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The effects of organizational and personal resources on stress, engagement, and job outcomes

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ABSTRACT

Applying self-determination and conservation of resources theories, our study investigates the additive and interactive effects of management commitment to service quality, customer orientation, and hindrance and challenge stress in the employee engagement process. The role of employee engagement as a central intervening variable that transmits the effects of job resources and demands is critically evaluated. The current work assessed the aforesaid relationships based on data gathered from a time-lagged sample of frontline hotel employees and their direct supervisors using robust maximum likelihood estimation in MPlus 7.4. The findings reveal that management commitment to service quality and customer orientation exert significant impacts on job performance and turnover intentions through employee engagement and hindrance stress. The interaction between management commitment to service quality and customer orientation mitigates both challenge and hindrance stress. Our study provides discussions for theoretical and practical implications.

1. Introduction

The notion of “engagement” in management literature and in fields ranging from psychology to political science to organizational behavior is not new. While there is broad recognition of the importance of having engaged employees, studies regularly show “disengaged” employees outnumber “engaged” employees by a more than a 2:1 ratio (Gallup, 2016). Moreover, frontline service workers – those interacting most frequently with customers – tend to exhibit the lowest reported engagement levels of all (Gallup, 2013).

The unevenness of improvements in engagement suggests that the issue may be more complex than it might appear at first glance (Auh et al., 2016). For instance, mitigating factors may exist within the workplace that either hinders or channels intended performance gains. Or, it seems quite plausible that the impact of organizational resources directed by management toward improving engagement and performance may be effective only for employees who possess certain qualities or traits. One potential mitigating factor that may be hampering improved employee engagement could be the presence of workplace stress. According to a recent study, approximately half of all workers suffer from moderate to severe stress, with two-thirds reporting difficulty in focusing on job tasks due to stress (American Psychological Association, 2016). Anecdotally, it is difficult to imagine over-stressed

workers to be highly engaged with their jobs, and empirical research has historically supported the proposition that work stress negatively influences employee attitudes and behaviors (e.g., Babakus et al., 2009). However, there are studies which have acknowledged that work stressors can be either “good” or “bad” (e.g., LePine et al., 2005). Supporting this premise, Cavanaugh et al. (2000) identified two factors, labeled as *hindrance* and *challenge* stressors. While each places physical, emotional, and mental demands on the employee, challenges (hindrances) are appraised as stressors that have the potential to promote (thwart) mastery, personal growth, and future gains. Once presented with a job demand, this cognitive appraisal process influences subsequent emotions, cognitions, and coping behaviors. As appraisals of a given demand can vary by worker (e.g., Bakker and Sanz-Vergel, 2013), identifying nuances in the effects of hindrance and challenge stress can lead to useful new insights for improving employee engagement and job outcomes.

In addition, organizational resources, such as high-performance work practices, can serve as “leverage points” for reducing stress and enhancing employee engagement (Leiter et al., 2014; Rich et al., 2010). While it is broadly agreed that high-performance (or high-involvement) work practices—those involving systematic deployment of organizational resources such as training, selection, feedback, empowerment, autonomy, participation, and rewards/recognition—lead to organization-

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level performance gains, much less is known about their *individual employee-level* consequences (Jensen et al., 2013; Liao et al., 2009). Advocates claim that high-performance work practices strengthen engagement via improved employee knowledge, skills, and abilities (Kehoe and Wright, 2013). However, critics warn that these practices may have a “dark side” in the form of elevated stress and anxiety, and ultimately lead to lower levels of job engagement (Jensen et al., 2013). Better understanding of how organizational resources exert direct and indirect (via stress) influences on engagement is an important step in crafting initiatives aimed at improving employee engagement. In this context, we focus on management commitment to service quality (MCSQ), a multi-dimensional organizational resource composed of training, rewards/recognition, and empowerment (Babakus et al., 2003).

While organizational resources are typically formalized within the context of human resource programs, they are ultimately interpreted and utilized by individual workers. Thus, there is a need to investigate the potential synergistic effects of organizational and personal resources in understanding how they help employees cope with job stress, and ultimately influence their engagement (Babakus et al., 2009). A recent call by Schaufeli and Taris (2014) makes a strong case for the integration of personal resources into engagement models. In the context of frontline jobs, customer orientation (CO) has been identified as a particularly important personal resource (Zablah et al., 2012). Research has shown that CO, defined as “an employee’s tendency or predisposition to meet customer needs in an on-the-job context” (Brown et al., 2002, p. 111), plays a significant role in employee engagement process (Zablah et al., 2012). However, little is known if its influence vanishes in the presence of ‘bundles’ of human resources and practices (cf. Moore, 2000).

1.1. Study purpose

Closing the “engagement gap” is a significant managerial issue with broad economic implications, particularly for organizations with heavy service components in their offerings (Gruman and Saks, 2011). To improve understanding in this area, the present study examines:

- (1) The proximal influence of *challenge* and *hindrance* stress upon employee engagement;
- (2) The additive and synergistic impacts of organizational and individual job resources in shaping the development of engagement, challenge stress, and hindrance stress;
- (3) The differential effects of engagement, challenge stress, and hindrance stress upon employee’s subsequent role performance and turnover intentions.

We address the preceding research objectives by examining the impacts of MCSQ, CO, and stress as antecedents of employee engagement, role performance, and turnover intentions using time-lagged data gathered from frontline hotel employees and their direct supervisors in Northern Cyprus. Our study makes a significant contribution to the extant hospitality research by investigating CO as a moderator of the influence of MCSQ on engagement as well as hindrance and challenge stressors and examines the interrelationships of MCSQ, CO, hindrance and challenge stressors, engagement, and job outcomes (i.e., in- and extra-role performances and turnover intentions).

2. Background and conceptual framework

2.1. Nature of engagement

Despite prior work on engagement (Kahn, 1990; Maslach et al., 2001; Schaufeli et al., 2002), academic interest on the topic has increased dramatically since Macey and Schneider’s (2008) provocative essay (Albrecht, 2010). Macey and Schneider (2008) placed the

engagement construct in a rather broad domain consisting of trait, state and behavioral engagement. They define trait engagement as having “positive views of life,” manifested by a proactive and autotelic personality, conscientiousness, and positive affectivity. State engagement manifests itself as “feelings of energy, absorption” with a state of positive affect towards one’s job and organization. Macey and Schneider (2008) propose organizational commitment, affective job satisfaction, empowerment and involvement as viable indicators of state engagement. Finally, they argue that behavioral engagement can be defined with behaviors that entail extra-roles such as organizational citizenship, adaptive and proactive behaviors, and expanded roles.

Reactions to Macey and Schneider (2008) show a great deal of disagreement regarding the conceptual domain and operationalization of the construct (e.g., Meyer and Gagne, 2008; Newman et al., 2010; Saks, 2008; Schaufeli et al., 2002). For instance, there are those who argue that what has been defined as “state engagement” by Macey and Schneider (2008) is no more than repackaging of well-established constructs such as job satisfaction, involvement and affective organizational commitment (Newman et al., 2010). Newman et al. (2010) suggest that these well-known constructs collectively represent a higher-order job attitude factor, the “A-factor”, which is a viable predictor of employee work behavior.

Earlier, Schaufeli et al. (2002) defined engagement as “positive, fulfilling, work-related state of mind that is characterized by vigor, dedication and absorption” (p. 74). The three-dimensional conceptualization of engagement has received considerable attention in the extant (hospitality) research (e.g., Crawford et al., 2010; Li et al., 2016; Liang et al., 2017; Liu et al., 2017; Lyu et al., 2016). However, Newman et al. (2010) argue that this alternative three-dimensional conceptualization and measurement of engagement by Schaufeli et al. (2002) is redundant and that it may best be considered as an additional indicator of the “A-factor.” This argument is also consistent with Cole et al. (2012) who, based on a meta-analytic review, concluded that the conceptualization of engagement advanced by Schaufeli et al. (2002) adds to unnecessary “construct proliferation.” In the present study, we take the “A-factor” perspective advocated by Newman et al. (2010), which provides a holistic view of engagement without adding to construct proliferation.

We rely on the tenets of self-determination theory (SDT) as well as conservation of resources theory (COR), to derive our research hypotheses. As a general theory of human motivation, SDT posits that individuals strive to satisfy three universal needs – autonomy, competence, and relatedness, – and that social contexts catalyze differences in motivation and personal growth, resulting in people being more or less self-motivated and energized (Ryan and Deci, 2000). As such, SDT research seeks to identify environmental factors within the workplace that promote self-motivation and personal growth as well as those that are antagonistic toward these natural human tendencies.

Satisfaction of the need for autonomy, competence, and relatedness is associated with social contexts, which are supportive and consistent with an individual’s true self (Chiniara and Bentein, 2016). The context that gives rise to need satisfaction fosters growth, functioning, and well-being. Training is expected to foster employees’ competence levels. The presence of empowerment enables employees to respond to customer requests quickly by making decisions on the spot. This gives an opportunity to initiate an action and exercise their capacities (Chiniara and Bentein, 2016; Deci and Ryan, 2000). When this is followed by rewards, employees are energized into action (cf. Gagné and Deci, 2005). While empowerment meets the autonomy need of employees, both training and rewards meet the competence need of employees. The simultaneous practice of the indicators of MCSQ makes employees possess a stronger psychological contract and belongingness. In short, MCSQ in the form of training, empowerment, and rewards/recognition sends powerful signals to employees about the presence of a supportive environment where they can satisfy their needs for autonomy, competence, and relatedness.

