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Autores / Autors Esther Gracia, Marisa Salanova, Rosa Graub, Eva Cifre

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RUNNING HEAD: COLLECTIVE WORK ENGAGEMENT AND RELATIONAL
SERVICE COMPETENCE

How to enhance service quality through organizational facilitators, collective work
engagement and relational service competence

Esther Gracia,

Universidad de Valencia

Marisa Salanova, Rosa Grau, and Eva Cifre

Universitat Jaume I de Castellón

Correspondence should be addressed to Esther Gracia, Department of Social Psychology,
Universidad de Valencia. Facultad de Psicología. Av. Blasco Ibáñez, 21, 46010 Spain.
Telephone: +34 96 3864582; Fax: + 34 96 3864688 Email: Esther.Gracia@uv.es

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How to enhance service quality through organizational facilitators, collective work engagement and relational service competence

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Collective Work Engagement and Relational Service Competence 1

Abstract

This study aims to test how collective work engagement and relational service competence, as affective and cognitive-competent collective states, mediate the relationship between organizational facilitators and customers' perceptions of service quality. In all, 107 service-oriented units were aggregated from 615 service workers and 2165 customers. Structural equation modelling confirmed that organizational facilitators are related to collective work engagement and relational service competence, which play a mediating role between organizational facilitators and service quality. While collective work engagement plays a partially mediating role between organizational facilitators and relational service competence, relational service competence plays a fully mediating role between collective work engagement and service quality. A discussion and limitations are also provided.

Keywords: Organizational facilitators, collective work engagement, relational service competence, service quality.

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How to enhance service quality through organizational facilitators, collective work engagement and relational service competence

Human capital, the aggregated knowledge, skills and abilities of a work unit, is an inimitable resource that contributes to the competitive advantage of service organizations, (Ployhart, Weekley & Ramsey, 2009). The fact that services are typically intangible and non-standardized make front-line workers critical factors for service quality (Tsaur & Lin, 2004), which refers to customers' subjective evaluation of the service received and one of the best indicators of service organizations' profitability.

In this vein, the Human Capital theory argues that companies that provide their workers with support will recover their costs through future benefits (Becker, 1964). Moreover, this issue is in line with psychological approaches that are currently in vogue, such as Positive Psychology (Luthans, 2002), Positive Organizational Behaviour (POB; Bakker & Schaufeli, 2008) or Occupational Health Psychology (OHP; Quick, Paulus, Whittington, Larey & Nelson, 1996), which support the idea that taking care of workers provides more positive organizational outcomes.

In accordance with these approaches, this study aims to test whether investment in selected Human Resources (HR) practices of workers (i.e. organizational facilitators) in hospitality services is related to levels of collective work engagement, which may be indirectly related to higher service quality (as reported by customers) through units' relational service competence. Thus, this study will examine the previous knowledge about which specific HR practices facilitate the emergence of collective work engagement in service work units (Salanova, Agut & Peiró, 2005). At the same time, it will provide further knowledge about which variables may connect work engagement and performance

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3 outcomes, an issue recently raised by Bakker, Albrecht and Leiter (2011a). Moreover, this
4
5 study will also take into account the specific context of hotels and restaurants, where worker
6
7 units are considered the basic level of study, since the final service received by a customer
8
9 is the result of the work carried out by the whole team. Thus, the unit level becomes the best
10
11 level of study to represent the reality of this specific workplace.
12

Organizational Facilitators

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15 One way to improve organizational performance is by reducing barriers or job
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17 obstacles (Adkins & Naumann, 2001; Brown & Mitchell, 1993; Greiner, Ragland, Krause,
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19 Syme & Fisher, 1997; Klein & Kim, 1998; Peters, O'Connor & Eulberg, 1984). The
20
21 organizational facilitators construct is a situational construct that is based on Schneider,
22
23 White and Paul's organizational facilitative conditions, which refer to the efforts,
24
25 supervisory behaviours and HR policies that are focused on diminishing obstacles at work
26
27 (1998). Similar constructs have also been used by some other scholars such as Tesluk and
28
29 Mathieu (1999), who examined actions and strategies aimed at controlling the obstacles that
30
31 may interfere with employees' performance in teams. These definitions implicitly show
32
33 what exactly helps specific employees. Thus, organizational facilitators are a construct that
34
35 is situational, changeable over time, and context dependent. Specifically, previous studies
36
37 have used the Critical Incident Technique (Flanagan, 1954) to take context into
38
39 consideration (i.e. Hospitality settings: Gracia, Cifre & Grau, 2010; Salanova et al., 2005.
40
41 Academic settings: Salanova, Schaufeli, Martinez & Bresó, 2010. Roadwork settings:
42
43 Tesluk & Mathieu, 1999) and have found significant relationships between facilitators and
44
45 different performance indicators (i.e. service quality, customer loyalty, future academic
46
47 performance, and team cohesion). In particular, in the service sector, the main
48
49 organizational facilitators chosen by the workers of service organizations oriented towards
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Collective Work Engagement and Relational Service Competence 4

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2
3 providing hospitality services were: training, autonomy and technical support (Salanova et
4 al., 2005). Furthermore, when the whole unit identifies these organizational facilitators and
5
6 al., 2005). Furthermore, when the whole unit identifies these organizational facilitators and
7
8 members agree that they are effective tools for accomplishing better performance,
9
10 organizational facilitators become a unit-level issue (Gracia et al., 2010).
11

12
13 Although these facilitators were selected empirically (as explained in the method
14 section) using Flanagan's procedure (1954), training, technical support and autonomy are
15 considered key HR policies by previous ground theories and models. In this vein, the
16
17 Human Capital Theory (Becker, 1964) holds that training and education are the most
18
19 important investments in human capital for promoting economic development. Moreover,
20
21 this theory also points out that investment in providing new technologies is necessary for
22
23 knowledge to grow in companies. In addition, the Job Characteristics model (Hackman &
24
25 Oldham, 1980) highlights autonomy as one of the main job requirements in order to develop
26
27 a greater sense of responsibility in workers (workers' psychological state) and, in the same
28
29 line, the motivational process of the expanded Job Demands Resources Model (Schaufeli &
30
31 Bakker, 2004) explains that autonomy, among other high resources, leads to an increase in
32
33 workers' feelings of work engagement and, ultimately, it enhances performance outcomes.
34
35 In this case, these rationales provide theoretical arguments to explain the indirect
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37 connection between HR practices and performance outcomes. Moreover, all of them point
38
39 out that workers' psychological states might be developed as a consequence of these
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41 conditions and they could be related to performance. Thus, psychological states may play a
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43 mediating role between organizational facilitators and performance outcomes.
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53 Furthermore, the empirical literature may also support the idea that training,
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55 autonomy and/or technical support (among others) exert an indirect influence on
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57 performance outcomes through collective psychological states such as job satisfaction
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Collective Work Engagement and Relational Service Competence 5

(Haynes & Fryer, 2000), work engagement, unit perceptions of service climate (Salanova et al., 2005) and their service behaviour (Tsaur & Lin, 2004) in service organizations. Taking all this together, it seems that the role of the psychological states of workers is crucial in this relationship. These proposals led to the following hypothesis:

Hypothesis 1: Organizational facilitators of work units are positively and indirectly related to customers' perceptions of units' service quality.

