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Linking Organizational Resources and Work Engagement to Employee Performance and Customer Loyalty: The Mediation of Service Climate

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This study examined the mediating role of service climate in the prediction of employee performance and customer loyalty. Contact employees ($N = 342$) from 114 service units (58 hotel front desks and 56 restaurants) provided information about organizational resources, engagement, and service climate. Furthermore, customers ($N = 1,140$) from these units provided information on employee performance and customer loyalty. Structural equation modeling analyses were consistent with a full mediation model in which organizational resources and work engagement predict service climate, which in turn predicts employee performance and then customer loyalty. Further analyses revealed a potential reciprocal effect between service climate and customer loyalty. Implications of the study are discussed, together with limitations and suggestions for future research.

Keywords: resources, engagement, service climate, job performance, customer loyalty

Increased competition among service providers, along with overall growth in the service economy, has forced organizations to focus greater attention on the nature and quality of services provided to customers. Research has shown that service quality is ultimately related to customer loyalty and retention and, eventually, to higher profits for the organization (Rust & Zahorik, 1993; Storbacka, Strandvik, & Gronroos, 1994). As stressed by Schneider, White, and Paul (1998), a service climate focuses service employee effort and competency on delivering quality service, which in turn yields positive experiences for customers as well as positive customer perceptions of service quality. *Service climate* refers to employees' shared perceptions of the practices, procedures, and behaviors that are rewarded, supported, and expected by the organization with regard to customer service and customer service quality (Schneider et al., 1998). Thus, service climate is a collective and shared phenomenon. This climate is built in the light of organizational practices focused on customer service. However, how employees react to these organizational practices—together with their affective and motivational responses (i.e., work engagement)—is important to an understanding of how climate is built and shared among employees in a specific organizational setting (i.e., work unit). It is also expected that the better the service climate in a work unit, the better customer appraisal of employee service quality (i.e., employee performance) will be. Finally, customers will be more loyal to the organization when they appraise employee performance more positively.

Thus, our main focus was the mediating role of service climate between antecedents (i.e., organizational resources and work engagement) and customers' perceptions and attitudes (i.e., employee performance and customer loyalty). We extended previous research in this field in several ways. First, although previous work has examined only organizational predictors of service climate (i.e., human resources [HR] practices, organizational characteristics), we also included psychological antecedents—specifically, work engagement—as indicators of employee motivation. Second, we used structural equation modeling (SEM) and aggregated scores as departures from much previous work that has used regression analyses and nonaggregated scores. Finally, we used both employee and customer data in the same research model to avoid problems arising from the common-variance method.

Organizational Resources and Service Climate: The Role of Work Engagement

Empirical studies of service climate predictors have mainly focused on organizational aspects (e.g., HR actions [e.g., training], managerial practices; Schneider et al., 1998) rather than on psychological predictors. On the basis of the idea that service climate refers to employees' perceptions of HR practices with regard to customer service quality, contextual factors are the foundational issues on which service climate rests. In this sense, the general facilitative conditions that arise in an organization include efforts to remove obstacles to work (Burke, Rapinski, Dunlap, & Davison, 1996; Schoorman & Schneider, 1988) and HR policies (Schneider & Bowen, 1993). However, as Schneider et al. (1998) suggested, the foundational issues constitute a necessary but not sufficient

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cause of service climate. In a way, the service climate rests on a more general background that includes subjective features, not just HR practices. How climate is built also depends on how employees feel at work and their work motivation. In this study, we included as predictors of service climate both HR practices perceived by employees as facilitating their work (i.e., organizational resources) and employee motivation (i.e., work engagement).

Organizational resources refers to the organizational aspects of a job that are functional in achieving work goals, could reduce job demands and their associated physiological and psychological costs, and, finally, could stimulate personal growth, learning, and development (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). Resources have a motivational potential, as has been recognized, for example, by Hackman and Oldham (1980) in their job characteristics theory. Also, according to the conservation of resources theory (Hobfoll, 2001), basic human motivation is directed toward the creation, maintenance, and accumulation of resources. Resources are valued in their own right or because they allow other valued resources to be acquired or protected. Schaufeli and Bakker (2004) have described how job resources are the antecedents of a motivational process. Hence, the presence of available job resources stimulates personal development and increases motivation. More specifically, Demerouti et al. (2001) found that job resources (e.g., performance feedback, supervisor support, job control) were predictors of engagement. In this line, Kahn (1992) indicated that engagement also varies according to the resources people perceived themselves to have—their availability. In this study, we treated organizational resources as "facilitators" in the workplace because they seem to have potential motivating functions to increase the level of work engagement.

Engagement has been defined by Kahn (1990) as "the simultaneous employment and expression of a person's 'preferred self' in task behaviors that promote connections to work and to others, personal presence (physical, cognitive, and emotional) and active, full performances" (p. 700). For Rothbard (2001), role engagement has two critical components—attention and absorption in a role—both of which are motivational. In the present article, we understand engagement to be a motivational construct, defined by Schaufeli, Salanova, González-Romá, & Bakker (2002) as a "positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption" (p. 72). *Vigor* refers to high levels of energy and mental resilience while working, the willingness to invest effort in one's work, and persistence even in the face of difficulties. *Dedication* is characterized by a sense of significance, enthusiasm, inspiration, pride, and challenge at work. *Absorption* consists of being fully concentrated, happy, and deeply engrossed in one's work whereby time passes quickly, and one has difficulty detaching oneself from work.

