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Is service climate strength beneficial or detrimental for service quality delivery?

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Full title: Is Service Climate Strength Beneficial or Detrimental for Service Quality Delivery?

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ABSTRACT

This study examines whether climate strength has a direct, moderating, or curvilinear effect in the relationship between service climate and customer service quality perceptions. To this end, we carried out cross-sectional and lagged empirical studies in the Spanish hospitality sector. Our cross-sectional results confirmed that high climate strength in managerial practices fosters a positive impact of managerial practices on customer service quality evaluations. However, other results related to customer orientation of services question the idea that service climate strength is always a precursor of service quality. High climate strength in customer orientation enhanced the negative relationship between customer orientation and functional service quality in a cross-sectional study, and between customer orientation and relational service quality in a lagged study. In addition, an examination of curvilinear effects of climate strength revealed an inverted U-shaped relationship between climate strength in customer orientation and relational service quality over time. The article concludes with a discussion of these results.

Keywords: service climate, service quality, climate strength, curvilinear effects

Is Service Climate Strength Beneficial or Detrimental for Service Quality Delivery?

Increased competition in the service sector has forced organizations to pay more and more attention to the quality of service they provide to their customers (e.g. Schneider, Salvaggio, & Subirats, 2002; Salanova, Agut, & Peiró, 2005). As a response to this situation, a substantial body of empirical research has studied service-related variables, relating organizational issues to customer service quality experiences. In this way, previous studies have consistently confirmed a positive relationship between employees' perceptions of service climate and customers' perceptions of service quality (e.g., Hui, Chiu, Yu, Cheng, & Tse, 2007; Schneider & Bowen, 1985; Schneider, White, & Paul, 1998; Schneider, Bowen, Ehrhart, & Holcombe, 2000; Salanova et al., 2005). The rationale linking employees' perceptions of service climate to customer service quality experiences is based on the idea that what happens internally in an organization regarding service quality created for the employees influences their behavior towards customers, which leads to the service quality that customers experience (Schneider et al., 2002). Service climate has been defined as "employees' shared perceptions of the policies, practices, and procedures that are rewarded, supported, and expected concerning customer service" (Schneider et al., 2002, p. 222). Moreover, customer perceptions of service quality can be considered outcomes of service performance (e.g., Schneider et al., 1998, 2002) that can be shared by the customers of a branch.

Building on this past research, and considering Chan's (1998) proposal about dispersion composition models, Schneider and colleagues (2002) highlighted the importance of studying not only the average service climate of a certain setting or branch (aggregation of individual climate perceptions), but also the climate strength. Climate strength has been defined as the degree of within-group consensus in employee climate perceptions (Schneider

et al., 2002). Although research on climate strength is relatively new, Dawson, González-Romá, Davis, and West (2008) recently highlighted that climate strength has been suggested as playing three different types of roles in predicting organizational outcomes.

First, the suggestion has been made that climate strength has a direct, linear impact on outcomes, such as performance and other affective consequences, above and beyond the direct effects of average climate. Following the similarity-attraction paradigm (Dawson et al., 2008), this approach is founded on the argument that individuals tend to be attracted to those who are more similar to them. Such similarity is associated with better communication and cohesion (Tsui & O'Reilly), which are, in turn, positively related to performance (Dawson et al., 2008). In this vein, the first major study on consensus between team members in climate perceptions was conducted by Lindell and Brandt (2000). These authors argued that low consensus in climate perceptions would lead to interpersonal friction and conflict, contributing to more negative outcomes. However, they failed to support this argument, as they did not find any direct effects of climate consensus on the studied outcomes, such as performance.

Second, previous research has suggested and examined a moderating role of climate strength in the relationship between average climate and outcomes, following Mischel's (1973) concept of situational strength. This approach suggests that strong situations are created when aspects of the situation lead people to perceive events the same way, induce uniform expectations about the most appropriate behavior, and instill necessary skills to perform that behavior (Schneider et al., 2002). In contrast, individuals in weak situations do not perceive events in the same way, and expectations about the appropriate behavior are not consistent. Following this perspective, Schneider et al. (2002), in their study in bank branches, argued that in the typical customer service setting, different customers interact with different service providers within the service setting on various occasions. Due to this characteristic of

service settings, the less consistency there is within a certain work-team regarding the service climate, the more diverse the customer experiences will be (Schneider et al., 2002). In contrast, high agreement in service climate perceptions between service providers on a given work-team (strong service climate) implies that the employees work as a team, as a "united front", which makes customer perceptions of service quality more consistent over time and across employees. Schneider et al. (2002) conducted a concurrent and a predictive study with a sample of 118 US bank branches, in order to examine this assumption. In the concurrent study, they confirmed a moderating role of climate strength in the relationships between managerial practices and all the service quality dimensions studied (overall quality, efficiency, security, competency and relationships), showing that climate strength enhanced the positive relationship between managerial practices and customer service quality perceptions. Similar findings were obtained in the predictive study, but only for the overall quality, security and relationships service quality scales. Other studies found similar results regarding the moderating role of climate strength in the relationships between average team climate and different team outcomes, such as work satisfaction and organizational commitment (González-Romá, Peiró, & Tordera, 2002) and emotional exhaustion (Moliner, Martínez-Tur, Peiró, Ramos, & Cropanzano, 2005).