However, there is not enough knowledge to explain what kind of psychological states in unit workers result in high performance outcomes in service organizations or the connection between them. Therefore, in the following lines, this study will attempt to explain how this relationship may be logically connected, in the specific case of service organizations, through units' affective and cognitive-competent key states.

Affective and cognitive-competent positive psychological states: collective work engagement and relational service competence

One of the objectives of providing organizational facilitators, as we explained above, is to remove the obstacles hindering workers from accomplishing better performance outcomes. In order to obtain these positive results, workers need to recognize and accept these facilitators. Moreover, the provision of organizational facilitators, if recognized as a resource, may generate work engagement in workers (Bakker & Demerouti, 2008), that is to say, "a positive, fulfilling, work-related state of mind that is characterized by vigour, dedication, and absorption in the activity" (Schaufeli, Salanova, González-Romá & Bakker, 2002, p. 72). Particularly, work engagement captures how workers experience their work, i.e. as stimulating and energetic and something to which they really want to devote time and

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3 effort, as a significant and meaningful pursuit, and as engrossing and something on which
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5 they are fully concentrated (Bakker, Schaufeli, Leiter & Taris, 2008).
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9 Moreover, work engagement, like other positive emotions, could be contagious
10 among colleagues (Bakker & Demerouti, 2008). The transfer of positive (or negative)
11 experiences from one person to another can occur in organizations where performance is a
12 combined effort (Bakker et al., 2011a). The reason might be that when people have more
13 opportunities to interact with each other, they have more chances of being involved in
14 positive (and negative) psychological contagion processes (Tickle-Degnen & Rosenthal,
15 1987). In addition, there are other implicit and explicit processes that could explain a
16 collective affective state [i.e. entrainment, modelling and the manipulation of affect; (Kelly
17 & Barsade, 2001)]. Hence, when unit members share levels of work engagement on a strong
18 basis, it may become collective work engagement through a bottom-up process. This
19 proposal led to the following hypothesis:
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34 *Hypothesis 2: Organizational facilitators of work units are positively and directly*
35 *related to collective work engagement.*
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41 In fact, some studies have shown that collective work engagement, as an affective
42 indicator of motivational and occupational psychological well-being, improves
43 performance outcomes both directly and indirectly (Bakker & Demerouti, 2008). For
44 example, a study of 7939 business units found that those in which workers' engagement
45 was above the median had a 70% higher rate of success than those where workers'
46 engagement was below the median (Harter, Schmidt & Hayes, 2002). In service
47 organizations, work engagement has produced similar results in qualitative and quantitative
48 research. A qualitative study found that service-oriented workers who experienced higher
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Collective Work Engagement and Relational Service Competence 7

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3 levels of engagement provide better customer service, such as giving effective answers and
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5 being patient with customers' requests (Engelbrecht, 2006). A quantitative study in tourist
6
7 services showed that customer loyalty and service quality reported by customers was higher
8
9 when the collective work engagement and the service climate of service-oriented units was
10
11 higher (Salanova et al., 2005). However, no significant direct relationship between
12
13 collective work engagement and service quality perceived by customers was found.
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15

16
17 In this respect, some scholars have recently argued that several variables could be
18
19 intervening in the link between work engagement and performance (Parker & Griffin,
20
21 2011). Therefore, the relationship between work engagement and performance outcomes
22
23 has still not been clarified and a better understanding of this relationship is needed (Bakker,
24
25 Albrecht & Leiter, 2011b). This proposal led to the following hypothesis:
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29 *Hypothesis 3: Collective work engagement is indirectly related to service quality.*
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33 Furthermore, Parker and Griffin (2011) argue that engagement and behaviour must
34
35 be considered separate constructs because engagement does not always lead to high
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37 performance. In fact, they suggest that "engaged employees who lack appropriate
38
39 knowledge and skills may not perform effectively" (p. 66). Therefore, although a unit can
40
41 display work engagement, which means activation and pleasant feelings about the job, good
42
43 performance may only be expected when its workers perceive they are meeting the known
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45 expectations and requirements of their role. Therefore, they need to feel engaged but also
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47 competent.
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52 Indeed, some scholars have argued that perceived competence, or certainty about
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54 being able to handle something, plays a key role in workers' performance in today's
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56 changeable workplace (Stajkovic, 2006). Although an affective collective state is
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Collective Work Engagement and Relational Service Competence 8

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3 important, a shared cognitive-competent psychological state could also be required to
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5 provide high performance in units. In this regard, units perceived as competent (when the
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7 unit members share a positive evaluation of their effectiveness which implies the members'
8
9 personal competences and their coordination during interaction) could make better use of
10
11 their affective state of engagement and thus perform better.
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15 This argument is in agreement with the *Social Cognitive Theory (SCT)*, which
16
17 points out that mood states affect peoples' self-judgements and when members interact they
18
19 "create an emergent property that is more than the sum of the individual attributes"
20
21 (Bandura, 1997). Thus, when the unit has to carry out independent and interactive tasks, it
22
23 becomes necessary to study perceived competence at the unit level. This is the case, as we
24
25 pointed out earlier, of service-oriented units, where their members usually have to share
26
27 tasks (i.e. in the restaurants: providing the different dishes, drinks, receipts, and so forth; on
28
29 the reception desk: providing the room, explaining the main facilities, accompanying guests
30
31 to their room, and so forth), environment and even customers. Indeed, a single service-
32
33 oriented worker rarely provides a customer with the whole service nowadays (Gracia et al.,
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35 2010).
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41 Moreover, service-oriented competence is the specific capability required in service
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43 organizations, which is operationalized by the workers' perception of their ability to serve
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45 customers (Tsaur & Lin, 2004). It is important to point out that this construct differs
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47 slightly from Bandura's concept of efficacy beliefs (Bandura, 1997) because this refers to
48
49 the current perception of the unit's performance, while collective efficacy focuses on the
50
51 unit's beliefs about future accomplishments. A few studies have found evidence of a
52
53 positive relationship between perceived service competence and collective performance
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55 (Williams, 1999). For instance, a study on hotels found that service quality assessed by
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2
3 customers (only the intangible dimensions) depended on the service competence (i.e. self-
4 perceived service behaviour) of service-oriented units (Tsaur & Lin, 2004). Moreover,
5
6 perceived service behaviour) of service-oriented units (Tsaur & Lin, 2004). Moreover,
7
8 Giardini and Frese (2008) performed a multi-level analysis of banks and found that
9
10 previous expectations regarding the emotional (also called ‘relational’; see Gwinner,
11
12 Gremler & Bitner, 1998; Peiró, Martínez-Tur & Ramos, 2005) competences of individual
13
14 service (i.e. sensitivity to affective cues, perspective taking and affective regulations) were
15
16 positively and directly related to the customer’s positive assessment of the service provided
17
18 in service encounters. In this study, relational service competence (which refers to units’
19
20 perceptions of their current competence in providing customers with positive attributes that
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22 are unexpected or not necessarily required and go beyond formal role requirements) is
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24 expected to be related to the service quality perceived by customers. Therefore, all these
25
26 rationales taken together lead to the following hypothesis:

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32 *Hypothesis 4: Relational service competence perceived by units mediates the*
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34 *positive relationship between collective work engagement and customers’*
35
36 *perceptions of units’ service quality.*

37 38 39 40 41 *Service Quality*

42
43 Service quality refers to a customers’ subjective evaluation of the service received.
44
45 This construct is not a one-dimensional concept and Parasuraman, Zeithaml and Berry
46
47 (1988) proposed that ‘universal’ service quality comprises five dimensions. *Reliability* is the
48
49 ability to perform the promised service dependably and accurately. *Responsiveness* is the
50
51 willingness to help customers and to provide prompt service. *Assurance* is defined as the
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53 employees’ knowledge, courtesy and ability to inspire trust and confidence. *Empathy* is the
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Collective Work Engagement and Relational Service Competence 10

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3 caring, individualized attention the firm provides its customers with. Finally, *tangibles* are
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5 the physical facilities, equipment and staff appearance.
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8 For these authors, service quality is a key issue in the service because it provides
9
10 organizational strategies with important benefits. Indeed, other authors argue that service
11
12 quality might have become the main indicator of service effectiveness in developing loyal
13
14 customers (Bloemer & Ruyter, 1999; Wong & Sohal, 2003). In addition, findings in the
15
16 literature highlight a positive relationship between service quality and higher profits for the
17
18 organization (Deshpande, Farley & Webster, 1993; Narver & Slater, 1990; Schneider et al.,
19
20 1998; Storbacka, Strandvik & Grönross, 1994). Thus, service quality assessments reported
21
22 by customers could be a good indicator of the service-oriented effectiveness of a unit.
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26
27 Organizational facilitators may therefore be related to the quality of customer
28
29 service through collective work engagement and relational service competence. The
30
31 following figure depicts the proposed model (see Figure 1):
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33
34 INSERT FIGURE 1 ABOUT HERE

35
36 Method

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39 *Participants and Settings*

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41 The data used in this study were collected through a large interuniversity research
42
43 project involving several research groups of three Spanish universities. Thus, it is important
44
45 to note that this study is part of a larger interuniversity research project. The participants in
46
47 the study were service-oriented workers and their customers from 107 Spanish tourist
48
49 establishments. Work units were composed of waiters and receptionists who worked
50
51 together on the same shift and had to share tasks, environment and even customers. Both
52
53 employees and customers received questionnaires from researchers in person.
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58 Questionnaires were administered in Spanish after having been translated from foreign
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3 scales by a professional translator. Unit workers individually completed surveys on
4
5 working times. Customers filled in questionnaires after their service encounter, that is,
6
7 while checking out of hotels and after paying their bills at restaurants. Researchers were
8
9 present to help employees and customers in case they had any difficulties filling in the
10
11 questionnaire. The questionnaire administration process took 20 min (on average) for
12
13 employees and 10 min (on average) for customers. This study ensured the confidentiality
14
15 and anonymity of the answers provided by all respondents.
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19

20 Between 3 and 6 unit workers (mean = 5.7) and 6 to 30 customers (mean = 23.8)
21
22 participated per tourist unit. These workers performed together in the same unit, on the
23
24 same shift and sharing the same customers. Another requirement workers had to meet in
25
26 order to participate in this study was a minimum of six months' experience working in that
27
28 team. This criterion was introduced so that only fairly stable unit workers would be taken
29
30 into account. The participation rate was 94.5% of the target sample. Data were aggregated
31
32 from 618 service-oriented workers and 2549 customers. Units from hotels accounted for
33
34 51.4% of the sample, while the remaining 48.6% were units from restaurants. Finally, 59%
35
36 were located on the coast – holiday establishments – and 41% in the city – business
37
38 establishments.
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43 *Variables*

44
45 *Organizational facilitators* were measured by a self-constructed scale in Spanish for
46
47 tourist establishments using the Critical Incidents Technique (Flanagan, 1954). Brown and
48
49 Mitchell (1993) and Peters et al. (1985) used this technique in previous studies of
50
51 performance obstacles and Grau, Salanova, Agut and Burriel (2001) and Salanova et al.
52
53 (2005) also employed it in their studies of organizational facilitators in service
54
55 organizations in order to develop the scale that was used in this study. **To produce this**
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Collective Work Engagement and Relational Service Competence 12

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3 scale, first, semi-structured interviews were held with 20 service-oriented employees from
4
5 hotels and restaurants in order to draw up a series of organizational facilitators. The
6
7 interviewers asked employees to give examples of incidents that facilitated job
8
9 performance. Specifically, employees answered questions about which organizational
10
11 features help them to overcome performance obstacles. A total of 98 critical incidents were
12
13 recorded. Second, the information was analysed and categories were devised by means of
14
15 an inter-rater criterion. Lastly, the final questionnaire items were drafted. The scale
16
17 included eleven items ($\alpha = .92$) divided into three subscales: technical support (4 Items; $\alpha =$
18
19 .91), autonomy (3 Items; $\alpha = .85$) and training (4 Items; $\alpha = .92$). The items of the scale are
20
21 included in the following table (see Table 1). All the items were scored on a 5-point
22
23 frequency rating scale ranging from 1 ('nothing') to 5 ('very much').
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30 INSERT TABLE 1 ABOUT HERE
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34 *Collective work engagement* was measured by a Spanish version of the UWES
35
36 Scale (Schaufeli et al., 2002), which had been translated by Salanova, Schaufeli, Llorens,
37
38 Grau and Peiró (2000) and contains three dimensions. *Vigour* is defined as “the willingness
39
40 to invest effort in one’s work, persistence in the face of difficulties, and high levels of
41
42 energy and mental resilience while working” and is measured by six items, e.g. “*I can*
43
44 *continue working for very long periods at a time*”, ($\alpha = .71$). *Dedication* is defined as “a
45
46 sense of significance, enthusiasm, inspiration, pride and challenge. It refers to a particularly
47
48 strong work involvement and identification with one’s job” and is measured by five items,
49
50 e.g. “*For me, my job is challenging*”, ($\alpha = .88$). Finally, *absorption* is defined as “being
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52 fully concentrated and engrossed in one’s work, whereby time passes quickly and one has
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3 difficulties with detaching oneself from work” and is measured by six items, e.g. “*When*
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5
6 *I’m working, I forget everything around me*”, ($\alpha = .82$) (Schaufeli et al., 2002). All the items
7
8 were scored on a 7-point frequency rating scale ranging from 1 (*never*) to 7 (*always*).
9