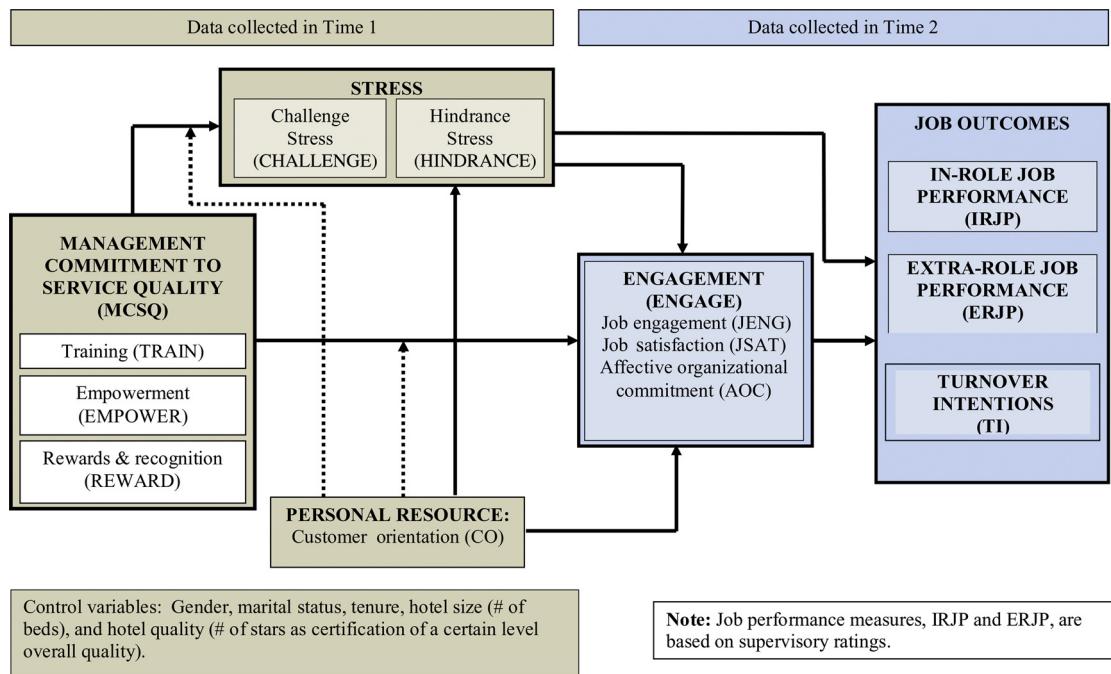


Fig. 1. Research model.

COR theory contends that individuals seek to protect and accumulate their scarce resources (e.g., personal characteristics, objects) (Hobfoll, 1989). Employees can take advantage of various resources to cope with difficulties emerging from stressors (Karatepe and Karatepe, 2010). The availability of training, empowerment, and rewards coupled with personal resources such as CO can enable employees to experience diminished stress. These resources can also make employees display high levels of engagement.

2.2. Conceptual framework

Fig. 1 presents the model guiding this study, including the temporal order of data collection and source for each variable. The model posits that organizational and personal resources (MCSQ and CO) directly as well as indirectly influence employee engagement. We consider both MCSQ and CO as proximal antecedents of job stress and employee engagement and distal antecedents of job outcomes (in-role and extra-role performance, as measured by employees' direct supervisors, and self-reported turnover intentions). Challenge and hindrance stress are expected to exert direct influences on job outcomes in addition to indirect effects, mediated by employee engagement. Our study also considers CO as a moderator of the impact of MCSQ on challenge and hindrance stress as well as engagement.

3. Research hypotheses

3.1. Influence of stress on engagement and job outcomes

Because of work overload and competing demands coming from management and customers, frontline employees often find themselves stressed (e.g., Zhao, 2016). Research on job stress differentiates between challenge stress (stress that is perceived as nurturing and promoting individual growth and future gains) and hindrance stress (stress that is perceived to be a threat hindering individual work performance) (e.g., Geng et al., 2014; Hon and Chan, 2013; Hon et al., 2013; LePine et al., 2005; Min et al., 2015; Podsakoff et al., 2007). A meta-analysis (Crawford et al., 2010) showed that hindrance stress increases burnout

and has a detrimental effect on employee engagement while challenge stress increases burnout, but it does enhance engagement. Hence, challenge stressors have both desirable and undesirable effects; they strengthen engagement and other desirable job outcomes while they have significant detrimental effects (e.g., increased job burnout) (Crawford et al., 2010). Stress has been theorized as a proximal antecedent of job outcomes and there is support for this proposition (Zablah et al., 2012). We consider stress as a proximal determinant of engagement and job outcomes and focus on the differential impacts of hindrance and challenge stress on engagement, job performance and turnover intentions.

The explanation of the underlying process concerning the differential impacts of hindrance and challenge stress on job outcomes is based on the premise that individuals appraise their environments and events, and evaluate them either as threats or challenges (Crawford et al., 2010). Challenge stressors create a mixture of positive and negative emotions signaling personal enrichment and growth potential but also lead to anxiety and strain (LePine et al., 2005). Thus, challenge stressors are expected to exert favorable influences on engagement, job performance and turnover intentions, while they may also have unfavorable consequences such as strain (Podsakoff et al., 2007).

From the perspective of SDT, any job demand that has the potential to satisfy the needs for autonomy, competence and/or relatedness would be considered a motivator and, therefore, an enhancer of engagement and job outcomes. Stressors that are perceived as detrimental to the satisfaction of the three basic needs (i.e., hindrance stressors) are expected to have a negative effect on growth and well-being and consequently negative effects on engagement and job outcomes. There is evidence (Crawford et al., 2010; Zablah et al., 2012) consistent with these predictions, leading to the following hypotheses:

H1a-d. Hindrance stress decreases frontline employee (a) engagement, (b) in-role job performance, (c) extra-role job performance, and increases (d) turnover intentions.

H2a-d. Challenge stress increases (a) frontline employee engagement, (b) in-role job performance, (c) extra-role job performance, and decreases (d) turnover intentions.

3.2. Role of MCSQ

MCSQ focuses on frontline employees' evaluations of managerial actions in terms of "organization's commitment to nurture, develop, support and reward its employees to achieve service excellence" (Babakus et al., 2003, p. 275). MCSQ construct comprises three critical components which are also identified as dimensions of high-performance work practices: training, empowerment, and rewards/recognition (Karatepe and Karadas, 2012; Lawler, 1986). Training refers to making the necessary investments to improve the skills of frontline employees (Boshoff and Allen, 2000). Empowerment refers to the level of discretion given to frontline employees to meet customer expectations, which provides them "the freedom and ability to make decisions and commitments" (Forrester, 2000, p. 67). Rewards/recognition dimension is defined as providing tangible and intangible rewards for good performance as a sign of competence (Lawler, 2000). In the past, these and other elements of high-performance work practices have been typically measured by managerial reports (Liao et al., 2009). However, measurement of these practices from frontline employees' perspective is necessary to better understand how they are interpreted and consequently influence employees' affect, cognitions and behaviors (Liao et al., 2009).

The dimensions of MCSQ have been studied extensively as separate constructs (e.g., Chan and Lam, 2011), but the joint presence of these dimensions is necessary for making a significant impact on organizational effectiveness (Chuang and Liao, 2010; Kizilos et al., 2013). For instance, employee empowerment will not succeed without appropriate rewards/recognition (Babakus et al., 2003). Likewise, training alone will not produce the intended results unless frontline employees are also empowered to satisfy customers and are rewarded for good performance (Babakus et al., 2003). These arguments are in line with the strategic human resource management research, which claims that the 'bundles' of practices and resources make a positive impact on human capital and consequently organizational performance (Chuang and Liao, 2010). However, the nature and the underlying mechanisms regarding the joint effects of these dimensions at the *individual employee-level*, particularly as perceived by frontline employees, is under-researched (Kizilos et al., 2013; Liao et al., 2009).

Evidence shows that MCSQ exerts a positive influence on employee job satisfaction and affective organizational commitment (Babakus et al., 2003), both of which are in the domain of engagement (Macey and Schneider, 2008; Zablah et al., 2012). By extension, MCSQ can be expected to have a favorable impact on employee engagement. In addition, organizations communicate important messages to employees through training, empowerment and rewards/recognition and shape their psychological contracts in a favorable light. The positive signals transmitted by MCSQ showing management concern and investment in employees will also influence the way employees appraise job demands. Such evaluations should lead to lower levels of job stress. Hence, MCSQ plays a critical role as a resource to enhance employee engagement and reduce job stress (Crawford et al., 2010; Zablah et al., 2012).

SDT (Deci and Ryan, 2000, 2014) provides a sound theoretical explanation of the direct influence of MCSQ on engagement and job stress based on the satisfaction of the three universal needs (autonomy, competence, and relatedness). When people are lonely, they may seek out company, when "controlled" they may seek "autonomy," and when ineffective at work, they may try to become more "competent" (Deci and Ryan, 2000). Training is expected to enhance employees' competence levels. Rewards and recognition for a job well done also send a strong signal to employees to feel increased competence. Empowerment meets the autonomy needs of frontline employees who will feel that they have discretion in helping customers. Finally, through the perception of these three managerial practices simultaneously, MCSQ sends a strong signal suggesting management concern not only for service quality, but also concern for employees. As a result, frontline employees should feel related to the management, coworkers, and the

firm. In other words, employees experience a stronger psychological contract and belongingness resulting from simultaneous practice of the three dimensions of MCSQ.

