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Keywords

HR practices, customer satisfaction, business, employee, service, job, management, practices

Disciplines

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WORKING PAPER SERIES

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Working Paper 02 - 09



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This paper has not undergone formal review or approval of the faculty of the ILR School. It is intended to make results of Center research available to others interested in preliminary form to encourage discussion and suggestions.

Abstract

This research examined organizational commitment and customer focus as mediators between HR practices and customer satisfaction of seventy-one work units from twenty-five business units from a single firm in the food service industry. Customer satisfaction was assessed by ratings from multiple customers eighteen months after HR practices and process mechanisms were assessed from unique groups of employee respondents. Results suggest that employee commitment and customer focus partially mediate the relationship between HR practices and customer satisfaction.

High Performance HR Practices And Customer Satisfaction: Employee Process Mechanisms

In the modern service economy, customer satisfaction is a key factor contributing to organizational success. The collective attitudes and behaviors of the workforce in a service organization have great potential to impact customer satisfaction because of the direct contact these workers have with customers. By managing the boundary between the customer and the firm, employees in service providing jobs influence competitive advantage by shaping customer loyalty and buying behavior (Heskett, Sasser, & Schlesinger, 1997). Thus it is critical to understand what management practices contribute to the creation of positive service interactions between employees and customers. Human resource practices have been found to relate positively to firm performance in recent studies (e.g. Huselid, 1995). However, we do not yet understand the mechanisms through which these practices may influence performance. Further, much of this research has been conducted in manufacturing, not service, settings and we do not yet know the processes that may connect HR practices and customer satisfaction (Batt, 1999, in press). The goal of the current study is to open this black box by proposing the importance of group commitment and customer focus as key mediating factors for service success.

Interest in strategic human resource management (SHRM) has heightened as a result of a number of studies that found a relationship between HR systems variously labeled “high performance,” “commitment,” or “involvement” models and firm financial performance (e.g. Arthur, 1994; Huselid, 1995; MacDuffie, 1995; Ichniowski et. al, 1997). High performance HR systems are characterized by rigorous selection, investment in training, work designed so that employees have opportunities for participation and decision making, and rewards structures designed to recognize high performers and promote from within (Delery & Doty, 1996; Huselid, 1995; Macduffie, 1995). The underlying rationale of this stream research is that these are the “best practices” that impact firm performance by enhancing the skill, motivation, and

empowerment of the workforce (Delery, 1998; Delery, Gupta, & Shaw, 1998; Huselid & Becker, 1996). In the last decade a number of studies have documented a positive relationship between a firm's use of these sets of HR practices and firm level performance outcomes (e.g. Arthur, 1994; Huselid, 1995; MacDuffie, 1995; Ichniowski et. al, 1997). In the following section we discuss why customer satisfaction is also a likely important outcome of such management practices.

HR Practices and Customer Satisfaction

Prior empirical evidence of a relationship between HR practices and firm performance is based almost entirely on correlational studies in manufacturing firms (e.g. Arthur, 1992; MacDuffie, 1995; Ichniowski et al, 1997; Snell & Dean, 1992; Youndt, Snell, Dean, & Lepak, 1996). Most of this research has been at the corporate level of analysis, primarily because of the easier access to financial performance data (Rogers & Wright, 1998). A few studies have looked at plant level outcomes and also found a positive relationship with "high involvement work practices" and business unit level outcomes (e.g. MacDuffie, 1995; Youndt et al., 1996). These studies have a measurement advantage over corporate level studies because they are able to measure HR practices most specifically and accurately (Delery, 1998). However, more attention to service firms and customer satisfaction, a key performance outcome, is warranted because services are a rapidly expanding part of the new economy employing growing numbers of employees. Customer reports of service quality are not only an important outcome to assess because of the growing service economy, but also because they represent a measure of performance that is largely under employee control. Because of their proximity to customers, employees in service firms are better able to influence customer satisfaction than other firm level outcomes such as financial performance measures that can be largely influenced by factors beyond the power of most employees.