However, following classic social psychology theories, such as groupthink theory (Janis, 1972, 1981), we might suggest that climate strength also negatively moderates the relationship between climate and outcomes. Janis (1972) defined groupthink as "a mode of thinking that people engage in when they are deeply involved in a cohesive in-group, when the members' strivings for unanimity override their motivation to realistically appraise alternative courses of action" (p. 9). Groupthink represents poor decision making, since it cuts-off the necessary consideration of advantages and disadvantages of other possible solutions (Ahlfinger & Esser, 2001). Some of the most important antecedents of groupthink

are high levels of cohesiveness, lack of leader impartiality, low group efficacy, high stress and member homogeneity (Henningsen, Henningsen, Eden, & Cruz, 2006). Regarding the consequences, one of the most significant outcomes of groupthink is diminished performance (Henningsen et al, 2006). According to Janis (1981), groupthink causes an inability to make a high quality decision, which leads to lower team performance. Although groupthink refers to decision-making theory, it could be useful in understanding the effects of service climate strength. Contact employees are frequently under high pressure to deliver the highest service quality possible, so that their organizations remain competitive on the service market. High within-unit agreement could indicate that groupthink had developed in the team. A combination of high service climate and high within-unit agreement could describe a self-complacency situation, reflecting a lack of orientation toward listening to customers, with potential negative effects on customer evaluations (Peiró, Martínez-Tur, & Ramos, 2005).

Finally, based on diversity theory, past research has also suggested a curvilinear relationship between climate strength and organizational outcomes (Dawson et al., 2008; Williams & O'Reilly, 1998). As Dawson et al. (2008) have stated, climate strength as a measure of deviation within a team can be considered a diversity construct. Specifically, in line with Harrison, Price, and Bell (1998), it can be considered a deep-level diversity construct, since it is based on psychological features that are not easily observed (i.e. climate perceptions). Taking these arguments into consideration, previous research has suggested that climate strength has a positive effect on outcomes such as team performance (and service quality can be considered here), until it reaches an optimal level (Dawson et al., 2008; Williams & O'Reilly, 1998). After this optimal level, it has a negative effect (an ''inverted-U'' relationship) on performance. In other words, following this perspective, team members who do not agree, and team members who absolutely agree, about their climate, show the lowest performance; that is, these teams deliver low service quality. In the former case, an

absolute disagreement about team climate might lead to conflicts and poor communication, which leads to lower performance. In the latter case, full agreement might indicate groupthink (as discussed previously), which leads to a lack of different solutions and hampers innovation and team performance. According to this approach, a compromise between these two positions (team members show a moderate level of agreement) leads to optimum team performance.

Taking into account the existing literature about the role of climate strength in organizational outcomes, this study aims to examine the three competing models of the effects of climate strength on performance. Compared to previous research on these issues (Dawson et al., 2008), we take into account different dimensions of service climate and examine all possible roles of service climate strength in service quality delivery in a cross-sectional and lagged study. To some extent, the present study aims to replicate the study by Schneider et al. (2002). Using a sample of contact employees from the Spanish hospitality sector, we attempt to cross-validate their cross-sectional and lagged findings in a different sector and in a country where tourism is one of the most important industries. However, by also examining a curvilinear relationship between climate strength and service quality, the present study extends the Schneider et al. (2002) study, and aims to contribute to the least examined part of climate strength research.

Method

Sample and procedure

In all, 60 Spanish hotels participated in the present study. We collected the data from contact employees and customers, totally different from the ones who participated in the Salanova et al. (2005) study. In each hotel two work-teams were considered: (1) hotel receptionist employees and (2) restaurant employees. Social interaction with customers was

an important part of the employees' daily work in both types of work teams. The final sample

in the cross-sectional study consisted of 117 work units (60 hotel receptions and 57

restaurants). Specifically, the employee sample was composed of 445 employees, and the

customer sample was composed of 1123 customers. Employees evaluated service climate,

while customers assessed service quality delivered by work-units. The cooperation of hotel

customers was requested, taking advantage of the moment they were using the reception

service. The first sentence of the questionnaire forced them to focus their attention on the

lodging services they were using, excluding restaurants. For restaurants, the researchers

requested the participation of customers after their consumption experience (lunch or dinner)

with the focal restaurant. They were forced to focus their attention only on the restaurant they

had used, excluding the rest of the services in the hotel in question. All participant customers

received an explanation by a researcher indicating the focus of the evaluation. Other

customers of the same services evaluated service quality again three months later (T2). In all

cases, the 3-month lag was computed once the first measurement time period (T1) had been

completed for each work-unit in question. A short 3-month lag was chosen because the

Spanish hospitality industry is characterized by the existence of a large amount of temporary

workers (Spanish National Statistic Institute, 2008). The 3-month lag avoids critical changes

in the workforce (from T1 to T2) whose performance is evaluated by customers. Due to

missing customer data and the declining participation of hotels, the sample in this second

wave of data collection was composed of 984 customers, who assessed service quality

delivered by 107 work-units (55 hotel receptions and 52 restaurants).

