

EXAMINING THE LINKAGES BETWEEN WORK-ROLE STRESSORS AND TURNOVER INTENTIONS OF EMPLOYEES IN SERVICE ORGANIZATIONS: A MEDIATING ROLE OF EMOTIONAL EXHAUSTION

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Abstract – *This research examines the relationship between work-role stressors (role ambiguity, role conflict, role overload) and employees' turnover intention, with emotional exhaustion as a mediator, drawing upon the conservation of resources and social exchange theories. Data were collected from 256 valid respondents from September to October 2025. Purposive sampling was used at the individual level in service organizations in Vietnam. The results showed that work-role stressors positively affect turnover intention, with emotional exhaustion fully mediating these relationships. In other words, work-role stressors only generate turnover intention when they cause emotional exhaustion in employees, functioning as antecedents of emotional exhaustion, while turnover intention is the consequence of this psychological strain. This study contributes significantly to theoretical advancements in both the conservation of resources and social exchange theories. The findings provide insight into an individual's perception and experience of work stress, as well as their response to it in a non-Western context. Furthermore, the paper suggests practical implications for minimizing the impacts of work-role stressors and turnover intention by preventing employee emotional exhaustion in the service sector.*

Keywords: *emotional exhaustion, role ambiguity, role conflict, role overload, turnover intention.*

I. INTRODUCTION

Service employees are central to organizational performance, driving customer satisfaction through both technical skills and emotional labor [1]. While managing emotions enhances task success and client relationships, continuous interpersonal demands frequently trigger emotional exhaustion – a core component of job burnout [2, p.1]. Prolonged exhaustion impairs reduced self-esteem [3], employee well-being [4], fueling anxiety, and high turnover intentions [5, 6]. Because emotional burnout is a primary reason service workers leave their jobs [7], cultivating a capable, resilient workforce is essential. As a result, it is urgent for the industry to recognize the significant pressures their employees have to face and consider immediate actions to prevent emotional exhaustion, reduce turnover, and improve employee well-being for better development. Recent literature has distinguished that emotional exhaustion is influenced by a range of factors that can be categorized into individual, organizational, environmental, and work-role-related domains. Individual factors include personal traits such as emotional intelligence [8], resilience [9], and coping mechanisms [10], which determine the capacity to mitigate emotional exhaustion effectively [11]. Organizational factors such as lack of autonomy [12] or insufficient support systems [13] also amplify emotional exhaustion, as these conditions deplete resources and create workplace dissatisfaction. Additionally, environmental factors, for example, workplace incivility, including negative customer interactions and interpersonal conflicts [14, 15], further increase the likelihood of emotional exhaustion, especially

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in service-intensive roles. The antecedents of emotional exhaustion also include role-related stressors, which arise when employees are required to perform tasks or assume roles that exceed their available capabilities and resources [16]. This tension creates a mismatch between the resources of the workforce and the organization's job expectations. Although role stressors in the workplace are key contributors to psychological strains [17], existing studies primarily focus on the short-term impacts of these stressors on emotional exhaustion [5, 6, 18], leaving the long-term effects underexplored.

In addition, research on the impact of work stressors on employees' turnover intentions has attracted significant attention from scholars globally [19–21] and in Vietnam [22–25] across sectors such as hospitality, education, medicine, and pharmacy. Studies in the service industry have examined the mechanisms through which work stressors influence turnover intentions via mediating variables – such as organizational commitment, job satisfaction, and career commitment [19], negative affect at work [20], or psychological distress [21]. Notably, there is a lack of research explaining these mechanisms specifically within the Vietnamese context. While Suong [22] did explore this mechanism through the mediating role of dissatisfaction, that study was conducted within the logistics sector. Consequently, there is a pressing need for further empirical research to explain how work role stressors negatively affect turnover intentions among service industry employees in Vietnam, specifically through the lens of emotional exhaustion.

