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Mediation of job embeddedness and satisfaction in the relationship between task

characteristics and turnover: A multilevel study in Portuguese hotels

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Abstract

Purpose

Employeesøturnover intention is a key problem that hotel managers face daily. This is partially explained by the inevitability of performing tasks with little significance and low identity. This study aims to understand how job embeddedness and job satisfaction could lessen the undesirable effect of task characteristics on turnover intentions.

Design/methodology/approach

A sample of 525 employees operating in 46 Portuguese hotels was used in this study. The questionnaire included demographic variables and four reliable instruments used to measure job satisfaction, job characteristics, job embeddedness, and turnover intentions. We used a multilevel statistical approach considering both the individual and the hotel levels of analysis.

Findings

Through multilevel statistics, our findings suggest that both at the individual and the hotel level of analysis, job satisfaction and job embeddedness fully mediated the relationship between different task characteristics (significance and identity) and turnover intentions.

Research limitations/implications

Despite a possible absence of common method variance, due to the confirmatory factor analysis, social desirability bias may exist because of the self-reported nature of the survey.

Practical implications

Managers should increase the perceived costs of employees leaving the hotel by introducing training programs and plans for career development. Also, in order to increase job embeddedness, managers should also rethink the organizational dynamics of this industry.

Originality/value

This research provides empirical evidence of the antecedents and mediators of employeesø intentions to leave the hotel industry both at the individual and at the hotel level (multilevel approach).

Keywords: Turnover intention; Job embeddedness; Job satisfaction; Task significance; Task identity; Tourism; Hotels.

Introduction

Employeesø decision to stay or leave an organization where they work is a key variable for work-related research in all sectors of professional activity. The literature has revealed that tourism is one of the sectors that present higher levels of turnover (Kim, 2014). For instance, in Portugal tourism has been ranked fourth in terms of high turnover levels, and has only been surpassed by the transport, construction and trade / retail sectors (DETEFP, 2012). Tourism has been an increasingly economically relevant sector in Portugal. In 2014, this sector accounted for 6.0% of the Portuguese GDP, contrasting to only 3.4% in Europe and 3.1% worldwide (WTTC, 2015). In that year, travel and tourism contributed directly to the creation of 337,000 jobs (7.4% of total employment in Portugal). From a total revenue of 10.4 billion euros for the tourism sector in 2014, hotels alone accounted for approximately 2.7 billion euros (Turismo de Portugal, 2015). Portugal has received foreign tourists mainly from the UK (23.9%), Germany (13.7%), Spain (11%) and France (9.3%). Algarve (in the south of the country) has been the region with the highest number of nights spent in hotels (35.5%), representing a total of 4 million stays in 2014 (Turismo de Portugal, 2015).

A study conducted with a sample of employees working in hotels in the Algarve region (Guzmán *et al.*, 2009) showed that this sector was characterized by a young workforce (more than 50% of employees were less than 40 years old), low academic qualifications (66% of employees with high school or lower), and low wages (36% of employees earned less than 1,000 euros per month). Additionally, 26.3% of employees had precarious contracts and presented low levels of satisfaction at work (3.4 in a scale ranging from 1 to 5). All of this evidence shows that turnover highly affects tourism, specifically in Portugal. Staff turnover is detrimental to the hospitality industry as it involves both direct costs (e.g., recruitment, selection, and training of a new workforce) and indirect costs (e.g., low morale and overtime shifts involving the remaining workers), which eventually leads to exhaustion and/or reduced

performance levels (Hjalager and Andersen, 2001). Although the indirect costs of turnover are much harder to measure, it is crucial to account for them and try to seek their detrimental impact on organizational performance. The existing hospitality literature has revealed that, in general, hotel employees have low qualifications and a reduced identification with the task (Nickson, 2007). These findings infer that high turnover levels (Slattery *et al.*, 2010) become even higher with working staff at operational levels (Milman, 2003). Also, evidence has shown that job embeddedness is related to turnover intention (Karatepe and Shahriari, 2014) and that job satisfaction is correlated with employeesø self-actualization and self-esteem needs (Lee *et al.*, 2015).

Prior research has demonstrated that turnover intentions actually predict real turnover to a great extent (Holtom *et al.*, 2005). But even when turnover intentions do not lead to actual turnover (Allen *et al.*, 2005), they have a negative impact on organizational effectiveness, as employees with unrealized turnover intentions are likely to engage in other kinds of withdrawal behavior. Thus, by identifying turnover antecedents, organizations can develop appropriate measures and prevent its direct and indirect costs.

As mentioned above, turnover and seasonality remain predominantly high in the tourism sector (Kim, 2014), and because it is an industry marked by unskilled labor, satisfaction depends on the characteristics of the work performed (Katsikea *et al.*, 2011). Accordingly, previous studies (e.g., Ghiselli *et al.*, 2001) have reported that the main motivational reasons for staff turnover are internal issues of the organization (e.g., conditions in organization) as opposed to external causes (e.g., economy, competition), namely, low pay, inadequate or non-existent recruitment practices and mismanagement that weaken the morale of employees. In the hotel industry, the combination of the perception individuals have of the sector and reality contribute to build a negative image that acts as a barrier to hire qualified personnel (Kim, 2014). Furthermore, the hotel industry sector recruits a lot of unskilled

workers who consider hotels as a last resource for their professional development (Katsikea *et al.*, 2011). Moreover, workers accept jobs in the hotel industry as an opportunity to overcome situations of unemployment, but that may be temporary if an opportunity arises to perform other tasks they prefer (Camisón and Monfort-Mir, 2012). Thus, variables such as perceived task significance and task identity play an important role in the prediction of intention to leave the job (Chang *et al.*, 2013; Katz, 1978). Nonetheless, there are currently few studies that emphasize the role of hotel job characteristics in terms of turnover intentions. Contrarily to the commonly adopted single-level (individual) approach, our study seeks to analyze task characteristics at the hotel-level, as this multilevel conceptualization provides a more integrative perspective of organizational phenomena (Chang *et al.*, 2013).

