill in the blank

Emphasis. Emphasis was measured using a 4-item scale assessing the emphasis or importance organizations place on their human resource practices.

Quality. The quality variable was measured in two ways: (a) as a set of six facets, one for each human resource practice and (b) as a composite of all human resource practice items. The following is a list of the six facets with the number of items used for each in parenthesis: recruitment (5), selection (9), performance appraisal (9), training (12), compensation (6), and job design (15). Each item centers on a specific behavior or activity associated with the techniques of effective (quality) implementation of a particular human resource practice. Items for the job design facet were drawn from the job characteristics component of the Job Diagnostic Survey (JDS) (Hackman & Oldham, 1976) and refer to the five techniques (job characteristics) listed in Table 4. As with the first five human resource practices, each job design technique was measured with three items (except for recruiter characteristics which used two items). Items focused on employee perceptions of their job and were modified to fit the organization-level perspective of this study.

Alignment. Mission alignment was assessed using a greatly modified version of the scale employed by Huselid (1995) to assess what he called external fit. The modified version consists of a 4-item scale focusing on the alignment between human resource practices and organizational strategy or mission.

At the broadest level, the study uses one ubiquitous dependent variable: organizational effectiveness. However, organizational effectiveness simply provides

an overarching label for five more specific criteria plus a composite scale criterion. Unless stated otherwise, response formats are the same as those used for the independent variables.

Overall evaluation. This scale was measured with 11 items focusing on the overall performance of the admission office and its level of customer service.

Turnover. Turnover was measured by asking about the average percent of voluntary turnover among professional staff during the previous three year time period.

Customer service reputation. This variable consists of endorsements by peer chief admission officers. Chief admission officers were asked to list up to four peer institutions that they believe had the highest level of customer service.

Employee morale. The employee morale scale is comprised of three items from the general job satisfaction scale of the Job Diagnostic Survey (JDS) (Hackman & Oldham, 1976). As with the job characteristics items, job satisfaction items were modified to change the reference point from the informants themselves to the organization as a whole.

Objective productivity. This scale includes objective archival information recorded in Peterson's Four Year Colleges 1996 (Stern & Gilbey, 1995) and Peterson's Four Year Colleges '97 (Emanski & Gilbey, 1996). Five items salient to the current sample were used in the scale. In general, the items focus on minority enrollment, quality of freshmen students, and the timely flow of students through the school. The specific items are: (a) percent of 1994 freshman class that is a racial

minority, (b) percent change from 1994 to 1995 in percent of the freshman class that is a racial minority, (c) percent of freshmen class in the top 25% of their high school class, (d) percent change from 1994 to 1995 in percent of the freshman class that is in the top 25% of their high school class, and (e) the average of the freshman year to sophomore year retention rate for students, percent of students who graduate in 4 years, and percent of students who graduate in 5 years.

Composite scale. The composite indicator of organizational effectiveness consists of five items. Each item represents the standardized score for one of the five specific indicators of organizational effectiveness: overall evaluation, customer service reputation, turnover, employee morale, and objective productivity.

Although the study was conducted in a homogenous sample, it was still necessary to identify and control for a few factors that could spuriously influence the results. Post-secondary institutions typically are characterized by their type, enrollment, and location, so these were used as control variables in the study.

School type. This variable served as the first of three control variables. Type of school has to with whether the school is a public or private institution.

Undergraduate enrollment. The second control variable is the school's undergraduate population.

School location. The third and final control variable is the geographic location of the school (i.e., rural, small town, suburban, and urban).

Variables

Values for scales containing missing data were based on the average of only those items for which there was a response. Similarly, when aggregation occurred across key informants (i.e., job design and employee morale), it was performed by averaging the scale values from the one to three professional employees who responded within each organization.

Emphasis. Responses to the four items were averaged to form a score for the emphasis scale for each organization. The possible range was from 1 to 7.

Quality. Responses to the items for each human resource practice facet of quality were average to form six scale scores for each organization. The human resource practices along with their respective number of items in parentheses are as follows: recruitment (5), selection (9), performance appraisal (9), training (12), compensation (6), and job design (15). For job design, scale values from each key informant were averaged to provide an organizational value for job design. In addition, the six scales were averaged to form an overall composite scale for quality. The possible range was from 1 to 7. Reliability among informants was examined using tests for interrater agreement (James et al., 1984).

