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## Service employees give as they get: Internal service as a moderator of the service climate-service outcomes link

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## RESEARCH REPORT

# Service Employees Give as They Get: Internal Service as a Moderator of the Service Climate–Service Outcomes Link

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We lend theoretical insight to the service climate literature by exploring the joint effects of branch service climate and the internal service provided to the branch (the service received from corporate units to support external service delivery) on customer-rated service quality. We hypothesized that service climate is related to service quality most strongly when the internal service quality received is high, providing front-line employees with the capability to deliver what the service climate motivates them to do. We studied 619 employees and 1,973 customers in 36 retail branches of a bank. We aggregated employee perceptions of the internal service quality received from corporate units and the local service climate and external customer perceptions of service quality to the branch level of analysis. Findings were consistent with the hypothesis that high-quality internal service is necessary for branch service climate to yield superior external customer service quality.

*Keywords:* service climate, internal service, customer service, service quality

“People expect good service, but few are willing to give it” (Robert Gately, as quoted by Stirtz, 2008, p. 27). For companies relying on customer service as a source of competitive advantage, providing good service across units and employees is crucial. As they provide both motivation and capability, organizational practices are critical in delivering quality customer service (Liao & Chuang, 2007). Scholars have employed the concept of service climate to capture what employees experience in terms of organizational practices regarding service delivery (e.g., Schneider & White, 2004). As such, service climate reflects the organization’s orientation toward service as

a strategic imperative (Schneider, White, & Paul, 1998) and therefore influences employee motivation regarding service behavior. We propose that a key to employees’ capability to deliver quality service is the internal service that these employees in turn receive from others in their attempts to deliver quality service to external customers (Hensel, 1990).

With the present study, we investigated the joint effects of service climate and internal service on customer-rated service quality. Service climate and internal service issues are particularly important to service organizations with a network structure, which consists of integrated, interdependent, and dependent organizational units (Powell, 1990). Local retail units (e.g., stores, hotels, bank branches) are the face of the organization to the customer, and the quality of customer service delivered by these units is an important determinant of customer perceptions and revenue. The service climate within these local units affects the quality of customer service delivered by employees (Schneider et al., 1998). However, to meet the full spectrum of customer needs, these units may also depend on resources provided by corporate support units, such as from corporate information technology employees (Symon, 2000). Service climate (e.g., Schneider & White, 2004) and internal service (e.g., Johnston, 2008) individually have been empirically related to customer service outcomes, but what is the nature of their joint effect on service outcomes? We suggest that internal service affects the extent to which local-level service climate leads to satisfactory customer experiences.

We had two purposes in undertaking the present study. First, we aimed to contribute to the service literature by showing that service

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climate and internal service jointly affect customer experiences, so that theory linking organizational processes with service outcomes might be appropriately revised. Second, anecdotal evidence suggests that managers pay insufficient attention to internal service at the expense of external service, so we sought to contribute to best practices understanding in the hope of influencing policymaking regarding internal service.

### Service Climate

Whereas goods can be produced at one place at one point in time and delivered at other places and times as needed, services tend to be produced and delivered in real time by local unit employees. This means that local unit managers and the local unit climate they produce (i.e., service climate) are important factors in understanding and predicting customer experiences at the local level. A body of literature known as linkage research (Wiley, 1991) has revealed that the service climate within an organization is reflected in external customers' experiences (Schneider & White, 2004). Service climate refers to "employee perceptions of the practices, procedures, and behaviors that get rewarded, supported, and expected with regard to customer service and customer service quality" (Schneider et al., 1998, p. 151). A considerable number of studies have empirically demonstrated the linkage between service climate and customer-related outcomes (e.g., satisfaction and intentions to repurchase), a relationship that appears robust across a variety of service organizations, including bank branches, insurance agencies, restaurants, and hotels (for reviews, see Dean, 2004; Liao & Chuang, 2004; Schneider & White, 2004).

