

The Moderating Role of Personal Resources in the Relationship between Job Demands and Emotional Exhaustion

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Abstract. The objective of this paper is to study the impact of the interaction of job demands and personal resources on the emotional exhaustion of employees working in the tourism sector. Based on the results of a cross-sectional survey, modeling has been carried out by means of structural equations with the interaction of latent variables. It has been found that a decrease in the emotional exhaustion of employees under the influence of job demands is more characteristic for employees who have a high level of integral personal resource.

Keywords: job demands, personal resources, emotional exhaustion.

Introduction. Work in the service sector involves constant and direct contact between employees and customers. In particular, front-line employees in the tourism sector are subjects under significant pressure from both managers and customers when offering their services. Therefore, their workplace is fertile ground for exhaustion [1, 21].

Studies aimed at studying the causes and factors associated with exhaustion syndrome can be attributed to two opposite areas. So, some researchers have focused on organizational conditions that cause the depletion of an individual's energy or emotional resources; other researchers, on the contrary, focused on the personal characteristics of employees. As a theoretical basis for studying how different job characteristics affect exhaustion in the workplace, many researchers have used a model of job demands and resources (JD-R) [4]. However, the understanding that human behavior is the result of a complex interaction between personal factors and environmental factors has led to the fact that an increasing number of researchers in recent years have begun to combine personal resources and work characteristics into a single theoretical model [20, 25]. Therefore, in an effort to contribute to the existing literature references, this study was conducted to study the degree of applicability of the job demands and resources (JD-R) model in the Ukrainian context. More specifically, whether personal resources mediate the relationship between job demands and emotional exhaustion of employees in tourism sector.

Literature review. According to the theory of JD-R, the characteristics of the working environment are classified on two general grounds: job demands and work resources. Job demands are those physical, social or organizational aspects of work that cause constant physical and psychological effort. They involve physiological and psychological efforts. When perceived as exceeding resources and abilities, they can deplete the resources of employees and lead to exhaustion. Key job demands include ambiguity of the role, role conflict, stressful events, heavy workload, and pressure. Job demands have been shown to be the most powerful prognostic indicators of the emotional exhaustion scale [3].

According to Resource Conservation Theory (COR), the cause of stress and exhaustion is the loss of certain valuable resources, their inadequacy to meet the requirements, and also if he does not receive the expected acquisitions as

a result of previous investments [12]. In COR theory, personal resources play an important role in overcoming stress. Personal resources are considered as: 1) flexible personality traits (state-like), 2) formed throughout the life and amenable to correction and development, and 3) associated with many result variables [14]. The contribution of different personal resources to successfully coping with stress and reducing exhaustion may vary depending on the characteristics of the sample, environmental and situational factors. However, a review of the literature makes it possible to identify key personality resources whose predictive significance for exhaustion syndrome has been shown in numerous studies. These resources include: self-efficacy, optimism, self-control, resilience [5, 9, 15, 22]. Numerous studies demonstrate the relationship between these resources and work-related depletion [6, 7, 10, 11].

In previous studies, these personality resources were studied as separate predictors of exhaustion. Obviously, there is a need to integrate these variables and study their role in relationships to job demands and emotional exhaustion. Based on the above theoretical considerations and a review of existing empirical data, we put forward the following hypotheses:

Hypothesis 1: Job demands has a positive influence on emotional exhaustion.

Hypothesis 2: Positive personality characteristics: self-efficacy, self-control, optimism and hardiness are connected with a common factor of a higher order – an integral personal resource.

Hypothesis 3: An integral personal resource will reduce the connection between the three specific requirements of the work (workload, emotional demands, emotional dissonance) and emotional exhaustion.

Materials and methods.

Data Collection

The sample includes front-line employees in travel agencies in Ukraine. This study used Monte Carlo data simulation techniques to evaluate sample size requirements and determine power. The criteria developed by Muthen and Muthen (2002) were used, according to which the required sample size was 152 employees (31.6% – male and 68.4% – female). For the survey, online questionnaires were used.