Alignment. Responses to the four items were averaged to form a score for the alignment scale for each organization. The range was from 1 to 7.

Overall evaluation. Responses to the 11 items were averaged to form a score for the overall evaluation scale for each organization. The possible range was from 1 to 7.

Turnover. The percentage number provided served as the value for this indicator of organizational effectiveness. The range is from 0% to infinity since it is theoretically possible for an organization to have well over 100% average annual turnover. The actual range was from 0% to 100%.

Customer service reputation. The value of this variable consisted of the number of endorsements by peer chief admission officers each organization received. The theoretical range is 0 to 246. The actual range was 0 to 5.

Employee morale. Responses to the three items across the professional employee key informants were averaged to form the employee morale score within each organization. The possible range was from 1 to 7. Reliability among informants was examined using tests for interrater agreement (James et al., 1984).

Objective productivity. Values for the five components were average to form a score for each organization. The theoretical range is less than 0 percent to infinity. This is because organizations could have had a large negative or positive change in the five components of the variable. The actual range was -.93% to 3.98%.

Composite scale. This value was obtained by averaging standardized scores for the five specific indicators of organizational effectiveness for each organization.

School type. One dummy coded variable was used to control for school type.

Undergraduate enrollment. Actual undergraduate enrollment served as the value for the school size control variable. The range was from 94 to 27,507.

School location. Three dummy coded variables were used to control for the four school location possibilities.

CHAPTER III

RESULTS

Table 12 provides means, standard deviations, reliabilities, and correlations for the variables. As the table shows, internal consistency values were very good with all values .79 or above, except for recruitment which was .65. Means ranged from 3.38 to 5.92 and standard deviations ranged from .61 to 1.33 for the 7-point scales. Although not designed specifically to test the hypotheses, the correlations, in general, were supportive of the predictions.

Interrater Agreement

James et al. (1984) argue that often it is useful to have an estimate of interrater agreement to assess how well individuals agree on their judgements of a given target. Interrater agreement refers to the extent to which key informants produce the exact same score on a particular target. Essentially, it is a ratio of observed variance to possible variance. Adjustments are available for situations where multiple items are used or where response bias is evident. Interrater agreement allows researchers to better understand the relationships among judgements in group and organizational research involving more than one rater (key informant). James et al. state, "estimates of $r_{wg(1)}$ or $r_{wg(J)}$ could be calculated for each group and then used as measures of a group attribute in group level

Table 12 here

studies" (p. 96). (See James et al., 1984 for a more in-depth theoretical discussion and mathematical presentation of agreement for one item, $r_{wg(1)}$, and for multiple items, $r_{wg(J)}$.) For this study, each analysis of agreement focused on a single target (i.e., one of the six human resource practice scales or the employee morale scale). Additionally, the nature of the questions was not personal or self-incriminating. Thus, potential responses biases were assumed to be minimal and a uniform (rectangular) null distribution was employed.

Due to practical considerations regarding questionnaire administration, the organizations were divided into four equal-sized groups. The professional employees within each group received the same one fourth (approximately) of the human resource practice items, thereby limiting questionnaire length, and each of the four groups received different human resource practice items. This enabled responses to all human resource practice items by the chief admission officer to be tested for interrater agreement with responses by a randomly selected subset of the professional employees. As a result, for five of the human resource practices (i.e., recruitment, selection, performance appraisal, training, and compensation), agreement was assessed between the chief admission officer and one of the four groups of professional employee informants. For the sixth human resource practice (i.e., job design), agreement was assessed among the professional employees only since it was not appropriate for the chief admission officer to complete these perceptual scales. However, when only one professional employee from a given organization responded,

it was not possible to calculate interrater agreement, which explains missing data for some organizations.

The mean level of agreement for the human resource practices ranged from .69 to .88 and the percent of organizations having a level of agreement greater than or equal to .70 ranged from 59 to 89 percent. For employee morale, agreement was determined among the professional employees. The mean level of agreement for this scale was .69 with 62 percent of the organizations having a level of agreement greater than or equal to .70. Table 13 presents the results of the tests of agreement among key informants.

These results indicate an acceptable level of agreement among respondents representing significantly different positions within the organization. Based on these agreement statistics, the decision to use the chief admission officer as the key informant for the human resource practice scales appeared to be substantiated. It also was concluded that additional analyses involving job design and employee morale, based on data aggregated across informants, were warranted.