Although business unit level studies have advantages of more accurate measures of HR practices and more proximal outcomes than firm level studies, there have also been some methodological limitations at this level of analysis in prior research. Prior work has most often

assessed HR practices through asking an HR manager to report on the extent to which HR practices are used within their establishment. Business units have multiple jobs, which are likely to have variation in their HR practices. HR managers may have trouble reporting on the HR practices of multiple jobs at multiple locations (Wright & Gardner, in press). The use of multiple employee respondents also has higher reliability than the use of single informants (Wright et al, 2002). For these reasons, we believe that job incumbents themselves best report their HR practices. Customer satisfaction with the service quality can be assessed from the quality of service provided by these core jobs that have customer contact.

Although little research on service quality outcomes of management practices has been done, a key study by Schneider and Bowen (1985) found significant correlations between HR practices and customer reports of service quality in a sample of banks.

Hypothesis 1: High performance HR practices will be positively related to customer satisfaction.

HR Practices and Employee Commitment

Although promising, research on HR systems has been criticized by numerous authors for its lack of theoretical and empirical work specifying the mediating processes by which HR practices lead to firm outcomes (Delery 1998; Dyer & Reeves 1995; McMahan, Virick, & Wright, 1999). One promising potential mediating mechanism through which HR practices may influence outcomes such as customer satisfaction is through fostering organizational commitment in its workforce. Organizational commitment represents an individual's identification and involvement with an organization (Porter, Steers, Mowday, & Boulin, 1974).

A large body of literature supports the notion that the work practices of an organization influence individual employee's feelings of commitment to an organization. Among these practices are those that involve open communication, organizational investments in individual employee's training, decision-making and participation, promotion opportunities, and the use of performance contingent rewards (Konovski & Cropanzo, 1991; Meyer & Allen, 1997). Social exchange theory suggests that these management practices cause employees to feel the

organization is investing in them and elicits the “norm of reciprocity” which motivates employees to feel positively about the organization and want to do what is good for the organization (Blau, 1964; Gouldner, 1960). Indeed, Eisenberger, Huntington, Hutchinson, & Sowa (1986) and others find that an individual’s perceptions of organizational support is associated with variables such as promotions, organizational tenure, developmental experiences, pay, job enrichment, and influence over organizational policies (Brinberg & Castell, 1982; Eisenberg et al., 1986; Settoon, Bennett, & Liden, 1996; Wayne, Shore, & Liden, 1997). The antecedents of perceived organizational support stem from an organization’s systems of human resource practices, such as investment in training, incentives, and participative work design. Workers subject to these types of HR practices should thus share feelings of organizational commitment.

However, all prior work on the relationship between HR practices and commitment studies measured work practices and commitment perceptions at the individual level. This work as well as research on perceptions of organizational support and employee attitudes all suffer from percept-percept bias, as workplace practices and experiences are measured by an individual’s perceptions and then shown to be associated with their attitudes. This study will measure work place practices and commitment at the individual level and then aggregate to the work unit level. We will also use separate respondent groups within a work unit to report on HR practices and employee process mechanisms. Feelings of commitment are expected to be shared within organizational units subjected to the same policies, practices, and procedures. This is the case because the stimuli being experienced by the members of the unit are assumed to be constant across individuals (Ostroff & Bowen, 2000). Consistent with this reasoning, researchers of HR systems have also advocated focusing on the management practices measured for particular organizational populations (Delery, 1998). High performance HR systems should lead to the development of a climate signaling that the organization is supportive of its employees, treats them fairly, and enhances their sense of personal importance and thus lead to group commitment.

Hypothesis 2. Higher levels of high performance HR practices will be positively related to organizational commitment

Organizational Commitment and Employee Customer Focus

Organizational commitment is theorized to have a direct effect on performance through the shaping of both employee in-role and extra-role behavior (Schuler & Jackson, 1987). When organizational commitment is high, it means that an employee's values are aligned with the organization and that she or he wants to do what is best for the organization (Mowday, Porter, & Steers, 1982). In a service driven organization, in-role value alignment can be expected to be manifest as employee behavior oriented toward fulfilling customer needs.