Recent studies using confirmatory factor analysis have demonstrated a three-factor model of work engagement (Demerouti et al., 2001; Salanova, Schaufeli, Llorens, Peiró, & Grau, 2001; Schaufeli & Bakker, 2004; Schaufeli, Martínez, Marqués-Pinto, Salanova, & Bakker, 2002; Schaufeli, Salanova, et al., 2002). However, although research on consequences of work engagement has shown its relationship with positive outcomes such as job satisfaction, low absenteeism, low turnover, and high organizational commitment and performance (Salanova, Llorens, Cifre, Martínez, & Schaufeli, 2003; Schaufeli & Bakker, 2004; Schaufeli, Martínez, et al., 2002; Schaufeli, Salanova, et al., 2002), little is known about the consequences of engagement for service climate. In this vein, Schneider and colleagues (Schneider & Bowen, 1993; Schneider et al., 1998) have argued that a climate for employee well-being also acts as an antecedent for a service climate, although this idea has not been tested empirically. It would be expected that when employees feel vigorous, involved, and happy in the workplace (i.e., engaged), they may experience positive perceptions about their work characteristics and service climate.

Psychosocial research in organizations has shown that when people are working together, they may share beliefs and affective experiences and, thus, show similar motivational and behavioral patterns (George, 1990, 1996; González-Romá, Peiró, Subirats, & Mañas, 2000); feel collective emotions, collective moods, or a group affective tone (Barsade, 2002; Bartel & Saavedra, 2000; Peiró, 2001); share perceived collective efficacy (Bandura, 1997, 2001); and show high group potency (Guzzo, Yost, Campbell, & Shea, 1993). Obviously, engagement as a motivational construct can be also shared by employees in the workplace (Bakker, Demerouti, & Schaufeli, 2005; Bakker & Schaufeli, 2001; Salanova et al., 2003). People working in the same group have more chances to interact with each other and so have more possibilities to be involved in negative as well as positive psychological contagion processes. Such affective relations among group members are also referred to as *morale*, *cohesion*, and *rapport* (Tickle-Degnen & Rosenthal, 1987).

Of course, contagion is not the only process that explains group affective phenomena. As Kelly and Barsade (2001) concluded, there are several implicit but also explicit processes that explain a group's affective composition (i.e., emotional contagion, but also entrainment, modeling, and the manipulation of affect). For example, during social comparison processes, after determining how much attention is to be paid, people compare their affects with those of others in their environment and then respond according to what seems appropriate in the situation (Adelman & Zajonc, 1989; Schachter, 1959; Sullins, 1991). Also, a leader's influence can contribute to the production of shared motivation and affective responses (George, 2000). We agree with Kahn (1992) that "when individuals are open to change and connecting to work and others, are focused and attentive, and complete rather than fragmented, their systems adopt the same characteristics, collectively" (p. 331). When employees are engaged, it may be expected that during social interaction at work they will influence their coworkers to behave and feel in a similar way, thus also contributing to a united service climate.

Service Climate and Customer Experiences

Contact employees' main tasks involve interaction with customers, and service quality depends to a large extent on the quality of this interaction. When employees are highly engaged and share common perceptions about the quality of the service in their unit (i.e., service climate), it is expected that they will perform very well with customers, who will report favorable employee performance. However, empirical evidence for such an effect is, at present, lacking. Traditionally, research has explored the relationship between service climate and performance using self-reports filled in by employees themselves (i.e., perceived performance),

without consideration of the viewpoints of those receiving service (i.e., customers, patients, clients; Snow, 2002). This study included employee performance reporting by customers, and we expected that the better the service climate, the better would be the employee performance as perceived by customers.

Building positive interactive relationships between employees and customers is thought to increase customer loyalty (Berry & Parasuraman, 1991; Czepiel, 1990). *Customer loyalty* is a behavioral construct (Hallowell, 1996) and refers to a customer's behavioral intentions as measured by the likelihood that the customer will return to an establishment (Swan & Oliver, 1989). Research has shown that excellent performance is positively related to customer loyalty, in the sense that good performance predicts customer loyalty (Bitner, Booms, & Tetreault, 1990; Kumar, 2002). Research has revealed another predictor of customer loyalty: the service climate. A favorable service climate has a positive influence on loyalty (Schneider, Ashworth, Higgs, & Carr, 1996). Logically, service climate can act on customer loyalty only through service. Hence, service climate might act on customer loyalty through its effect on employees' performance appraisal (but not directly). However, previous research had not tested this hypothesis.

In the present study, we followed a commonly held assumption in service-quality research that suggests a causal direction running from employee to customer experiences (Burke, Finkelstein, & Dusig, 1999; Schneider & Bowen, 1995). However, Schneider et al. (1998) tested an alternative model, in which customer perceptions also influence the attitudes of employees. To some extent, contact employees are attracted to their jobs because of the desire to provide service quality, and so they look to customers for signals to help them to improve service quality. In this sense, Ryan, Schmit, and Johnson (1996) found empirical evidence to support the hypothesis that customers influence employee morale over time. Heskett, Sasser, and Schlesinger (1997) talked about the *cycle of success*, which shows how the employee cycle of success and the customer cycle of success interact to the long-term benefit of both. They refer to these special employee–customer relationships as *mirrors*, showing that what happens for each of them has a reciprocal influence. Also, Schneider et al. (1998) found that overall customer perceptions of quality of service and global service climate have a strong reciprocity in this relationship. They suggested that additional research is needed to explore the reliability of this finding and that more specific indicators of customer experiences should be researched. In this study, we extended this result to include a specific customer experience indicator: customer loyalty.