Service climate includes perceptions of service strategy, service support, training, rewards and recognition, logistics, customer orientation, customer attention/retention, managerial practices, communications regarding service, and customer feedback (Johnson, 1996; Schneider & Bowen, 1985; Schneider et al., 1998). These perceptions drive customer-oriented employee behavior by emphasizing what the organization values and rewards, motivating employee behaviors to be consistent with those the organization values (Liao & Chuang, 2007; Liao, Toya, Lepak, & Hong, 2009). When service is consistently communicated as a strategic imperative through the unit's practices and procedures, employees are likely to perceive service to be important, and their behaviors toward customers are likely to reflect this orientation toward service. In turn, customer service experiences are likely to be of higher quality than customer experiences in units with a less favorable service climate.

Scholars have begun to investigate moderators that affect the relationship between climate and customer outcomes. For example, service climate is a stronger predictor of customer outcomes when there is more frequent customer contact (Dietz, Pugh, & Wiley, 2004; Mayer, Ehrhart, & Schneider, 2009), when the service is less tangible (Mayer et al., 2009), when service employees must be more interdependent to serve customers (Mayer et al., 2009), and when climate strength is stronger (Schneider, Salvaggio, & Subirats, 2002).

In what follows, we discuss internal service as an additional moderator of the relationship between service climate and service outcomes. We propose that internal service is particularly relevant in service organizations in which local units are simultaneously

highly dependent on the centralized organization for various services (e.g., information technology, information about accounts, paperwork processing services) and independent in their daily functioning.

### Internal Service

Employee perceptions of internal service reflect the extent to which employees perceive their units to be served well by members of the organization outside their local units in ways that facilitate their unit's delivery of service to external customers (Schneider et al., 1998). Internal service is different from service climate, which primarily develops within the local unit through leadership communication and modeling behavior (Schneider, Ehrhart, Mayer, Saltz, & Niles-Jolly, 2005), because internal service refers to how employees are served in their local units by the larger organization. That is, internal service from outside the local unit provides employees within the local unit with the capability to serve customers through other employees' actions. This capability stems primarily from resources, such as information and timely access to it. Therefore, internal service and service climate are also distinct because of their distinct sources (i.e., originating from one's local unit leadership vs. from outside one's local unit).

Mills and Ungson (2001) proposed that internal service contributes to organizational effectiveness and external customer satisfaction by optimizing the distribution of scarce resources throughout the network of locally operating units. The quality of the internal service received from support units is important for the effectiveness of local units (Johnston, 2008; Miles & Snow, 1995). In fact, Schneider and his colleagues positioned internal service as a necessary condition for the development of service climate (Schneider, Macey, & Young, 2006; Schneider et al., 1998). Although they tested it as an antecedent of service climate, Schneider et al. (1998) alluded to a moderating role for internal service as they discussed their findings. They suggested that service climate alone may have no effect on employee service-related behaviors if other working conditions, such as frequent or even occasional lapses in internal service, prevent employees from performing those behaviors.

We build on and extend this work by explicitly proposing that internal service is a moderator of the service climate-outcomes relationship. Conceptually, this makes sense because a unit's service climate can be created within the unit by local leadership through communication and behavior modeling, regardless of the internal service provided to the unit by corporate units (Liao et al., 2009; Schneider et al., 2005). Our position is that the effects of that service climate created in the local unit are dependent on the service received from external corporate units in the form of internal service. That is, employee-employee interactions within the larger organization (i.e., internal service) determine the effect of employee-customer interactions in the local unit (i.e., service climate) on customer outcomes (Schneider et al., 1998). Statistically, this involves moderation, such that the internal service experienced by local employees can facilitate or depress the extent to which the service climate is reflected in customer experiences. In testing internal service as a moderator of the climate-outcomes relationship, we also build on Liao et al. (2009) by explicating which human resource management processes serve as motivators

versus enablers of service-oriented behaviors. This contributes to the growing field of linkage research by adding to our understanding of the specific processes that underlie high-quality customer service.

### Service Climate $\times$ Internal Service Interaction

By what process do service climate and internal service affect service outcomes? As service climate reflects perceptions of the priority placed on external customer service within the local unit, it is a motivational force driving customer-oriented behavior. We propose that internal service enables employees to provide service to external customers in the way the local service climate motivates them to deliver it. In other words, the highest quality of internal service provides front-line employees with the full spectrum of required corporate support (e.g., information, tools) they need to deliver the high-quality external service their positive service climate promotes. Even minor lapses in the internal service front-line employees receive, however, may inhibit the level of external service they are able to deliver, even when they are motivated to act according to their positive service climate.