10 The *relational service competence* scale was produced by combining two previous
11
12 subscales: *perceived empathy*, adapted from the empathy customer dimension of the
13
14 Servqual scale (Parasuraman et al., 1988), and *perceived extra-role behaviour*, adapted
15
16 from the Extras dimension of the Service Provider Performance Scale (Price, Arnould &
17
18 Tierney, 1995) for customers. It was then used to ascertain the units’ perception of their
19
20 unit current service-oriented performance. This measure differs from Bandura’s construct
21
22 of collective beliefs, which focus on evaluating the group’s shared beliefs about future
23
24 accomplishments and goals. The scale consisted of four items and an example of these
25
26 items is “*We put ourselves in the customer’s place*” ($\alpha = .82$).
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32 *Service quality* was measured with the Servqual customer scale (Parasuraman et al.,
33
34 1988), adapted by Ramos, Collado, Marzo, Subirats and Martín (2001), to assess service-
35
36 oriented units’ performance while dealing with customers. The four intangible dimensions
37
38 of the original version (*reliability*, *responsiveness*, *assurance* and *empathy*) were taken into
39
40 account, but the dimension *tangibles* was not because this dimension does not depend on
41
42 the units’ interaction process. Each dimension was assessed by a three-item scale. An
43
44 example of the items in the dimension of *reliability* is: “*When I arrived at the restaurant,*
45
46 *the services I expected were available*” ($\alpha = .93$). An example item from the dimension of
47
48 *responsiveness* is: “*The workers provided prompt service*” ($\alpha = .94$). An example of the
49
50 items in the dimension of *assurance* is: “*The workers won our trust*” ($\alpha = .89$). An example
51
52 item from the dimension of *empathy* is: “*Workers understand each customer’s special*
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Collective Work Engagement and Relational Service Competence 14

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3 needs" ($\alpha = .94$). The scale for measuring service quality was designed based on
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5 performance instead of on the difference between what is received and what is perceived,
6
7 because in this way more explained variance is captured (Cronin & Taylor, 1994).
8
9 Customers responded to each statement using a 7-point rating scale ranging from 1
10
11 ('strongly disagree') to 7 ('strongly agree').
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Data Analyses

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17 Different aggregation indices were calculated in order to justify the concept of unit as
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19 an entity in which there is a high level of agreement among unit members. Thus, they were
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21 used to test whether units were the consequence of the emergence of bottom-up processes
22
23 where lower-level properties surface to form collective phenomena (Chan, 1998; Katz-
24
25 Navon & Erez, 2005; Kozlowski & Klein, 2000). The Intra-class Correlation Index
26
27 [ICC(1)] (Bliese, 2000) and the Average Deviation Index ($ADI_{M(J)}$) (Burke, Finkelstein &
28
29 Dusing, 1999) were applied. The ICC(1) represents the reliability of a single rating of the
30
31 unit construct, while the $ADI_{M(J)}$ calculates the average deviation for each scale of J items
32
33 in order to justify the aggregation of individual members' responses at a unit level. This last
34
35 index is based on Monte Carlo procedures and produces the equivalent of an approximate
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37 randomization test for the null hypothesis that the actual distribution of responding is
38
39 rectangular. Consequently, this index is strongly recommended because it seems to
40
41 overcome the weaknesses of Rwg (González-Romá, Peiró & Tordera, 2002). Both indices
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43 therefore provided essential information about the internal homogeneity in each of the units
44
45 under study.
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53 Results of the aggregation indices supported the hypothesis that units shared
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55 perceptions. All ICC(1) values were within the optimal range of organizational consistency
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Collective Work Engagement and Relational Service Competence 15

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3 agreement [estimated recommended cut-off values typically range between .05 and .20
4
5 (Bliese, 2000)]. Furthermore, $AD_{M(j)}$ were within the optimal range of unit agreement:
6
7 Organizational facilitators: $ICC(1) = .05 \leq .10 \leq .20$, $AD_{M(j)} = .68 < .833$; units shared
8
9 fulfilment of collective work engagement: $ICC(1) = .05 \leq .06 \leq .20$, $AD_{M(j)} = .79 < 1.17$;
10
11 units shared perceptions of relational service competence: $ICC(1) = .05 \leq .05 \leq .20$, $AD_{M(j)}$
12
13 = $.71 < 1.17$; and customers gave similar service quality assessments for common service-
14
15 oriented units: $ICC(1) = .05 \leq .20 \leq .20$, $AD_{M(j)} = .87 < 1.17$.
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20 Furthermore, internal consistency was calculated at unit level (Cronbach's α) on all
21
22 the scales using the average item response per unit as the input. This strategy allows the
23
24 measurement reliability information to be aligned with the level of analyses used in the
25
26 substantive tests (Mathieu, Gilson & Ruddy, 2006).
27
28

29 Once intra-group consistencies [$ICC(1)$, $ADI_{M(j)}$] had been performed, MANOVAs
30
31 were conducted to measure non-dependence between units. One MANOVA was run for the
32
33 sample of workers and another was performed for the sample of customers. The results of
34
35 the MANOVA for the workers' variables (organizational facilitators, collective work
36
37 engagement and relational service competence) were $F(4, 2414) = 5.29$, $p < .001$. In the
38
39 same way, discriminations between the units in service quality were noted. The results of
40
41 the MANOVA of the customers' variables were $F(3, 286) = 1.353$, $p < .001$. Therefore,
42
43 significant differences exist between perceptions, experiences and evaluations for unit
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45 workers and customers from one establishment to another.
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50 Confirmatory Factor Analyses (CFAs) were also calculated to confirm the
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52 dimensional structure of the variables. In addition, following Podsakoff, Mackenzie, Lee
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54 and Podsakoff's (2003) recommendations, we carried out Harman's single-factor test using
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2
3 Exploratory Factor Analysis of the variables to check for problems of common method
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5 variance, because some of our variables were provided by the same source (unit workers'
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7 responses).
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10 After that, structural equation modelling (SEM) was then used to test the hypotheses
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12 proposed. The absolute goodness-of-fit indices were also calculated, that is to say, the chi-
13
14 square goodness-of-fit statistic (χ^2) and the root mean square error of approximation
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16 (RMSEA). Non-significant values of χ^2 indicate that the hypothesized model fits the data.
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18 Moreover, the computation of relative goodness-of-fit indices, which is strongly
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20 recommended, was also run (Bentler, 1990). RMSEA values smaller than 0.08 indicate an
21
22 acceptable fit and values greater than 0.1 should lead to model rejection (Browne &
23
24 Cudeck, 1993). In addition, AMOS provides several fit indices that reflect the discrepancy
25
26 between the hypothesized model and the *Null model*. In the present analyses, the relative
27
28 goodness-of-fit indices that were computed and used were: the Incremental Fit Index (IFI),
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30 the Non-Normed Fit Index or Tucker-Lewis Index (TLI), and the Comparative Fit Index
31
32 (CFI). The latter indices are recommended because they are less dependent on sample size
33
34 than the χ^2 statistic (Marsh, Balla & Hau, 1996). For all relative-fit indices, as a rule of
35
36 thumb, values greater than 0.90 are considered to indicate a good fit (Hoyle, 1995). In
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38 addition, the Akaike Information Criterion (AIC; Akaike, 1987) was computed in order to
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40 compare competing models because it is particularly well suited to comparing the adequacy
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42 of non-nested models that are fitted to the same correlation matrix. The lower the AIC
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44 index is, the better the fit is.
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53 Moreover, additional models were tested to confirm the proposed double mediation
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55 model (Baron & Kenny, 1986). One was a model that tests the mediating role of collective
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work engagement between the organizational facilitators and relational service competence and the other was a model that tests the mediating role of relational service competence between collective work engagement and service quality. In addition, the *Sobel Test* (Sobel, 1982) was calculated to obtain the critical ratio that confirms whether the indirect effects via the mediator differed significantly from zero. In other words, the significance of the mediation relationship was assessed to confirm the nature of the mediation of the collective work engagement. Finally, several competing models were tested.