The preceding discussion suggests that, MCSQ, as manifested through empowerment, training, and reward/recognition, contributes to the satisfaction of the three universal needs and should lead to autonomous motivation in the form of employee engagement. This prediction is also consistent with Kahn's (1990) psychological conditions of "meaningfulness," "safety," and "availability" as precursors to engagement. That is, MCSQ dimensions jointly make frontline employees feel that their jobs are 'meaningful' since employees are rewarded and recognized, 'safe' in that they can voice their concerns in meeting customer needs since they are empowered, and 'available' meaning that they have the right skills to perform since training is an integral part of MCSQ. Furthermore, satisfaction of autonomy, competence and relatedness needs resulting from MCSQ should reduce the detrimental effects of hindrances (Deci and Ryan, 2000). Research shows that even the wariest employees will feel positive about work demands when they feel management support and commitment (Macey et al., 2009). We further argue that the more organizational resources are available to an employee the less likely he/she will feel hindered while making his/her day to day work challenges less stressful. In other words, we argue that when employees feel management is committed to their growth and success, the stressful aspects of daily challenges and hindrances become less pronounced. Therefore, we posit the following hypotheses:

H3. MCSQ enhances frontline employee engagement.

H4a-b. MCSQ reduces (a) hindrance stress and (b) challenge stress.

3.3. Role of CO

CO has been conceptualized broadly either as a behavioral or a psychological construct, but the prevailing definition emphasizes its nature as a psychological variable (Zablah et al., 2012). CO may also have genetic and neurological determinants that differentiate individuals (Bagozzi et al., 2012). We adopt a "surface trait" view of CO (Brown et al., 2002). This makes CO an individual difference variable with enduring qualities for meeting customer needs and enjoying service to customers.

In the context of frontline jobs, CO is a highly relevant personal resource which exerts favorable influences on job stress and engagement as well as other organizationally valued job outcomes including in-role and extra-role performance, and turnover intentions (e.g., Babakus et al., 2009; Zablah et al., 2012). CO has been considered to be a proximal antecedent of job stress and engagement, while it has been studied both as a proximal and distal predictor of job outcomes (job performance and turnover intentions). However, recent theoretical arguments and empirical evidence suggest that it is a distal predictor of job outcomes (Zablah et al., 2012). In this study, consistent with Zablah et al. (2012), we consider CO a distal predictor of job performance and turnover intentions.

CO has desirable effects on job stress and employee engagement, similar to MCSQ. CO is particularly relevant to the relatedness need in SDT as frontline employees high in CO strive to relate to their customers and enjoy such relationships as part of meeting customer needs. In their efforts to relate to and satisfy their customers, frontline employees with high CO look for creative ways of serving customers as they recognize opportunities to serve better than those with lower CO (Bagozzi et al., 2012). In the process, those with high CO exercise more autonomy and feel more competent, hence their needs for autonomy and competence in addition to belongingness are satisfied. Furthermore, following Kahn (1990) for those employees with high CO, frontline jobs would be 'meaningful' since they enjoy serving customers in the first place, 'safe' in that they can voice their concerns when meeting customer needs and they would be 'available' with the right disposition and skills to

perform. This means that CO serves as a critical personal resource to enhance employee engagement. It also reduces stress by reframing job demands, and since stress arises from an imbalance between resources and demands, CO provides the first aid as an easily accessible internal resource (Babakus et al., 2009). We argue that CO regulates both types of stress despite the fact that challenge stress has also desirable outcomes in addition to strain. This is because stress is painful and chronic stress, challenge or hindrance, leads to strain (Franks et al., 2016; Widmer et al., 2012). Hence, we test the following hypotheses:

H5. CO enhances frontline employee engagement.

H6a-b. CO reduces (a) hindrance stress and (b) challenge stress.

3.4. Influence of engagement on job outcomes

Due to its nature as a positive energizing motivational construct, engagement plays a critical role in guiding employee behavior. SDT as a “unifying [motivational] theory” (Meyer and Gagne, 2008, p. 60) lends itself to study engagement (a motivational construct) perhaps better than any other framework. Employee engagement represents what SDT terms *autonomous motivation* or autonomous regulation meaning that engaged employees “behave with a full sense of volition, willingness and choice” (Deci and Ryan, 2014, p. 16).

Autonomous motivation results from satisfaction of the three universal psychological needs of humans (autonomy, competence and relatedness), since satisfying these three needs is a critical requirement for individual growth and well-being (Deci and Ryan, 2014). Engaged employees perform at high levels because they either enjoy the job intrinsically for its sake (intrinsic motivation) or because they *identify* with the job’s personal value and importance for themselves, and fully internalize and integrate it into their self-regulation system (Deci and Ryan, 2014). This makes engagement a powerful motivational force that directs individual actions to generate positive job outcomes, including high performance and low turnover intentions as well as value co-creation (e.g., Albrecht, 2010; Zablah et al., 2012). Engagement may provide additional benefits by permeating the entire organization to become a shared value. Ultimately this may lead to the emergence of engagement as an organizational property with desirable performance outcomes (Barrick et al., 2015).

The preceding discussion suggests that the favorable effects of employee engagement on job outcomes are due to the nature of engagement as an autonomous motivation. Growing evidence indicates that, consistent with the SDT predictions, employee engagement has significant influences on task performance and extra-role performance as well as turnover intentions (e.g., Halbesleben, 2010). Hence, we advance the following hypotheses:

H7a-c. Frontline employee engagement is positively related to (a) in-role performance and (b) customer directed extra-role performance, and is negatively related to (c) turnover intentions.

3.5. Synergistic effects of CO and MCSQ

CO and MCSQ create synergy to exert significant effects on job engagement and stress in addition to additive effects. More specifically, CO moderates the influence of MCSQ by strengthening its effects on job engagement as well as job stress. Frontline employees with high CO experience psychological ownership, which refers to individuals’ feelings about a target (e.g., a frontline service job, a group of coworkers or an organization) being ‘theirs’ (i.e., ‘it is mine!’) (Pierce et al., 2009). Those frontline employees with high CO exhibit psychological ownership of their jobs due to their strong desire to help customers. When high CO employees observe that managerial actions are consistent with MCSQ, the job-based psychological ownership will be enhanced and feed into feelings of organization-based psychological ownership.

Highly customer-oriented employees also show a high degree of belongingness to their job and feel more accountable for what would be the outcome of their efforts (cf. Avey et al., 2012). Such employees who obtain the authority to make decisions on the spot as a result of continuous training programs, they own the service encounter and do their best to satisfy customers and meet their expectations.

In addition, strong MCSQ signals should make frontline employees with high CO feel that their values and those of the firm are similar. Such feelings should lead employees with high CO to experience organizational identification, “a psychological state wherein one defines one’s self by the same attributes that one believes define one’s organization” (Lee et al., 2015, p. 1049). Training, empowerment, and rewards/recognition create an environment where employees can develop skills and knowledge and possess feelings of competence. Under these circumstances, they view the organization as the right place to work and strongly identify with the organization.

COR theory also proposes that the availability of job resources such as training and rewards combined with personal resources such as CO would enable employees to be highly engaged in their work. Employees would also avoid both hindrance and challenge stress when they take advantage of their job and personal resources to bypass the resource depletion process (cf. Zellars et al., 2006). That is, CO can strengthen the effect of MCSQ on employee engagement, while the interaction of CO and MCSQ can mitigate both hindrance and challenge stress.

Organizational identification, together with psychological ownership, should elevate satisfaction of the universal needs of relatedness, competency and autonomy for employees with high CO. For employees with lower CO, the interpretation of MCSQ may not be as favorable and it may even be appraised as exploitation as opposed to signaling commitment to frontline employees. In fact, there is some evidence suggesting that empowerment, a dimension of MCSQ, may result in negative consequences or produce no gains due to perceptions that the reason for empowerment by management is to increase employees’ workloads (Chan and Lam, 2011). Hence, the effect of MCSQ on the satisfaction of the basic needs of frontline employees with low CO may not be as favorable. Furthermore, research shows that both psychological ownership and organizational identification play significant roles in shaping employee attitudes, motivation and behaviors (e.g., Lee et al., 2015). Therefore, in the context of frontline service jobs, the interaction between CO and MCSQ should nurture such ownership and identification and lead to an accumulation of resources, and consequently strengthen job engagement while regulating job stress:

H8a. CO moderates the effect of MCSQ on frontline employee engagement such that MCSQ will have a stronger positive effect on engagement at higher levels of CO.

H8b. CO moderates the effect of MCSQ on hindrance stress such that MCSQ will have a stronger negative effect on hindrance stress at higher levels of CO.

H8c. CO moderates the effect of MCSQ on challenge stress such that MCSQ will have a stronger negative effect on challenge stress at higher levels of CO.