In the hotel industry, many managers are faced with difficulties in helping their employees assign meaning to tasks performed in response to immediate situations of adaptation to environmental and customer-oriented needs (Nickson, 2007). On the other hand, this is a sector which often has low-skilled workers with difficulty in identifying with the task and the various activities that must be developed (McCabe and Savery, 2007). These job characteristics are prototypical to the hotel industry and constitute obstacles and challenges that managers face in their daily practice (Milman, 2003). Despite the existence of other task characteristics such as task variety, autonomy, and feedback (Hackman and Oldham, 1980), we considered task identity and task significance as more appropriate to be measured. Essentially, due to the characteristics of the hotel sector in Portugal, where HR managers have difficulty in coping with these two variables (Guzmán *et al.*, 2009). Moreover, the literature has emphasized that these variables are strongly related with turnover intentions (McKnight *et al.,* 2009; Slattery *et al.*, 2010).

In line with these assumptions, we question which aspects (variables) managers and HR professionals may develop in the hotel sector to mitigate this negative effect of low

perceptions of meaning and identity towards the task in turnover intentions of employees. The literature has shown that job embeddedness and job satisfaction decreases turnover intention in the banking sector (Holtom *et al*., 2013) and in the hotel industry (Karatepe and Shahriari, 2014). A possible relationship between variables related to work design and job satisfaction (Katz, 1978) reinforces our hypothesis that focuses on the mediation effect of job satisfaction and job embeddedness in the relationship between hotel job characteristics (task significance / identity) and turnover intention (Figure 1).

Many tourism studies have focused on the evaluation of the destinationsø attributes, such as overall satisfaction and behavioral intentions of tourists (e.g., Eusébio and Vieira, 2013). Our study seeks complements the existing literature on the factors underlying the turnover intentions of employees in touristic contexts, more specifically in hotels. In particular, our primary goal is to understand how job related constructs (such as job embeddedness and job satisfaction) could attenuate the undesirable effect of sub-optimal task characteristics (which are prevalent in the hotel industry) on employeesø turnover intentions. Moreover, previous research on employees turnover intentions has focused mostly on a single level of analysis (e.g., Karatepe, 2013), focusing on individual variables such as job embeddedness and task characteristics. Our study seeks to extend previous findings considering job design characteristics at the hotel-level of analysis.

------ INSERT FIGURE 1 ABOUT HERE ------

Job characteristics and turnover intention

The tasks employees perform in their jobs play a significant role concerning the decision to stay or leave the organization they work for. Specifically, Hackman and Oldhamøs (1975, 1980) seminal job-characteristics model posits that five core job characteristics (i.e.,

skill variety, task identity, task significance, autonomy, and task feedback) influence three critical psychological states (i.e., experienced meaningfulness of the work, experienced responsibility for work outcome, and knowledge of work results) which in turn, are expected to increase positive behavioral outcomes and decrease negative ones (such as turnover).

As the identified five job characteristics can be combined into a single index (i.e., the motivating potential score), some studies consider them as an integrated construct (e.g., Slattery *et al.*, 2010). However, in line with other studies (e.g., McKnight *et al.*, 2009), we opted to use two individual (independent) constructs of task significance and identity. In our view, these two job characteristics give a better account of the diverse nature of the job characteristics model in the hotel sector (Nickson, 2007), allowing us to consider a significant variance at the hotel-level of analysis. Overall, hotels are by nature bureaucratic organizations where employees tend to perform the same task in a restricted environment (Jung and Yoon, 2015). Also, hotel managers have to deal with employees that perform tasks with low levels of significance and with reduced perception of impact on othersø lives. Additionally, the hotel industry faces new challenges by hiring low qualified employees that look for an opportunity in the tourism sector in order to resolve unemployment issues (McCabe and Savery, 2007; Milman, 2003). These characteristics result in low levels of identification and meaning towards the task, which thus, lead to high turnover intention.

Some recent studies (e.g., McKnight *et al.,* 2009; Slattery *et al.*, 2010) have found that job (and workplace) characteristics predicted turnover intention. More specifically, Slattery *et al.ø*s (2010) work, which focused on temporary workers, verified that turnover intentions are frequent in many tourism settings, such as hotels. Despite all of the previous research on turnover and task characteristics, as far as we know, there are no studies considering these relationships with a multilevel approach focusing on the contemporary hospitality

management literature. Accordingly, we specifically propose that task significance is a negative predictor of turnover.

Hypothesis 1: At the hotel-level, task significance is negatively related to the individual intention to leave the hotel industry.