Results

Descriptive Analyses

Table 2 provides the descriptive statistics and the correlation matrix for all the measures included in the hypothesized model. Significant correlations between variables were found. Organizational facilitators correlated significantly with the core dimensions of collective work engagement, relational service competence and with most of the dimensions of service quality. Specifically, the autonomy dimension of organizational facilitators displayed stronger correlations with the rest of the variables that were studied. Moreover, all the collective work engagement dimensions correlated strongly with relational service competence. However, only the dedication dimension of collective work engagement had significant correlations with two dimensions of service quality (i.e. reliability and empathy). Finally, relational service competence related significantly with most of the service quality dimensions, except with responsiveness.

INSERT TABLE 2 ABOUT HERE

Confirmatory Factor Analyses

CFA results yielded good fit analyses (Browne & Cudeck, 1993; Hoyle, 1995) and CFA results for organizational facilitators indicated that the three-factor model fitted the

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3 data adequately: $\chi^2(40) = 74.022, p < .001, IFI = .96, RMSEA = .09, TLI = .93, CFI = .96.$

4
5 The fit indices were above the .90 criterion. Although the RMSEA was not below .08, it
6
7 was not above .10 and thus the RMSEA does not reject the model. The CFA results for
8
9 collective work engagement indicated that the three-factor model (the UWES scale) fitted
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11 the data adequately: $\chi^2(24) = 74.022, p < .001, IFI = .96, RMSEA = .08, TLI = .94, CFI =$
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fit indices were above the .90 criterion and the RMSEA was not over .10.

Therefore, results from the CFAs confirmed that all the variables follow the expected factorial structure, that is, organizational facilitators include the three previously defined dimensions of work autonomy, training and technical support (Salanova et al., 2005). Collective work engagement presents the three previously defined dimensions of vigour, dedication and absorption (Schaufeli et al., 2002). Service quality includes the four intangible Servqual dimensions: reliability, assurance, responsiveness and empathy (Parasuraman et al., 1988).

Regarding the use of Harman's single-factor test (Podsakoff et al., 2003) to check for problems of common method variance, the Exploratory Factor Analysis of the variables showed that 76% percent of the variance was explained by 10 factors, which were the dimensions of the variables that were defined in our model (facilitators: technical support, autonomy and training; engagement: vigour, dedication and absorption; service competence

and service quality: reliability, responsiveness, assurance and empathy). Therefore, we can conclude that the variables are not affected by the common method variance.

Testing the structural model

SEM, operationalized by AMOS (Arbuckle, 1997), was employed to test the hypothesized Model₁. The results for Model₁ supported the indirect relationship between organizational facilitators and service quality through collective work engagement and relational service competence. Moreover, the fit indices confirmed the robustness of Model₁: $\chi^2(74) = 114.914$, $p = .002$, IFI = .951, TLI = .939, CFI = .950, RMSEA = .072, AIC = 176.914. Organizational facilitators were directly related to collective work engagement ($\gamma = .43$, $p < .001$), collective work engagement was directly related to relational service competence ($\beta = .58$, $p < .001$) and relational service competence was directly related to service quality ($\beta = .30$, $p < .005$).

After that, additional steps were taken to confirm the robustness of the mediation (Baron & Kenny, 1986). First, two models with a direct path between antecedent and dependent variables were computed. Model_a comprised the relationship between organizational facilitators and relational service competence, while Model_b comprised the relationship between collective work engagement and service quality. The results of both models showed a significant relationship between the antecedent and consequent variables. Model_a reflected the direct relationship between organizational facilitators and relational service competence ($\gamma = .46$, $p < .000$). The scores of fit indices were the following: $\chi^2(13) = 18.677$, $p = .133$, IFI = .98, TLI = .939, CFI = .98, RMSEA = .064. Model_b reflected the direct relationship between collective work engagement and service quality ($\gamma = .20$, $p = .005$). The scores of fit indices were the following: $\chi^2(13) = 19.885$, $p = .002$, IFI = .98,

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3 TLI = .939, CFI = .985, RMSEA = .071. Therefore, both models confirmed the direct
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5 significant prior relationship required to achieve a mediation process (Baron & Kenny,
6
7 1986). Second, testing was also carried out on a new model (Model_c) that includes the
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9 hypothesized mediation paths together with new additional paths running directly from the
10
11 antecedent to the consequent variables. The scores for the fit indices resulting from this
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13 Model_c were the following: $\chi^2 (74) = 107.048, p = .005, IFI = .958, TLI = .946, CFI = .957,$
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17 RMSEA = .068. Baron and Kenny (1986) pointed out that a significant decrease should
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19 take place in the γ scores of the direct paths between the antecedent and the consequent
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21 variables in order to achieve full mediation.
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25 On the one hand, the results of the direct relationship between organizational
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27 facilitators and relational service competence were reduced from $\gamma = .46, p < .000$ scored in
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29 Model_a (direct path) to $\gamma = .31, p = .009$ in Model_c (indirect path). Therefore, results did not
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31 confirm the significant decrease. In this respect, Baron and Kenny (1986) recommended
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33 performing the Sobel test in order to determine whether a partial mediation of collective
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35 work engagement is produced. On the other hand, the results of the direct relationship
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37 between collective work engagement and service quality were reduced from $\gamma = .20,$
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39 $p = .005$ scored in Model_b (direct path) to $\gamma = .05, p = .70$ in Model_c (indirect path). Results
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41 therefore confirmed the significant decrease in this relationship. So, although collective
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43 work engagement does not fully mediate the relationship between organizational facilitators
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45 and relational service competence, relational service competence does play a full mediating
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47 role in the relationship between collective work engagement and service quality.
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53 The Sobel Test value and its significance were then used to test the role of collective
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55 work engagement as a partial mediator between organizational facilitators and relational
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57 service competence (Sobel, 1982). Results showed that the Sobel test value (t) was
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3 significant ($t = 2201, p < .001$) and, therefore, the partial mediation of the collective work
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5 engagement process is also confirmed.
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8 Hence, taking all the results of the mediation test together, the relationship between
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10 organizational facilitators and service quality becomes substantially weaker in the presence
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12 of collective work engagement and relational service competence. Consequently, a new
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14 model (Model₂), which includes new findings, was developed. This improved model,
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16 Model₂, is depicted in Figure 2.
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20 INSERT FIGURE 2 ABOUT HERE
21