Our research model is displayed graphically in Figure 1. It includes the relationships between organizational resources and engagement as predictors of service climate, which in turn predicts

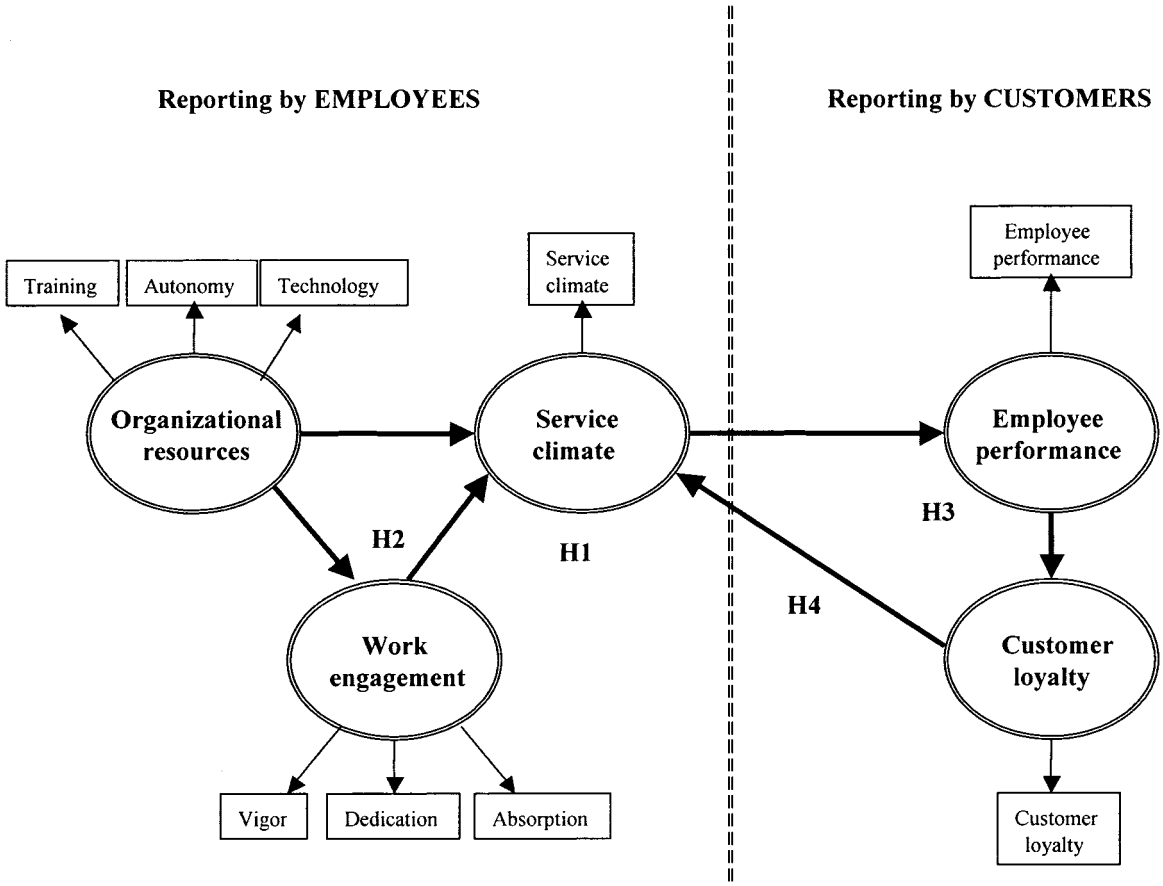

Figure 1. The research model. H = hypothesis.

employee performance and customer loyalty. Therefore, the main hypothesis of this study was the following:

> *Hypothesis 1:* Service climate will mediate the relationship between organizational resources and work engagement on the one side and employee performance, as perceived by customers, and customer loyalty on the other.

However, we also tested other specific hypotheses. On the basis of previous research, we had the following expectations:

> *Hypothesis 2:* Engagement will mediate the relationship between organizational resources and service climate.

> *Hypothesis 3:* Employee performance, as perceived by customers, will mediate the relationship between service climate and customer loyalty.

> *Hypothesis 4:* Service climate and customer loyalty will be reciprocally related.

Method

Sample and Procedure

Following informative meetings with managers and supervisors from 60 hotel front desks and 60 restaurants, 120 work units participated in the study. After deletion of missing cases, our final sample was made up of 114 units (58 hotel receptions and 56 restaurants). In each work unit, a sample of 3 employees and 10 customers participated in the study. The employee sample consisted of 342 contact employees (54.2% men and 45.8% women). Their mean age was 34.2 years ($SD = 10.3$). They were working in the reception work units of the hotels ($n = 174$; 51%) or as waiters or waitresses in the restaurants ($n = 168$; 49%). The response rate was 90%. Three employees were randomly selected from each work unit and invited to participate in the study. When an employee declined to participate, another employee was randomly selected from the same work unit, whenever possible. These employees were working together in the same work unit, made up of an average of 3 employees, and working on the same shift. The customer sample consisted of 1,140 clients from the 114 units (54% men and 46% women), and the response rate was 95%. For hotel customers, only those staying more than 3 nights participated in the study. The criterion for restaurants was that customers had either lunch or dinner there. From a list of customers from each work unit, 10 were selected from each and invited to participate in the study.

Questionnaires were administered to both employees and customers. The questionnaire-administration processes took ~20 min for employees and ~10 min for customers. The confidentiality and anonymity of the answers were guaranteed in both samples. Employees filled in the questionnaire during breaks, at the beginning or at the end of their shifts. Hotel customers filled in the questionnaire when checking out. The data were gathered over 2 high season days. Restaurant customers filled in the questionnaire after the service transaction had been completed (i.e., after paying the check). Researchers were present to help employees and customers in case of difficulties with filling in the questionnaires. We conducted our analysis at the unit (hotel reception or restaurant) level, because in this way, all individual responses from employees and customers across the units of analysis (i.e., hotels or restaurants) were aggregated.