Work in the area of internal marketing provides some basis for conceptualizing internal service as a moderator (Bowen & Schneider, 1988). Internal marketing views all employees throughout an organization as responsible “to examine their own role and to adopt a customer consciousness and service orientation” (Varey, 1995, pp. 40–41). Thus, employees are called on to provide service to others within the organization, and “the effectiveness of internal transactions between units will very much influence the goal of providing value to the customer” (Mills & Ungson, 2001, p. 263). Although the internal marketing literature does not explicitly incorporate service climate, it does focus on how leaders and organizations can play a role in meeting organizational goals related to service (Rafiq & Ahmed, 2000; Wieseke, Ahearne, Lam, & van Dick, 2009). Indeed, a key component of internal marketing involves establishing practices that enable quality service to be promoted throughout the internal organization so that external customer experiences are maximized (Lings & Greenley, 2005). We invite you to consider as an example a front-line employee in a bank branch who cannot access required information for a customer, either by phone with account services or through the corporate information technology system, and therefore fails to satisfy that customer. This failure may be because the organization’s enterprise-wide information system is unavailable or because employees in a remote operations unit where the information resides have not answered their phones. Even with a local management team that effectively promotes a positive service climate, these front-line employees may be unable to answer questions posed by external customers, thereby providing subpar customer service.

We emphasize that even minor shortfalls in the level of internal service may encumber front-line employees’ abilities to deliver quality service. For instance, even if the computer system is rarely down or if an account support employee typically answers the phone, the few times these lapses occur will likely have a significant impact on the ability of front-line employees to help their customers in those particular instances.

In turn, the customers affected likely perceive poor external customer service, even if the front-line employee involved in this encounter does not believe that he or she generally receives poor internal service from the corporate functions and would not rate those functions as below average overall. In short, we expect that any degree of decreased internal service likely results in a weaker effect of service climate on external service quality than in situations in which front-line employees consistently receive the highest levels of internal service.

The customer service outcome we assessed in the current study is service quality. The importance of customer experiences of service quality for long-term organizational effectiveness (e.g., customer satisfaction, customer loyalty, revenue, market value) is well documented (for reviews, see Anderson, Fornell, & Mazvancheryl, 2004; Gruca & Rego, 2005). We have positioned internal service as providing front-line employees with the capability to deliver high-quality service and service climate as a motivating factor that makes front-line employees willing to exert effort in customer service activities (Litwin & Stringer, 1968; Potosky & Ramakrishna, 2002). We hypothesize that together they interact much as individual ability and motivation interact to predict individual-level performance (e.g., Campbell, 1990). Among business units experiencing any decrement in the quality of internal service (compared to experiencing the highest levels of internal service), the relationship between service climate and service quality is likely to be weaker, because even minor lapses in internal service limit the capability of employees to provide superior service to external customers. In contrast, among units that experience the highest levels of internal service, there is likely to be a stronger relationship between service climate and outcomes, because employees will not be encumbered in their efforts to provide the higher quality of service that is consistent with higher levels of service climate. On the basis of this logic, we offer the following:

*Hypothesis:* Internal service moderates the relationship between service climate and customer perceptions of service quality, such that the relationship is stronger among business units receiving higher rather than lower levels of internal service.

## Method

### Sample and Procedure

We collected data from all 37 retail branches of a Caribbean financial services firm. The chief retail executive sent a memorandum to employees requesting participation. Managers scheduled times over a 3-week period for employees who were available (i.e., employees whose absence from service delivery could be tolerated, given business conditions) to take the survey online via the Internet. Employees were randomly assigned passwords, and employee anonymity was ensured. We collected service climate and internal service survey data from 621 (40.2%) of the 1,546 retail branch employees; of these, 573 indicated their job level (supervisors, 49.6%; individual contributors, 44.3%; managers, 6.1%). We dropped one branch from the analyses because we learned that it was a very small auxiliary of another branch, and only two

employees responded. For the remaining 36 branches, the number of employees responding per branch ranged from 7 to 76 ( $M = 17.2$ ,  $SD = 15.8$ ), and the response rate per branch ranged from 16% to 94% ( $M = 43.7\%$ ,  $SD = 20.8\%$ ).<sup>1</sup>

Service-related outcome data were collected by phone from 1,973 external customers of the branches. The number of external customers responding per branch ranged from 28 to 92 ( $M = 54.8$ ,  $SD = 18.4$ ). We were unable to calculate a per-branch response rate because the organization did not disclose the total number of customers per branch. However, it informed us that the number of employees in a branch was proportional to the number of customers in the branch, and the phone-based data collection from customers followed a stratified random sample approach accounting for branch size (the number of branch employees).