4. Method

4.1. Sample and procedure

Consistent with past and recent studies (e.g., Amin et al., 2017; Karatepe and Uludag, 2008), we used the judgmental sampling method to determine the sample of our study. Judgmental sampling allows the researchers to use criteria to specify the sample, which is assumed to represent the population. In light of this method, our study utilized two criteria, which consisted of full-time frontline employees having frequent interactions with customers and the star rating of the hotel. Consequently, full-time frontline employees such as front desk agents,

guest relations representatives, and food servers in the four- and five-star hotels in Northern Cyprus represented the sample of our study.

Data were obtained from frontline employees and their direct supervisors in the hotel industry in Northern Cyprus. Of the twelve (12) five-star and six (6) four-star hotels contacted, permission was obtained from five (5) five-star and four (4) four-star hotels. Survey instruments were then distributed to the frontline employees of these hotels in cooperation with the supervisors by the research team. To minimize common method variance, data from employees were gathered in two time periods, separated by a lag of two weeks. After filling out the questionnaires in a self-administered manner, each employee placed the Time 1 and Time 2 questionnaires in sealed boxes which were subsequently received and opened by a member of the research team. Consistent with other studies (e.g., Grandey and Cropanzano, 1999; Karatepe and Karadas, 2014), the questionnaires were matched with each other using an identification code, which appeared on an obscure part of each questionnaire. This guaranteed anonymity and confidentiality. During the second data collection period, in addition to the employees who completed the second half of the survey, the supervisors also completed a performance assessment questionnaire for each employee under their supervision. Identification codes were also used to match the employee questionnaires with the supervisor questionnaires.

Three hundred Time 1 questionnaires were distributed to frontline employees through their supervisors. A total number of 238 questionnaires were obtained at Time 1. The process generated a total of 183 complete and usable responses. After two weeks, 238 Time 2 questionnaires were distributed to the same employees through their supervisors. As a result, 183 Time 2 questionnaires were obtained, yielding a response rate of 61%. The supervisors also rated frontline employees' in- and extra-role performance under their supervision. The number of beds across the 9 participating hotels ranged from 250 to 1484 with an average number of 499 beds. The sampling error was also calculated ($p < 0.05$). Specifically, it seems that the estimated maximum sampling error with a sample size of 183 is $\pm 7.24\%$. Table 1 presents respondents' profile.

Table 1
Subject profile ($n = 183$).

	Frequency	%
<i>Age</i>		
18-27	96	52.5
28-37	65	35.5
38-47	22	12.0
Total	183	100.0
<i>Gender</i>		
Male	117	63.9
Female	66	36.1
Total	183	100.0
<i>Education</i>		
Primary school	29	15.8
Secondary and high school	66	36.1
Two-year college degree	55	30.1
Four-year college degree	32	17.5
Graduate school	1	0.5
Total	183	100.0
<i>Organizational tenure</i>		
Less than 1 year	85	46.5
1–5	87	47.5
6–10	10	5.5
11–15	1	0.5
Total	183	100.0
<i>Marital status</i>		
Single or divorced	113	61.7
Married	70	38.3
Total	183	100.0

4.2. Measures

All study constructs, including supervisor rated performance, were operationalized using three reflective items per construct drawn from existing measures. This approach, which is consistent with recent recommendations on reflective measurement (Hayduk and Littvay, 2012), allows for a just-identified ($df = 0$) measurement model of each construct where model fit is primarily determined by the structural relations among constructs (Little, 2013). Time 1 survey measured training, empowerment, rewards/recognition, challenge stress, hindrance stress, and customer orientation as well as three of the control variables: organizational tenure, gender, and marital status. Time 2 survey measured job engagement, job satisfaction, affective organizational commitment, and turnover intentions. The supervisor questionnaire measured in- and extra-role performances.

The questionnaires were initially developed in English and then translated into Turkish in light of the back-translation technique. We pre-tested the questionnaires for both waves using two different pilot samples of five employees and no revision was deemed necessary. Similarly, we pre-tested the supervisor questionnaire with five supervisors. Again, no revision was deemed necessary.

4.2.1. Training

Training items were from Boshoff and Allen (2000). One sample item is “I receive continued training to provide good service”. Past and recent writings used these items to operationalize training (e.g., Babakus et al., 2003; Karatepe and Karadas, 2012; Rod and Ashill, 2010). Responses to these three items were elicited on a five-point scale ranging from 5 (*strongly agree*) to 1 (*strongly disagree*).

4.2.2. Empowerment

Three items were adapted from Hayes (1994) to measure empowerment. One sample item is “I am empowered to solve customer problems”. The relevant literature provides support for the use of such items (e.g., Karatepe and Karadas, 2012; Rod and Ashill, 2010). Responses to these three items were rated through a five-point scale (5 = *strongly agree* to 1 = *strongly disagree*).

4.2.3. Rewards/recognition

Three items (Boshoff and Allen, 2000) were used to assess rewards/recognition. These items were also utilized to assess frontline employees' perceptions of rewards/recognition in other studies (e.g., Karatepe and Karadas, 2012; Vatankhah et al., 2017). One sample item is “I am rewarded for serving customers well”. Items were scored on a five-point scale from (5 = *strongly agree* to 1 = *strongly disagree*).

4.2.4. Customer orientation

CO was measured using three items developed by Licata et al. (2003), with a response scale ranging from 5 (*strongly agree*) to 1 (*strongly disagree*). This scale was frequently used in the extant service research (e.g., Babakus et al., 2009; Rod and Ashill, 2010). One sample item for the CO scale is “I try to help customers achieve their goals”. Respondents used a five-point scale anchored by 5 (*strongly agree*) and 1 (*strongly disagree*).

4.2.5. Challenge and hindrance stress

Challenge stress and hindrance stress were measured with items from Cavanaugh et al. (2000). Each of these stressors consisted of three items. These two scales were frequently utilized in the current literature (e.g., Boswell et al., 2004; Min et al., 2015). One sample item for challenge stress is “The amount of time I spend at work”, while one item for hindrance stress is “The inability to clearly understand what is expected of me on the job”. Responses to these items were rated on a five-point scale (1 = *produces no stress* to 5 = *produces a great deal of stress*).

4.2.6. Employee engagement

Two weeks after the completion of the first data collection period, those frontline employees who responded to the initial survey were again asked to complete the second questionnaire, which contained measures of job engagement, job satisfaction, affective organizational commitment, and turnover intentions. Employee engagement was assessed via the measures of job engagement, job satisfaction, and affective organizational commitment. Each measure was operationalized with three items. Specifically, job engagement measure was based on Demerouti et al. (2003). One sample item for job engagement is “I find my work to be a positive challenge”. Responses to these items were elicited on four-point scales ranging from 4 (*strongly agree*) to 1 (*strongly disagree*).

Job satisfaction items were taken from Brayfield and Rothe (1951) and affective organizational commitment items from Mowday et al. (1979). One sample item for job satisfaction is “Most days I am enthusiastic about my job”, while one sample item for affective organizational commitment is “I am proud to tell others that I work for this hotel”. Respondents used a five-point scale for items in job satisfaction and affective organizational commitment anchored by 5 (*strongly agree*) and 1 (*strongly disagree*).

4.2.7. Turnover intentions

Three item (Singh et al., 1996) were utilized to assess turnover intentions. A number of studies used this scale to measure turnover intentions (e.g., Ashill and Rod, 2011; Karatepe and Shahriari, 2014). One sample item is “It is likely that I will actively look for a new job next year”. A five-point scale anchored by 5 (*strongly agree*) and 1 (*strongly disagree*) was used to assess frontline employees’ perceptions of turnover intentions.

4.2.8. In- and extra-role performances

Supervisory assessments of frontline employees’ in-role performance and customer directed extra-role performance were obtained using measures from Netemeyer and Maxham (2007). These supervisor questionnaire items were prefaced with the phrase “Within the last six months...how often did this employee [engage in certain behaviors]...” in reference to each employee’s performance. In this case, a seven-point response format ranging from 7 (*always*) to 1 (*never*) was used. These scale items also received empirical attention in the current literature (e.g., Gaudet and Tremblay, 2017; Yavas et al., 2013).

4.2.9. Control variables

We included gender, marital status, and organizational tenure as the control variables due to their potential influences on CO and turnover intentions. Also included in the study were hotel size (number of beds) and certified quality ratings (number of stars) to control for the potential confounding effects of these variables.

4.3. Strategy of analysis

Our study followed several steps and procedures for the analysis of data. Although we used multi-source and multi-period data to test the study hypotheses, we employed additional statistical tests to check the likelihood of common method variance. Before testing the measurement model, we ran exploratory factor analysis to understand how much of the variance was explained by the first factor. Then we ran confirmatory factor analysis to compare the 12-factor measurement model with a single-factor model based on the χ^2 difference test. What we did above for the issue of common method variance is in line with other empirical works in the current literature (e.g., Alexandrov et al., 2013; Babakus et al., 2009; Jha et al., 2013).

The measurement model was subjected to confirmatory factor analysis for issues of convergent and discriminant validity (Fornell and Larcker, 1981). Then the relationships in the hypothesized model were tested with robust maximum likelihood estimate through MPlus 7.4.

The fit of both the measurement and hypothesized models to the data were assessed using the following fit statistics: χ^2/df , comparative fit index (CFI), Tucker-Lewis fit index (TLI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR).