Instruments

The Organizational Resources Scale was developed following studies by Brown and Mitchell (1988, 1991) and Peters, O'Connor, and Eulberg (1985) on performance facilitators. Both the frequency with which each facilitator–resource was found and its importance were measured. This was because employees may very often have a resource at the workplace, but it may not be relevant or important for good service provision, or vice versa. The construction of the scale for organizational resources took place in two phases: (a) In the qualitative phase, structured interviews were carried out with 20 contact employees from various hotels and restaurants, with the aim of identifying the resources most frequently available (*frequency*). A group of eight researchers sorted the resources into categories using *grounded theory* (Glaser & Strauss, 1967) qualitative methodology. In accordance with this methodology, a category was named when researchers reached consensus on the category. Results showed a scale composed of three categories of organizational resources: *organizational training*, *job autonomy*, and *technology*. (b) In the next (quantitative) phase, we constructed a questionnaire consistent with these categories to be administered to the full sample of employees. This questionnaire was made up of 11 items (a 4-item *training* scale, a 3-item *autonomy* scale, and a 4-item *technology* scale). We asked employees about the degree to which these organizational practices had been important in facilitating employee performance and had helped them to remove obstacles at work in the past. All items were scored on a 5-point rating scale ranging from 1 (*not important*) to 5 (*very important*). These items are presented in the Appendix. Internal consistencies (Cronbach's alphas) for the training, autonomy, and technology scales were .91, .84, and .90, respectively.

Work engagement was assessed with the Salanova et al. (2001) Spanish version of the Work Engagement Scale (Schaufeli, Salanova, et al., 2002), made up of *vigor* (6 items), *dedication* (5 items), and *absorption* (6 items). These items are presented in the Appendix. All items were scored on a 7-point frequency rating scale ranging from 0 (*never*) to 6 (*always*). High scores on vigor, dedication, and absorption were indicative of engagement. Internal consistencies (Cronbach's alphas) for the vigor, dedication, and absorption scales were .74, .70, and .77, respectively.

Service climate was assessed with a reduced version (4 items; Cronbach's alpha = .84) of the 7-item Global Service Climate Scale (Schneider et al., 1998). These items are presented in the Appendix. All items were scored on a 7-point rating scale ranging from 1 (*completely agree*) to 7 (*completely disagree*).

Because we wanted to measure contact employee performance, we used a composite of scales: *empathy* and *excellent job performance* scales, which represent expected behaviors for contact employees. Empathy was composed by 3 items based on the SERVQUAL Empathy Scale (Parasuraman, Zeithaml, & Berry, 1988). A further scale of 3 items, based on the Service Provider Performance Scale (Price, Arnould, & Tierney, 1995), was used to assess excellent performance in employees. These items are given in the Appendix. All items were scored on a 7-point rating scale ranging from 1 (*completely agree*) to 7 (*completely disagree*). Internal consistencies (Cronbach's alphas) of performance were .89 for empathy and .88 for excellent job performance. Results of a factor analysis of the items referring to both subscales confirmed a monofactor solution,[1] with only one component with 71.21% of the explained variance, and an eigenvalue of 4.27 (with two components, this value is less than 1). Furthermore, the global internal consistency of the composite of both subscales (i.e., performance) was .88.

Customer loyalty was assessed with 3 items that measured the likelihood of customers returning to the hotel or restaurant for further service and engaging in positive word-of-mouth behaviors. An adaptation by Martínez-Tur, Ramos, Peiró, and Buades (2001) from the original scale (i.e., Swan & Oliver, 1989) was used. These items are presented in the Appendix. A 7-point rating scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*) was used. Higher scores indicated greater customer loyalty. Internal consistency (Cronbach's alpha) of customer loyalty was .87.

[1] For reasons of space, these analyses are not included. They are available from the authors to any interested reader on request.

Questionnaires were presented to the participants in Spanish. Scales originally in English were translated into Spanish and from Spanish into English (countertranslation) by native English and Spanish speakers to check for equivalence of meaning in both languages.

Data Aggregation

The conceptual rationale for using an aggregated measure of variables in the study was discussed in the introduction. However, as Klein, Dansereau, and Hall (1994) showed, aggregation must also be accompanied by statistical justification. We used intraclass correlation coefficients—ICC(1) and ICC(2)—and also within-group interrater agreement (r_{wg}; James, Demaree, & Wolf, 1984) and average deviation indexes (ADIs; Burke et al., 1999) to justify aggregation to higher levels of analysis. In organizational research, a median ICC(1) value of .12 is recommended (James, 1982). Across all employee and customer variables in our study, the average ICC(1) value was .22, ranging from .10 (vigor) to .38 (service climate). Only the vigor scale fell below the criteria of .12. Glick (1985) recommended a cutoff of .60 for ICC(2). Across all variables in our study, the average ICC(2) value was .83, ranging from .62 (vigor) to .95 (dedication). All variables met the criteria of .60. Also, r_{wg}(James et al., 1984) estimates ranged from .69 to .93 (M = .79). Finally, the ADI coefficient (Burke et al., 1999) value was .22, ranging from .15 (vigor) to .31 (performance).