Organizational commitment has further been shown to have a consistent relationship with organizational citizenship behavior (OCB), or behavior that is above and beyond the call of duty (Smith, Organ, & Near, 1983). OCB's have been previously conceived of as extra-role behaviors involving helping fellow co-workers. These types of behaviors include helping others, spreading goodwill, and making constructive suggestions. However, extra-role behaviors may also likely be helpful behavior directed at customers. Service workers must manage relationships both with coworkers as well as those with customers. The "norm of reciprocity" elicited by high performance HR practices may well motivate employees to feel positively about the organization and want to do what is good for the organization by eliciting customer focused helping behavior (cf. Blau, 1964; Gouldner, 1960). Customer focused discretionary behaviors can include the helpful management of product and service delivery factors to customers, such as manipulating the timing and presentation of products and services, imparting a helpful and friendly demeanor with customers, and transferring information between the customer and the organization (Rafaeli, 1989; Suprenant & Solomon, 1987; Weatherly & Tansik, 1992).

Hypothesis 3: Organizational commitment will be positively related to customer focus.

Customer Focus and Customer Satisfaction

Employees in service contexts who are customer focused may play a large role in promoting customer satisfaction. Core employees in service organizations have direct contact with customers and/or a direct impact on the quality of a product or service provided. Customer focused in-role as well as extra-role customer focused helping behaviors stemming from value alignment may have a significant impact on the quality of service customers receive (Schneider & Bowen, 1985).

Although a meta-analysis has found mixed evidence for the relationship between commitment and performance (Mathieu & Zajac, 1990), research also suggests that the level of control an employee has over a particular outcome determines the degree to which performance can be influenced by commitment and its resultant behaviors (Meyer & Allen, 1997). Employees in service roles have direct contact with customers and thus have an ability to make an impact on customer perceptions of service quality based on this proximity. Employee in-role as well as extra-role customer focused behaviors stemming from value alignment are likely to have a significant impact on their overall effectiveness in promoting customer satisfaction.

All of the previous research cited above has been conducted at the individual level of analysis. When these attitudes and behaviors are shared and aggregated, theoretically they should shape group level outcomes of customer satisfaction. We expect that the collective level of customer focus within a work unit will result in customer satisfaction with the service provided by that work unit.

Hypothesis 4. Work unit customer focus will be positively related to customer satisfaction

Commitment and Customer Focus as Process Mechanisms

Given the above discussed theoretical relationships, we expect the employee process mechanisms of work unit commitment and customer focus to mediate the relationship between HR practices and customer satisfaction. Some supportive evidence that attitudes should

mediate the relationship between HR practices and customer satisfaction has been suggested by previous research on attitudes and customer satisfaction. Job satisfaction has been found to predict employee perceptions of service quality (Schlesinger & Zornitsky, 1991). Schmit and Allscheid (1995) found that employees' climate perceptions of management, supervisor, monetary and service support were related to employee affect. These climate perceptions should be shaped by high performance HR practices. Further, these researchers found that affect was related to employee service intentions, which was related to customer service.

Work by Schneider and colleagues on service climate also suggests, employee perceptions of their work environment influence the quality of service they provide (Schneider, 1990; Schneider & Bowen 1985). These researchers define climate for service as employee perceptions of the practices, procedures, and behaviors that get rewarded, supported, and expected with regard to customer service and service quality (Schneider, White, & Paul, 1998). Schneider, White, & Paul (1998) found that employee perceptions of contextual factors that sustain and support work behavior, such as having the necessary managerial support, training and resources were related to perceptions of service climate. Service climate was significantly related to service practices of customer orientation, and customer feedback.

A recent study by Rogg, Schmidt, Shull, & Schmitt (2001) is the first to actually examine the relationship between HR practices and service climate. These researchers found that climate mediated the relationship between HR practices and customer satisfaction in a sample of auto dealerships. Although this study is suggestive of a relationship, methodological limitations preclude inferences of causality that can be made. Managers from the dealerships reported on both the HR practices and the climate, so percept-percept bias cannot be ruled out. These managers reported on the existence of high performance HR practices within the dealership as a whole, without differentiating among job groups. Further, customer satisfaction was measured from archival data, collected either contemporaneously or prior to the survey administration. In this study we seek to build on this work with improved methodological rigor in order to strengthen inferences of causality.