5. Results

5.1. Psychometric assessment of measures

The set of 36 items representing 12 measurement scales were factor analyzed. An initial principal component analysis produced 10 factors with eigenvalues larger than 1.00, which collectively explained 78.4% of the variance. Next, a 12-factor solution was imposed and the oblique rotated results showed that all items loaded heavily onto their respective factors (largest cross-loading was -0.36). The 12-factor solution accounted for 82.3% of the variance with the first factor accounting for 26.1% of the variance. This suggests that common method variance may not be a concern (Podsakoff et al., 2003).

The measures were also subjected to a confirmatory factor analysis (CFA) using MPlus 7.4 (Muthén and Muthén, 2012) for further examination of potential common method variance via Harman’s one-factor test (Podsakoff et al., 2003). A χ^2 difference test indicated that the 12-factor model fit is significantly better than the single-factor measurement model. In addition, the temporal separation between exogenous and endogenous variables and the use of managerial responses to measure distal outcomes lead us to believe common method bias did not pose a problem in this study.

The results indicate that the measurement model fits the data reasonably well ($\chi^2_{28} = 772.5$, $p = 0.00$, $\chi^2/df = 1.46$, CFI = 0.943, TLI = 0.932, RMSEA = 0.050, SRMR = 0.053). All coefficient alphas were above 0.70 and measures exhibited convergent validity since each underlying construct explained at least 50% of the variance in its indicators. That is, the average variance extracted (AVE) by each latent variable exceeded 0.50. The measures also demonstrated discriminant validity; the AVEs were consistently higher than the shared variance between pairs of constructs. Collectively, these results suggest that the measures have strong psychometric properties. The list of scale items, scale reliabilities (coefficient alpha), AVEs, shared variances (Φ^2), standardized factor loadings are presented in Table 2. Table 3 presents summary statistics and correlations among study variables.

5.2. Tests of the research model and hypotheses

We created separate composite variables averaging each set of item scores representing training, empowerment, and rewards/recognition scales and used them as three reflective indicators of MCSQ (Babakus et al., 2003). Following Newman et al.’s (2010) suggestions, we also created three composite indicators of employee engagement by averaging job engagement, job satisfaction, and organizational commitment items. All other constructs were represented by their respective sets of three indicators. The research model was tested with robust maximum likelihood estimation procedure using MPlus 7.4.

As shown in Table 4, the baseline (non-moderated) model (model without MCSQ*CO) fit the data reasonably well ($\chi^2_{332} = 457.19$, $p = 0.00$, $\chi^2/df = 1.38$, CFI = 0.955, TLI = 0.946, RMSEA = 0.045, SRMR = 0.060).¹ The model explained 37.1% of the variance in in-role

¹ Details of all analyses are available from the third author. Commonly used fit statistics (χ^2 , CFI, TLI, RMSEA, and SRMR) are not available in MPlus when latent variable interactions are examined. Instead, we can compare Akaike Information Criterion (AIC) (AIC is 10273.6 for the model with no interaction and 10275.2 for the model with interaction) and sample size adjusted Bayesian Information Criterion (BIC) (BIC is 10278.3 and for the model with no interaction and 10280.0 for the model with interaction), which show that model fit remains essentially the same with or without the latent variable interaction of MCSQ with CO constructs.

Table 2
Confirmatory factor analysis results and psychometric properties of the measures.

Scale items	Standardized loading	t-value
Management commitment to service quality (MCSQ):		
<i>Training (TRAIN) ($\alpha = 0.918$, AVE = 0.794, $\Phi^2 = 0.001-0.430$):</i>		
I receive continued training to provide good service.	0.845	20.83
I receive training on how to serve customers better.	0.908	13.69
I receive training on how to deal with complaining customers.	0.917	39.28
Management commitment to service quality (MCSQ):		
<i>Empowerment (EMPOWER) ($\alpha = 0.851$, AVE = 0.657, $\Phi^2 = 0.000-0.430$):</i>		
I am empowered to solve customer problems.	0.806	16.75
I am encouraged to handle customer problems by myself.	0.829	22.78
I do not have to get management's approval before I handle customer problems.	0.797	18.32
Management commitment to service quality (MCSQ):		
<i>Rewards (REWARD) ($\alpha = 0.782$, AVE = 0.558, $\Phi^2 = 0.001-0.392$):</i>		
I am rewarded for serving customers well.	0.707	6.45
I am rewarded for dealing effectively with customer problems.	0.686	5.10
I am rewarded for satisfying complaining customers.	0.840	20.87
Customer orientation (CO) ($\alpha = 0.848$, AVE = 0.665, $\Phi^2 = 0.013-0.123$):		
I try to help customers achieve their goals.	0.890	21.44
I try to get customers to discuss their needs with me.	0.870	30.73
I take a problem-solving approach with my customers.	0.668	9.81
Challenge stress (CHALLENGE) ($\alpha = 0.902$, AVE = 0.762, $\Phi^2 = 0.011-0.287$):		
The amount of time I spend at work.	0.829	13.01
The volume of work that must be accomplished in the allotted time.	0.924	26.46
Time pressures I experience.	0.864	20.55
Hindrance stress (HINDRANCE) ($\alpha = 0.756$, AVE = 0.526, $\Phi^2 = 0.004-0.287$):		
The inability to clearly understand what is expected of me on the job.	0.735	10.31
The amount of red tape I need to go through to get my job done.	0.782	6.20
The lack of job security.	0.653	7.08
Employee engagement (ENGAGE):		
<i>Job engagement (JENG) ($\alpha = 0.777$, AVE = 0.554, $\Phi^2 = 0.002-0.101$):</i>		
I find my work to be a positive challenge.	0.647	7.44
This is the only type of work that I can imagine myself doing	0.748	12.06
I feel more and more engaged in my work.	0.828	19.85
Employee engagement (ENGAGE):		
<i>Job satisfaction (JSAT) ($\alpha = 0.813$, AVE = 0.614, $\Phi^2 = 0.009-0.364$):</i>		
I find real enjoyment in my job.	0.653	7.10
Most days I am enthusiastic about my job.	0.840	10.26
I feel fairly well satisfied with my job.	0.842	16.78
Employee engagement (ENGAGE):		
<i>Affective organizational commitment (AOC) ($\alpha = 0.947$, AVE = 0.860, $\Phi^2 = 0.007-0.364$):</i>		
My values and those of the hotel are similar.	0.916	41.53
I really care about the future of this hotel.	0.967	80.71
I am proud to tell others that I work for this hotel.	0.898	32.73
In-role job performance (IRJP) ($\alpha = 0.943$, AVE = 0.849, $\Phi^2 = 0.031-0.736$):		
How often did this employee meet formal performance requirements when serving customers?	0.926	63.60
How often did this employee perform all those tasks for customers that were required of him/her?	0.937	66.67
How often did this employee adequately complete all expected customer service behaviors?	0.900	28.01
Customer directed extra-role job performance (ERJP) ($\alpha = 0.922$, AVE = 0.798, $\Phi^2 = 0.020-0.736$):		
How often did this employee go above and beyond the "call of duty" when serving customers?	0.913	33.89
How often did this employee willingly go out of his/her way to make a customer satisfied?	0.905	85.37
How often did this employee help customers with problems beyond what was expected or required?	0.861	31.04
Turnover intentions (TI) ($\alpha = 0.913$, AVE = 0.783, $\Phi^2 = 0.001-0.332$):		
It is likely that I will actively look for a new job next year.	0.850	21.95
I often think about quitting.	0.958	46.24
I will probably look for a new job next year.	0.842	17.44
Model fit statistics: $\chi^2_{528} = 772.5$, $p = 0.00$, $\chi^2/df = 1.46$ CFI = 0.943, TLI = 0.932, RMSEA = 0.050, SRMR = 0.053		

Note: α = Cronbach's Alpha, AVE = Average variance extracted, Φ^2 = Shared variance between pairs of constructs. CFI = Comparative fit index; TLI = Tucker-Lewis index; RMSEA = Root mean square error of approximation; SRMR = Standardized root mean square residual.

job performance (IRJP), 30.7% in customer directed extra-role job performance (ERJP), 46.8% in turnover intentions (TI), 21.8% in employee engagement (ENGAGE), 19.1% in challenge stress (CHALLENGE), and 30.0% of the variance in hindrance stress (HINDRANCE). When we incorporated the interaction between MCSQ*CO, the model explained additional variance in ENGAGE (1.3%), HINDRANCE (3.3%) and CHALLENGE (2.7%). However, parameter estimates remained almost identical between baseline and interaction models. Hence, we focused on the results from the interaction model to address the research hypotheses.

H1a-d addressed the direct effects of HINDRANCE stress upon ENGAGE, along with IJRP, EJRP, and TI. Table 4 showed that

HINDRANCE had a significant effect on ENGAGE ($\beta = -0.276$, $t = -2.10$) and TI ($\beta = 0.395$, $t = 3.80$), in support of H1a and H1d, respectively. H1b was not supported because the HINDRANCE to IRJP linkage was not significant. H1c received support from the empirical data since the HINDRANCE to ERJP linkage was significant. CHALLENGE did not show any significant effects on job engagement or any of the job outcomes; thus, H2a-d were not supported.

Next we examined study results relating to the impact of organizational and personal job resources on employee engagement and stress. MCSQ had a significant positive effect on ENGAGE ($\beta = 0.281$, $t = 2.62$), supporting H3. MCSQ did not show a significant effect on HINDRANCE ($\beta = -0.103$, $t = -1.11$), thus, H4a was not supported. MCSQ's effect on

Table 3
Summary statistics and correlations among study variables (n = 183)^{ab}.