Finally, we also performed multivariate analyses of variance (MANOVAs) to assess the variance between work units by looking for significant differences among units while considering the variables used for employees and customers separately. All seven study variables reported by employees were included—namely, training, autonomy, technology, vigor, dedication, absorption, and service climate. Multivariate results indicated that units differed significantly on these variables, $F(7, 120) = 3.59$, $p < .001$. In addition, both study variables reported by customers—namely, employee performance and customer loyalty—were included in a further MANOVA. Multivariate results indicated that units differed significantly on these variables, $F(2, 120) = 3.54$, $p < .001$. We found sufficient empirical support in our statistics to aggregate scores of our variables at the work unit level.

Fit Indices

We used SEM methods, implemented in AMOS (Arbuckle, 1997), for data analyses. Maximum-likelihood estimation methods were used, and the input for each analysis was the covariance matrix of the items. The goodness of fit of the models was evaluated using absolute and relative indices. The absolute goodness-of-fit indices calculated were (cf. Jöreskog & Sörbom, 1993) (a) the chi-square goodness-of-fit statistic, (b) the root-mean-square error of approximation (RMSEA), (c) the goodness-of-fit index (GFI), and (d) the adjusted goodness-of-fit index (AGFI). The relative goodness-of-fit indices computed were (cf. Marsh, Balla, & Hau, 1996) (a) the normed fit index (NFI), (b) the comparative fit index (CFI), and (c) the incremental fit index (IFI).

Results

Preliminary Results

To test whether employees and customers from hotels and restaurants differed on the study variables, we carried out a MANOVA with all nine aggregated study variables—training, autonomy, technology, vigor, dedication, absorption, service climate, performance, and loyalty—included as dependent variables in the model and with type of work unit (hotel or restaurant) as the factor. Multivariate results showed a nonsignificant Wilks's lambda multivariate coefficient, $F(9, 111) = 3.27$. Employees from hotels and restaurants did not differ significantly on the study variables. Therefore, we decided to use the entire sample to test our hypotheses.

Descriptive Analyses

Table 1 shows mean values, standard deviations, final internal consistencies, and intercorrelations of scales. As expected, engagement dimensions were positively interrelated (mean r = .42) and positively related to organizational resources (mean r = .30). Only autonomy, as an organizational facilitator, had no significant correlation with absorption and vigor. Work engagement scales were positively related to service climate (mean r = .31), the dedication scale being the most strongly correlated (r = .52). Organizational resources were also positively related to service climate. The more that training, autonomy, and technology are perceived as organizational resources for performance, the more service climate is perceived (mean r = .25).

Regarding the intercorrelations between employee and customer variables, on the one hand, service climate, training, and autonomy were significantly related to loyalty (mean r = .20). On the other hand, service climate and vigor were significantly associated with performance (mean r = .15).

Confirmatory Factor Analyses

In the first step, SEM methods (implemented in AMOS; Arbuckle, 1997) were used to run several confirmatory factor anal-

Table 1
Means, Standard Deviations, Internal Consistencies, and Intercorrelations (Aggregated Measures; N = 114 Work Units)

Variable	*M*	*SD*	α	1	2	3	4	5	6	7	8	9
1. Training	3.77	0.78	.91	—								
2. Autonomy	3.75	0.70	.84	.58****	—							
3. Technology	4.03	0.75	.90	.60****	.62****	—						
4. Vigor	5.28	0.50	.74	.22****	.13*	.24****	—					
5. Dedication	4.43	0.98	.70	.43****	.32****	.43****	.31****	—				
6. Absorption	4.02	0.89	.77	.22****	.11	.24****	.47****	.48****	—			
7. Service climate	5.05	1.06	.84	.30****	.21****	.25****	.20****	.52****	.22****	—		
8. Performance	5.31	0.62	.88	.12	.09	.06	.15**	.08	.07	.15****	—	
9. Loyalty	4.68	0.50	.87	.15**	.18***	.11	.10	.13	.06	.27****	.67****	—

* $p < .10$. ** $p < .05$. *** $p < .01$. **** $p < .001$.

yses.[2] First, we tested a correlated three-factor model of organizational resources. Second, the hypothesized correlated three-factor model of engagement was tested. Finally, we tested a correlated two-factor model of customer experiences. The three-factor structure of organizational resources (training, autonomy, and technology) fit the data, and all indices met the respective criteria, $\chi^2(49, N = 324) = 117.50$, $p < .001$ (GFI = .94; AGFI = .90; RMSEA = .07; NFI = .95; CFI = .97; IFI = .97). The three-factor structure of work engagement, however, did not fit the data, $\chi^2(116, N = 324) = 463.21$, $p < .001$ (GFI = .84; AGFI = .79; RMSEA = .09; NFI = .83; CFI = .84; IFI = .86). On the basis of modification indices, the fit of the three-factor model can be slightly improved by allowing one pair of errors to correlate from the absorption scale: Items 4 and 5, which are similar in content (work concentration). We also had to delete two items from the vigor scale (Items 1 and 3). These items referred to "energy" while working and liking for work. We thereby obtained a revised model that postulates three underlying constructs: vigor, dedication, and absorption. These constructs were fitted, and all indices met the respective criteria, $\chi^2(86, N = 324) = 237.971$, $p < .001$ (GFI = .91; AGFI = .89; RMSEA = .07; NFI = .90; CFI = .91; IFI = .93). The difference between the chi-square statistics associated with the revised model and the original model was statistically significant, $\Delta\chi^2(30, N = 324) = 225.238$, $p < .001$. These results coincide with those obtained in the study by Salanova et al. (2003), in which the model of collective engagement fit the data better when these items from the vigor scale were removed.