Relationships Among the Variables

Multiple regression analysis and hierarchical multiple regression analysis were used to test the eight hypotheses.

Hypothesis 1. Hypothesis 1 states that the emphasis placed on human resource practices by organizations is related to organizational effectiveness. Results

Table 13. Levels of Interrater Agreement for Human Resource Practices and Employee Morale

Variable	Mean Level of Agreement	SD	Percent ≥ .70	N
Human Resource Practices				
Recruitment	.82	.17	76	58
Selection	.83	.18	86	51
Performance appraisal	.72	.27	74	42
Training	.70	.26	59	75
Compensation	.69	.25	59	51
Job design	.88	.16	89	188
Employee Morale	.69	.31	62	188

Note. Statistics for recruitment, selection, performance appraisal, training, and compensation represent levels of agreement among the chief admission officer and one of the four groups of professional employees. Statistics for job design and employee morale represent levels of agreement among professional employees (when more than one from the organization responded) since these were the only informants for whom it was appropriate to complete these scales.

from multiple regression analyses for this hypothesis are found in Table 14. After controlling for the control variables (i.e., school type, undergraduate enrollment, and geographic location), emphasis predicted one of the indicators of organizational effectiveness, overall evaluation, and the composite criterion. There is partial support for hypothesis 1.

Hypothesis 2. Hypothesis 2 suggests that quality is associated with organizational effectiveness. Multiple regression results addressing this prediction are shown in Table 14. Findings illustrate that after entering the control variables, quality was associated with three indicators of organizational effectiveness; customer service reputation, employee morale, and objective productivity; and the composite criterion. Hypothesis 2 is fairly strongly supported.

Hypothesis 3. The third hypothesis posits that quality will provide a unique contribution to emphasis in accounting for variance in organizational effectiveness. Findings from hierarchical multiple regression analyses are presented in Table 15. The control variables were entered into the equation in step 1 followed by the emphasis perspective in step 2. Step 3 was performed twice. The first time, quality was entered as a set of six human resource practices and the second time quality was entered as a composite in order to address possible statistical bias by including multiple scales as predictor variables. (Results are shown for quality as a set.) As a set, quality uniquely added to emphasis in predicting three indicators of organizational effectiveness; customer service reputation, employee morale, and

Table 14. Relationships Between Human Resource Practices and Indicators of Organizational Effectiveness

Variable	R	R^2	ΔR^2	F for ΔR^2
		Overall Evaluation		
Step 1: Controls	.22	.05	--	--
Step 2a: Emphasis	.28	.08	.03	4.31**
Step 2b: Quality	.31	.10	.05	1.23
Step 2c: Alignment	.49	.24	.19	33.95***
		Customer Service Reputation		
Step 1: Controls	.30	.09	--	--
Step 2a: Emphasis	.32	.10	.01	2.56
Step 2b: Quality	.40	.16	.07	2.95***
Step 2c: Alignment	.36	.13	.04	8.97***
		Turnover		
Step 1: Controls	.23	.05	--	--
Step 2a: Emphasis	.25	.06	.01	1.07
Step 2b: Quality	.32	.10	.05	.99
Step 2c: Alignment	.25	.06	.01	1.26

Table 14 (continued)

Variable	R	R^2	ΔR^2	F for ΔR^2
		Employee Morale		
Step 1: Controls	.09	.01	--	--
Step 2a: Emphasis	.14	.02	.01	2.40
Step 2b: Quality	.70	.49	.48	33.80***
Step 2c: Alignment	.33	.11	.10	25.26***
		Objective Productivity		
Step 1: Controls	.13	.02	--	--
Step 2a: Emphasis	.13	.02	.00	.02
Step 2b: Quality	.27	.08	.06	2.23**
Step 2c: Alignment	.18	.03	.01	3.71*
		Composite Criterion		
Step 1: Controls	.23	.05	--	--
Step 2a: Emphasis	.27	.07	.02	4.20**
Step 2b: Quality	.53	.28	.23	11.57***
Step 2c: Alignment	.46	.21	.16	44.13***