Participation in the survey was voluntary and anonymous for both employees and

customers. Data were collected at the service sites using a "real time approach", where the

assessment occurs during on-site experience and reflects a direct evaluation of the focal

service in question (Stewart & Hull, 1992).

Measures

Employee perceptions of service climate were assessed by a shortened Spanish version of the Schneider et al. (1998) scale (Salanova et al., 2005). This questionnaire measures 4 dimensions of service climate, each of them assessed by 4 items: a) *Global service climate* (e.g. "Employees are provided with tools, technology, and other resources to support the delivery of quality work and service"); b) *Customer feedback* (e.g. "Employees are informed about customer complaints"); c) *Customer orientation* (e.g. "In this hotel, customer satisfaction is most important"); and d) *Managerial practices* (e.g. "My supervisor recognizes and appreciates high quality work and service"). We submitted the polychoric correlation matrix for the 16 items to a confirmatory factor analysis (CFA) to confirm the four-factor structure of the measure. The weighted least square method of estimation as implemented in LISREL 8.3 (Jöreskog & Sörbom, 1993) was used. The following fit indices were obtained: $\chi^2(98) = 291.30$, $p < .01$; CFI = .97; RMSEA = .07; SRMR = .20, showing an acceptable fit for the four-factor model. This fit was compared to the fit of a one-factor model, whose goodness-of-fit was the following: $\chi^2(104) = 441.16$, $p < .01$; CFI = .95; RMSEA = .09; SRMR = .28. The difference between chi-square values, $\chi^2(6) = 149.86$, $p < .01$, revealed that the four-factor model yielded a better fit.

Climate strength in each service climate dimension was operationalized in terms of the average deviation index ($AD_{M(J)}$) (Burke, Finkelstein, & Dusig, 1999) multiplied by -1 (see Dawson et al., 2008; González-Romá et al., 2002). Accordingly, the greater the $AD_{M(J)}$, the greater the agreement within the work team climate (or strength).

Customer perceptions of service quality were measured by functional-relational service quality scales (Peiró et al., 2005; Sánchez-Hernández, Martínez-Tur, Peiró, & Ramos, 2009). First, we used 6 items to assess *Functional service quality*, describing the efficiency with which the core service is provided (e.g. "Employees know how to solve customers'

problems"). Second, we measured *Relational service quality* with 11 items. This dimension reflects the evaluation of relational or emotional benefits that customers receive (e.g. "The employees put special interest into taking care of the customers"). Following a procedure similar to the one described above, we tested the fit of the hypothesized two-factor model in each measurement time. The following fit indices were obtained at Time 1: $\chi^2(113) = 339.76$, $p < .01$; CFI = .99; RMSEA = .05; SRMR = .09, showing an acceptable fit for the two-factor model. This fit was compared to the fit of a one-factor model, whose goodness-of-fit was the following: $\chi^2(119) = 752.28$, $p < .01$; CFI = .97; RMSEA = .07; SRMR = .23. The difference between chi-square values, $\chi^2(6) = 412.52$, $p < .01$, revealed that the two-factor model yielded a better fit. At Time 2, the following fit was obtained for the two-factor model: $\chi^2(113) = 255.02$, $p < .01$; CFI = .99; RMSEA = .04; SRMR = .10, yielding an acceptable fit. Comparing the fit of this model to the fit of the one-factor model ($\chi^2(119) = 471.82$, $p < .01$; CFI = .98; RMSEA = .06; SRMR = .21), we can conclude that at Time 2 the two-factor model also yielded a better fit ($\Delta\chi^2(6) = 216.8$, $p < .01$).

All items were scored on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The alpha reliability coefficients of applied measures are shown in Table 1.

Control variables. We controlled for the effect of type of work-team (dummy variable) because social interaction processes between employees and customers are different for reception services vs. restaurants. For example, the prototypical service encounter between customers and receptionists is brief, while each service encounter in a restaurant tends to last a longer time.

Data aggregation

Agreement at the work-team level was satisfactory (see Dunlap, Burke, & Smith-Crowe, 2003): the mean values of the average deviation index $AD_{M(J)}$ (Burke et al., 1999) across all variables was .79, ranging from .66 (functional quality T1) to .88 (global service

climate). The mean interrater agreement index $r_{wg(J)}$ (James, Demaree, & Wolf, 1984) was.72, ranging from .61 (customer feedback) to .77 (functional quality T1). Moreover, the average ICC(1) across all variables was .20, ranging from .17 (functional quality T1) to .23 (global service climate), and the average ICC(2) was .61, ranging from .45 (customer orientation) to .72 (relational quality T2). Finally, one-way ANOVA indicated that work-teams differed significantly in their employee perceptions of service climate and customer perceptions of service quality.