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. TRAIN	1.000																
2. EMPOWER	0.576	1.000															
3. REWARD	0.349	0.542	1.000														
4. CO	0.275	0.234	0.097	1.000													
5. HINDRANCE	-0.143	-0.040	-0.214	-0.236	1.000												
6. CHALLENGE	-0.194	-0.212	-0.169	-0.244	0.449	1.000											
7. JENG	0.107	0.187	0.046	0.134	-0.107	-0.080	1.000										
8. JSAT	0.238	0.220	0.073	0.183	-0.259	-0.092	0.324	1.000									
9. AOC	0.207	0.202	0.088	0.210	-0.151	-0.083	0.383	0.576	1.000								
10. IRJP	0.382	0.245	0.154	0.231	-0.272	-0.232	0.242	0.441	0.397	1.000							
11. ERJP	0.291	0.163	0.174	0.148	-0.308	-0.148	0.149	0.390	0.343	0.807	1.000						
12. TI	-0.066	0.013	-0.190	-0.211	0.491	0.303	-0.160	-0.354	-0.350	-0.337	-0.393	1.000					
13. GENDER	0.021	-0.008	-0.183	-0.072	0.026	-0.088	-0.041	0.003	0.050	0.012	-0.018	-0.063	1.000				
14. TENURE	0.063	-0.029	-0.058	-0.080	-0.058	0.153	0.012	0.157	0.065	0.151	0.172	0.034	0.024	1.000			
15. MSTATUS	-0.023	-0.042	0.019	0.015	-0.206	-0.123	-0.173	0.025	-0.059	0.036	0.086	-0.085	0.205	0.326	1.000		
16. STAR	0.153	0.206	-0.005	-0.062	0.370	0.222	0.157	-0.107	0.014	0.009	-0.091	0.370	0.098	0.078	-0.055	1.000	
17. SIZE	-0.009	-0.080	-0.046	0.006	0.090	-0.011	-0.018	-0.175	-0.160	-0.195	-0.257	0.108	-0.051	-0.053	0.055	-0.157	1.000
Mean	3.031	3.348	3.333	3.978	2.592	2.230	2.812	3.805	3.976	5.559	5.465	2.947	0.361	1.601	0.383	0.634	0.000
Standard Dev.	1.068	0.900	0.810	0.876	0.993	1.011	0.730	0.888	0.897	1.006	1.027	1.184	0.482	0.620	0.487	0.483	1.000

Note: ^a Correlations > 0.145 are significant at the 0.05 level or better. TRAIN = Training (5-point scale), EMPOWER = Empowerment (5-point scale), REWARD = Rewards/recognition (5-point scale), CO = Customer orientation (5-point scale), CHALLENGE = Challenge stress (5-point scale), HINDRANCE = Hindrance stress (5-point scale), JENG = Job engagement (4-point scale), JSAT = Job satisfaction (5-point scale), AOC = Affective organizational commitment (5-point scale), IRJP = In-role job performance (supervisor-rated, 7-point scale), ERJP = Customer directed extra-role job performance (supervisor-rated, 7-point scale), TI = Turnover intentions (5-point scale), GENDER = Employee gender (0 = Male, 1 = Female), TENURE = Organizational tenure (1 = Less than 1 year, 2 = 1–5 years, 3 = 6–10 years, and 4 = 11–15 years), MSTATUS = Marital Status (0 = Single, 1 = Married), STAR = Quality ratings of hotels (0 = Four stars, 1 = Five stars), SIZE = Number of hotel beds (standardized).

^bThe scale scores of TRAIN, EMPOWER and REWARD are used as composite indicators of MCSQ, and score for JENG, JSAT and AOC scales are used as composite indicators of ENGAGE in the model testing stage.

Table 4

Tests of the research model and hypotheses.

Hypothesized relationships	Parameter estimates (t-values) ^a with and without interaction					
	Model 1 without MCSQ*CO		R ²	Model 2 with MCSQ*CO		R ²
	Estimate	t-value		Estimate	t-value	
Effects on employee engagement (ENGAGE)						
HINDRANCE → ENGAGE	−0.288	−2.18		−0.276	−2.10	
CHALLENGE → ENGAGE	0.132	1.35		0.132	1.43	
MCSQ → ENGAGE	0.286	2.62		0.281	2.62	
CO → ENGAGE	0.119	1.23		0.092	1.32	
MCSQ*CO → ENGAGE	–	–	0.218	0.129	1.00	0.231
Effects on hindrance stress (HINDRANCE)						
MCSQ → HINDRANCE	−0.113	−1.09		−0.103	−1.11	
CO → HINDRANCE	−0.280	−3.22		−0.298	−3.39	
MCSQ*CO → HINDRANCE	–	–	0.300	−0.147	−1.79	0.333
Effects on challenge stress (CHALLENGE)						
MCSQ → CHALLENGE	−0.268	−3.11		−0.256	−3.19	
CO → CHALLENGE	−0.200	−2.20		−0.215	−2.50	
MCSQ*CO → CHALLENGE	–	–	0.191	−0.151	−1.91	0.218
Effects on in-role job performance (IRJP)						
ENGAGE → IRJP	0.506	6.74		0.509	6.80	
HINDRANCE → IRJP	−0.123	−1.06		−0.125	−1.07	
CHALLENGE → IRJP	−0.135	−1.35	0.371	−0.135	−1.35	0.376
Effects on customer directed extra-role job performance (ERJP)						
ENGAGE → ERJP	0.397	4.88		0.399	4.92	
HINDRANCE → ERJP	−0.230	−1.77		−0.232	−1.78	
CHALLENGE → ERJP	0.033	0.29	0.307	0.033	0.29	0.310
Effects on turnover intentions (TI)						
ENGAGE → TI	−0.333	−3.81		−0.334	−3.82	
HINDRANCE → TI	0.394	3.83		0.395	3.80	
CHALLENGE → TI	−0.020	0.22		−0.020	−0.22	
<i>Model fit statistics for no interaction model^b:</i>			0.468			0.473
$\chi^2_{332} = 457.19, p = 0.00, \chi^2/df = 1.38, RMSEA = 0.045, CFI = 0.955, TLI = 0.946, SRMR = 0.060$						

Note: IRJP = In-role job performance (supervisor rated), ERJP = Customer directed extra-role performance (supervisor rated), TI = Turnover intentions, ENGAGE = Employee engagement, HINDRANCE = Hindrance stress, CHALLENGE = Challenge stress, MCSQ = Management commitment to service quality, CO = Customer orientation. CFI = Comparative fit index; TLI = Tucker-Lewis index; RMSEA = Root mean square error of approximation; SRMR = Standardized root mean square residual.

^a Parameter estimates are standardized. T-values corresponding to one-tail tests at various significance levels: $t > 1.30, p < 0.10$; $t > 1.65, p < 0.05$; and $t > 2.33, p < 0.01$.

^b Commonly used fit statistics (χ^2 , CFI, TLI, RMSEA, and SRMR) are not available in MPlus when latent variable interactions are examined. Instead, we can compare Akaike Information Criterion (AIC) (AIC is 10273.6 for the model with no interaction and 10275.2 for the model with interaction) and sample size adjusted Bayesian Information Criterion (BIC) (BIC is 10278.3 and for the model with no interaction and 10280.0 for the model with interaction), which show that model fit remains essentially the same with or without the interaction of MCSQ with CO.

CHALLENGE was significant ($\beta = -0.256, t = -3.19$), supporting H4b.

H5 was not supported since CO did not have a significant direct effect on ENGAGE ($\beta = 0.092, t = 1.32$). CO showed a significant influence on HINDRANCE ($\beta = -0.298, t = -3.39$) and CHALLENGE ($\beta = -0.215, t = -2.50$), which provided support for H6a and H6b. It should be noted that the model was also tested by allowing direct linkages from MCSQ and CO to IRJP, ERJP, and TI. None of the direct effects from MCSQ and CO to these job outcomes was statistically significant. These findings are consistent with our proposition that both MCSQ and CO are *distal* antecedents of job performance and turnover intentions.

ENGAGE exerted significant positive effects on IRJP ($\beta = 0.509, t = 6.80$) and ERJP ($\beta = 0.399, t = 4.92$), and it significantly reduced TI ($\beta = -0.334, t = -3.82$). These results were consistent with the hypothesized consequences of ENGAGE and provide support to H7a-c.

H8a-c dealt with the potential synergy between CO and MCSQ. Even though the direction of influence was consistent with H8a, the interaction of latent variables CO and MCSQ did not have a significant effect on ENGAGE ($\beta = 0.129, t = 1.00$), showing no support for H8a. However, the interaction effect was negative and significant on HINDRANCE ($\beta = -0.147, t = -1.79^2$), in support of H8b. The interaction of CO with MCSQ showed a significant effect on CHALLENGE

($\beta = -0.151, t = -1.91$), supporting H8c.

The significant interactive effects of CO and MCSQ on HINDRANCE and CHALLENGE were depicted graphically in Figs. 2 and 3. The figures showed that at high CO levels, compared to lower levels of CO, both types of stress decreased in a steeper fashion as MCSQ increases.