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

Table 15. Hierarchical Regression Results for All Criteria

	Criteria					
Variables	OE	CS	T	EM	OP	CC
Step 1: Controls						
R	.22	.30	.23	.09	.13	.23
R^2	.05	.09	.05	.01	.02	.05
ΔR^2	--	--	--	--	--	--
F for ΔR^2	--	--	--	--	--	--
Step 2: Emphasis						
R	.28	.32	.25	.14	.13	.27
R^2	.07	.10	.06	.02	.02	.07
ΔR^2	.02	.01	.01	.01	.00	.02
F for ΔR^2	4.31**	2.56	1.07	2.40	.02	4.20**
Step 3: Quality						
R	.32	.40	.33	.70	.28	.53
R^2	.10	.16	.11	.49	.08	.28
ΔR^2	.03	.06	.05	.47	.06	.21
F for ΔR^2	.60	2.51**	.96	33.12***	2.45**	10.64***
Step 4: Alignment						
R	.51	.44	.34	.72	.29	.61
R^2	.26	.19	.11	.52	.09	.37
ΔR^2	.16	.03	.00	.03	.01	.09
F for ΔR^2	27.69***	8.09***	.89	12.44***	1.14	28.87***

Note. OE = Overall evaluation; CS= Customer service reputation; T = Turnover; EM = Employee Morale; OP = Objective productivity; CC = Composite criterion.
* $p < .10$. ** $p < .05$. *** $p < .01$.

objective productivity; and the composite criterion. When quality was operationalized as a single composite scale results were similar. At the $p < .01$ level composite quality accounted for unique variance for two indicators of organizational effectiveness, employee morale and objective productivity, as well as for the composite criterion. Hypothesis 3 is fairly strongly supported.

Hypothesis 4. Hypothesis 4 states that quality moderates the emphasis-organizational effectiveness relationships. No significant moderator relationships were found after including the interaction terms in the regression equations. These results are not presented. Hypothesis 4 is not supported.

Hypothesis 5. The fifth hypothesis predicts that alignment is associated with organizational effectiveness. Results from multiple regression analyses are shown in Table 14. They indicate that after controlling for the control variables, alignment was linked to four indicators of organizational effectiveness; overall evaluation, customer service reputation, employee morale, and objective productivity; along with the composite criterion. Strong support was found for hypothesis 5.

Hypothesis 6. Hypothesis 6 argues that alignment adds uniquely to emphasis and quality in predicting organizational effectiveness. Table 15 contains the results of hierarchical multiple regression analyses. These analyses show that after entering the control variables in step 1, emphasis in step 2, and quality in step 3, alignment (step 4) significantly increased predictive validity for three indicators of

organizational effectiveness; overall evaluation, customer service reputation, employee morale; and the composite criterion. Hypothesis 6 is well supported.

Hypothesis 7. The seventh hypothesis posits that alignment moderates the emphasis-organizational effectiveness relationships. There was no moderation and the results are not presented. There is no support for Hypothesis 7.

Hypothesis 8. Hypothesis 8 states that quality-organizational effectiveness relationships are moderated by alignment. No significant moderator relationships were found after including the interaction terms in the regression equations. These results are not presented. Hypothesis 8 is not supported.

Stepwise regression analysis was used to examine the exploratory research question.

Research question. The research question focused on the efficacy of the different human resource practices in predicting organizational effectiveness. Stepwise regression results are presented in Table 16. The findings show that one or two human resource practices accounted for most of the variance for each indicator of organizational effectiveness. Specifically, significant prediction was as follows: training for overall evaluation, compensation for customer service reputation, job design for employee morale, compensation for objective productivity, and job design and compensation for the composite criterion.

Table 16. Stepwise Regression Results for Indicators of Organizational Effectiveness

Variable		R	R^2	ΔR^2	F for ΔR^2
		Overall Evaluation			
Step 1:	Controls	.22	.05	--	--
Step 2:	Training	.28	.08	.03	4.67**
		Customer Service Reputation			
Step 1:	Controls	.30	.09	--	--
Step 2:	Compensation	.35	.12	.03	8.28***
		Turnover			
Step 1:	Controls	.23	.05	--	--
Step 2:	No variables entered	--	--	--	--
		Employee Morale			
Step 1:	Controls	.09	.01	--	--
Step 2:	Job design	.69	.48	.47	197.83***
		Objective Productivity			
Step 1:	Controls	.13	.02	--	--
Step 2:	Compensation	.21	.05	.03	6.44**
		Composite Criterion			
Step 1:	Controls	.23	.05	--	--
Step 2:	Job design	.50	.25	.19	55.41***
Step 3:	Compensation	.53	.29	.04	11.81***