Analyses

We applied hierarchical regression analysis to explore the relationships between climate strength and customer perceptions of service quality. We introduced a control variable (type of work unit) in the first step. We entered four mean service climate scales in the second step. Next, climate strengths in all service climate scales were added. Finally, in the fourth step we introduced four interaction terms between mean service climate scales and their respective strengths. This procedure is more stringent than those used in previous studies that examined the effects of different climate dimensions and their strengths on organizational outcomes (e.g. Dawson et al., 2008; Schneider et al., 2002). It effectively controls for the correlations between mean climate scales and their climate strengths.

To examine curvilinear effects of climate strength on customer perceptions of service quality, we first calculated quadratic terms for each climate strength (Dawson et al., 2008). Next, we introduced these terms in the fourth step, separately from the interaction terms, as in previous research (Dawson et al., 2008). To control for type I error, we only interpreted as significant those effects that reached at least $p < .05$ in all analyses.

Results

Descriptive statistics are presented in Table 1. Although the correlations between climate scales were relatively high, the confirmatory factor analysis described in the method section showed that the four climate scales are separate constructs.

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Next, we present our results for the cross-sectional and lagged studies separately.

Cross-sectional results

We did not find any direct effects of mean service climate scales and their respective strengths on service quality (see Table 2 and Table 3) in the cross-sectional analysis.

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However, we found significant interaction effects of customer orientation and managerial practices on functional quality ($\beta = -.27$; $p < .05$ and $\beta = .31$; $p < .05$, respectively). We plotted these interactions, in order to clarify the direction of the moderating effects. Following Aiken and West (1991), we plotted the regression lines of functional quality on customer orientation and managerial practices at 1 standard deviation below and 1 standard deviation above the mean of climate strength in each service climate dimension.

Regarding the moderating role of customer orientation, our results showed that high climate strength fostered the negative relationship between customer orientation and functional quality (see Figure 1). In contrast, the strength in managerial practices fostered a

positive relationship between managerial practices and customer perceptions of functional quality. These results replicate the cross-sectional results of Schneider et al. (2002).

Finally, we did not find any curvilinear effects of climate strength on functional quality or on relationship quality, although a curvilinear effect of strength in customer orientation on functional quality was close to becoming significant (see Table 2).

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Lagged results

In the same line as Schneider et al. (2002), we next examined lagged moderating effects of service climate strength in the relationships between team service climate and service quality evaluated 3 months later. As in the cross-sectional analysis, our lagged results did not show any direct effects of mean service climate scales and their strengths on functional or relational quality (see Tables 4 and 5). Moreover, we found a significant interaction effect between mean customer orientation and its climate strength in the prediction of relational quality ($\beta = -.32$; $p < .05$). We plotted this interaction effect following the similar procedure as outlined previously (Aiken & West, 1991).

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Similarly to the cross-sectional study, our results showed that high climate strength in customer orientation fostered the negative relationship between customer orientation and relational quality (see Figure 3).

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This finding can be explained to some extent by a significant curvilinear effect of strength in customer orientation on relational quality (β = -.36; p < .01, see Table 5). As can be seen in Figure 4, only moderate levels of climate strength are beneficial for the delivery of high relational quality over a period of 3 months, whereas low and high levels of strength in customer orientation have detrimental effects on relational quality over time.

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Finally, it is also worth mentioning that we found curvilinear relationships between strength in customer orientation and in managerial practices, respectively, and functional quality over time. However, these two relationships did not increase the proportion of the explained variance in functional quality and, therefore, cannot be interpreted as significant.

Discussion

The present study aimed to analyze three competing models for the effects of climate strength on service quality (performance), taking into account different dimensions of service climate. Contrary to previous research in this area, we used a more stringent test in our analysis, examining all the studied climate dimensions together. Moreover, we examined the three possible roles of service climate strength in a cross-sectional study and a lagged study.

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In this way, the present study aims to replicate and extend the findings of Schneider et al. (2002) in the Spanish hospitality sector.

We cross-validated the original findings in a cross-sectional study by finding that strength in managerial practices fostered the positive relationship between managerial practices and customer service quality perceptions. Following Schneider et al.'s (2002) reasoning, it seems that supervisors and/or managers have a more direct and more immediate impact on work-teams' behavior, whereas other service climate dimensions, such as customer orientation and feedback, can be considered outcomes of management behavior. In this line, our findings suggest that when management consistently rewards and supports subordinates' high quality service delivery, these employees will indeed deliver high service quality to their customers. This finding is congruent with the critical role of supervisors in the reactions of subordinates (House, 1981; Pines, 1983). However, contrary to Schneider et al.'s (2002) study, the interaction between managerial practices and their strength did not predict any of the service quality dimensions in the present lagged study.

In fact, contrary to Schneider et al. (2002), we found that the interaction between customer orientation and its strength increased the predictability of functional service quality in a cross-sectional study and relational quality over a period of three months. However, these interaction effects were in the opposite direction to what was predicted by Schneider and colleagues (2002), raising some important questions about how important consensus in service climate perceptions is for service quality delivery in hospitality settings.