Thus, theory and research support the proposition that employee attitudes are linked to customer satisfaction, and that HR practices are a critical influence on employee attitudes. Although conceptual work in SHRM suggests commitment as a mediator between high performance work systems and performance outcomes such as customer satisfaction, empirical work has yet to rigorously test it. The following mediation hypothesis is thus proposed.

Hypothesis 5: Organizational commitment and customer focus behavior will mediate the relationship between HR practices and customer satisfaction.

METHOD

Sample

This study was part of a larger research program on strategic human resource management. Our sample is unique in that it consists of autonomous business units within one large food service distributing company. All business units are free to develop their own systems of HR practices with little or no direction from corporate headquarters, and much variation across establishments exists.

SHRM researchers have advocated a move down from the firm to the establishment level in order to better capture the nature of HR practices and performance relationship (Delery & Doty, 1996; Wright & Sherman, 1999). Focusing on the HRM practices measured for the core workforce on multiple jobs has also been advocated to enhance measurement reliability and precision (Delery, 1998). In this study we utilize a sample of three core job categories within a sample of autonomous business units at the establishment level: Sales Associates, Warehouse Representatives, and Drivers. These core jobs were identified by the organization as having the greatest influence on customer experience of product and service quality. These three job groups are the core groups whose work directly touches the customer in unique ways. The Sales Associates have direct contact with the customer when the customers make food or kitchen supply orders. The Sales Associates also offer customers menu planning expertise and can keep their clients abreast on current and upcoming product sales. Drivers also have direct contact with clients as they are the ones who deliver ordered goods. Drivers have the ability to

structure their routes as they see fit and control the time frame of the food delivery. Drivers must also secure the clients signature that all ordered goods have been delivered. Warehouse associates are dedicated to particular clients and load the produce and other food products on to the trucks for delivery. It is their job to ensure that defective or spoiled food is not delivered and that all items ordered are loaded into the trucks for delivery. The unit of analysis in the current study is the job group in each organization, hereafter referred to as work units. Each establishment specific work unit represents a collection of individuals who are similar to one another but different from the other job groups in the same establishment and from the same job groups in different establishments. Scholars have argued that organizations should and do treat occupational groups differently with regard to human resource management practices (Lepak & Snell, 1999; Jackson, Schuler, & Rivero, 1989). In fact, we found significant mean differences in HR practices both across business units and across jobs.

Procedure

Business-unit human resource managers were instructed by the corporate office to randomly select 20% or more of the employees from each job group. For the larger study we had a business unit participation rate of 54%. Employees took surveys on company time and the response rate for employees in these groups was 100%. To avoid the risk of percept-percept bias, a randomly chosen half of the responding employees surveyed within each job category was used as respondents for the measure of existence of HR practices, and the remaining half was used to report organizational commitment and customer focus. Only responses that contained at least six respondents per job category were retained in order to ensure inter-rater reliability.

Approximately one year after the employee survey was administered, the company sales department mailed all customers of each business unit a customer satisfaction survey. Of the 33 companies that participated in the HR practice survey, 25 chose to participate in the customer satisfaction survey. The 25 that chose to participate did not differ from the 8 that did

not in terms of commitment, customer focus, or HR practices. There were 1355 customers providing information on the service of the 25 participating work units (average of 54 customers per business unit). Customers of each business unit were asked to report on several service quality items for service performed by each core work unit within that business unit. The response rate for the customer satisfaction survey was 40%.

Customer satisfaction surveys were matched to core job groups having at least six employee respondents, leading to a final sample size of 71 work units (the unit of analysis) based on a sample of 1600 employees across 25 business units. In the final sample, the mean number of respondents per work unit was 23, with a range from 6 to 64.

Measures

HR Practices. Although there is considerable variation in what HR practices are measured in previous studies of the HR-firm performance relationship, they all include some measure of careful selection, employee involvement, training, internal promotion, and performance based pay (Dyer & Reeves, 1985). Consistent with previous research, we used an additive index of these HR practices (e.g. MacDuffie, 1995, Youndt, Snell, & Lepak, 1996).

Employee respondents in each work unit are asked whether or not eight specific HR practices exist for their job category (1=yes, 2=no, 3=I don't know). See Table 1 for the complete listing of the HR practice items used in this study. Sample items include: "Applicants for this job take formal tests (paper and pencil or work sample) before being hired" (selection), and "Pay raises for employees in this job are based on job performance" (compensation).