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

Summary

In summary, these results clearly show the importance of human resource practices (i.e., recruitment, selection, performance appraisal, training, compensation, and job design) in general, and how they are implemented and managed in particular, in organizational effectiveness (i.e., overall evaluation, customer service reputation, turnover, employee morale, objective productivity, and a composite criterion). The emphasis organizations place on their human resource practices was linked to overall evaluation and the composite criterion. In addition, even after accounting for the control variables and the emphasis perspective, the quality with which human resource practices are implemented and managed was related to customer service reputation, employee morale, objective productivity, and the composite criterion. Furthermore, the degree of alignment between human resource practices and organizational mission was associated with overall evaluation, customer service reputation, employee morale, and the composite criterion, even when the control variables and the emphasis and quality perspectives were controlled for. Depending on the criterion, the most predictive specific human resource practices were training, compensation, and job design. No moderating relationships were uncovered. Table 17 summarizes the support received by each hypothesis and the findings relevant to the research question.

Table 17. Results for Hypotheses and Research Question

Number	Hypothesis or Research Question	Result
1	The level of emphasis organizations place on their human resource practices will be positively associated with organizational effectiveness.	Partially Supported
2	The level of quality of organizations' human resource practices will be positively associated with organizational effectiveness.	Supported
3	The level of quality of organizations' human resource practices will add uniquely to the emphasis organizations place on their human resource practices in predicting organizational effectiveness.	Supported
4	The higher the level of quality of organizations' human resource practices, the stronger the relationships will be between emphasis and organizational effectiveness.	Not Supported
5	The degree of alignment between organizations' human resource practices and their mission will be positively associated with organizational effectiveness.	Strongly Supported
6	The degree of alignment between organizations' human resource practices and their mission will add uniquely to the emphasis organizations place on their human resource practices and the quality of their human resource practices in predicting organizational effectiveness.	Supported
7	The closer the alignment between organizations' human resource practices and their mission, the stronger the relationships will be between emphasis and organizational effectiveness.	Not Supported
8	The closer the alignment between organizations' human resource practices and their mission, the stronger the relationships will be between quality and organizational effectiveness.	Not Supported

Table 17 (continued)

Number	Hypothesis or Research Question	Result
Research Question		
	Which human resource practice best predicts organizational effectiveness?	Training, Compensation, and Job Design

CHAPTER IV

DISCUSSION

Contributions to Current Knowledge

The findings of this study are very encouraging for industrial and organizational psychologists and human resource practitioners. This study provides substantial evidence endorsing the sometimes questioned notion that human resource practices make a difference in organizations. This support is especially noteworthy because the study is one of the few to focus directly on an organizational level of analysis. Furthermore, the findings suggest that the manner in which human resource practices are implemented and managed is important. Previous research and theory are (a) supported by results from the emphasis perspective, (b) significantly expanded by the findings of the quality perspective, and (c) tested by analyses falling within the realm of the alignment perspective.

To begin with, this research supports the contention that an emphasis on human resource practices, in the aggregate, is associated with organizational effectiveness. Emphasis on human resource practices was linked to overall evaluation and the composite criterion. In line with earlier studies, the emphasis perspective employed a molar operationalization of human resource practices. In other words, human resource practices were assessed as an aggregate and the focus

was on their pervasiveness or emphasis received in the organization. Only a handful of researchers have pursued the arduous task of studying human resource practice-criteria relationships at the organizational level of analysis. Those that have undertaken this tact generally have found supportive results (e.g., Delery & Doty, 1996; Huselid, 1995, Katz et al., 1985). For example, Huselid found support for the association between the existence of High Performance Work Practices and turnover, productivity, and financial performance.

Although overall the results were quite positive, the least supportive outcomes were associated with the emphasis perspective. Three factors may explain the difference between the somewhat modest support for an emphasis on human resource practices found in this study and the stronger support tendered in related research. First, the criteria used across studies have not been consistent. To illustrate, Huselid (1995) used financial criteria, Arthur (1994) focused on productivity and scrap rates, and Delery and Doty (1996) employed economic performance indicators. These criteria were not appropriate for the present sample and other more salient and indigenous criteria such as productivity, customer service reputation, employee morale, and overall evaluation by a member of the dominant coalition were utilized. Second, the assessment of human resource practices has varied from study to study. No standardized measure of human resource practices is available (Becker & Gerhart, 1996; Delaney & Huselid, 1996). Third, vastly different industries have been studied. Delery and Doty looked at the banking

industry, Arthur examined steel minimills, and this study focused on college admission offices. It is plausible that relationships may truly vary from industry to industry.