Measures

Job Demands. The questionnaire included three job demands potentially related to emotional exhaustion – workload, emotional demands, and emotional dissonance. The workload was rated using a four-item scale that relates to quantitative, demanding aspects of work [25]. Emotional demands were measured with the six-item scale of [26]. Emotional dissonance was measured according to the adapted Frankfurt scale of working emotions [28].

Emotional exhaustion. Emotional exhaustion was assessed using a subscale of the Ukrainian version of the Maslach burnout questionnaire [17]. The scale consists of 4 items, measuring how often the employee experiences emotional overload and exhaustion in his work.

Personal resources. Self-efficacy was assessed with the 10-item self-efficacy scale [23]. To diagnose self-control, the short-term self-control scale was used [24]. A revised version of the Life Orientation Test [22] was selected as a tool for assessing optimism. A short version of the hardiness scale [19] was used to evaluate this personality trait.

Data Analysis

Table 1. Mean values, standard deviations, correlations between all the studied variables and composite reliability on the diagonal

Variables	1	2	3	4	5	6	7	8
1. Work load	0.83							
2. Emotional demands	0.37**	0.82						
3. Emotional dissonance	0.53**	0.38**	0.84					
4. Self-efficacy	-0.13	-0.10	-0.03	0.81				
5. Self-control	-0.28**	-0.14	-0.03	0.59**	0.91			
6. Optimism	-0.14	-0.08	-0.06	0.40	0.36	0.86		
7. Hardiness	-0.29**	-0.16*	-0.18*	0.59**	0.57**	0.37***	0.94	
8. Emotional exhaustion	0.24**	0.17*	0.13	-0.13	-0.26**	-0.27**	-0.34**	0.80
<i>M</i>	13.62	9.36	10.86	30.08	38.30	17.60	27.36	25.68
<i>SD</i>	1.92	1.80	3.02	3.96	7.36	3.34	3.95	3.41

Note. ** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Testing models

Testing and evaluation of structural models was carried out in accordance with the above procedure. Before evaluating of structural models, the measurement model was evaluated and its compliance with the data was determined (Figure 1).

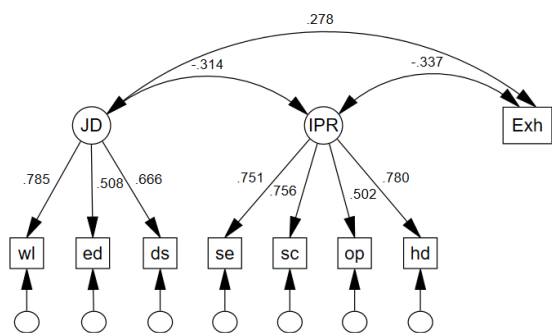


Figure 1. Measurement model.

Note. $\chi^2(18) = 28.702$; $p = .051$, RMSEA = 0.063 (90% CI = 0.000 – 0.104), CFI = 0.963; TLI = 0.942. All estimates are standardized. wl – work load, ed – emotional demands, ds – emotional dissonance, se – self-efficacy, sc – self-control, op – optimism, hd – hardiness, Exh – emotional exhaustion, JD – job demands, IPR – integral personal resources.

Then Model 0 was evaluated (Figure 2a). Model 0 agrees well with the data: $\chi^2(18) = 29.679$, $p = 0.051$, RMSEA = 0.066, 90% CI = 0.014 – 0.107, CFI = 0.959;

All analyzes were performed by modeling structural equations using Mplus version 7. The robust version of the maximum likelihood method (MLR) was used. A two-stage procedure was used to evaluate the LMS model [18]. Before evaluating the structural models, the measurement model was evaluated and its compliance with the data was checked. After checking the conformity of the measurement model, structural models were evaluated. At the first step, a structural model was evaluated without latent interaction (Model 0). This model provided model suitability indices. At the second step, a structural model with latent interaction was evaluated (Model 1).

Results

Descriptive Statistics

Table 1 presents descriptive statistics, correlations of the variables included in the analysis. As can be seen from Table 2, job demands are positively correlated with emotional exhaustion, and personal resources are negatively correlated.