One training item was originally written in a different response format than the rest of the HR practice items. This item was "On average, how many hours of formal training do employees in this job receive each year?" This item was re-coded to comply with the yes/no dichotomous response format of the other practice items. If the number of training hours entered is equal to or greater than 24, that response was be coded as "1"=yes. Hours below 24

were coded as “0”=no, as such low levels arguably do not represent significant investment in employee training.¹

One communication practice item was also re-coded to a dichotomous response format (See Table 1). This item was written in Likert scale formats asking about the frequency of communication about company goals (1=Never, 6=Daily). Responses of “quarterly” or more frequently were coded as “1”=yes. Responses of “annually” and “never” were coded as “0”=no as these do not represent significant investments in communication. All HR practice items were summed into an aggregate index and then aggregated by job group (average ICC(1)=.22, ICC(2)=.68).

Organizational Commitment. Five items were used from two different organizational commitment scales (Meyer & Allen, 1997; Porter et al, 1974). Sample items include “I feel a strong sense of belonging to this organization”, “I am willing to work harder than I have to help this company succeed”, and “I am proud to be working for this company.” Items were summed to create one index and were aggregated to the work unit level ($\alpha = .86$, ICC(1)=.31, ICC(2)=.84).

Customer Focus. Four items were written to represent customer focus. These items are “I work to constantly improve our products and services”, “I know what is important to our customers”, “I am committed to doing quality work and providing quality service” and “I frequently gather information on customers and share it with other members of this company.”

To investigate whether customer focus is a unique construct that can be differentiated from commitment, we conducted a CFA of the nine commitments and customer focus using group level scores. The two factors were permitted to co-vary, but the error terms of the indicators were not. The goodness of fit indices show that the two-factor model fit the data well ($\chi^2 = 324.20$, $df=26$; IFI=.99; NFI=.99; CFI=.99; RMSEA=.08) (Bentler & Bonett, 1980). All nine

¹ According to a comprehensive study conducted by the Bureau of Labor Statistics, employers with 500 or more employees report providing an average of 24 hours of formal training per year per employee (Frazis, Gittleman, Harrigan, & Joyce, 1998).

items loaded significantly on the appropriate factor and all items were above the .40 criterion commonly used for judging factor loadings as meaningful (Spector, 1992). We also tested the competing one-factor model and found that the two-factor model had a significantly better fit (diff $\chi^2 = 383.83$, $df=1$, $p<.001$). These results indicate that the two-factor model is superior to the one-factor model and that commitment and customer focus can be reliably differentiated as distinct constructs. Items were summed to create one index and were aggregated to the work unit level ($\alpha = .69$, $ICC(1)=.20$, $ICC(2)=.74$).

Customer Satisfaction was assessed with a two-item measure for each job group. This measure asks respondents to rate the service of their representatives of the core job categories (Sales, Warehouse, or Driver) using a Likert scale (1=strongly disagree, 5= strongly agree). Items include a general overall satisfaction as well as an item asking about a service that that occupational group is responsible for. General satisfaction items include “How satisfied are you overall with the helpfulness of your (company name) (job group, e.g. Sales Associate)?”. The occupationally specific item for sales associates is “how satisfied are you with the accuracy of your sales invoices?”; for warehouse representatives item is “How satisfied are you with the condition of products delivered (relative to damage)” and for drivers “how satisfied are you with regards to on-time delivery”. An average of 54 customers rated each work unit in each business unit.

Table 1

Human Resource Management Practice Questions

Selection and Staffing

1. Applicants undergo structured interviews (job related questions, same questions asked of all applicants, rating scales) before being hired.
2. Qualified employees have the opportunity to be promoted to positions of greater pay and/or responsibility within the company.

Training

3. On average how many hours of formal training do employees in this job receive each year?^b

Pay for Performance

4. Employees in this job regularly (at least once a year) receive a formal evaluation of their performance.
5. Pay raises for employees in this job are based on job performance.
6. Employees in this job have the opportunity to earn individual bonuses (or commissions) for productivity, performance, or other individual performance outcomes.

Participation

7. Employees in this job are involved in formal participation processes such as quality improvement groups, problem solving groups, roundtable discussions, or suggestion systems.