## Measures

**Service climate.** We measured service climate with five items (e.g., “How would you rate efforts to measure and track the quality of the work and service in your work unit?”) based on work by Schneider and his colleagues (e.g., Schneider et al., 1998). The response scale ranged from 1 (*Poor*) to 5 (*Excellent*).

**Internal service.** Measuring the quality of internal service has much in common with measuring external customer service quality (Gremler, Bitner, & Evans, 1994). We assessed internal service quality with three items that reflect the work in the internal marketing literature (e.g., Foreman & Money, 1995) and the literature on service quality with regard to external customers (e.g., Zeithaml, Parasuraman, & Berry, 1990). We asked branch employees to rate the (a) timeliness of response, (b) follow-through, and (c) competence of employees of each of three critical support units of the branch system: information technology help desk, special account services, and general account services. We identified these three internal support units (information technology help desk, special account services, and general account services) based on their impact on local unit employees. That is, these are the internal support units that local unit employees rely on as they do their work, and the actions of these internal support units can affect the extent to which local unit employees can successfully serve customers. This represents a more complex approach than that of previous studies of internal service. For example, Schneider et al. (1998) asked employees to select the one unit of the organization on which they most depended and rate the internal service from that unit, but different units were selected by different respondents. We created an internal service scale score by averaging employee responses to the timeliness, follow-through, and competence items of the three support units, yielding a total of nine items. The response scale ranged from 1 (*Poor*) to 5 (*Excellent*).

**Service quality.** We collected service quality data from external customers of the bank, using eight items (e.g., “The degree to which branch employees take responsibility for handling your requests and complaints”). We developed these items based on Zeithaml et al.’s (1990) work on service quality and in consultation with line managers in the bank as well as external customers in focus group meetings. The response scale ranged from 1 (*Poor*) to 5 (*Excellent*).

## Aggregation to the Branch Level

To assess the appropriateness of aggregating scores to the branch level, we computed  $r_{WG(J)}$  (James, Demaree, & Wolf, 1984). As a

number of scholars have discussed, the choice of the null distribution is a critical issue in the use of aggregation statistics, such as  $r_{WG(J)}$  (e.g., Bliese, 2000; James et al., 1984; Kozlowski & Hattrup, 1992; LeBreton & Senter, 2008). Following Kozlowski and Hults (1987), we tested within-group agreement using multiple null distributions. We used the current data as well as a larger independent set of data to determine the response distribution of our measures. Across these two data sets, the average item variances for each scale were quite similar to LeBreton and Senter’s (2008) guideline for slightly skewed data (1.34). In addition, in past research on service climate

<sup>1</sup> There was variability across the branches in terms of the number of employees responding and the percentage of employees responding. We investigated this issue in three ways. First, in order to test the stability of our findings, we ran sensitivity analyses to determine whether excluding branches from our analyses would yield different results from the results we originally reported. First, we retested our hypothesis using only the 33 branches in which the  $r_{WG(J)}$  values were greater than .70 (calculated using a uniform distribution). These new analyses yielded the same pattern of results as did the full sample, in that the interaction term significantly predicted service quality and the nature of the interaction was the same. Moreover, the simple slope for branches higher on internal service was still significant,  $t(29) = 3.04$ ,  $p = .01$ . Second, we retested our hypothesis using only the 25 branches in which 10 or more employees responded. These new analyses yielded the same pattern of results as the full sample, in that the interaction term significantly predicted service quality and the nature of the interaction was the same. However, the simple slope for branches higher on internal service did not quite reach significance at the .05 level,  $t(21) = 2.54$ ,  $p = .054$ . Finally, we retested our hypothesis using only the 21 branches in which 33% or more of employees responded. These new analyses yielded the same pattern of results as did the full sample, in that the interaction term significantly predicted service quality, and the nature of the interaction was similar. However, the simple slope for branches higher on internal service did not reach significance at the .05 level,  $t(17) = 1.16$ ,  $p = .26$ .