22 The fit indices confirm the robustness of Model₂: $\chi^2 (73) = 107.189, p = .006, IFI =$
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24 $.96, TLI = .95, CFI = .96, RMSEA = .066, AIC = 171.189$. Organizational facilitators are
25
26 directly related to collective work engagement ($\gamma = .38, p < .001$) and to relational service
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28 competence ($\gamma = .31, p < .008$); collective work engagement is directly related to relational
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30 service competence ($\beta = .43, p < .001$); and relational service competence is directly related
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32 to service quality ($\beta = .31, p < .005$). Moreover, this model has a significantly better fit than
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34 the previously proposed model (Model₁) (see Table 3).
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39 In addition, Model₂ also showed better fit than two other alternative models that
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41 were tested. The first one represented the relationship between organizational facilitators
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43 and service quality through relational service competence and collective work engagement
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45 (Model_{alt1}): $\chi^2 (74) = 113.000, p = .002, IFI = .95, TLI = .94, CFI = .95, RMSEA = .072,$
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47 $AIC = 175.000$. The second one represented the same relationship as Model_{alt1}, with an
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49 extra direct path between organizational facilitators and collective work engagement
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51 (Model_{alt2}): $\chi^2 (73) = 111.338, p = .003, IFI = .95, TLI = .94, CFI = .95, RMSEA = .070,$
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53 $AIC = 175.338$. Therefore, Model₂ had the best fit to the data and the highest degree of
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55 significant differences with respect to Model₁.
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INSERT TABLE 3 ABOUT HERE

Consequently, results supported Hypothesis 1 and Hypothesis 2 and organizational facilitators are indirectly related to service quality through work engagement and even relational service competence. A partial mediating role of collective work engagement is produced between organizational facilitators and relational service competence. Moreover, Hypothesis 3 and 4 are also supported, showing that relational service competence plays a full mediation role between collective work engagement and service quality. Therefore, the allocation of unit-perceived organizational facilitators (training, autonomy and technical support) in the workplace, is directly related with collective work engagement and relational service competence. This latter concept, in turn, is linked to service quality reported by customers.

Discussion

The objective of this study was to test whether investment in workers' selected HR practices in hospitality services facilitates the emergence of collective work engagement and relational service competence, which are translated into higher degrees of service quality in the customers' reports. Moreover, this study considers the specific context of hotels and restaurants, taking units of work as the basic level of study in order to represent the reality of this specific workplace.

The model that was tested explained that a twofold mediating role of affective and cognitive-competent collective psychological states (i.e. collective work engagement and relational service competence) is produced between organizational facilitators and service quality. Furthermore, organizational facilitators and both kinds of collective psychological states together explain 9% of the variance for the effectiveness of the service-oriented unit reported by customers.

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3 These results are in line with positive psychology approaches, which attempt to
4 improve the quality of life in workplaces (Luthans, 2002). Additionally, these results
5 emphasize the important role of service-oriented units for the improvement of service
6 quality (Ashforth, Kulik & Tom, 2008). Thus, several theoretical contributions arise from
7 this study, as outlined below.
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10 11 12 13 14 15 *Theoretical contributions* 16

17 This study has corroborated the fact that investing in human capital is related to
18 higher rates of profitability (Becker, 1964). Service quality is, in fact, one of the best
19 indices of service organizations' prosperity (Bloemer & Ruyter, 1999; Deshpande, Farley
20 & Webster, 1993; Narver & Slater, 1990; Schneider et al., 1998; Storbacka, Strandvik &
21 Grönross, 1994; Wong & Sohal, 2003). This study showed that effectively reinforcing
22 facilitators, which help unit workers to overcome job obstacles, is indirectly related to
23 service quality (Schneider et al., 1998) and directly related to collective work engagement
24 (Bakker et al., 2008) and the unit's perceived relational service competence. In fact, a
25 partial mediating role of collective work engagement was found between organizational
26 facilitators and relational service competence. This means that organizational facilitators
27 may help to obtain higher performance outcomes but also to develop collective affective
28 psychological states and unit perceptions of certainty about handling something in the
29 present moment, which in turn are positively related with customers' quality assessments.
30 This lends support to the Human Capital Theory (Becker, 1964), which states that the role
31 of investments in workers is important in order to increase the growth of the organization.
32 Specifically, this study found that the investment in providing autonomy, training and
33 technical support can help employees to perform better. Moreover, this study showed that
34 affective and cognitive competent states are important links between organizational
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3 facilitators and the service quality perceived by customers. Furthermore, these positive
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5 states (both together) can be a good indicator of collective well-being states at workplaces
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7 if we take into account the World Health Organization's (WHO) definition of Mental
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9 Health, which states that a person has mental health when he or she has "a state of well-
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11 being in which every individual realizes his or her own potential, can cope with the normal
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13 stresses of life, can work productively and fruitfully, and is able to make a contribution to
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15 her or his community" (2009). Therefore, these results suggest that providing
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17 organizational facilitators may become a good strategy in order to improve service
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19 organization benefits and collective work-related well-being (consisting of engaged and
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21 even self-perceived competent units).
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27 At the same time, the full mediating role played by service competence between
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29 collective work engagement and service quality perceived by customers indicates that it is
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31 necessary to add other psychological states experienced by workers to connect the
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33 relationship between work engagement and performance outcomes. In this case, the study
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35 highlights the importance of feeling they are competent at playing their service-oriented
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37 role. This result is in agreement with Parker and Griffin's (2011) arguments, which point
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39 out that knowledge and skills may moderate the engagement-performance link. This line of
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41 argument, at the same time, is in agreement with some recent results that found that some
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43 variables can indeed modulate the relationship between work engagement and job
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45 performance at an individual level of study (Bakker, Demerouti & Ten Brummelhuis,
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47 2010). Specifically, they showed that trait engagement was only positively related to job
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49 performance and active learning behaviour when employees scored high (vs. low) on
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51 conscientiousness (associated with self-discipline, achievement striving, dutifulness and
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53 competence). However, the current study goes further than the previous one by showing
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3 that the relationship between collective work engagement and performance outputs can be
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5 not only moderated but also fully mediated. More particularly, the relationship is fully
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7 mediated by relational service competence, as the specific competence perceived by unit
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9 workers for service organizations. Therefore, this study contributes to further the
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11 knowledge about the rates of collective work engagement–performance perceived by
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13 customers in service quality units.
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17 Moreover, this mediation role played by relational service competence in the
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19 positive relationship between collective work engagement and service quality perceived by
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21 customers is in line with the *SCT* (Bandura, 1997), which argues that moods are able to
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23 affect people's judgements, which in turn are able to improve performance. Specifically,
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25 the *SCT* argues that people shape their degree of success in life domains – such as in the
26
27 workplace, at school and in sports – according to their beliefs, (Bandura, 2001). Moreover,
28
29 the *SCT* also points out that this predictive power of efficacy beliefs requires a clear
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31 definition of the activity domain and types of capabilities (Bandura, 1997). Therefore, the
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33 higher levels of collective work engagement are, the higher specific positive beliefs about
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35 the current service that service-oriented units provide will be. At the same time, the higher
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37 relational service competence is perceived to be, the higher service quality reported by
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39 customers will be.
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46 Therefore, from a theoretical perspective, this study provides new knowledge about
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48 how collective work engagement and relational service competence, as affective and
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50 cognitive-competent collective states, mediate the relationship between organizational
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52 facilitators and customers' perceptions of service quality. While collective work
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54 engagement plays a partial mediating role, relational service competence plays a full
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56 mediating role. Therefore, the results confirmed that HR strategies that reinforce work-
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3 related human capital in service organizations are related to unit performance outcomes
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5 oriented towards service quality reported by customers. These results are in agreement with
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7 the perspective that healthy workers are effective workers (Wright & Cropanzano, 2000).
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10 Moreover, it contributes to the claims of many researchers who argue that there are not
11
12 enough comprehensive and testable models to explain the relationship between productive
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14 and healthy workers (Wilson, Dejoy, Vandenberg, Richardson & McGrath, 2004).
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16