The literature has shown that a large amount of turnover in the hotel industry emerges in working staff at operational levels (Milman, 2003). Much of this turnover is associated with low specialized skills, seasonal changes in work availability and limited opportunities for career progression (McCabe and Savery, 2007). Furthermore, the literature has highlighted how low salaries, monotonous tasks and bad working conditions are associated with difficult (or inexistent) relationships with peers and supervisors (Chalkiti and Sigala, 2010). Moreover, the difficulty in planning human resources according to the need to improvise and the need to deal with uncertainty (Saad, 2013) often refer workers to identifying less with the task. This low level of identification with the task emerges because many tasks that are performed in the hotel industry do not involve completing a job from the beginning to the end (only a portion of the job), where the person does not see the end product and a meaningful outcome (Hackman and Oldham, 1975). In general, this evidence leads to low task identity as a job characteristic, which has revealed a significantly negative relationship with employee turnover intention (Chang *et al.*, 2013), due to an associated sense of frustration. Other studies conducted with samples of nurses (Sabanciogullari and Dogan, 2014) have also emphasized the importance of job identity in order to avoid intentions to leave the profession.

Despite this evidence, no study has to our knowledge, tested the mentioned relationships with samples from the hotel industry. There is also a need to study a possible

relationship between task identity and intention to leave the hotel industry within a multilevel approach (Chang *et al.*, 2013). Thus, we propose our second hypothesis:

> **Hypothesis 2:** *At the hotel-level, task identity is negatively related to the individual intention to leave the hotel industry.*

The mediator role of job embeddedness on turnover intention

According to Humphrey *et al.* (2007), turnover intentions are not only related to job design but should also include the link between a job and the broader work environment. In particular, higher level variables such as organizational commitment and engagement were found to have a negative impact on turnover intentions (Lee *et al.*, 2012). Although organizational commitment and engagement appear to be relevant phenomena, in our view, the emergent concept of job embeddedness is found to be far more appropriate for this context. Job embeddedness describes the forces that keep employees at their jobs, thus preventing them from having intentions to leave the organization (Lee *et al.,* 2012). This emerging concept builds on Lewinøs (1951) field theory, which stated that individuals maintain several interconnected roles representing diverse aspects of their lives (e.g., work or home-related issues).

Prior research has found organizational job embeddedness to be a predictor of turnover intentions and actual turnover (Harris *et al.*, 2011). Also, a study in Iran involving full-time frontline hotel employees revealed that justice had a negative effect on turnover intentions and this effect was stronger among employees with high levels of job embeddedness (Karatepe and Shahriari, 2014). A meta-analytic investigation involving 65 independent samples found that on-the-job and off-the-job embeddedness were negatively

related to turnover intentions and actual turnover, after controlling for job satisfaction, affective commitment, and job alternatives (Jiang *et al*., 2012).

The role of ambiguity has been found to be a predictor or turnover intentions (Chandrashekaran *et al*., 2000). However, the role of ambiguity eventually decreases in the presence of higher levels of job significance and identity. Employees experience more meaningfulness at work when they are involved in the entire process rather than being responsible for mere bits of the job. They also feel more relevant to a job that substantially improves either the psychological or the physical well-being of others. This effect was evidenced by Wheeler *et al.* (2010), who showed that employees with high levels of job embeddedness tended to perceive the tasks they perform as being more meaningful and important to the company. Employees with high levels of task significance are more engaged in their work. Other studies have linked personal resources to outcomes through work engagement, such as Karatepe and Karadas (2015), who showed that job engagement acted as a partial mediator of the effect of positive psychological capital (i.e., self-efficacy, hope, optimism, and resilience) on job satisfaction. Moreover, Karatepe (2014) found that work engagement acted as a full mediator of hope on service recovery performance. Despite these contributions, empirical research about job engagement activation in the hospitality management literature is still scarce (Karatepe and Karadas, 2015). More importantly, very little is known about the relationship between task characteristics and job embeddedness and its influence on turnover intention.

In sum, when there is a match between the content, the nature of the task itself and the purpose of its implementation, the work is done with less effort, reducing the intentions to leave the organization. Thus, we posited the third hypothesis:

Hypothesis 3: Job embeddedness fully mediates the relationship between task significance and the employees' intention to leave the hotel industry.

The mediator role of job satisfaction on turnover intention

Job satisfaction is another predominant predictor of turnover, reflecting how content employees are with their current job (Hancock *et al.*, 2013; Lee, 2016). Accordingly, to reduce turnover, it is necessary to investigate the factors that affect job satisfaction. In this sense, Hackman and Oldham (1980) postulated the previously described job characteristics theory which states, among other things, that job satisfaction is affected by core job characteristics that are unique to the job, and moderated by unique jobholder characteristics. Hence, the literature has also emphasized the relationship between work design and job satisfaction (Katz, 1978). Currently, professional satisfaction results from the characteristics of the function performed, particularly with respect to the degree with which individuals identify themselves with the task. Among the different work design constructs (Hackman and Oldham, 1980), we hypothesize that task identity at the hotel-level of analysis plays an important role in employees' satisfaction in the hotel industry. In fact, previous studies in the health sector have shown that professional identity was positively and significantly associated with job satisfaction, which in turn, explains intention to leave the profession (Sabanciogullari and Dogan, 2014). In the hotel industry, many employees are low skilled with low levels of identification with the task (Milman, 2003; Nickson, 2007). This low identification with the task can result in high levels of abandonment of the workplace (c.f., Chang *et al.*, 2013). However, these studies focus on other sectors of activity and neglect the variance component associated with differences between institutions (multilevel analysis). Despite the fact that other studies have considered the mediating role of job satisfaction (e.g., Tuna *et al.*, 2016), they have not considered the possibility of other mediating variables such

as job satisfaction that can possibly affect the relation between identity and the intention to leave the organization. Accordingly, we propose the following hypothesis:

Hypothesis 4: *Job satisfaction fully mediates the relationship between task identity and the employees' intention to leave the hotel industry.*

Method

In this section, we discuss the methodological issues, including the four instruments used to measure job characteristics, job satisfaction, job embeddedness, turnover intentions, as well as present the data collection procedures and sample demographics. We opted for a multilevel (two-level) approach, as we included variables measured at the individual-level (i.e., job embeddedness, job satisfaction, turnover intentions) and the hotel-level (i.e., task identity and task significance). A multilevel approach is recommended when a study aims to understand how organizational phenomena at different levels are linked (Heck *et al.*, 2010).

Participants

The population of hospitality employees in Portugal was 44,753 in 2013 (Turismo de Portugal, 2015), specifically 68.5% working in hotels. Accordingly, a total of 800 questionnaires were distributed to Portuguese hotel employees, of which 578 were received (72.3% return rate). As 53 questionnaires were not fully completed, they were removed from the analysis. Thus, the results reported here are based on data obtained from 525 employees working in 46 different hotels, aged between 18 and 67 ($M = 40.01$; $SD = 11.62$). The hotels were chosen by convenience, although all of them were full-service and mid-scale, which is representative of the Portuguese hotels' characteristics (Turismo de Portugal, 2015). Most respondents were females (56.6%). The job types were categorized as follows: 12.6% had management positions, 12% were in middle management, 74.1% had technical and

operational positions and 1.3% had administrative functions. Although turnover ranks higher among low-skilled positions, we included all job positions in our analysis (including management positions) in order to have a representative sample reflecting the typical HRM hotel structure in Portugal (Turismo de Portugal, 2015). In terms of educational level, 39% of the respondents had a basic education level, followed by 37% with a secondary education degree and 24% with higher education degrees. With regards to seniority, we note that on average employees had been working at their current job for over 7 years. Moreover, 62.1% of the employees had more than 10 years of professional experience. Participants worked an average of 41.44 hours per week ($SD = 8.20$).

Procedure

The evaluation process began by contacting the Human Resources department of the various hotels in order to obtain the necessary authorization to conduct the study and request their cooperation. Then, we proceeded with explaining the goals of the investigation. After the authorization was given, the questionnaires were sent, completed and returned. Employeesø participation was voluntary. Each hotel had a ballot box in the canteen in which the employees returned the filled in questionnaires. This procedure assured the anonymity and confidentiality of the data. Also, due to the seasonality of hotel jobs, we extended the period of data collection, which took about six months (from April to September 2013). It is also important to refer that all of the ethical and legal procedures were followed and that the subjects were accompanied upon the completion of the questionnaires and were provided with the necessary and guaranteed anonymity and confidentiality of data directives. This is particularly relevant especially because of the sensitive nature of our research questions.

Measures

We selected five instruments that could appropriately measure the constructs in our conceptual framework. All instruments have shown acceptable levels of reliability and

validity in previous research (*e.g*., Joo *et al*., 2010). The demographic variables included (a) gender, (b) age, (c) education level, (d) the type of job, (e) years of professional experience, (f) length of service, (g) and number of hours worked per week.

Task Significance and *Task Identity* (both from the *Job Diagnostic Survey*). The Job Diagnostic Survey (JDS) developed by Hackman and Oldham (1975), evaluates the perception of job characteristics through 15 items that are organized into five subscales: (1) skill variety, (2) task identity, (3) task significance, (4) autonomy, and (5) feedback of results. In our study only the following dimensions were considered: task significance, that refers to the degree with which the job has a substantial impact on the lives or work of other people, whether in the immediate organization or in the external environment; and task identity, that refers to the degree with which the job requires completion of a õwholeö and identifiable piece of work, that is, doing a job from the beginning to the end with a visible outcome. Each subscale consists of three items that must be answered on a Likert scale of seven points, ranging from 1 (strongly disagree) to 7 (strongly agree). The respondents must indicate the degree of accuracy and precision that each statement describes their tasks, i.e., their perception of how each feature is present in their work. The internal consistency of each subscale in this study was acceptable (Cronbachøs alpha of .85 for task significance, and .72 for task identity).

Job Embeddedness. The seven-item, global-measure scale created by Crossley *et al*. (2007) was used to measure the factors that are important to form an overall impression of how embedded a person feels. The items included, for example, õI feel attached to this organizationö and õI simply could not leave the organization that I work forö. This scale uses a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). After one negatively worded item had been reverse scored, higher scores indicated higher job embeddedness. Cronbachøs

alpha for the scale in its initial version was .88, and item-total correlations ranged from .60 to .75 (Crossley *et al.*, 2007). In this study, the reliability for the scale was .81.

Job Satisfaction. Cammann *et al.* (1983) and Spector (1985) developed a five-item measure for overall job satisfaction. This measure includes items such as õI feel a sense of pride in doing my jobö and õIn general, I donøt like my jobö (reverse). Participants should indicate how satisfied they are with their job on a seven-point scale. Coefficient alpha values range from .67 to .95 (Khan *et al.*, 2015; Spector, 1985). The internal reliability was .89 in this study.