Finally, we tested two competitive models to find out whether customer experiences are part of a latent factor (i.e., customer experiences) or are two correlated latent variables (i.e., employee performance and customer loyalty). The one-factor model (M1) did not fit the data, $\chi^2(36, N = 1{,}147) = 2{,}779.873$, $p < .001$ (GFI = .62; AGFI = .43; RMSEA = .26; NFI = .68; CFI = .69; IFI = .93). The modification indices did not improve this poor model. Neither did the two-factor model (M2) of customer experiences fit the data very well, $\chi^2(34, N = 1{,}147) = 457.348$; $p < .001$ (GFI = .92; AGFI = .87; RMSEA = .10; NFI = .94; CFI = .95; IFI = .95). However, on the basis of modification indices, one pair of errors was correlated from the empathy scale: Items 2 and 3. These items are also similar in content (see the Appendix). The revised model fits the data and postulates two underlying constructs: employee performance and loyalty (see Figure 2), $\chi^2(33, N = 1{,}147) = 319.806$, $p < .001$ (GFI = .94; AGFI = .90; RMSEA = .08; NFI = .96; CFI = .97; IFI = .96).

Testing Hypotheses: The Research Model

According to Baron and Kenny (1986) and Judd and Kenny (1981), when a mediational model involves latent constructs, SEM provides the basic data analysis strategy. In accordance with the four basic steps to establish mediation effects proposed by these authors, and to test the hypotheses, we fit our research model (M1; as depicted in Figure 1) to the data. Following previous confirmatory factor analyses, we used organizational resources as a latent variable with three indicators (training, autonomy, and technology) and engagement as a latent variable, also with three indicators (vigor, dedication, and absorption). The other latent variables in our model were measured with a single indicator (the average total score in the corresponding scale). This was the case for service climate, performance, and customer loyalty. Information on the reliability of the indicators was incorporated into the model by estimating the error variance indicator using the formula $(1 - \alpha) * \sigma^2$ and assigning this value to the indicator error variance. The results are given in Table 2 and show that the research model fits the data, with all fit indices meeting the criteria. Only AGFI (.88) and NFI (.89) were close to the conventional .90. However, all path coefficients were significant except the path from organizational resources to service climate, which did not meet the criteria of 1.96 ($t = 0.05$). These results show that engagement fully mediated the relationship between organizational resources and service climate. In addition, employee performance mediated the relationship between service climate and customer loyalty. All four steps described by Baron and Kenny (1986) and Judd and Kenny (1981) were met.

To test whether the impact of organizational resources and engagement on employee performance was mediated by service climate, we carried out additional analyses (Peiró, González-Romá, Ripoll, & Gracia, 2001). First, direct paths from resources and engagement to performance were added to the initial model (M1), and this new model (M2) was fit to the data. Although the model fits the data, none of the new parameter estimates were statistically significant. Therefore, at least a partial mediation exists.

Second, the value of parameters estimating the impacts of service climate on performance of the research model (M1) was fixed to the value presented by this parameter (unstandardized coefficient) of the M1, and a new alternative model (M3) was fit to the data. Although the model fit the data, with all fit indices meeting the criteria, the difference between the chi-square statistics associated with M3 and M2 was not statistically significant. Thus, the influence of organizational resources and engagement on employee performance was fully mediated by service climate. In summary, Hypotheses 1 to 3 are supported by the data.

We tested an additional exploratory hypothesis on potential reciprocal relationships between service climate and loyalty (Hypothesis 4) by comparing two competing models to which paths from service climate to loyalty (M4) and from loyalty to service climate (M5) were added. Both competing new models fit the data, meeting all the fit indices criteria (see Table 2). The differences between the chi-square statistics associated with M4 and M1 were statistically significant (although this was not the case between M5 and M1). It is interesting to note that although the path from service climate to employee performance was significant in M4 ($t = 2.07$), it was not in M5 ($t = 1.51$). It may also be noted that when we tested M4, results showed that employee performance partially mediated between service climate and customer loyalty.

Discussion

This study focused on predictors of service climate (i.e., organizational resources and work engagement) and on the influence of

[2] Several alternative models were also tested, but in all cases, they showed a worse fit than the original models. For reasons of space, these analyses are not included. They are available from the authors to any interested reader on request.