Limitations and Future Steps

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20 Limitations of this study have mainly to do with methodological aspects. The first
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22 one is the need to test this model with a longitudinal study in order to test causality.
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24 However, a previous cross-sectional test is needed to check the robustness of the model
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26 before testing the sequential process; this study therefore represents the first step towards
27
28 achieving this. In addition, this study was tested on service-oriented units in hotels and
29
30 restaurants, so another limitation of this study is that results should be taken with caution.
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32 Moreover, it is also necessary to take into account that this study took into consideration
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34 work engagement and relational service competence as affective and cognitive-competent
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36 collective psychological states. In the future, it could be interesting to test other potential
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38 mediators of the relationship between organizational facilitators and service quality
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40 perceived by customers in unit workers, in order to strengthen this performance.
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Practical Implications for Service Organizations

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48 The findings of this study offer several practical implications for service
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50 organizations. Results showed that organizational facilitators are related to collective work
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52 engagement and relational service competence, which play a mediating role between
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54 organizational facilitators and service quality. Organizations should therefore provide
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56 organizational facilitators by asking their consensual units directly what it is that helps
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3 them to perform better. This is an important fact. For example, new technologies are
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5 becoming more common in any job with each day that passes. It is therefore reasonable to
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7 assume that technical support may become an indispensable facilitator in order to perform
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9 properly in any kind of job. Accordingly, we advise practitioners about the need to take this
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11 category of facilitator into consideration in order to help employees work better.
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15 Generally speaking, higher levels of organizational facilitators would then allow
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17 workers to cope with job obstacles and to improve the unit effectiveness, which is service
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19 quality in the case of service-oriented units.
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23 Furthermore, service organizations that provide their unit workers with
24
25 organizational facilitators help to improve their positive collective fulfilment of
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27 occupational well-being. Many current jobs are designed to be performed by units where
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29 members have to coordinate their efforts to achieve good performance. Thus, unit-level
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31 interventions could be more effective. However, most HR management policies still only
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33 take into account individual perspectives such as personal retribution, individual training,
34
35 and so forth. Hence, the results of this study should encourage organizations that work in
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37 units to establish some unit-level HR policies, strategies and interventions in order to
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39 accomplish effective results. For instance, this can be done by developing unit strategies
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41 that generate positive unit experiences while improving coordination, such as job-task
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43 oriented outdoor experiences. In this regard, the generation of positive states like collective
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45 work engagement and collective competence will, in turn, help to improve customers'
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47 service quality experiences.
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53 Moreover, this study is in line with current organizational strategies of Total Quality
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55 Management (TQM) that emphasize that organizations that apply quality policies to all
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57 their organizational levels and processes are able to fulfil all the relevant stakeholders'
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3 explicit and implicit expectations (Mele, 2007). Moreover, the European Foundation for
4
5 Quality Management (EFQM) also points out in its *EFQM Excellence Model* that different
6
7 kinds of facilitators in organizational processes provide better organizational outcomes in
8
9 different domains, such as persons, society and customers of the organization (EFQM,
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11 2003). Therefore, this study provides confirmation for enterprises that occupational well-
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13 being may become a potential business value of strategic importance (Zwetsloot & Pot,
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15 2004).

Final remark

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21 This study has shown that service organizations should provide service-oriented
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23 units with tools that enable them to overcome obstacles and to establish collective
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25 strategies that allow collective work-engagement to be fulfilled, while also enhancing
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27 units' perceptions of relational service competence. In this way, these positive collective
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29 psychological states, which may be related to the well-being of work units, will also bring
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31 about higher service-oriented effectiveness reported by the customer.
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Table 1. Organizational facilitators scale:

Indicate the extent to which the following aspects of your company facilitate your job performance and help you to overcome possible obstacles:

Training
<ol style="list-style-type: none"> 1. Managers asked us for our opinion on training activities. 2. Learning helped to overcome work obstacles. 3. Training was practical to perform job tasks. 4. Sufficient training was provided in order to feel confident at work.
Autonomy
<ol style="list-style-type: none"> 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.
Technical support
<ol style="list-style-type: none"> 1. Technologies are easy-to-use and useful to perform job tasks. 2. Technical guidebooks and material resources are available. 3. Technology is available and updated 4. A fast and effective service is available to solve any technical problem.

Table 2: Means (*M*), standard deviations (*SD*), internal consistencies (Cronbach's α), and correlations between variables, (*n* = 107 tourist establishments)

	<i>M</i>	<i>SD</i>	α	1	2	3	4	5	6	7	8	9	10	11
1. Facilit (Tra)	3.13	.48	.92	----										
2. Facilit (Aut)	3.61	.38	.85	.61**	----									
3. Facilit (Tec)	3.58	.45	.91	.66**	.64**	----								
4. Vigour	4.76	.64	.71	.19†	.22*	.16†	----							
5. Dedication	4.34	.86	.88	.36**	.28**	.26**	.61**	----						
6. Absorption	3.51	.92	.82	-.04	.02	-.04	.35**	.34**	----					
7. Competence	5.08	.48	.82	.36**	.39**	.32**	.36**	.41**	.25**	----				
8. Reliability	6.18	.48	.93	.29**	.27**	.24**	.15	.17†	.02	.24*	----			
9. Responsiv.	6.10	.41	.94	.16	.30**	.14	.13	.10	.10	.15	.78**	----		
10. Assurance	6.17	.47	.89	.19*	.31**	.21*	.15	.15	.05	.26**	.82**	.87**	----	
11. Empathy	5.66	.52	.93	.14	.29**	.22*	.13	.16 †	.14	.20*	.65**	.76**	.84**	----

†*p*<.06 **p*<.05; ***p*<.01; ****p*<.001

Table 3: Goodness-of-fit indices for the alternative models, (n = 107 teams)

	χ^2	df	p	IFI	TLI	CFI	RMSEA	AIC	$\Delta\chi^2$	Δdf
Model ₁	114.914	74	.00	.95	.93	.95	.07	176.914		
Model ₂	107.189	73	.00	.96	.95	.96	.06	175.000	Model ₂ - Model ₁ = 7.725**	1
Model _{alt1}	113.000	74	.00	.95	.94	.95	.07	175.338	Model _{alt1} - Model ₁ = 1.914	0
Model _{alt2}	111.338	73	.00	.95	.94	.95	.07	171.189	Model _{alt2} - Model ₁ = 3.576*	1
Null model	913.310	91	.00	.38	.29		.29			

Note: * $p < .01$ ** $p < .001$. χ^2 = Chi-square; df = degrees of freedom; IFI = Incremental Fit Index; TLI = Non-Normed Fit Index or Tucker-Lewis Index, CFI = Comparative Fit Index, RMSEA = Root Mean Square Error of Approximation. AIC = the Akaike Information Criterion, $\Delta\chi^2$ = Delta Chi-square; Δdf = delta degrees of freedom.