Specifically, we found that higher customer orientation was related to lower functional quality and lower relational quality three months later, when the climate strength in customer orientations was high. Thus, high agreement regarding customer orientation was found to diminish the service quality delivery instead of enhancing it. On the one hand, some previous research that examined the role of agreement in team outcomes found similar results. For

instance, Boies and Howell (2006) found that the relations between teams' average LMX and team conflict and team potency were stronger when there was a high level of within-team differentiation (i.e. lower agreement). On the other hand, classic studies about group functioning (Janis, 1981) might offer a tentative explanation of these results.

We could argue that when customer orientation was high, teams that strongly agreed about their evaluation of the service climate developed groupthink and the negative consequences associated with this phenomenon (Janis, 1981), such as lower performance. It is noteworthy that customer orientation refers to the degree to which an organization emphasizes the importance of meeting customer needs and expectations for service quality (Schneider et al., 1998). We could argue that satisfying customers' wishes and needs is the most important task of contact employees in the hospitality setting or any service setting in current competitive markets, which could provoke situations of high stress. In this sense, the argument that groupthink could have emerged, leading to lower team performance, might be valid. The combination of high service climate and high strength could provoke self-compliance and unquestioned practices, indicating lack of customer orientation and negative effects on customer evaluations of services (Peiró et al., 2005).

In addition, while no direct, linear effects of any climate strength was observed, the analysis of curvilinear effects of climate strength on service quality revealed an inverted U-shaped relationship between strength in customer orientation and relational quality over time. Although not significant at the acceptable level, strength in customer orientation was also found to have a marginally significant curvilinear effect on functional quality in the cross-sectional study.

Our curvilinear findings support research on diversity that suggests a curvilinear relationship between diversity and organizational outcomes, such as performance (Williams & O'Reilly, 1998). Moreover, our results are also in line with Harrison et al. (1998), who

found that the negative effects of deep-level diversity on group cohesiveness strengthened over time and, as noted in the introduction, climate strength can be considered a deep-level diversity construct. Thus, our findings show that high and low climate strength are detrimental to high service quality, and that only moderate levels of agreement in customer orientation lead to optimal service quality delivery. The observed curvilinear effect of customer orientation on relational quality clarifies the negative moderating effect of climate strength in customer orientation previously discussed. That is, in an inverted U-shaped relationship we have two extreme situations: high climate strength (high agreement) and very low climate strength (high disagreement). High agreement might be indicative of very similar opinions and perceptions within the team regarding aspects other than simply the organizational or group climate (Dawson et al., 2008). As proposed by the groupthink theory (Janis, 1981), when team members tend to agree about everything, there will most likely be a lack of a range of perspectives within the team, leading to less effective team work. In contrast, if team members disagree significantly, this situation can lead to intragroup conflict and, consequently, lower performance. Therefore, and in line with our results, only a compromise between these two extreme positions, characterized by some diversity in perspectives and, at the same time, by moderate levels of agreement, would lead to optimal service quality.

It is especially remarkable that all results indicating a negative effect of consensus on service quality refer to the customer orientation service climate dimension. High agreement could describe a situation where self-complacency and unquestioned practices are likely to be adopted in the interpretation of organizational customer orientation. In contrast, a certain level of disagreement could stimulate self-reflection and the improvement of existing practices related to the customer orientation.

Limitations and implications for future research

The present study has some limitations that should be prevented in future research. Although it is difficult to specify a threshold for acceptable reliability of ICC (2), in some cases the levels for this index were lower than what is usually considered acceptable, especially for employees' means. Since ICC(2) estimates the reliability with which the aggregated ratings differentiate between groups, this result could indicate that the reliability of aggregated group means was not appropriate. This index is usually affected by the number of micro-units per macro-units, increasing its value when this proportion increases (Snijders & Bosker, 1999). The fact that this proportion was relatively low in the employee groups (3 micro-units per macro-unit) could be the cause for the low ICC (2) levels. Further research should increase the number of subjects per unit in order to avoid this problem. Moreover, we believe that the present study, together with the original study where a different time lag was used, suggests that time may be a factor in service climate-service quality lagged relationships. Whereas we used a 3-month time lag between our two service quality evaluations, Schneider et al. (2002) used a 3-year time lag. Although to our knowledge there are no theoretical foundations about what time lag is most appropriate, future research might address this issue in more depth using different time lags, guided by the characteristics of the research settings. Nevertheless, the discrepancy between our and Schneider et al.'s (2002) lagged findings and ours might be attributed to the differences between the banking and hospitality sectors. Thus, future research should examine the role of climate strength in other settings to determine under what conditions optimal service quality is delivered to customers in different industries.

In spite of these limitations, our results contribute to the previous service climate literature in two directions. First, different ways of connecting service climate strength to customer service quality perceptions are examined, controlling for the effects of all service climate dimensions simultaneously. Second, the results question the assumption that

agreement always has a positive effect on customer service quality perceptions. In fact, other options are possible, and our results stimulate future research efforts to explore how service climate strength is related to customer evaluations of services.