Communication

How often do employees in this job receive formal company communication regarding company goals (objectives, actions, etc)?^c

^a With the exception of those marked, the response option for these questions was "Yes, No, I don't know."

^b Response option was "Hours _____"

^c Response options for these questions were: "Never, Annually, Quarterly, Monthly, Weekly, Daily."

RESULTS

Descriptive statistics and bi-variate correlations between HR practices, organizational commitment, customer focus and customer satisfaction are shown in Table 2. Bivariate correlations showed that the level of HR practices are positively related to the level of customer satisfaction, supporting Hypothesis 1 ($r = .55$, $p < .01$). HR practices are also positively related to work unit organizational commitment ($r = .62$, $p < .01$), supporting Hypothesis 2. Work unit commitment is positively correlated with customer focus ($r = .66$, $p < .01$), Supporting Hypothesis 3, and customer focus is significantly positively related to customer satisfaction ratings with the work unit performance ($r = .51$, $p < .01$), supporting Hypothesis 4.

We also hypothesized a mediation relationship of organizational commitment and customer focus between HR practices and customer satisfaction (Hypothesis 5, see Table 3). Path analysis was used to test this mediation hypothesis. Alternative theoretical models were tested using chi-square difference tests and several goodness-of-fit indices, including CFI, NFI, and RMSEA (Hu & Bentler, 1995). To investigate the hypothesized mediation path of commitment and customer focus mediating the relationship between HR system and customer satisfaction, we first tested the fit of a partial mediation model (see Figure 1). The disturbance terms of the commitment and customer focus were permitted to co-vary because these variables were collected from the same employee respondents. The goodness of fit indices show that the partial model 1 fit the data well ($\chi^2 = .761$, $df = 1$; IFI = 1.0; CFI = 1.0; NFI = .99; AIC = 18.761; RMSEA = .00) (Bentler & Bonett, 1980). Each path in this hypothesized model is also significant at $p < .01$ (See Figure 1 for standardized coefficients).

Alternative nested theoretical models were also tested using chi-square difference tests. Model 2 is a full mediation model (removing the path between HR practices and customer satisfaction), Model 3 is a direct effect model (removing paths between HR practices and commitment, commitment and customer focus, and customer focus and customer satisfaction). Compared to Model 1, the partial mediation model, these alternative nested models had a

significantly worse fit (Model 2 diff $\chi^2 = 12.66$, $df=2$, $p<.01$; Model 3 diff $\chi^2 = 44.62$, $df=4$, $p<.001$; See Table 3). The inferior fit of these nested models is further indicated by their lower goodness-of-fit indices (see Table 3). These results indicate that the Model 1 partial mediation model is the best fit to the observed data.

After selecting a final model from among hierarchical (nested) alternatives, equivalent models should then be considered (Stelzl, 1986). Equivalent models yield the same covariances, but do so with a different configuration of paths in the model. We also examined an alternative partial mediation model (an equivalent model test) in which customer focus is theoretically prior to organizational commitment (switching the positions of commitment and customer focus in Figure 1). The chi-square difference of two non-hierarchical models cannot be statistically compared because they have the same number of degrees of freedom. However, the fit statistics can be compared.

As shown in Table 3, both the AIC and RMSEA indicate that the hypothesized relationship of commitment preceding customer focus yields a better fit to the observed data covariance structure. The AIC is an index of model fit that adjusts for the number of parameters (Akaike, 1987). Given two non-hierarchical models, the one with the lowest AIC is preferred (Kline, 1998). Model 1 has a lower AIC than equivalent Model 4 (See Table 3). The root mean square error of approximation (RMSEA), representing the average difference per degree of freedom expected to occur in the population rather than the sample, also indicates that Model 1 fits the data better than the equivalent Model 4. RMSEA values should ideally be .08 or lower (Hair, Anderson, Tatum, & Black, 1998), which is true of Model 1 but not Model 4.