Summary of hypotheses test results is given in Table 5. Of the control variables, gender did not show a significant effect on any of the variables, while tenure had a significant positive effect on turnover intentions. Marital status showed a significant negative effect on HINDRANCE, indicating that married frontline employees reported less hindrance stress than those who are single. Hotel quality rating showed significant positive effects on TI, HINDRANCE, CHALLENGE, and MCSQ. Finally, hotel size had a significant negative influence on ENGAGE.

6. Discussion

6.1. Evaluation of findings and theoretical implications

The study makes several contributions to frontline employee engagement process. First, we articulate the theoretical utility of SDT as an explanatory foundation for the study of employee engagement. The tenets of the theory predict that resources – organizational and personal – that are geared towards satisfaction of the three universal needs (competence, autonomy, and relatedness) ultimately enhance employee

² T-values corresponding to one-tail tests at various significance levels: $t > 1.65, p < 0.05$; and $t > 2.33, p < 0.01$.

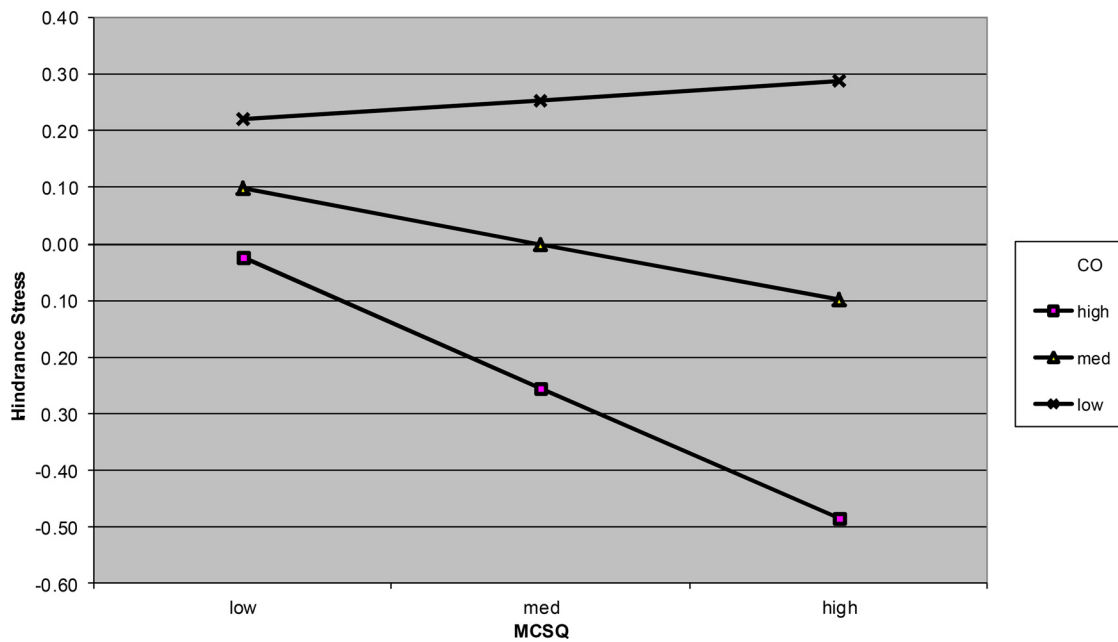


Fig. 2. CO Moderates the Effect of MCSQ on Hindrance Stress.

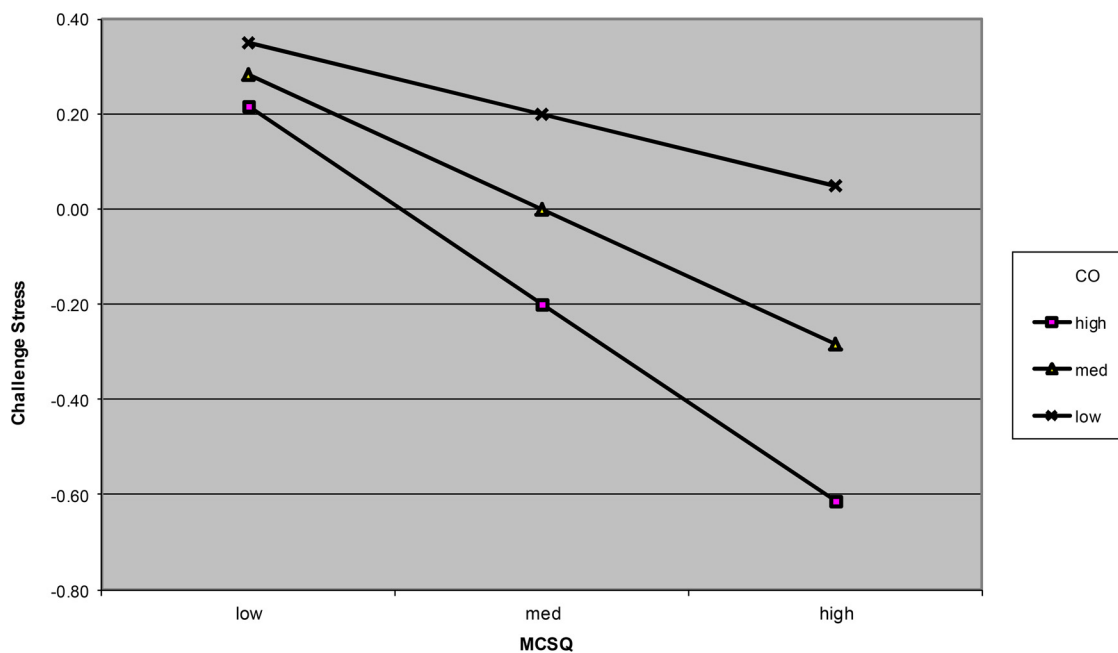


Fig. 3. CO Moderates the Effect of MCSQ on Challenge Stress.

engagement. The theory helps us understand not only ‘what’ effects organizational and personal resources have on employee engagement, but also informs us ‘why’ these effects are present. For example, we show that simultaneous presence of organizational resources such as training, rewards/recognition and empowerment practices enhance frontline hotel employees’ engagement. The underlying explanatory mechanism for such volitional energized action in the form of elevated engagement can be attributed to SDT’s fundamental proposition that need satisfaction nurtures motivation, internalization, and well-being.

Second, we provide additional validation of a three dimensional measure of MCSQ and establish its role as a proximal antecedent of employee engagement. We show that this high involvement human resource bundle exerts significant effects on job outcomes through its direct effects on job stress and engagement. Third, we find that CO is a

distal antecedent of job outcomes. While this finding is consistent with recent empirical evidence when supervisor-rated performance measure is used, it is inconsistent with the significant direct effect of CO on turnover intentions (Zablah et al., 2012). Contrary to Zablah et al. (2012), our findings also indicate that CO does not have a significant direct effect on employee engagement, and its effects on job outcomes are mediated through job stress when modeled together with MCSQ. The inconsistencies may be due to differences in the way job stress and employee engagement are conceptualized in this study and prior studies, but it is also possible that CO may have a direct effect on engagement and turnover intentions in some contexts and not others.

Fourth, the current findings suggest that, contrary to prior propositions, the role of a personal resource (i.e., CO) is not diminished in the presence of organizational resources (i.e., MCSQ). A comparison of the

Table 5
Summary of hypotheses test results.

Hypotheses	Sign of the effect	Result
H1a Hindrance stress → Employee engagement	(–)	Supported
H1b Hindrance stress → In-role performance	(–)	Not supported
H1c Hindrance stress → Extra-role performance	(–)	Supported
H1d Hindrance stress → Turnover intentions	(+)	Supported
H2a Challenge stress → Employee engagement	(+)	Not supported
H2b Challenge stress → In-role performance	(+)	Not supported
H2c Challenge stress → Extra-role performance	(+)	Not supported
H2d Challenge stress → Turnover intentions	(–)	Not supported
H3 Management commitment to service quality → Employee engagement	(+)	Supported
H4a Management commitment to service quality → Hindrance stress	(–)	Not supported
H4b Management commitment to service quality → Challenge stress	(–)	Supported
H5 Customer orientation → Employee engagement	(+)	Not supported
H6a Customer orientation → hindrance stress	(–)	Supported
H6b Customer orientation → challenge stress	(–)	Supported
H7a Employee engagement → In-role performance	(+)	Supported
H7b Employee engagement → Extra-role performance	(+)	Supported
H7c Employee engagement → Turnover intentions	(–)	Supported
H8a Management commitment to service quality * Customer orientation → Employee engagement	(+)	Not Supported
H8b Management commitment to service quality * Customer orientation → Hindrance stress	(–)	Supported
H8c Management commitment to service quality * Customer orientation → Challenge stress	(–)	Supported

standardized total effects reveals that MCSQ and CO show comparable levels of influence on job outcomes. The standardized total effect of MCSQ on other variables are; in-role job performance ($\beta = 0.193$, $t = 2.70$), extra-role job performance ($\beta = 0.130$, $t = 2.00$), and turnover intentions ($\beta = -0.133$, $t = -2.02$). The effects of CO on other variables are; in-role job performance ($\beta = 0.149$, $t = 2.79$), extra-role job performance ($\beta = 0.127$, $t = 2.86$), and turnover intentions ($\beta = -0.164$, $t = -3.34$). These results suggest that MCSQ has a stronger impact on in-role performance relative to CO, while the effect of CO on turnover intentions may be stronger than the effect of MCSQ. These findings provide evidence against arguments that organizational factors ‘overpower’ personal variables (Moore, 2000).