TLI = 0.936). Both job demands and personal resources predicted emotional exhaustion ($\beta = 0.190$, $p < 0.05$, 95% CI = 0.015–0.396 и $\beta = -0.278$, $p < 0.01$, 95% CI = -0.446 - -0.109, respectively). Model 0 gave the explanation of the dispersion of emotional exhaustion.

In the next step, Model 1 was evaluated (Figure 2b). The main effect of job demands is positive and significant ($\beta = 0.206$, SE = 0.102, $p < 0.05$, 95% CI = 0.006 – 0.407), and the main effect of personal resources is negative and also significant ($\beta = -0.257$, SE = 0.085, $p < 0.005$, 95% CI = -0.424 - -0.089). The effect of the interaction: job demands × integral personal resource was statistically significant ($\beta = -0.221$, SE = 0.068, $p < 0.001$, 95% CI = -0.355 - -0.087). This indicates that the relationship between job demands indicators and emotional exhaustion tends to be more negative for individuals with a higher integral indicator of personal resources.

Comparison of compliance Model 1 with Model 0 yielded the value of LR = 5.17 ($p = 0.023$). Findings indicate that the null model (Model 0; a model without the effect of interaction) represents a significant loss of conformity compared to the alternative model (Model 1; a model with the effect of interaction). Consequently, Model 1 is also a well-fitted model.

To interpret the size of the interaction effect, the method described above to calculate R^2 for Model 1 was used. As a result the value of $R^2 = 0.194$ was obtained or 19.4% of the dispersion of the emotional exhaustion is explained due

to Model 1. In Model 0, a model without the interaction $R^2 = 0.147$. Subtracting R^2 of Model 0 from R^2 of Model 1 yielded a value of R^2 for the interaction 0.047 or another 4.7% of the dispersion of the emotional exhaustion, explained by the interaction of job demands and the integral

personal resource. The increase of R^2 due to the interaction is statistically significant ($F_{(1,148)} = 5.595, p = 0.019$). The percentage increase of the explained dispersion as a result of the interaction is 31.97%.

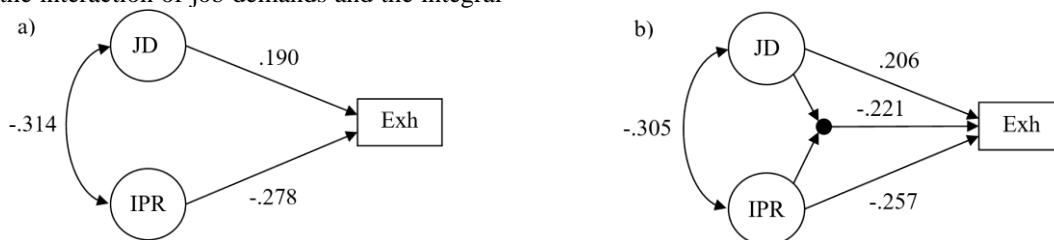


Figure 2. Structural models, without (a) or with interaction (b) of latent variables.

To further examine the significance of the interaction, we calculated simple intercepts and simple inclinations for regressing job demands for emotional exhaustion with the average value of the integral personal resource and one standard deviation above and below the average, getting the graphs in Figure 3. The ratio of job demands to emotional exhaustion was statistically significant at medium and low levels of the integral personal resource ($p = 0.001$ и $p = 0.004$, respectively). The simple slope with job demands with a high value of the integral personal resource did not differ from zero ($p = 0.648$).