Despite the differences in the significance of the simple slopes, which were likely influenced by the smaller sample sizes associated with these analyses, we were encouraged that the analyses yielded essentially the same pattern of results as the results from the full sample of 36 branches. This gave us confidence in the stability of our results. In line with Lindell and Brandt’s (2000) cautions regarding excluding units from a sample, we retained all 36 branches in our analyses. Second, we ran additional ordinary least squares analyses controlling for branch sample size and branch response rate. Results controlling for size yielded at Step 3 a change in  $R^2$  of .09 ( $p = .06$ ), which was slightly lower than the original results ( $\Delta R^2 = .104$ ). Similarly, results controlling for response rate yielded at Step 3 a change in  $R^2$  of .096 ( $p = .051$ ). We interpreted the results as reflecting the fewer degrees of freedom, due to the additional predictor, more than the size and response rate explaining significant variance (which they did not). Third, we examined the correlations between the response rate and the  $r_{WG(J)}$  values. In particular, we correlated the  $r_{WG(J)}$  values from the uniform and skewed distributions with the response rate, as well as the number of employee respondents and the total number of employees in each unit. The resulting coefficients ranged from  $-.08$  to  $.11$ , with one outlier of  $.31$  that was not statistically significant at the .05 level. We examined the scatter plot associated with the  $.31$  correlation in order to determine whether the  $r_{WG(J)}$  values were systematically lower or higher for the less responsive units. This revealed that the six lowest responding units (i.e., those with a response rate of under 25%) were associated with  $r_{WG(J)}$  values ranging from  $.79$  to  $.94$ , which reflects the full range of  $r_{WG(J)}$  values (i.e., the full range was  $.79$  to  $.97$ ). Hence, we suggest that the  $r_{WG(J)}$  values were not systematically lower or higher for the less responsive samples. Taken as a whole, these findings may allay serious concerns about the representativeness of the sample.

(e.g., Mayer et al., 2009; Schneider et al., 2005) a rectangular (uniform) null distribution has been used to calculate  $r_{WG(j)}$ . Hence, we calculated  $r_{WG(j)}$  using the rectangular distribution and slightly skewed distribution to represent the upper and lower bound estimates of within-group agreement, respectively.

For service climate, the  $r_{WG(j)}$  values of the 36 branches when using a rectangular distribution had a mean of .81 and median of .84 ( $SD = .09$ ). When we used a slightly skewed distribution, the  $r_{WG(j)}$  values had a mean of .54 and median of .64 ( $SD = .28$ ). For internal service, the  $r_{WG(j)}$  values of the 36 branches when using a rectangular distribution had a mean of .90 and median of .91 ( $SD = .05$ ). When we used a slightly skewed distribution, the  $r_{WG(j)}$  values had a mean of .68 and median of .64 ( $SD = .28$ ). For service quality, the  $r_{WG(j)}$  values of the 36 branches when using a rectangular distribution had a mean of .88 and median of .89 ( $SD = .05$ ). When we used a slightly skewed distribution, the  $r_{WG(j)}$  values had a mean of .65 and median of .74 ( $SD = .25$ ).

Based on LeBreton and Senter's (2008) standards for interpreting agreement estimates, our results primarily vary from weak agreement to strong agreement, depending on the null distribution. Overall, the results portray a range of estimates for  $r_{WG(j)}$  that provided justification for agreement.

We also calculated ICC(1), eta squared, and ICC(2) for each of the variables.<sup>2</sup> For service climate, the ICC(1) was .19, a medium to large effect (LeBreton & Senter, 2008); the analysis of variance (ANOVA) on which this value was based was significant at  $p < .0001$ , indicating a significant branch effect for climate for service. The eta squared was .23; ICC(2) was .80. For internal service, the ICC(1) was .03, a small effect (LeBreton & Senter, 2008); the ANOVA on which this value was based was significant at  $p < .05$ , indicating a significant branch effect for internal service. The eta squared was .09; ICC(2) was .31. For service quality, the ICC(1) was .05, a small to medium effect (LeBreton & Senter, 2008); the ANOVA on which this value was based was significant at  $p < .0001$ , indicating a significant branch effect for service quality. The eta squared was .07; ICC(2) was .75.