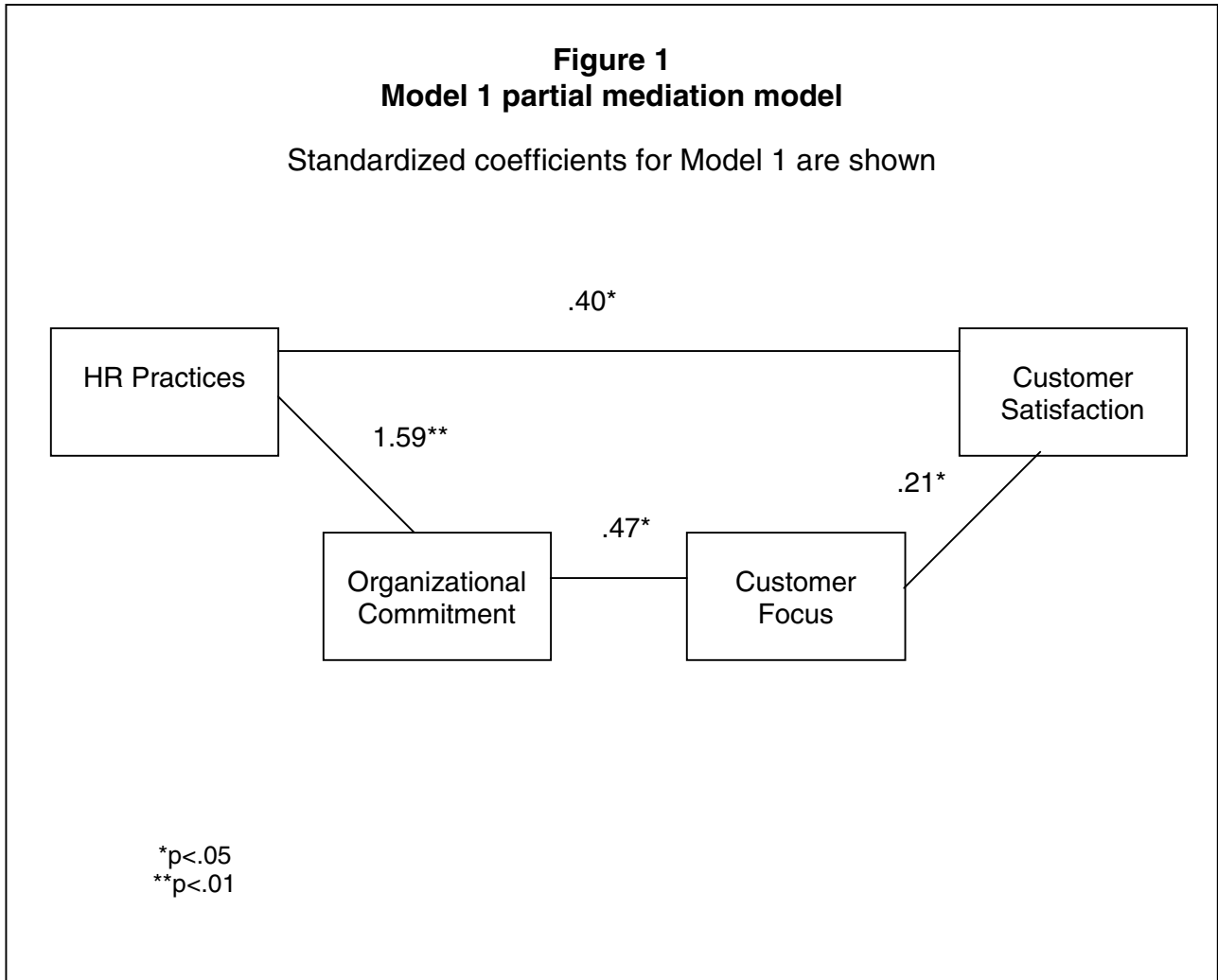
Results of hierarchical and equivalent models testing suggest that the Model 1 partial mediation model is the best fitting model. Further, each path in this model is also significant, thus supporting all relationships in Hypothesis 1 – Hypothesis 5 (see Figure 1 for standardized coefficients).

Variable	N	M	SD	1	2	3	4
1. HR Practices	71	6.53	.19	1.0			
2. Organizational Commitment	71	9.55	.50	.62**	1.0		
3. Customer Focus	71	10.01	.30	.49**	.66**	1.0	
4. Customer Satisfaction	71	10.28	.20	.55**	.52**	.51**	1.0

*p<.05
 **p<.01
 Note: An integer has been added to the mean for confidentiality purposes.