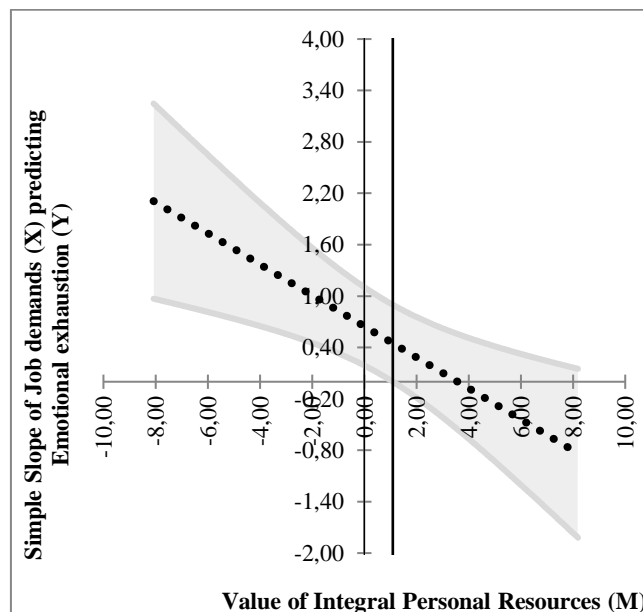


Figure 4. The j-n regions of significance and confidence bands for the conditional relation between emotional exhaustion and job demands as a function of personal resources.

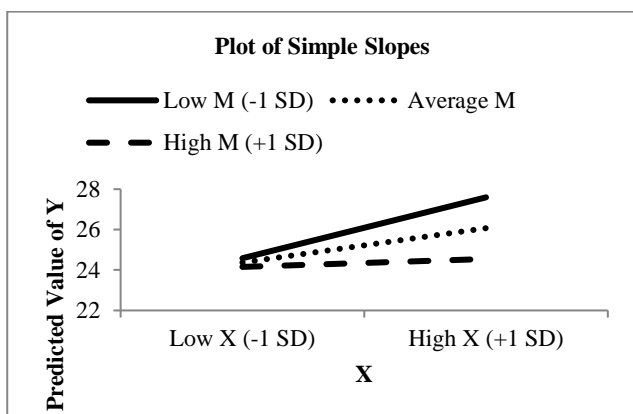


Figure 3. The simple slopes graph for the model relating emotional exhaustion (y) to job demands (x), personal resources (m), and their interaction.

Although these simple regressions help in interpreting this interactive effect the Johnson-Neyman method provided more detailed information on the nature of the moderated relationship and gives additional useful information.

The application of the Johnson-Neyman method allowed to determine the specific value (1.03), in which the regression of job demands for emotional exhaustion passes from insignificance to significance. In Figure 4 the region of significance is to the left of the bold vertical line. This means that, with values of the integral personal resource less than 1.03, the effect of job demands on emotional exhaustion is significant. When the integral personal resource is greater than 1.03, this effect is insignificant. Confidence intervals graphically reflect the accuracy of the assessment of the effect of the job demands over the entire range of the moderator (IPR), providing a range of probable values of the conditional effect, which narrows or expands depending on the selected moderator level.

Discussion. This study tested a theoretical model designed to analyze the structural relationships between emotional exhaustion and its antecedents such as workload, emotional demands and emotional dissonance, as well as the buffering effect of personal resources in these relationships among frontline service providers in one sector (travel agencies) tourist industry of Ukraine.

In terms of the stressor–strain link, as hypothesized, three components of JD – workload, emotional demands, and emotional dissonance – had a significant positive effect on emotional exhaustion. These results are fully consistent with the results of Choi et al. [8], which showed that social stressors, due to close interaction with clients during the service process, significantly and positively affect the emotional exhaustion frontline service employees in three main sectors (travel agencies, travel hotels and travel restaurants) of Korea’s travel industry. The findings also partially support the findings of other researchers [2, 13].

These results can be explained based on the theory of COR. Based on this theory, it can be assumed that employees who have a higher level of perception of JD are inclined to believe that their existing resources are at risk or that additional resources need to be used. So, when frontline service providers are faced with emotionally stressful situ-

ations associated with dysfunctional interactions with customers, they tend to spend time thinking about how they can avoid or deal with the situation. Therefore, they will spend their resources (for example, time and energy) on thinking about the situation and trying to save resources, which will lead to an increase in working strain. Thus, JD intensify the emotional exhaustion of employees of travel agencies.