Turnover intentions. We measured the intentions of turnover with the OøReilly *et al.*, (1991) four-item scale. Examples of items are: õGiving thought to my future career, I can see myself still working for my present employer in three yearsö (reverse coded) and õIf at the present moment I was offered an equivalent position at another company, I would take itö. The scores were averaged to provide a single score of intention to turnover. Each item was answered on a 7-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree). In the present study, the Cronbachøs alpha was .91.

Controls. Prior research has identified seniority, age, education and supervision as related to turnover intentions and job embeddedness (e.g., Mitchell *et al.*, 2001; Tanova and Holtom, 2008). Thus, as the omission of these variables could potentially affect the results, we controlled them in order to increase the validity of this study.

Measurement Model

Considering our data came from self-reported data, we performed confirmatory factor analyses to examine whether there were distinct constructs and in order to control for common method variance bias and error. According to the Harmanøs one-factor test, if a substantial amount of common method variance is present, a general factor will account for the majority of the covariance among the items of self-reported measures adopted (Podsakoff

et al., 2003). Our results revealed that the hypothesized model included five factors (i.e., task significance, task identity, job embeddedness, job satisfaction and turnover intention) and yielded a reasonable fit to the data [$^2_{(160)}$ = 551.313, *p* < 0.01, ^{2}/df = 3.446, CFI = .942, IFI = .943, RMSEA = .068, LO = .062, HI = .075], whereas a single-factor model did not provide good fit indices. Despite the limitations of the Harmanøs one-factor-test (cf., Podsakoff *et al*., 2003), these findings suggest that our data may reveal absence of common method variance.

As shown in Table 1, the composite reliability scores were equal or higher than .75, and the Average Variance Extracted (AVE) was higher than .50, supporting convergent validity (Hair *et al*., 2010). We can also confirm that the variablesø discriminant validity with all of the Average Shared Variance (ASV) scores was below the AVE score (Hair *et al*., 2010).

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Methodological strategy and data aggregation

Due to the multilevel characteristics of the data, we used SPSS 20.0 with hierarchical linear modeling (Heck *et al*., 2010). The dataset analysis consisted of 525 participants from 46 hotels (*M* = 11.46 employees per hotel). We centered our individual-level variables (job embeddedness, job satisfaction and turnover intention) to the person mean (grand-mean centering). We analyzed task significance and task identity at the hotel-level of analysis (group-mean centering ó Level 2). We also calculated within-hotel agreement (r$_{wg}$) (James *et al*., 1984), the intraclass correlation (ICC[1]), and the reliability of the means (ICC[2]). The average r$_{wg}$ were .73 for task significance and .71 for task identity, both values were above the suggested cutoff value of .70 (Bliese, 2000). The ICC[1] were .06 and .11 and the ICC[2] were .77 and .73 for task significance and task identity (respectively). The value of ICC[1]

was equal to or higher than .06 and the ICC[2] was higher than .70 (Bliese, 2000), providing empirical support for aggregating task significance and task identity at the hotel-level. These assumptions allowed us to test our hypotheses with random coefficient modeling and Maximum Likelihood estimation. We opted for random intercepts and random slopes because, according to the literature, when the predictor resides at Level 1, the causal effect tends to be random (Bauer *et al.*, 2006). This occurs due to the characteristics of a lower level mediation adopted in the current study.

Multilevel mediation modeling allowed us to test mediated effects in clustered datasets, so we could accommodate predictors at the hotel-level and both the mediator and outcome variables at the individual-level (Krull and Mackinnon, 2001). We adopted a lower level mediation of upper level effect (2-1-1) with the effect of the Level 2 predictor on the Level 1 outcome being mediated by a Level 1 variable. To assess the mediation impact of job embeddedness and job satisfaction on the relationships between task significance and task identity on the dependent variable turnover intention the hotel industry, we conducted a three-step analysis (Bauer *et al*., 2006). Firstly, we examined the relationship between the independent and dependent variable (X → Y). Secondly, we tested the relationship between the independent and the mediator (X → M). Thirdly, we tested the multilevel relationship between the independent and the dependent variable, including work engagement (mediator) in the models (X → M → Y).

Finally, we estimated the proportion of variance of the dependent variable in each model, considering the formula proposed by Xu (2003): $(1 - \sigma^2) / \sigma_0^2$, where σ^2 represents the variance accounted for the full model and σ_0^2 the variance accounted for the null model.

Results

Descriptive statistics

Table 2 shows descriptive statistics with mean scores, standard deviations and intercorrelations of the studied variables.

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Hypotheses testing

To analyze the impact of hotel-level predictors and individual-level mediators, five models were included in successive models (Tables 3 and 4). Firstly, we analyzed a null model (intercept only) with no predictors in Model 1 to confirm if there were hotel-level significant differences for the dependent variable. Accordingly, we estimated the null model and found significant variances in turnover intention (ICC1 = .06; χ^2 = 2001.725 $p < .01$), confirming that hierarchical linear modeling for two levels was the appropriate statistical approach.

Secondly, we entered the control variables in Model 2. Our results showed that the effect of seniority and gender was not significant on turnover intention. However, we found that employees with more academic habilitations and that did not exert supervision functions had the tendency to have higher intentions to leave the hotel industry (= .21, SE = .07; = .70, SE = .19, respectively; both $p < .001$). After adding the independent variables at the hotel-level (task significance and task identity) the model fit increased significantly ($_{Deviance}$ = 10.725 and 7.529, both $p < .01$).