## Results

We present in Table 1 descriptive statistics, internal reliability ( $\alpha$ ) estimates, and the intercorrelation matrix. As shown there, branch employee perceptions of the branch's service climate were significantly and positively related to their perceptions of the level of internal service that they received from corporate support units outside of the branch ( $r = .36, p < .05$ ) as well as to external

customers' assessments of the service quality provided by the branch ( $r = .41, p < .05$ ). Branch employee perceptions of internal service were not significantly related to external customers' ratings of service quality ( $r = .23, p = .17$ ).

To test our hypothesis, we conducted hierarchical moderated multiple regression analyses. At the first and second steps of the analysis, we entered the main effects of service climate and internal service, respectively. At the third step, we entered the Service Climate  $\times$  Internal Service cross-product term. We recognized that ordinary least squares (OLS) regression was not the only option. There are at least three alternative multilevel approaches with which to test the hypothesis. The common approach is to use the observed sample mean as a predictor variable. This approach does not take into account the unreliability of the group mean when estimating the group-level effect and therefore potentially yields biased estimates (Lüdtke et al., 2008). A recently proposed approach is to directly estimate the hypothesized parameters with a full information maximum likelihood multilevel latent covariate model, which does consider the unreliability of the group mean when estimating the group-level effect (Lüdtke et al., 2008). The utility of this approach for investigating interactions remains to be identified, particularly when the predictor and moderator are correlated. Extending work by Croon and van Veldhoven (2007), a third approach is to use the estimate of Level 2 random effects from a random intercepts model of the predictor. The random-effects estimates are likely to be more reliable than the observed means. We implemented the first and third approaches and employed multilevel modeling (SAS proc mixed procedure) to model each of the variables and test the hypothesis. Using both approaches, we found results consistent with the results of the OLS regression; we present the results in the Appendix. For the sake of parsimony, we report below the OLS regression results.

As shown in Table 2, service climate predicted service quality ( $\beta = .41, R^2 = .17, ps < .05$ ) but internal service did not ( $\Delta R^2 = .01, p = .57$ ). The addition of the Service Climate  $\times$  Internal Service cross-product term contributed unique variance ( $\Delta R^2 = .10, p < .05$ ). We present in Figure 1 a graphical depiction of the form of the interaction (Aiken & West, 1991). The relationship between service climate and service quality was positive and significantly different from zero among branches receiving higher levels of internal service,  $t(32) = 3.10, p < .05$ , but not among branches receiving lower and moderate levels of internal service,  $t(32) = -0.68, p = .50, t(32) = 0.94, p = .35$ , respectively. That is, only in branches with the highest levels of internal service was the relationship between service climate and service quality significantly different from zero.

Table 1  
Descriptive Statistics, Alpha Reliabilities, and Correlation Matrix

Variable	<i>M</i>	<i>SD</i>	1	2	3
1. Internal service	3.51	0.30	(.88)		
2. Service climate	2.88	0.44	.36*	(.88)	
3. Service quality	3.85	0.21	.23	.41*	(.94)

Note. All variables were measured on a 5-point scale.  $N = 36$  retail branches. Internal consistency ( $\alpha$ ) reliability estimates are displayed in the diagonal.

\*  $p < .05$ .

<sup>2</sup> In our estimates of mean square between groups and mean square within groups, we used the mean number of raters ( $n = 17.19$  for employee-rated variables and  $n = 54.81$  for customer-rated service quality). In response to reviewer feedback, we also calculated ICC(2) using the median number of raters ( $n = 12$  for employee-rated variables and  $n = 50.5$  for customer-rated service quality), which did not yield substantially different results for service climate, internal service, or service quality: ICC(2)s were .74, .24, and .74, respectively.

Table 2  
Moderated Multiple Regression Results Predicting Service Quality

Predictor	Total $R^2$	$\Delta R^2$	$\beta$
Step 1	.17*		
Service climate			.41*
Step 2	.18*	.01	
Service climate			.38*
Internal service			.10
Step 3	.28*	.10*	
Service climate			.18
Internal service			.04
Service Climate $\times$ Internal Service			.40*

\*  $p < .05$ .