This research gap highlights the need to examine whether work-role stressors increase turnover intention through emotional exhaustion. Fogarty et al. [26] suggested that emotional exhaustion is a core mediator that links various work stressors to job outcomes, such as incivility to customer satisfaction [15] and abusive supervision to cyberloafing [27]. While most job stress literature relies on Western frameworks, findings may not directly apply to other cultures due to differences in perceptions and coping mechanisms [28]. In

the Asian context, especially the service industry, research on the mechanism linking work-role stressors to turnover intention through emotional exhaustion remains limited. The Vietnamese service sector provides an ideal empirical setting to address this gap. In Vietnam, cultural traits like high power distance and collectivism [29] may exacerbate workplace stressors – as employees often avoid speaking out about conflict – thereby increasing emotional exhaustion and turnover intention. This study not only applies evidence to the Vietnamese context but also highlights how cultural factors shape the impact of job stressors on employees' intention to leave.

To address this research gap, this study evaluates the impact of three role stressors (ambiguity, conflict, and overload) on turnover intention through the mediating role of emotional exhaustion. Set in the Vietnamese service sector – a context heavily reliant on emotional labor – this research uniquely integrates Conservation of Resources (COR) theory [11] and Social Exchange Theory (SET) [30], a combination overlooked in prior studies. Specifically, COR theory explains how prolonged stressors deplete individual resources and cause burnout, while SET clarifies how this exhaustion disrupts reciprocal workplace exchanges and triggers the desire to quit. Combining these complementary frameworks provides a more comprehensive explanation of how resource depletion and perceived imbalances drive employee turnover. In consideration of the probable mechanism, these findings could provide practical guidance for managers and propose interventions to reduce emotional exhaustion, improve employee well-being, and decrease turnover rates in service organizations.

II. LITERATURE REVIEW

A. Theoretical framework

Conservation of resources theory

The COR theory demonstrates the relationship between resource loss and unproductive behaviors. Resources are considered as 'anything perceived by the individual to help attain his or her goals' [31, p.1335]. The basic theory posits that

individuals are motivated to possess, protect, and strengthen the elements they value [11]. These elements are considered their resources, which are valuable entities or tools for achieving value [32]. Based on this basic theory, two principles are further developed. The first principle states that the loss of a resource has a more noticeable and serious level and impact than the gain of the same resource [11, 32], so it also has a greater impact on mentality. The second is that ‘people must invest resources to protect against resource loss, recover from losses, and gain resources’ [32, p.105]. This paper applied the COR theory to explain the link between emotional exhaustion, as well as work-role stressors and turnover intention, by highlighting how resource depletion occurs under stress. These types of stressors, including role conflict, ambiguity, and overload, drain critical resources like emotional energy, leading to exhaustion as a primary outcome [11]. This prolonged resource loss may further push employees to consider quitting as a means of conserving their remaining resources, thus establishing a pathway to turnover intention [31].

Social exchange theory

The study draws not only on the COR theory but also on the perspective of SET to explain the mechanisms of the variables in the research model. SET has been applied in various research fields such as social psychology, sociology, and anthropology [30]. Researchers agree that social interactions are essentially exchanges that, in turn, create a sense of obligation [33, 34]. According to the SET, people build connections based on their prior interactions with other people, adhering to the reciprocity standard. Accordingly, people tend to treat others the way they are treated – good deeds are met with good deeds, and bad deeds with bad deeds [34]. Following the SET rule, negative factors such as emotional exhaustion and work-role stressors are able to disrupt this perceived balance by diminishing employees’ capacity to fulfill their roles and by creating a sense of unreciprocated exchange. Turnover intention – defined as the likelihood that individuals will withdraw from the organization

and likely search for alternative jobs [35] – can be one of these considerable results. Therefore, by emphasizing the reciprocal nature of workplace relationships, the SET was utilized in this research to provide a theoretical foundation for understanding the impacts of work-role stressors on emotional exhaustion and turnover intention.

B. Hypotheses development

Total effect of work-role stressors and turnover intention

Scholars have not reached a consensus on the dimensions of role stress. Some propose that role stress has a two-dimensional structure consisting of conflict and ambiguity [36], while others see role stress as a three-dimensional structure consisting of role conflict, ambiguity, and overload [37]. Role overload has long been recognized as a major contributor to negative outcomes in employee well-being in theoretical and empirical research for decades. The addition of role overload reflects a broader understanding of work-role stress, acknowledging that excessive workload is a significant factor in employee stress, alongside role conflict and ambiguity. Therefore, three dimensions of work-related stressors have been examined to determine whether they significantly influence turnover intention through the lens of the COR and SET theories.