The first hypothesis stated that at the hotel-level, task significance would be negatively related to turnover intention. We found that at the hotel-level, task significance was negatively related to turnover intention (= -.26, SE = .07, $p < .01$), therefore Hypothesis 1 was supported. Moreover, at the hotel-level task significance was positively related to job embeddedness (= .33, SE = .04, $p < .01$). When we added job embeddedness (mediator) in

step 3, the effect of task significance on turnover intention the hotel industry became non-significant (= -.13, SE = .07), while job embeddedness was negatively related to turnover intention (= -.36, SE = .07, *p* < .001). According to Baron and Kenny's (1986) guidelines, the full mediation was supported. Moreover, results of a Sobel test regarding the indirect effect of task significance on turnover intention via job embeddedness showed that the effect was significant (Sobel Z = -5.9351, *p* < .001). Bootstrapping with bias-corrected confidence estimates confirmed the mediation hypothesis (Preacher and Hayes, 2008) with a bootstrap of 99% CI around the indirect effect not containing zero (-.280, -.192). Overall, these findings showed that job embeddedness fully mediated the hypothesized relationships, therefore Hypothesis 3 was supported.

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In Table 4 we tested hypotheses 2 and 4. As hypothesized, the negative relationship between task identity and turnover intention (step 1) was significant (= -.22, SE = .07, *p* < .01), therefore, Hypothesis 2 was supported. Additionally, we found that the relation between task identity and job satisfaction (step 2) was also significant (= .47, SE = .06, *p* < .01). When the mediator job satisfaction was added (step 3), the relationship between task identity and turnover intention in the hotel industry became non-significant (= .04, SE = .08, *p* = *n.s.*), thus, fulfilling the full mediation criteria (Preacher and Hayes, 2008).

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We proceeded with the Sobel test again to examine the indirect effect of task identity on turnover intention through job satisfaction. Results showed that the effect was significant

(Sobel Z = -7.361, *p* < .001). A bootstrap of 99% with bias-corrected confidence showed a CI around the indirect effect not containing zero (-.373, -.180). Overall, these findings confirmed the mediation effect mentioned in hypothesis 4, revealing that job satisfaction fully mediated the relationship between task identity and the employeesø intention to leave the hotels they worked at.

Discussion

Conclusions

The existing literature on hospitality and tourism has focused on linear associations between individual variables, thus neglecting the inter-hotel variance as well as the mediator role of individual variables affecting the indirect relationship between task characteristics and turnover intention (Karatepe and Shahriari, 2014). Due to these conservative organizational models, hotel managers have difficulties in managing their employees effectively, thus not compensating the inherent absence of task significance and identity. We sought to address this gap in the literature and shed light on the mediator role of job embeddedness and job satisfaction in the relationship between task characteristics and turnover intention. Therefore, this study was designed to further understand the multilevel relationship between these variables and its relationship with turnover intention among different hotels. Accordingly, it is vital that hotel management acknowledges the impact of employeesø embeddedness and satisfaction in reducing turnover intention by hiding the negative effects of low task identity and low task significance.

Theoretical implications

A recognized differentiation between hotels (e.g., hotel categories, typologies, resources, strategies) justifies a multilevel approach with the aggregation of task significance and identification at the hotel-level. The existing literature has also shown that these job

characteristics (significance and identity) are linked to turnover intention (Chang *et al*., 2013). Despite the abundant literature on turnover intentions, as far as we know, there are no studies in the hotel sector that have examined the individual variables that could reduce (or even nullify) the negative effect of hotel task-related variables on turnover intentions.

Our study extends previous findings (e.g., Karatepe, 2013, 2015) by showing that not only does task significance have consistent functional effects on job satisfaction, job embeddedness and turnover intentions, but that individual variables should also be taken into consideration as mediators in the relationship between hotel task-related variables and turnover intention. Furthermore, our findings shed some light on the current literature by reinforcing the full mediation effect of job embeddedness in the relationship between task significance and turnover intention. In line with previous studies (e.g., Holtom *et al*., 2013; Karatepe and Shahriari, 2014), our research emphasizes the mediating role of job embeddedness in turnover intention of employees. Moreover, our results confirmed the hypothesis regarding the full mediation effect of job satisfaction on the relationship between task identity and turnover intention. This evidence complements previous research where job satisfaction was highly correlated with turnover intention (Holtom *et al*., 2013).

In sum, our results are congruent with the findings of Uruthirapathy and Grant (2015) with regards to IT workers and to the importance of managersø awareness of the workplace and individual characteristics, as these factors may reduce turnover intentions. We have extended their findings by studying hospitality industry workers.

Practical implications

One of the main practical contributions of the present study is how we were able to demonstrate how job embeddedness mediated the relation between task significance and turnover intention in the hotel industry. With an inability to provide workers with task significance, managers should increase the perceived costs of leaving the hotel by introducing

programs of training and plans for career development (Robinson *et al*., 2014). The knowledge and experiences that job embedded key employees hold can add significance in terms of organizational memory, tacit know-how, human capital, and firm-specific knowledge (Holtom *et al*., 2005). In order to increase job embeddedness, managers should also rethink the typical organizational dynamics of this industry by reducing the irregular working hours, and reproductive, monotonous tasks (Jiang *et al*., 2012). As the hospitality business is seasonal by nature, managers should seek to adapt to the seasonality levels of their hotel units by promoting HR internal mobility and developing innovative projects that could help boost job embeddedness levels.