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Table 1. *Means, Standard Deviations and Pearson correlations for the studied variables.*

	M	Range	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Type of work unit	.51	0-1	.50													
2. Global service climate	4.98	2.56-7.00	.92	.03	*.83*											
3. Customer feedback	5.43	2.83-7.00	.93	.04	.48**	*.84*										
4. Customer orientation	5.79	3.25-7.00	.81	-.08	.64**	.64**	*.89*									
5. Managerial practices	5.54	2.75-7.00	.89	.01	.62**	.56**	.69**	*.91*								
6. GSC Strength	-.88	-2.38-.00	.45	.07	.51**	.34**	.40**	.38**								
7. CF strength	-.86	-2.06-.00	.49	-.04	.35**	.73**	.53**	.40**	.59**							
8. CO strength	-.74	-2.38-.00	.47	.00	.53**	.59**	.84**	.57**	.53**	.63**						
9. MP strength	-.79	-2.06-.00	.47	-.07	.42**	.42**	.47**	.64**	.68**	.58**	.56**					
10. Functional quality T1	5.98	4.58-7.00	.48	.16	.08	.14	.18	.15	.00	.10	.21*	.06	*.90*			
11. Relational quality T1	5.53	4.35-6.70	.56	.05	.13	.12	.17	.15	.04	.10	.21*	.08	.83**	*.94*		
12. Functional quality T2	5.95	4.48-6.97	.53	.05	.07	-.14	-.02	-.04	.02	-.11	-.01	-.06	.31**	.81**	*.92*	
13. Relational quality T2	5.47	3.74-6.99	.67	.08	.06	-.13	-.07	-.05	-.03	-.16	-.05	-.11	.34**	.81**	.89**	*.95*

Note. Italicized values are Cronbach alpha reliability coefficients. GSC – global service climate; CF – customer feedback; CO – customer orientation; MP – management practices. *$p<.05$ **$p<.01$.

Table 2

Cross-sectional results of regression analyses of functional quality on climate and climate strength

		β	R^2	ΔR^2
Step 1	Type of work unit	.16	.03	.03
Step 2	Global service climate (GSC)	-.10	.07	.04
	Customer feedback (CF)	.02		
	Customer orientation (CO)	.19		
	Managerial practices (MP)	.07		
Step 3	GSC strength	-.20	.10	.03
	CF strength	.06		
	CO strength	.31		
	MP strength	-.02		
Step 4	GSC x GSC strength	.09	.21	.11*
Moderating effects	CF x CF strength	.08		
	CO x CO strength	-.27*		
	MP X MP strength	.31*		
Step 4	GSC strength^2	.16	.16	.06
Curvilinear effects	CF strength^2	.01		
	CO strength^2	-.22		
	MP strength^2	.15		

Note. All regression coefficients in the table are standardized. *$p < .05$.

Table 3

Cross-sectional results of regression analyses of relational quality on climate and climate strength

		β	R^2	ΔR^2
Step 1	Type of work unit	.05	.01	.01
	Global service climate			
Step 2	(GSC)	.02	.04	.03
	Customer feedback (CF)	-.01		
	Customer orientation (CO)	.14		
	Managerial practices (MP)	.04		
Step 3	GSC strength	-.14	.06	.02
	CF strength	.05		
	CO strength	.32		
	MP strength	-.03		
Step 4	GSC x GSC strength	.14	.12	.06
Moderating effects	CF x CF strength	.01		
	CO x CO strength	-.22		
	MP X MP strength	.18		
Step 4	GSC strength^2	.23	.12	.06
Curvilinear effects	CF strength^2	-.08		
	CO strength^2	-.16		
	MP strength^2	.10		

Note. All regression coefficients in the table are standardized.

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Table 4

Lagged results of regression analyses of functional quality on climate and climate strength

		β	R^2	ΔR^2
Step 1	Type of work unit	.05	.01	.01
	Global service climate			
Step 2	(GSC)	.19	.05	.04
	Customer feedback (CF)	-.22		
	Customer orientation (CO)	.04		
	Managerial practices (MP)	-.06		
Step 3	GSC strength	-.02	.05	.00
	CF strength	-.02		
	CO strength	.12		
	MP strength	-.07		
Step 4	GSC x GSC strength	-.19	.12	.07
Moderating effects	CF x CF strength	.05		
	CO x CO strength	-.25		
	MP X MP strength	.14		
Step 4	GSC strength^2	-.11	.14	.09
Curvilinear effects	CF strength^2	.09		
	CO strength^2	-.23*		
	MP strength^2	.34*		

Note. All regression coefficients in the table are standardized. *$p < .05$.