The quality perspective espoused in the present study expands extant research in two ways--empirically and conceptually. Results tender significant support for the importance of the quality of human resource practices as a set in organizational effectiveness. Quality predicted customer service reputation, employee morale, objective productivity, and the composite criterion, even after accounting for the emphasis placed on human resource practices.

The quality perspective empirically expands current knowledge by extrapolating individual-level research on human resource practices to the organizational level. Human resource practice techniques that have been effective in individual-level research, when taken together, were significantly associated with numerous organization-level criteria of effectiveness. This organization-level association is intuitively appealing and logical given the immense evidence for the efficacy of human resource practices at the individual level of analysis.

Empirical results from the quality perspective were less straightforward when human resource practices were tested individually. Each criterion, except turnover, was predicted, but only one or two of the six human resource practices was required for each. Training predicted overall evaluation; compensation predicted

customer service reputation, objective productivity, and the composite criterion; and job design predicted employee morale and the composite criterion.

One explanation for why all of the human resource practices did not predict each criterion is redundancy. In other words, not all of the human resource practices were necessary to explain the changes measured in the outcome variables. Relatedly, although there was sufficient differentiation among the six human resource practices (mean absolute value for intercorrelations among the six human resource practices = .19), a few relationships exhibited some partial multicollinearity. For example, training and performance appraisal correlated .48 with each other (the largest of the correlations). Thus, these findings argue that some human resource practices are stronger predictors than others for a given outcome and that relationships generally are driven by something less than the full set of practices considered in this study. Delaney and Huselid (1996) found fluctuation in the contribution of various human resource practices in their study. They address this issue by suggesting that analyzing only one human resource practice at a time can overestimate its contribution to organizational performance whereas studying multiple human resource practices simultaneously may underestimate the efficacy of each practice.

A less palatable explanation for the lack of relationship between some individual human resource practices and criteria is that these relationships truly do not exist. Thousands of studies have examined and successfully tweaked single human resource practices and individual-level criteria. For example, in selection, a

ubiquitous goal is to increase validity, and researchers have been successful in identifying predictors such as cognitive ability and conscientiousness that characterize better performing individuals. Similarly, the training literature has been successful in delineating how to promote individual performance. However, micro-level outcomes so prevalent for the six human resource practices considered in this study may not necessarily be paralleled by macro-level outcomes. In other words, changes in individuals do not always cause similar changes in organizations.

The quality perspective expands the literature conceptually by outlining 19 techniques which characterize effective implementation and management of the six human resource practices (see Table 4). These techniques, identified after extensive review of past research, serve as an initial starting point from which standards of excellence can be developed in order to judge organizational human resource practices. Although the techniques functioned well in the present study, it is probable that they may need to be refined and further developed in future studies.

Finally, this study tested the primarily theoretical literature concerning the value of strategic alignment between human resources practices and organizational mission. Strong support was found for the alignment perspective. Alignment was related to overall evaluation, customer service reputation, employee morale, and the composite criterion, even when the emphasis on, and quality of, human resource practices were controlled for.

Results from previous research have been equivocal in uncovering relationships between the strategic alignment of human resource practices and outcomes (Becker & Gerhart, 1996). For example, the study by Wright et al. (1995) showed the importance of matching human resources and strategies to maximize organizational performance. Conversely, Huselid (1995) found little support for the value of aligning human resource practices with organizational strategy.

One possible explanation for the lack of success of some prior studies could be the inadequate development of methods to determine alignment (Becker & Gerhart, 1996). For example, in their discussion of configurations and fit among human resource practices and organizational strategy, Delaney and Huselid (1996) state, "The notion of complementarities is intuitively appealing, but is not easily measured." (p. 952). Consequently, in this study key informants were simply asked to rate the level of alignment between their human resource practices and the organization's mission. The positive results in this study concerning alignment may be due to the straightforward manner in which alignment was operationalized.

Two additional points merit discussion regarding the present study's contribution to current literature. First, no moderated relationships were found. This is consistent with the results found in related studies which also have had modest success exposing significant interactions (e.g., Delery and Doty,1996; Huselid, 1995). Theory concerning fit between human resource practices and organizational mission is still underdeveloped, as is the thinking regarding configurations among various

human resource practices. Thus, hypotheses centering on moderated relationships (i.e., hypotheses 4, 7, and 8) must be considered exploratory.