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Figure 1. The proposed model (Model₁)

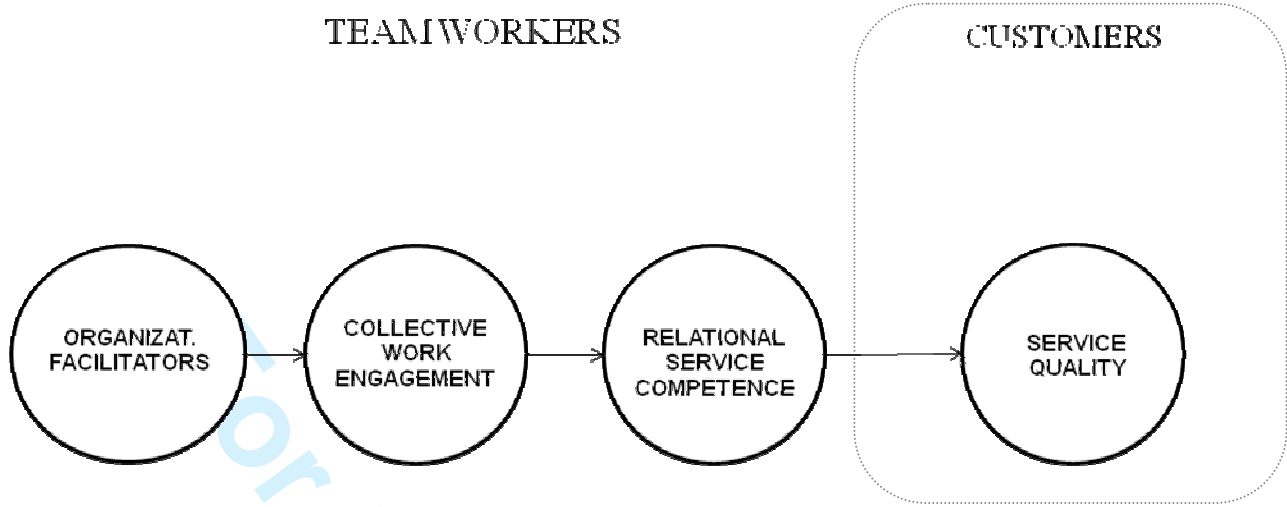
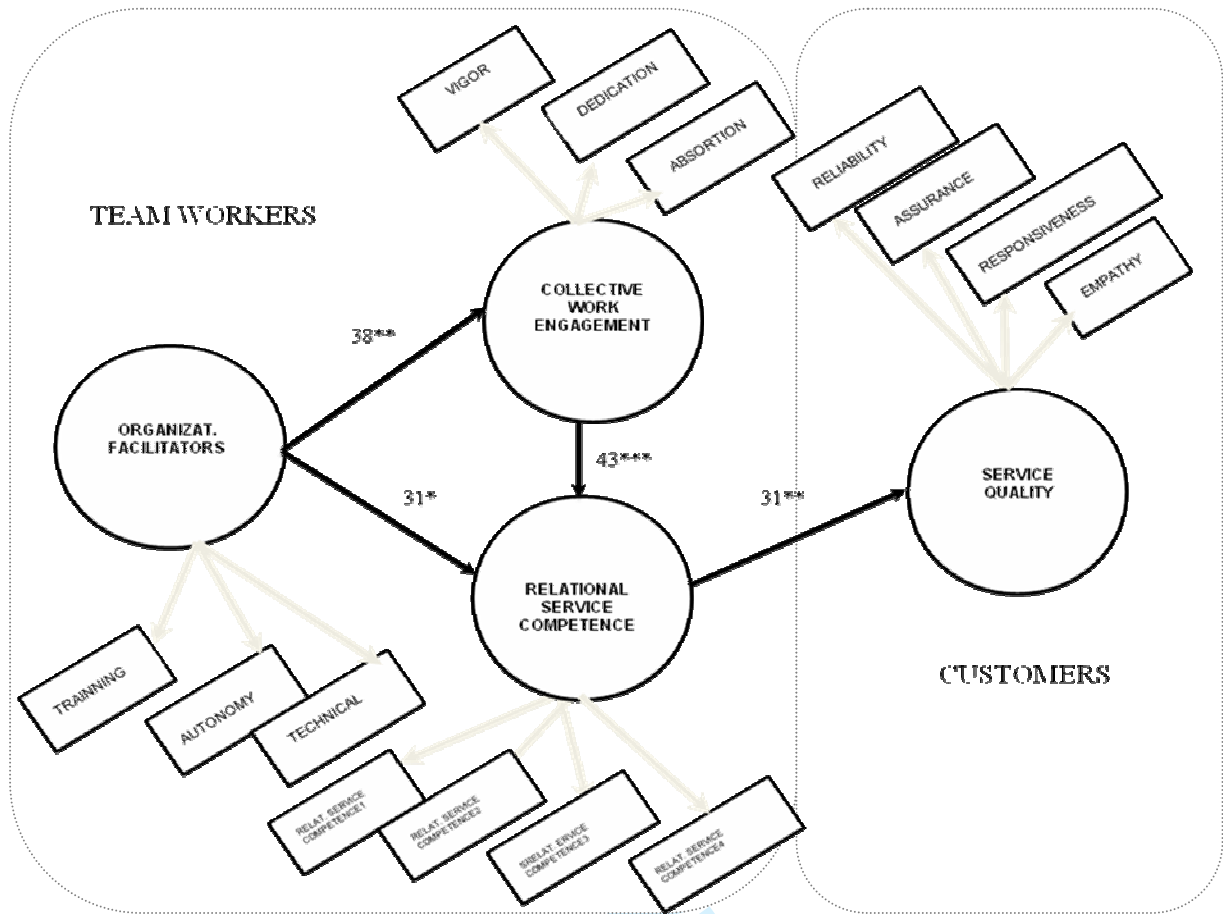


Figure 2. Results of the improved model (Model₂; n = 107 tourist establishments)



Note: factor loadings were statistically significant: * = p < .01, ** = p < .005. *** = p < .001.