The results of this study also confirm the hypothesis that four personality characteristics (self-efficacy, self-control, optimism and resilience) are interconnected and form a factor of a higher order. This composite construct was defined by us as an “integral personal resource”. It is characterized by: 1) self-confidence, or self-efficacy, allowing you to make the necessary efforts to solve a complex problem; 2) self-control as the ability of an individual to control his behavior and emotions; 3) optimism as a positive attribution of current and future success; and 4) resistance to stressful circumstances, i.e. a system of attitudes that provide courage and motivation to transform stressful circumstances from potential disasters into opportunities for growth. It can be assumed that the interconnections of these variables are determined by a common mechanism – a synergic effect arising in the course of complicating activities and gaining experience.

Regarding the relationship between personal resources and the emotional exhaustion of employees (when work demands are controlled), the existence of important statistically significant relationships obtained in previous studies is confirmed [16, 21]. It was revealed that personal resources have a negative impact on emotional exhaustion. The results of this study show that the combination of self-efficacy, self-control, optimism and hardiness in an integral personal resource has a larger effect on burnout than each individual resource individually.

The innovative contribution of this study to the field of knowledge in question lies in the fact that four key personal resources were not previously studied in the framework of a holistic model as predictors and moderators of emotional exhaustion of employees in the tourism sector. This study shows that employees with a high level of personal resources have great potential, which helps them more effectively cope with working conditions and, in turn, prevents their negative consequences (that is, exhaustion). This conclusion combines the theory of COR with the buffer hypothesis of the JD-R model, since it recognizes the potential moderate role of personal (and not just working) resources in a working context. The results partially confirm the “boosting hypothesis” [27], according to which high emotional demands and dissonance can function as problems that force employees to use their personal resources and remain engaged rather than exhausted.

Thus, the hypothesis was confirmed that in the stressful conditions of interaction with the clients personal resources employees perform a buffer function. Apparently, they mediate the influence of work demands on consciousness and activity, participating in the process of assessing the degree of influence of stress factors, by providing a personal sense of the situation of work. By themselves, they do not carry

an assessment, but their severity transforms the subjective scale itself, which underlies subjective assessment, contributing to the assessment of the situation. A high level of personal resources contributes to the perception of work requirements as a challenge and to regard them as a difficult task, and not as a threat to the well-being of employees working in the tourism sector.

Conclusion. The aim of this study was to analyze the effect of the interaction of two latent variables – job demands, considered as work stressors, and an integral personal resource in predicting the emotional exhaustion of frontline employees working in the tourism sector. The results of the study showed that the perceived requirements of the work, which were considered as stress antecedents in the study, were positively and statistically significantly associated with emotional exhaustion. Personal resources have a systematic organization and at the level of empirical indicators form an integral factor – an integral personal resource. They are reliable predictors of emotional exhaustion. An integral personal resource is a buffer mitigating the influence of factors job demands on the level of emotional exhaustion.

The findings suggest that enhancing employees’ self-efficacy, self-control, optimism and resilience beliefs may facilitate reduce their emotional exhaustion in the face of high job demands. Since the personal resources considered in the study have intravital genesis and can be corrected and developed, this can be used in targeted trainings for employees. Training, which develops the personal resources of employees, can help them effectively cope with the demanding aspects of customer-service interaction and remain undeveloped.

Training that cultivates employees’ personal resources may help them deal with the demanding aspects of customer-service interactions effectively and stay not be exhausted. Therefore, managerial influences should be aimed at increasing personal resources, because reducing the level of workload, emotional requirements and dissonance is actually not possible in the professional context of the tourism industry. For the development of self-efficacy, self-control, optimism and resilience among the staff of travel agencies can use special teaching methods.

The study, despite some of the contributions described above, has several limitations. First, it used a cross-sectional design that limits the possibility of a causal interpretation of the relationship between occupational stressors and emotional exhaustion. Therefore, in the future, the results of the study should be confirmed in a prospective study. Secondly, it was based solely on self-reports, which may have distorted the relationship between the variables in question. Therefore, research is needed using objective indicators of performance requirements. Thirdly, the data was obtained from employees of one of the sectors of the tourism industry, which limits the generalization of the results. Further research should also take into account employees of other sectors of the tourism industry (tourist hotels, tourist restaurants).

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