Job satisfaction (now) appears as another important mediator in the relationship between job identity and turnover intention. According to the literature, managers from the hotel industry should consider programs that include job rotation (Lam *et al*., 2001) and supervisors that help employees reduce role ambiguity, as well as role conflict (Yang, 2010). In this sector, remuneration is the category that appears to be more linked to the satisfaction of staff working in hotels (Lam *et al*., 2001). Workers should perceive that the monetary gains might come from greater investments in their career. To this end, HR managers should develop and implement total quality management practices based on training and promotions. Moreover, employers should provide the necessary conditions for employees to update their knowledge and esteem needs (e.g., jobs should match with employeesø skills, fair appraisal policies should be a common practice) and also social, knowledge and aesthetic needs (e.g., to provide good orientation, supportive supervision, and opportunities for professional development) (Lee *et al*., 2015). Additionally, in line with recent studies (e.g., Jung and Yoon, 2015; Karatepe and Karadas, 2015), managers should hire and train employees by considering their capabilities in terms of positive psychological capital (essentially, high levels of hope and optimism).

Typically, Portuguese hotel managers have low qualifications (Guzmán *et al.*, 2009), thus they should receive training in order to be fully aware of their employeesø needs. Accordingly, managers should seek to develop activities (e.g., promote internal competitions for rewarding innovative projects) aiming to improve the professional opportunities and career development plans.

Limitations and future research

This study presents some limitations. Firstly, a convenience sample was used and the survey was not exhaustive to include all possible research designs, as well as objective dependent variables. Secondly, despite a possible absence of common method variance due to the confirmatory factor analysis, social desirability bias may exist due to the self-reported nature of the survey (Podsakoff *et al.*, 2003). Future research should use a randomized sampling process, including other variables related to tourism outcomes such as customer satisfaction, hotel classification, and the level of occupancy in hotels. Thirdly, although the findings are applicable to Portuguese hotels, due to the cross cultural differences in the hotel industry (Verbeke *et al.*, 1996), our findingsø external validity must be cautiously interpreted. Portugal was in a period of economic crisis at the time the study was conducted. Accordingly, employeesø satisfaction might have been affected by internal concerns relating to the situation of the country and how this situation might affect their future. Knowing that the relationship between task characteristics and turnover intention are affected by job and organizational longevity (Katz, 1978), future studies might consider testing our model within a longitudinal methodological approach and also data gathered from other sources (i.e., supervisors and peers). Taking into account that peer and supervisor support have a positive relationship with turnover intention (Chalkiti and Sigala, 2010; Kang *et al.*, 2015), future studies might include these variables as moderators that explain the mediators tested in our study. Future research involving an experimental (or quasi-experimental) design could also explore whether training

programs involving job embeddedness and job satisfaction (e.g., outdoor activities) are effective in decreasing turnover intentions. Finally, due to the economic crisis in Portugal, the high unemployment rate might impact turnover intentions. Thus, future studies should control for unemployment rate fluctuations.

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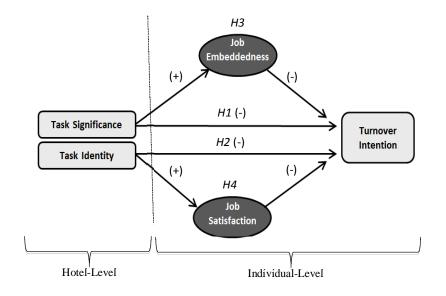
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Figure 1. Conceptual model of the mediator roles of job embeddedness and satisfaction

(individual-level) in the relationship between task characteristics (hotel-level) and turnover

intention

Table 1. *Construct Reliability, and Convergent and Discriminant Validity*

Variables	CR	AVE	MSV	ASV
1. Task significance	.78	.53	.44	.24
2. Task identity	.85	.66	.45	.24
3. Job embeddedness	.90	.60	.39	.23
4. Job satisfaction	.90	.69	.39	.29
5. Turnover intention	.92	.75	.22	.14

Note. CR = Construct Reliability; AVE = Average Variance Extracted; MSV

= Maximum Shared Variance; and ASV = Average Shared Variance.

Table 2. *Means, standard deviations, and zero-order correlations between study variables*

Variables	Mean	S.D.	1	2	3	4	5	6	7	8	9
1. Seniority	7.52	8.14									
2. Age	39.95	11.69	.507**								
3. Education	4.54	1.26	-.245**	-.485**							
4. Supervisor?[a]	1.74	.44	-.140**	-.272**	-.292**						
5. Task significance	5.39	1.07	.010	.055	.132**	-.217**		.240	-.270	.123	.110
6. Task identity	5.18	1.19	.093*	.191**	-.086*	-.163**	.517**		-.111	.250	.118
7. Turnover intention	3.05	1.64	-.162**	-.226**	.127**	.196**	-.193**	-.207**		-.739**	-.662**
8. Job embeddedness	3.47	.74	.239**	.246**	-.083	-.185**	.336**	.377**	-.443**		.804**
9. Job satisfaction	5.48	1.11	.039	.118**	.014	-.200**	.436**	.443**	-.436**	.573**	

Note: Correlations below the diagonal are individual-level correlations (N=525). Correlations above the diagonal are hotel-level correlations (N=46).

* $p < .05$; ** p Ö.01.

[a] 1 = Yes, 2 = No.