### Discussion

We proposed that internal service is a moderator of the relationship between service climate and customer-rated service quality. In particular, internal service enables employees to provide service to external customers in the way they are motivated to deliver it by the service climate they experience. Internal service is likely to be particularly critical in service organizations, because external service delivery is dependent on the corporate information and tools at the disposal of the front-line workers who directly interact with customers. By providing superior internal service to unit employees, the management team of a service organization positions its retail units to maximize the effects of the service climate created there. We found support for the moderating role of internal service when predicting customer reports of service quality. Service climate had the strongest effects among branches receiving the highest levels of internal service, whereas the effects among branches receiving lower and moderate internal levels of service were weaker and not significant.

### Implications for Research and Practice

Theorists writing in the service climate and internal marketing literatures have long argued that internal service plays an important role in understanding customer experiences of service quality (see Johnston, 2008; Schneider et al., 1998). Precisely how this works has not been made clear, but our findings provide empirical support for the notion that internal service provides the capacity to deliver that which a service climate motivates. We thus encourage service scholars to incorporate the moderating role of internal service in models of service climate and service delivery.

Despite the conceptual attention that internal service has received, there has been surprisingly little empirical attention to the topic (Wieseke et al., 2009). Although conceptual work is important, empirical testing of conceptual ideas is essential to advance understanding. Particularly in empirically examining joint effects of constructs, the field gains insight into the way in which they affect outcomes. Moreover, by assessing the internal service of three critical support units of the organization, we were able to show that internal service is experienced variably across branches. That is, there were significant differences across branches, not only in service climate but also in the internal service received. We acknowledge that the differences were small and that all three levels of internal service were above the midpoint of the scale. However, we believe that the fact that we found a significant interaction between service climate and internal service even when internal service scores were toward the high end of the scale further highlights the importance of any variation in internal service, even encounters representing minor or rare lapses of internal service, in affecting customer outcomes.

Practically speaking, internal service appears to have clear management implications for allowing a favorable service climate to yield positive service-related outcomes. Our findings suggest that the prediction of service quality is not limited to the service provided to external customers but extends to the service provided within the organization to those delivering service to customers. Indeed, even if a high level of service climate exists, lower (vs.

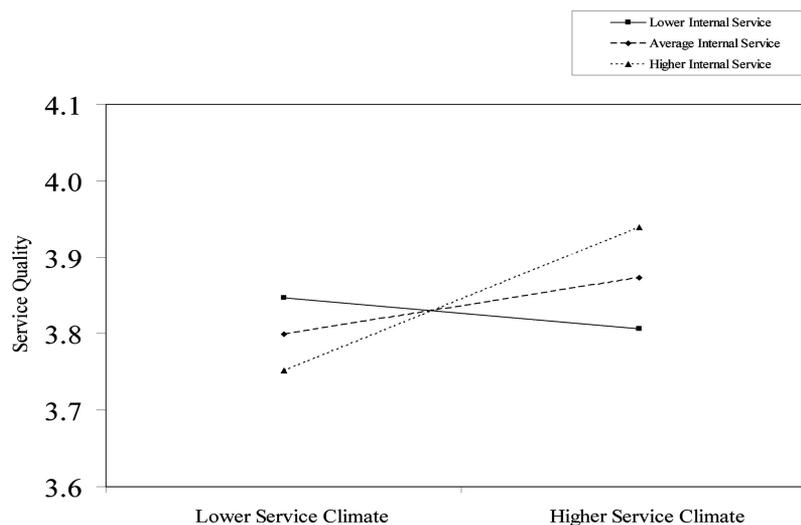


Figure 1. Service quality regressed on service climate scores across lower, moderate, and higher levels of internal service.

higher) levels of internal service may have a detrimental impact in terms of external service quality.