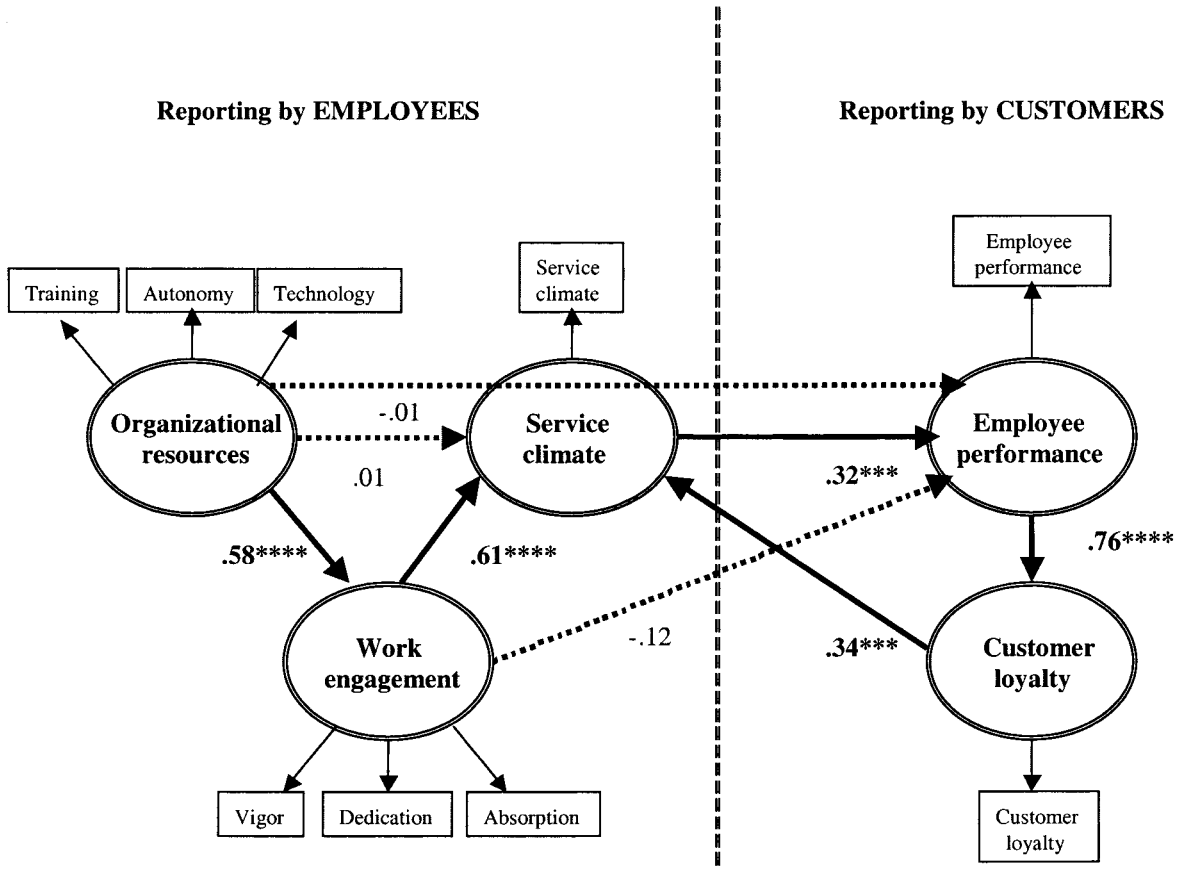

Figure 2. The research model with standardized path coefficients ($N = 114$ work units). ***$p < .01$. ****$p < .001$.

service climate on employee performance and customer loyalty. We used two sources of information: employees and customers. Our main hypotheses were largely supported by the data and this study shows how the service climate (fully) mediates the relationship between organizational resources and engagement (reported by employees) on the one hand and employee performance (appraised by the customers) and customer loyalty on the other. We have extended previous research in this field into predictors and consequences of service climate.

Linking Organizational Resources to Service Climate: The Role of Engagement

Although previous work has examined only perceptions of organizational predictors of service climate (e.g., HR practices; Schneider et al., 1998), we also included work engagement. Our findings show that when employees working in work units perceive that the availability of organizational resources (i.e., training, autonomy and technology) remove obstacles at work, they feel

Table 2
Fit of the Research Models (N = 114 Work Units)

Model	χ^2	*df*	*p*	GFI	AGFI	RMSEA	NFI	CFI	IFI	$\Delta\chi^2$	*df*
M1	38.396	25	.04	.93	.88	.07	.89	.93	.95		
M2	35.970	23	.04	.93	.88	.07	.90	.95	.95	$M_1 - M_2 = 2.42$	2
M3	37.110	24	.05	.93	.88	.07	.88	.94	.95	$M_3 - M_2 = 1.28$	1
M4	29.819	22	.12	.94	.88	.06	.91	.97	.97	$M_1 - M_4 = 8.57$**	3
M5	30.622	22	.10	.94	.88	.06	.90	.95	.97	$M_1 - M_5 = 7.77$	3
										$M_5 - M_4 = 0.80$	0

Note. GFI = goodness-of-fit index; AGFI = adjusted goodness-of-fit index; RMSEA = root-mean-square error of approximation; NFI = normed fit index; CFI = comparative fit index; IFI = incremental fit index.
** $p < .05$.

more engaged in work, which in turn is related to a better climate for service. Working in an organization that facilitates work for the customers exerts a powerful influence on collective engagement (i.e., the members of the work unit feel more vigorous and persistent, dedicated and absorbed in their tasks). This in turn has a very positive impact on shared service climate perceptions. The present results agree with previous research into the positive relationship between organizational resources as an antecedent of service climate (e.g., Schneider et al., 1998). However, in addition we showed that this relationship is fully mediated by engagement at the group level. These results therefore extend previous research on predictors of service climate by showing empirically that, at the work-unit level, engagement contributes to improve shared service climate among service units.

Moreover, when service climate is positive, customers collectively appraise employee performance, which in turn is associated with shared customer loyalty. On the one hand, our findings are similar to previous results concerning the benefits of positive climate on job performance (e.g., Snow, 2002), although these studies did not take into account the customer viewpoint, which has been incorporated in this study as an appraisal of employee performance. On the other hand, we expected service climate to act on customer loyalty through its relation to performance appraisal (but not directly). However, results showed that the path from service climate to loyalty is also significant (M4), according to Schneider et al. (1996). Moreover, our findings support previous evidence for the positive influence of employee role behavior perceived by customers on their loyalty (e.g., Kumar, 2002). To sum up, a partial mediation effect of performance between service climate and customer loyalty has been identified.

Are Service Climate and Customer Loyalty Part of a Circle of Success Spirals?