Table 3. *Hierarchical Linear Model task significance predicting hotel turnover intention: Job embeddedness mediation*

Level and Variables	Null (Step 1)		Mediation analysis (Random Intercept and Random Slope)		
			(Step 2) X→Y Turnover intention	(Step 3) X→M Job embeddedness	(Step 4) X→M→Y Turnover intention
Intercept (γ_{00})	3.08^{**}(.11)	1.55^{*}(.78)	1.49^{*}(.77)	5.38^{**}(.49)	1.43^{*}(.74)
Control variables					
Seniority (γ_{10})		-.01(.01)	-.01(.01)	$-.01^{*}$(.01)	-.01(.01)
Age (γ_{20})		-.01(.01)	-.01(.01)	.01(.01)	-.01(.01)
Education (γ_{30})		$.21^{**}$(.07)	$.24^{**}$(.07)	$.10^{*}$(.05)	$.19^{**}$(.07)
Supervisor?[a] (γ_{40})		$.70^{**}$(.19)	$.61^{**}$(.17)	$-.31^{**}$(.11)	$.55^{**}$(.17)
Indep. variable (hotel-level)					
Task significance (γ_{01})			$-.26^{**}$(.07)	$.33^{**}$(.04)	-.13 (.07)
Mediator (individual-level)					
Job embeddedness (γ_{50})					$-.49^{**}$(.07)
Variance components					
Within-hotel (L1) variance (σ^{2})	2.530	2.148	2.106	.415	1.983
Intercept (L2) variance (τ_{00})	.186	.000	.060	.004	.046
Additional information					
ICC	.07				
-2 log likelihood	2001.725	1959.410	1948.685	1486.358	1908.570
Number of estimated parameters	3	11	13	13	15
R^{2}		.15	.17	.84	.22

Note: [a] 1 = Yes, 2 = No. L1 = Level 1; L2 = Level 2. L1 $N = 525$ and L2 $N = 46$. Values in parentheses are standard errors; *t*-statistics were computed as the ratio of each regression coefficient divided by its standard error.

$^{*}p < .05$; $^{**}p$ Ö.01.

Table 4. *Hierarchical Linear Model task identity predicting hotel turnover intention: Work satisfaction mediation*

Level and Variables	Null (Step 1)		Mediation analysis (Random Intercept and Random Slope)		
			(Step 2) X → Y Turnover intention	(Step 3) X → M Job satisfaction	(Step 4) X → M → Y Turnover intention
Intercept (γ_{00})	3.08**(.11)	1.55*(.78)	1.64*(.77)	5.50**(.53)	1.73*(.71)
Control variables					
Seniority (γ_{10})		-.01(.01)	-.01(.01)	.00(.01)	-.01(.01)
Age (γ_{20})		-.01(.01)	-.01(.01)	.01(.01)	-.01(.01)
Education (γ_{30})		.21**(.07)	.19**(.07)	-.08(.05)	.21**(.06)
Supervisor?[a] (γ_{40})		.70**(.19)	.63**(.19)	.18(.13)	.46**(.17)
Indep. variable (hotel-level)					
Task identity (γ_{01})			-.22**(.07)	.47**(.06)	.04 (.08)
Mediator (individual-level)					
Job satisfaction (γ_{50})					-.68**(.08)
Variance components					
Within-hotel (L1) variance (σ^2)	2.530	2.148	2.111	.887	1.744
Intercept (L2) variance (τ_{00})	.186	.000	.067	.017	.520
Additional information					
ICC	.07				
-2 log likelihood	2001.725	1959.410	1951.881	1562.890	1866.069
Number of estimated parameters	3	11	13	13	15
R^2		.15	.17	.65	.31

Note: [a] 1 = Yes, 2 = No. L1 = Level 1; L2 = Level 2. L1 N = 525 and L2 N = 46. Values in parentheses are standard errors; *t*-statistics were computed as the ratio of each regression coefficient divided by its standard error.

* $p < .05$; ** p Ö.01.

APPENDIX

Scale items and their sources.

Task Identity (Hackman and Oldham, 1975)

1. My job involves doing a õwholeö and identifiable piece of work. That is, my job is a complete piece of work that has an obvious beginning and end.

2. The job provides me the chance to completely finish the pieces of work I begin.

3. The job is arranged so that I can do an entire piece of work from beginning to end.

Task Significance (Hackman and Oldham, 1975)

1. In general, my work is significant. That is, the results of my work significantly affect the lives or well-being of other people.

2. The job is one where a lot of other people can be affected by how well the work gets done.

3. The job itself is very significant and important in the broader scheme of things.

Job Embeddedness (Crossley et al., 2007)

1. I feel attached to this hotel.

2. It would be difficult for me to leave this hotel.

3. Iøm too caught up in this hotel to leave.

4. I feel tied to this hotel.

5. I simply could not leave the hotel that I work for.

6. It would be easy for me to leave this hotel. (reverse scored)

7. I am tightly connected to this hotel.

Job Satisfaction (Cammann et al., 1983)

1. I feel a sense of pride in doing my job.

2. In general, I don¢t like my job. (reverse scored)

3. All in all, I am satisfied with my job.

4. In general, I like working here.

Turnover Intention (O¢Reilly et al., 1991)

1. Giving thought to my future career, I can see myself still working for my present employer in three years. (reverse scored)

2. If at the present moment I was offered an equivalent position at another hotel, I would take it.

3. To what extent would you prefer another more ideal job than the one you work in?

4. To what extent have you thought seriously about changing organizations since beginning to work here?