Second, it is interesting to review the results from the perspective of the criteria. Overall evaluation, customer service reputation, employee morale, and objective productivity were always predicted by at least one perspective, but never by all three. Each of these criteria provided a valuable and different vantage point from which to assess organizational effectiveness. In other words, the data for each came from a different source and each illustrated a unique and salient aspect of organizational effectiveness. Overall evaluation was characterized by the subjective evaluation of individuals holding influential roles relative to the organization. Customer service reputation indicated peer views of perhaps the key criterion for this service oriented sample, customer service. Employee morale consisted of employee job satisfaction, another critical and popular measure of organizational effectiveness. Objective productivity, obtained from a fourth type of source, archival records, complements employee morale as an objective indicator of organizational performance.

Interestingly, no significant relationships were found for turnover. However, in the present sample turnover was high (20 percent). The field of college admission offers excellent training for other types of work and quite often good employees leave after two or three years to pursue other opportunities. In fact, the organizational culture is such that many of the more successful organizations view

themselves as a training ground for other types of work for many employees. Thus, in retrospect it appears that the sample used in this study was not amenable to turnover as a criterion. In other samples turnover may be a viable criterion and turnover should continue to be included in future research.

The composite criterion, the broadest measure of organizational effectiveness, was predicted by all three perspectives. And, many of the linkages were very strong. Findings from the composite criterion provide a strong argument for the powerful role human resource practices play in organizational effectiveness.

Limitations

Three limitations are present in the study. First, even though a single-industry sample such as that used in this research alleviates many significant research problems (Becker & Gerhart, 1996), it creates a new problem of generalizability. College admission offices are service type organizations, supporting a generalization of the results to other service oriented firms. However, this may be tempered somewhat by the fact that the sample was drawn from a unique industry, 4-year post-secondary educational institutions. Thus, the results should be cautiously transported to non-service sectors of society.

A second limitation is that common method error variance could not be avoided in one pair of relationships. In order to adhere to the theoretical outline of the study, data for employee morale and job characteristics had to be provided by the

same key informant source, the professional employees. Consequently, analyses involving these two variables reflect a common source. This is evident in Table 15, for example. The multiple R for the employee morale (EM) criterion is quite large (.70) when human resource practices are entered into the equation in Step 3. This step contains the job characteristics human resource practice. Although the use of a common source (i.e., professional employees) probably inflates this relationship, it is fair to assume that it would remain strong even if this error variance could be partialled out. This is because many relationships void of this limitation still exhibit statistical significance and substantial multiple R values (e.g., the multiple R for customer service reputation in the same step of the same equation is .40, $p < .05$).

Third, the relationship between human resource practices and organizational effectiveness may be recursive in some instances. That is to say, human resource practices may lead to organizational effectiveness which can than lead to better human resource practices. (Effective organizations usually have more capital with which to fund human resource practices.) The direction of interest in this study is human resource practices to organizational effectiveness. However, due to the possible recursive nature of some relationships, it is difficult to distinguish this direction from it mirror image, the organizational effectiveness to human resource practice direction.

In spite of this caution, it can be argued that for at least some of the relationships examined in this study, the predictor did precede the criterion. For

example, it is unlikely that customer service reputation, as stated by peers, leads to effective human resource practices; it is much more logical to assume that effective human resource practices influence peer evaluations of customer service. Similarly, it is more sensible to believe that human resource practices are instrumental in objective productivity as measured by data gathered from archival sources than to assume the converse.

Implications for Research and Practice

Beyond the actual results of the study, five broader issues regarding research and practice are evident. The first concerns the paucity of organization-level research on human resource practices. Other than the five or six articles cited in this study, few have looked directly at the linkages between human resource practices and organizational criteria using an organizational level of analysis. There is a need to substantiate the efficacy of human resource practices as a value-creating "numerator" factor that influences organizational functioning (Becker & Gerhart, 1996).