In line with previous research (Schneider et al., 1998), we formulated an exploratory hypothesis about the potential reciprocal relationships between service climate and customer loyalty. Our results show a potential reciprocal effect between service climate and customer loyalty. The greater the service climate, the higher the customer loyalty, partially mediated by performance (M4) and the higher the customer loyalty, the greater the service climate (M5). Customer loyalty seems to act as a kind of positive feedback for the group of employees vis-à-vis performance with the customer, which appears to be positively associated with a better service climate. Previous research has shown similar results. For example, Ryan et al. (1996) noted the influence that customers have on employees, showing that customers could be a source of direction and perceptions of service quality for contact employees. Schneider et al. (1998) found a reciprocal relationship between employee and customer perceptions, specifically between the global service climate and overall customer perception of service quality. In our study, we went a step further by offering empirical evidence for the influence of service climate on a specific customer's experience—that is, his or her loyalty, which is crucial for companies seeking to maintain competitiveness and obtain profits.

Furthermore, it seems that the greater the customers' intention to return to this specific hotel or restaurant for future service, the higher the climate for service among employees, which in turn influences customers' appraisal of employee performance. Employees and customers in these situations appear to be playing a key role in a cycle of success spirals (Heskett et al., 1997). Our results follow this line. We found that service climate and customer loyalty seem to have these positive reciprocal relationships.

Practical Implications

The present results suggest that providing work units with organizational resources increases their collective engagement, which in turn helps to foster an excellent service climate. This service climate consequently increases customer appraisal of employee performance and, hence, customer loyalty. These results have relevant practical implications for companies. Any organization—and particularly a service organization (e.g., a hotel or restaurant)—has to meet the quality challenge to ensure present and future organizational profitability. Employees who interact with customers daily to provide the service represent a key element in this process. In accordance with previous research (i.e., Bitner et al., 1990; Schneider et al., 1998), our study has shown that contact employees contribute to service quality and, thus, to customers' cognitions, attitudes, and intentions. We have also pointed out that the way contact employees feel collectively in the workplace and perceive their work unit is a core issue in creating a service climate, and managers must pay attention to employees' motivation to guarantee future service competitiveness.

It is important for management not to wait for a group of contact employees to feel unmotivated and less engaged and then to take corrective measures. Rather, one target issue should be to encourage employees to feel engaged in their work, thus creating an affective climate in the work unit that contributes to the production of a service climate in the unit. According to Leiter and Maslach (2001), meeting this quality challenge requires people who are consistently engaged in their work. Effective management should take definitive action to avoid loss of creative energy (George, 2000). Building and sustaining an organizational environment that supports engagement at work makes an organization attractive to potential recruits.

Strengths, Weaknesses, and Further Research

The strong points of this study are the following: (a) We used both perceptions of organizational resources and engagement as predictors of service climate. (b) Specific indicators of customer experiences (i.e., employee performance and loyalty) were tested in the research model. (c) We used SEM and aggregated scores (in contrast with previous research). (d) We used both employee and customer data simultaneously in our research model, thus avoiding problems arising from the common-variance method.

However, the present study has some limitations. The research design was cross-sectional, and hence, the "potential" reciprocal relationships between employees and customers cannot be fully interpreted causally. Also, some specific research issues should be tested in future research, such as the interaction effect of frequency and intensity of social interaction of employees and the interdependence of the group goals on collective engagement and service-climate strength. Moreover, quantity and quality of social interaction at the workplace are indeed an interesting topic for future research. Finally, research could be carried out in other service occupations (e.g., among doctors, teachers, and social workers)

and in other service organizations (e.g., hospitals, schools) to test the invariance of the proposed model.

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Appendix

Scales and Items From Final Versions of the Scales

Scale	Item
Organizational resources[a]	
Training	1. Managers asked us for our opinion on training activities.
	2. Learning helped to overcome work obstacles.
	3. Training was practical.
	4. Sufficient training was provided.
Autonomy	1. Autonomy to choose what tasks to perform.
	2. Autonomy to decide the order I perform tasks.
	3. Autonomy to decide when to start and finish tasks.
Technology	1. Technologies are easy-to-use and useful.
	2. Technical guidebooks and material resources are available.
	3. Technology is available.
	4. External technical services are provided.
Engagement[a]	
Vigor	1. At work, I feel full of energy.
	2. In my job, I feel strong and vigorous.
	3. When I get up in the morning, I feel like going to work.
	4. I can continue working for very long periods at a time.
	5. In my job, I am mentally very resilient.
	6. At work, I always persevere, even when things do not go well.
Dedication	1. I find the work that I do full of meaning and purpose.
	2. I am enthusiastic about my job.
	3. My job inspires me.
	4. I am proud of the work I do.
	5. I find my job challenging.
Absorption	1. Time flies when I'm working.
	2. When I am working, I forget everything else around me.
	3. I feel happy when I am working intensely.
	4. I am immersed in my work.
	5. I get carried away when I'm working.
	6. It is difficult to detach myself from my job.
Service climate[a]	1. Employees in our organization have knowledge of the job and the skills to deliver superior quality work and service.
	2. Employees receive recognition and rewards for the delivery of superior work and service.
	3. The overall quality of service provided by our organization to customers is excellent.
	4. Employees are provided with tools, technology, and other resources to support the delivery of quality work and service.
Employees' performance[b]	1. Employees understand specific needs of customers (empathy).
	2. Employees are able to "put themselves in the customers' place" (empathy).
	3. Employees are able to "tune in" to each specific customer (empathy).
	4. Employees "surprise" customers with their excellent service (excellent performance).
	5. Employees do more than usual for customers (excellent performance).
	6. Employees deliver an excellent service quality that is difficult to find in other organizations (excellent performance).
Loyalty[b]	1. If possible, I will return to this hotel/restaurant in the future.
	2. I will recommend this hotel/restaurant to other people.
	3. I will warn people about this poor hotel/restaurant.

[a] Items represent reporting by employees. [b] Items represent reporting by customers.