We remind the reader that our analyses were conducted at the branch level of analysis within a single organization. The fact that we found significant variability in the level of internal service reported by the various branches of the organization suggests that establishing internal service throughout the organization is not a simple task. In pursuit of answers to this question of variability in internal service across branches, we conducted follow-up interviews with employees in different branches of the bank. Conversations with employees suggested the relevance of social networks, such that those branches that have stronger social networks with people in the support units get better service from them. These were often described as informal networks of people who know each other and can call on each other when they need help. Indeed, network organizational theory points to the challenges of delivering internal service when in-groups form among units or when social norms outweigh formal rules (van Alstyne, 1997). We encourage future research to grapple with the question of how to encourage consistency in internal service throughout the organization. For instance, building centralized control mechanisms, unified messaging, and strong corporate identities could ensure that the highest levels of internal service become the norm for all units in the organization.

### Limitations

We emphasize four limitations of the present study. First, our sample size of 36 branches was small. Research with larger sample sizes is essential to further this area of study and increase confidence in the observed effects.

Second, the  $r_{WG(j)}$  values when using a rectangular null distribution indicated within-group agreement for all the variables, but the results for the slightly skewed distribution were not as promising. In terms of the intraclass correlation coefficient (ICC) values, the results were generally favorable for service climate and service quality but were less so for internal service. We emphasize that the low ICC(1) and ICC(2) values indicate relatively low between-unit variance in internal service and unstable group means, which raises the question of whether the results revealed here would be found in other samples. We encourage future research on the role of internal service in predicting service quality and urge caution in the application of our results until these findings have been replicated with larger samples across additional industries (e.g., hospitality).

Third, we inferred capability by assessing three aspects of internal customer service: timeliness of response, follow-through, and competence. We urge future researchers to verify our measure as well as to more directly measure the level and nature of resources needed for delivering quality service. From a conceptual standpoint, we emphasize several challenges associated with internal service. For instance, it may originate from many sources within the company (e.g., other departments) as well as outside the company (e.g., training providers or equipment manufacturers). It may be delivered via many distinct avenues (e.g., technology facilitated or face-to-face). Furthermore, it represents the provision of specific, required resources, the level and nature of which may differentially affect outcomes (e.g., certain resources provided by the IT help desk may be more important than others). Finally, the effect of tangible (e.g., accuracy, speed) and intangible (e.g., interpersonal treatment) aspects of internal service

provision may be an important distinction. Other considerations may also be relevant as the conceptualization of the internal service construct evolves. In this study, we collapsed across three major sources of internal service and focused on tangible aspects of internal service delivered by three internal support units. With larger samples, it might be possible to study more elements of internal service and map their differential influences.

Fourth, representativeness is an issue in this study. We were unable to assess the representativeness of the customer samples at the branch level and assumed that the lack of customer responses was random (i.e., missing completely at random). However, it is certainly possible that it was related to other variables in the study (i.e., missing at random) or related to customer service, the actual variable of interest (i.e., missing not at random). Hence, we emphasize that missing customer data might have biased our results, and we encourage future researchers to make efforts to collect customer response rate data.<sup>3</sup> Similarly, employee sampling varied across units; hence, employee representativeness also varied. In multilevel research, assigning an aggregated score to the unit as a whole means assuming that the score is an accurate reflection of the entire unit, which requires that the sample be representative of the unit. We encourage future researchers to make sure that the sampling plan yields representation, particularly in multilevel research.

### Conclusion

Our findings suggest that internal service plays an important role in determining the level of external service that is delivered to customers by acting as a moderator of the relationship between service climate and service outcomes. By providing employees with the capability to deliver high-quality service, internal service strengthens the motivational impact of service climate on external customer service. Although more empirical work is needed, this initial effort suggests that both internal service and service climate are important for service organizations to deliver a positive customer experience and, ultimately, organizational effectiveness.

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## Appendix

### Alternative Analytical Approaches

Predictor	OLS	Approach 1	Approach 3
Intercept	3.84**	3.82**	3.83**
Service climate	0.08	0.12	0.19
Internal service	0.03	-0.11	-0.43
Service Climate $\times$ Internal Service	0.43*	0.56**	2.43**

*Note.* The ordinary least squares (OLS) approach is framed at the aggregate level, such that both predictors and the criterion were at Level 2. For Approaches 1 (random effects) and 3 (effects estimates), the predictors were at Level 2 and the criterion was at Level 1, representing a cross-level approach. Coefficients in the table are unstandardized.

\*  $p < .05$ . \*\*  $p < .01$ .

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