Fifth, perhaps more important than the main effects of MCSQ and CO, is the finding that there is a significant interaction between these two resources in terms of their effects on job stress. Our results show that CO enhances the effect of MCSQ on job stress. In other words, MCSQ is a more potent antidote against job stress for frontline employees with high CO than those with low CO. While the interaction between CO and MCSQ did not show a statistically significant effect on engagement, the effect was positive and consistent with our prediction. The findings reported above are in line with the tenets of COR theory that a combination of personal and job/organizational resources reduces employees’ hindrance and challenge stress (Hobfoll, 1989; Zellars et al., 2006). Hotel employees avail themselves of their personal resources such as CO and organizational resources such as training, empowerment, and rewards experience diminished hindrance and challenge stress.

Sixth, consistent with recent meta-analytic studies (Crawford et al., 2010; Zablah et al., 2012), hindrance stress showed significant negative effects on employee engagement. Hindrance stress also showed a significant negative effect on extra-role performance and a positive effect on turnover intentions. While the stress measures in this study are not directly comparable with those used in these meta-analyses, our hindrance measure roughly corresponds to role conflict and role ambiguity measures (Crawford et al., 2010). Our results show that hindrance stress exerts a positive direct effect on turnover intentions, but Zablah

et al. (2012) indicate that role conflict has a positive and role ambiguity has a negative direct effect on turnover intentions. However, the total effects of role ambiguity and role conflict are positive, which is consistent with the total effect of hindrance stress in our study. It appears that the conceptualization and measurement of hindrance stress is on firm grounds and the current findings strengthen the empirical evidence regarding its predicted effects. However, challenge stress did not generate the hypothesized effects. Contrary to prior research (e.g., Crawford et al., 2010), the current findings showed that the effects of challenge stress were non-significant or marginal at best, and the directions of influence were mixed. That is, while the effect of challenge stress on employee engagement was in the predicted direction, it was in opposite direction in the case of in-role job performance. This raises questions about the nature of challenge stress, which has also been questioned in other recent studies (e.g., Bakker and Sanz-Vergel 2013; Webster et al., 2011).

Seventh and finally, our findings affirm the important intervening role of engagement in transmitting the effects of resources such as MCSQ and CO as well as job demands. The finding that employee engagement is the most important variable in the model, which explains more than 30% of the variance in supervisor-rated performance, justifies the increased attention given to employee engagement.

6.2. Managerial implications

Our results provide useful implications for business practice in the hotel industry. First, the findings suggest that with its simultaneous emphasis on training, empowerment, and rewards/recognition, MCSQ plays a crucial role in strengthening hotel employee engagement. Thus, management of hotels should assess and monitor these MCSQ dimensions as appraised by employees, with the understanding that it is the employees’ perceptions that count. It is important for management to make sure these resources and practices are provided in such a way that they signal a genuine care not only for customers, but more importantly, a genuine concern for employees. The signals generated by such practices should develop and build feelings of relatedness, competence and autonomy on the part of employees.

Second, if, for instance, rewards are given for a ‘job well done’, as opposed to ‘pay-for-performance’, the reward becomes an important signal for competence. Satisfaction of this universal need may generate intrinsic motivation and subsequent engagement. If the reward is signaling ‘pay-for-performance’, it serves as an extrinsic motivator, and it will be perceived as a managerial ‘control’ (Deci and Ryan, 2014) and perhaps exploitation. Therefore, to avoid “hidden costs of rewards” (Deci, 1976) and to prevent waste of resources, rewards and recognition programs should send signals that are interpreted as genuine appreciation of a ‘job well-done’ as opposed to signs of control and/or manipulation.

Third, management of hotels should also pay attention to the nature of the signals transmitted via training. A major tenet of SDT is that every human being inherently seeks to learn, develop competencies and skills. However, if training is perceived as an external control mechanism by employees, it may not produce the desired results and it may even backfire. It is important for employees to perceive that training opportunities are there for their learning and growth. Such an approach would generate a “commitment-focused” rather than a “control-focused” training experience (Dysvik and Kuvaas, 2014). In order to maximize return on investments in training, management should provide signals of “a meaningful rationale” for training, and nurture “interpersonal relationships that emphasizes choice and flexibility as opposed to control and pressure” (Dysvik and Kuvaas, 2014, p. 226).

Fourth, rewards and training are important, but not sufficient by themselves without empowerment, the third dimension of MCSQ. Managerial focus must be on the need satisfaction aspect when the boundaries of empowerment and service discretion are developed.

More importantly, empowerment without rewards/recognition and training will not be sufficient to enhance engagement due to the possibility that employees may interpret empowerment negatively as increased workload (Chan and Lam, 2011). That is why all three components of MCSQ must be present and aligned properly to provide coherent signals directed at the satisfaction of employees' autonomy, competence and relatedness needs. Hence, systematic measurement and evaluation of MCSQ as perceived by frontline hotel employees is necessary to determine if the intended signals are received as such.

Fifth, the present study provides additional evidence regarding the important role of CO in service jobs. While CO did not have a significant direct effect on engagement when analyzed with MCSQ simultaneously, its effect remained significant indirectly by reducing job stress. Its total effects on job outcomes are comparable with those of MCSQ. So, CO and MCSQ are the two important antecedents of employee engagement and job outcomes that management of hotels should keep an eye on. Furthermore, since CO interacts with MCSQ to enhance its effects, it becomes even a more critical variable that should receive managerial attention. While the personality view adopted in this study implies that it is not easy to change CO, it is a surface trait and surface traits may be more amenable to change. Management can improve CO of its frontline employees using appropriate interventions, while paying close attention to CO levels in selection and hiring decisions.

Lastly, with respect to stress antecedents, our results support the idea that the presence of corporate (MCSQ) and individual (CO) resources diminish both hindrance and challenge stress. These findings are encouraging as they suggest hotel managers may effectively handle employee stress, as well as distal job outcomes, through strategic human resource initiatives such as training and rewards programs, employee recognition, empowerment, and recruitment.

6.3. Limitations and future research directions

The study has a number of limitations that provide opportunities for further research. Specifically, the SDT provided the primary theoretical framework to guide the study in terms of hypothesis development. However, the key constructs of the theory (need for competence, autonomy, and relatedness) were not explicitly modeled as mediating variables to provide a direct test of SDT. While recent studies and meta-analyses (e.g., Cerasoli and Ford, 2014; Chiniara and Bentein, 2016; Gunnell et al., 2014; Lian, 2010; Rosen et al., 2014; Van den Broeck et al., 2016) clearly established the overall viability of SDT, future research should include the need constructs as intervening variables to provide direct tests of the theory with alternative antecedent and outcome variables.

There are a number of different measures of engagement and it is not yet clear which one is the most viable engagement measure. In the present study, relevant scale items from organizational commitment, job satisfaction, and work engagement scales, consistent with a broad definition of employee engagement advocated by Macey and Schneider (2008) and Newman et al. (2010), were used. This measure seems to work well as evidenced by its sound psychometric properties, but the need remains for a comparative evaluation of existing measures. The domain of the construct needs to be specified and a unified understanding has to be developed. Perhaps, there is a need to develop concise conceptual definitions of multiple engagement concepts – in reference to tasks, teams, and organizations.

While the necessary precautions were taken for the proper translation and testing of the measures, some of the scales may not have captured the underlying constructs adequately. For instance, the non-significant and mixed findings regarding the role of challenge stress may be due to measurement issues although the scale exhibited good psychometric properties. Alternatively, challenge stress may have a dual meaning in the minds of frontline employees. In fact, evidence suggests that something might be appraised both a hindrance and challenge and that different individuals may appraise a given stressor

differently (Webster et al., 2011). In addition, there may be an optimum level of challenge stress for each individual, and challenge that is above or below that level may be detrimental to healthy functioning (Franks et al., 2016). Hence, the *a priori* determination of what is a challenge and what is a hindrance needs to be reconsidered, and optimal levels of challenge should be investigated.

In addition, the three dimensional view of MCSQ appears to be an adequate representation of high-performance work practices for frontline service contexts. However, a fourth dimension, an information dimension should be added. This would make the concept of MCSQ consistent with Lawler's (1986) broader "high-involvement work processes" framework, which is built on power (P), information (I), rewards (R), and knowledge (K). In the context of frontline service jobs, power refers to employees having the power to make decisions, hence empowered. Similarly, knowledge refers to employee knowledge and skill development which are related to training. Information refers to informing employees about organizational goals, direction, and providing feedback. In the context of MCSQ, the information dimension could be conceptualized as communication with frontline employees regarding management's concern for them with proper signals about training opportunities, rewards and recognition for a job well done, and signals about empowerment, all aimed at creating a work atmosphere in which employees feel their needs for autonomy, competence and relatedness are satisfied.

Finally, the reward component of Lawler's (1986) model is defined based on a contingent reward system that is essentially a 'pay-for-performance' approach. Such control-focused reward systems may not be conducive to autonomous motivation in the context of frontline services. Hence, reward dimension in this study is different than that of Lawler's (1986) and more research is needed to compare contingency based reward systems with those that offer rewards for a 'job well done' under specific conditions. Future research should refine MCSQ by developing an information and communication dimension for frontline service jobs and theoretically integrate it into Lawler's (1986)'s framework.

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