Second, when conducting organization-level studies, researchers must contend with three critical concerns. The first has to do with the type of population selected. Should the study focus on one industry or traverse a mix of industries? A single-industry study offers much greater control over extraneous industry effects and homogenizes the criteria, making measurement more reliable and consistent. A cross-industry study will have more generalizability, but requires many more post hoc

controls to account for irrelevant factors. Second, the researcher must also consider who to use as informants. This is a critical issue since phenomenological perceptions can influence responses. One way to alleviate this problem is to rely on factually based questions that limit subjective perceptions. In addition, since measures pertaining to human resource practices do not concern the informant personally, as is the case with personality measures, the degree of distortion should be reduced. The third issue indigenous to organization-level research, aggregation, segues from the second. In other words, it is important to gather data from more than one informant, if possible, in order to further alleviate possible response biases. Many tests of interrater reliability and agreement are available and these can offer a means of assessing responses from various informants from within and/or outside the organization (e.g., customers).

Third, there needs to be an improved understanding of the relationship between micro- and macro-level research. For example, utility analysis illustrates the problems that can occur when trying to integrate individual-level research with organization-level conclusions. Utility analysis formulas typically calculate standard deviations of individual performance. Gains from effective selection, training, or other human resource practice are computed and these gains are aggregated across individuals and over time (e.g., Schmidt et al., 1979; Schmidt et al., 1986). These formulas can result in surprisingly large dollar amounts which are generally assumed to be equal to the amount of money gained by the organization. However, as Harris

(1994) has argued, there is often a loss when translating individual increases in performance to organizational productivity. It is probable that there is not always an isomorphic one-to-one relationship between individual-level and organization-level results (House et al., 1995). It may be more appropriate to develop an organization-level utility analysis formula that looks directly at changes in corporate financial outcomes following a human resource practice intervention. Given the persistent problems estimating SD_y in traditional utility analysis, with some refinement, an organizationally oriented utility analysis method may serve as a better assessment of organizational changes resulting from human resource interventions.

The fourth broad issue has to do with the criteria used in organizational research. Because of the diverse array of criteria used in this study, it serves as an example of the different conclusions that can result, based on the criterion considered. For example, if the study looked only at subjective evaluations, emphasis and alignment would appear to be important factors and the quality of human resource practices would be (incorrectly) interpreted as a fairly unimportant variable in organizational productivity. If turnover were the only outcome variable, human resource practices would show no link to organizational effectiveness. In sum, it is important to consider multiple criteria of effectiveness if greater understanding the goal. For a more applied perspective, a composite criterion is useful in order to provide information about the overall value of human resource practices and aid decision making (Schmidt & Kaplan, 1971).

Finally, this study calls attention to the critical importance of quality and alignment in studies concentrating on human resource practices and organizational effectiveness. So far, this young literature is characterized by studies falling within the purview of the emphasis perspective. However, as the field matures, organization-level studies will need to assess human resource practices in a variety of ways, as do the quality and alignment perspectives described in this study.

Conclusion

This organization-level field study examined the linkages between human resource practices and organizational effectiveness from three perspectives. Six core human resource practices were delineated: recruitment, selection, performance appraisal, training, compensation, and job design. Organizational effectiveness was comprehensively operationalized as overall evaluation, customer service reputation, turnover, employee morale, objective productivity, and a composite criterion. Spurious industry effects were minimized by drawing the sample from a single industry. In addition, the research design was characterized by the use of multiple strategically-selected key informants from different positions in each organization. Tests of interrater agreement suggested that the reliability of responses was high.

Emphasis, the first perspective, paralleled existing research by examining the extent to which the prevalence of, or emphasis on, human resource practices as a

whole and organizational effectiveness are linked. Results supported the value of emphasizing human resource practices.

The second perspective focused on the relationships between quality and organizational effectiveness. A conceptual framework was established by identifying 19 human resource practice techniques shown to be effective at the individual level of analysis. Quality was determined by the degree to which an organization achieved these standards of excellence. Results clearly support the contention that emphasis is not enough. Human resource practice quality also is a very important factor in enhancing the effectiveness of organizations.

Alignment, the third perspective, tested the efficacy of aligning human resource practices and organizational mission. Findings strongly support the view that in addition to emphasis and quality, an integration between human resource practices and the mission of the organization is quite useful in promoting organizational effectiveness.

In conclusion, the basic finding of this study is that human resource practices are very valuable and efficacious functions in organizations. In other words, successful organizations most definitely are characterized by strong human resource practice systems. Such systems not only emphasize human resource practices, but go beyond emphasis to ensure that those practices are conducted in a quality manner and are aligned with the mission of the organization. Researchers and practitioners should be encouraged by such supportive findings as they seek to

substantiate the utility of human resource practices and consider how to improve their implementation and management.

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VITA

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