Model	χ^2 , df	Difference from Model 1	CFI	IFI	NFI	RMSEA	AIC
Model 1: Partial Mediation Model	.761, 1	---	1.0	1.0	.99	.00	18.76
Model 2: Full Mediation Model	13.42, 2	12.66, 1**	.89	.90	.88	.29	29.42
Model 3: Direct Effect Model	44.62, 4	43.86, 3***	.61	.62	.60	.38	56.62
Model 4: Alternative Partial Mediation Model	4.26, 1	3.50, 0	.97	.97	.96	.22	22.26

**p<.01
 ***p<.001



DISCUSSION

Results indicate a positive relationship between HR practices and organizational commitment, between commitment and customer focus, between customer focus and customer satisfaction ratings, and between HR practices and customer satisfaction. Most importantly, the effect of HR practices on customer satisfaction appears to be partially mediated by organizational commitment and customer focus. Evidence of this mediation effect suggests that HR practices can positively enhance customer satisfaction through building the identification and involvement of its workforce.

The fact that a partial mediation model was the most strongly supported also indicates that there may be other employee process mechanisms that mediate its relationship with customer satisfaction, such as developing employee knowledge and skill, or tenure.

Methodologically, this study provided several important advancements over previous research on HR systems. First, we brought the level of analysis down to core jobs and ratings of customer satisfaction linked to those jobs. Second, we used multiple employee respondents to report on the HR practices of their work unit. HR practices were measured by multiple employees within a given job group. Use of employee respondents arguably more accurately represents the HR practices that exist for particular job groups rather than single raters (HR managers) as has been relied on in previous research (Wright et al., 2002).

Third, we controlled for mono-method bias by using distinct groups of employee respondents from each job group to report on HR practices and the process mechanisms of organizational commitment and customer focus. Although the same employees respondent on both process mechanisms of commitment and customer focus, disturbance terms were allowed to correlate in the path model in order to allow for possible shared variation of both observed variables due to common method bias. Further, an alternative equivalent model in which customer focus was presented earlier in the causal chain than commitment was also examined and found to produce inferior fit.

Fourth, we utilize a longitudinal design and measure customer satisfaction eighteen months after measuring HR practices and employee processes. We hope this design can lend heighten confidence in the relationship between HR practices and customer satisfaction.

Fifth, we test for employee process mediating mechanisms between HR practices and customer satisfaction. We hope this study can shed some light on the means through which HR practices can have an impact on performance related outcomes. Finally, we extend performance measures to the important service outcomes of customer satisfaction, which has been largely ignored in work on performance outcomes of HR systems. Customer reports of service quality an important outcome to assess in the growing service economy and also embody a measure of performance that is largely under employee control.

As draw on one company within the food service industry, we encourage future research to continue to examine the mediation of group commitment in additional industry settings in order to be more confident about the generalizability of the results. It is also possible that job groups requiring greater levels of interdependence may be more powerfully influenced by commitment among group members (Thompson, 1967).

Limitations and Future Research

Future research should seek additional performance outcomes at the job level from larger samples with increased statistical power. Use of a two item rating of customer satisfaction is also problematic. Measures with few items are more prone to unreliability than summated measures with greater numbers of items (Spector, 1992). Although we had only two items, we had many raters- an average of 54 customers rated each work unit. Future research should seek to develop more complete measures of customer satisfaction tapping multiple dimensions of service quality.

Future research should also examine the “strength” of practices or an index of their communication quality as well as their existence (Ostroff & Bowen, 2000). High performance HR practices are theorized to impact performance through the creation of a strong

organizational context or climate (MacDuffie, 1995). Arguably, it is the effectiveness of those practices in conveying the organization's goals and the value it places in its employees that matter rather than the mere existence of particular practices. Shared commitment should be stronger when the HRM process is clear and practices effectively convey the importance of employees to the organization (Ostroff & Bowen, 2000). The degree to which commitment is widely shared is likely to influence the consistency of service that is provided. Thus future research should examine the effect of successful implementation of HR practices as well as the existence of certain practices on service quality and consistency.

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