Table 5

Lagged results of regression analyses of relational quality on climate and climate strength

		β	R^2	ΔR^2
Step 1	Type of work unit	.08	.01	.01
Step 2	Global service climate (GSC)	.22	.05	.04
	Customer feedback (CF)	-.17		
	Customer orientation (CO)	-.05		
	Managerial practices (MP)	-.07		
Step 3	GSC strength	-.04	.06	.01
	CF strength	-.08		
	CO strength	.14		
	MP strength	-.10		
Step 4	GSC x GSC strength	-.12	.17	.11*
Moderating effects	CF x CF strength	-.04		
	CO x CO strength	-.32*		
	MP X MP strength	.06		
Step 4	GSC strength^2	-.12	.16	.10*
Curvilinear effects	CF strength^2	-.01		
	CO strength^2	-.36**		
	MP strength^2	.26		

Note. All regression coefficients in the table are standardized. $+p < .1$ $*p < .05$ $**p < .01$.

Figure captions

Figure 1. Moderating effect of climate strength in customer orientation on the relationship between customer orientation climate and functional quality in the cross-sectional study.

Figure 2. Moderating effect of climate strength in managerial practices on the relationship between managerial practices and functional quality in the cross-sectional study. MP - managerial practices.

Figure 3. Moderating effect of climate strength in customer orientation on the relationship between customer orientation and relational quality in the lagged study.

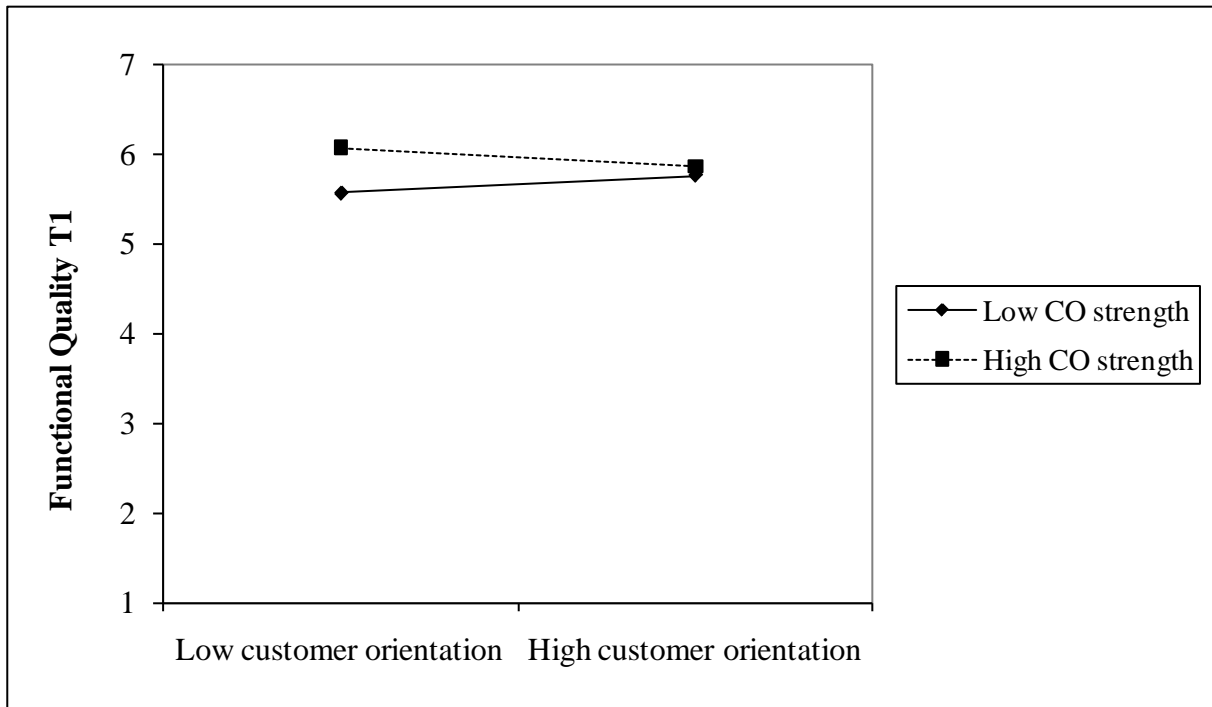Figure 4. Lagged curvilinear effect of climate strength in customer orientation on relational quality.
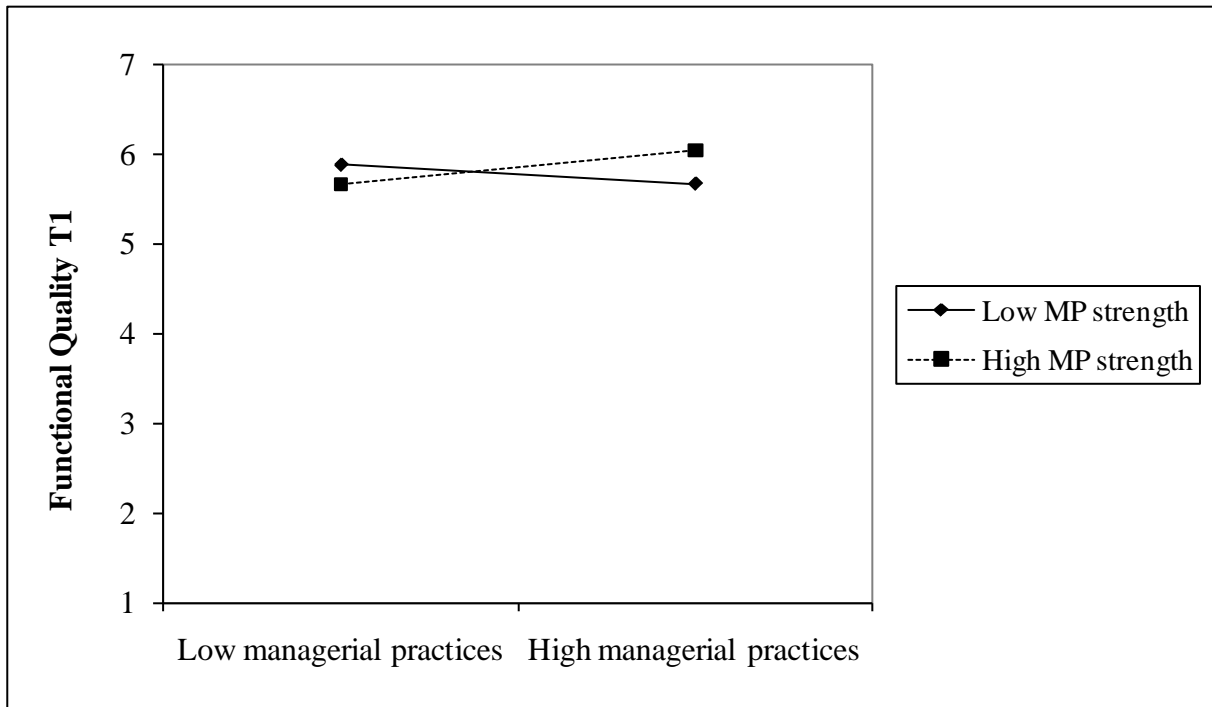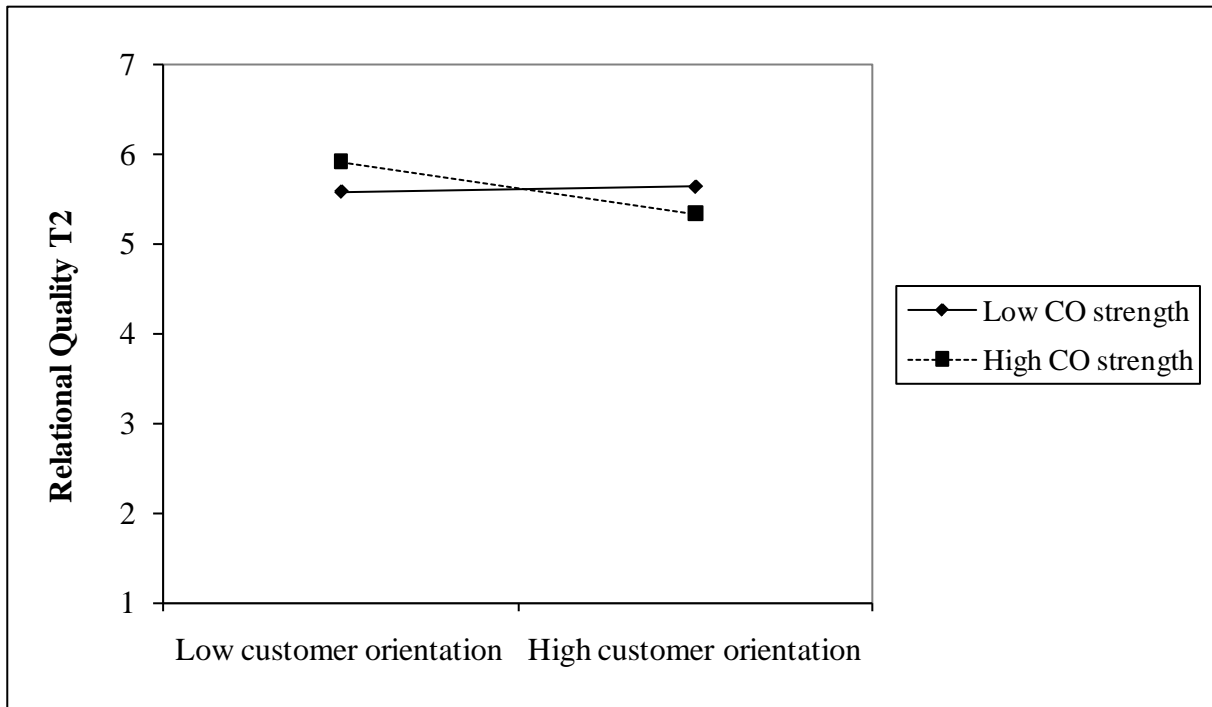
Figure 1

Figure 2

Figure 3

Figure 4

Relational Quality T2

Climate strength in customer orientation