Role ambiguity occurs when an individual lacks information about his or her job and experiences a great deal of uncertainty about how to perform job-related tasks [36]. Through the lens of the COR theory, role ambiguity also contributes to stress by reducing employees’ sense of control and competence, draining their psychological resources and leading to frustration [16]. From the perspective of the SET, employees expect a fair exchange with their organization, where their effort, time, and commitment are reciprocated with support, clarity, and reasonable demands [30, 33]. This indicates that when these expectations are not met, employees perceive the relationship as inequitable, resulting in dissatisfaction and an increased likelihood of turnover. In light of the presented literature, it is hypothesized

that:

H1: Role ambiguity is positively related to turnover intention

Role conflict occurs when an individual receives incompatible job demands from his or her role partners, such as customers, co-workers, and managers, and is incapable of satisfying all the demands simultaneously [36]. Previous studies on role conflict [16, 36, 38] have predominantly examined its impact on employees' turnover intentions and found that role conflict acts as a dissatisfier and stressor with regard to employees that can motivate them to leave their organizations. This relationship can be explained by the COR theory [11]. Due to the stress and exhaustion resulting from role conflict, service employees might feel reluctant to invest additional resources into their jobs and might begin considering and seeking alternative careers or better job opportunities. Based on this argument, the study proposes the following hypothesis:

H2: Role conflict is positively related to turnover intention

Role overload occurs when an employee is assigned excessive work demands, such as tasks, duties, and responsibilities that exceed the capacity and resources to complete tasks within a specified time frame [38]. Excessive workload can have detrimental effects on employees and their organizations. Role overload can deplete personal resources such as time, energy, or emotional well-being by placing conflicting demands or overwhelming workloads on employees [16, 36], leaving them incapable of meeting expectations. As a result, they may consider leaving the organization in an effort to regain balance and protect their well-being [32]. There is evidence that employees become demotivated and quit their jobs when their workloads become intolerable [39]. Therefore, Hypothesis 3 was presented.

H3: Role overload is positively related to turnover intention

Mediating effect of emotional exhaustion

Emotional competence is a crucial component that controls individual reactions to situations, particularly among frontline staff in the service sector. When employees are emotionally

exhausted, their attitudes toward the company are negatively influenced; they may feel helpless and lose their trust in the company [5, 7]. Emotional exhaustion is essential to understanding burnout among customer contact employees, which is characterized by emotional burnout and physical tiredness brought on by high mental demands [2]. The role of emotional exhaustion in the relationship between work-role stressors and employee turnover intention is developed through the following hypotheses. Role stressors are linked to behavioral and mental responses. For instance, workers who experience a lot of role pressures over time would report feeling emotionally exhausted to a comparatively high degree [5]. Put another way, an employee is more likely to experience emotional exhaustion when job demands surpass their skills and resources. The background of the SET helps explain these relationships by highlighting the imbalance between the resources provided by the organization and the demands placed on employees.

The impact of role ambiguity on emotional exhaustion has been demonstrated in certain research [40, 41]. When role ambiguity creates uncertainty, employees may feel unsupported, leading to emotional exhaustion [36]. It makes sense that workers who are emotionally exhausted won't make an effort to stay on the job. That is, increasing emotional exhaustion of employees leads to an increase in turnover intention. Thus, the following hypothesis was proposed:

H4: The relationship between role ambiguity and turnover intention is mediated by emotional exhaustion Role conflict has generally been found to have a strong positive association with emotional exhaustion in meta-analytic reviews [38, 40]. A certain amount of role conflict is highly likely in boundary-spanning roles, such as employees who may be caught between incompatible goals of customers, and naturally leads to emotional exhaustion [6]. The accumulation of these stressors erodes employees' emotional resources, fueling burnout. Role conflict, in turn, begets other losses by reducing concentration, motivation, and energy as individuals utilize

these resources to solve interpersonal incompatibilities. When job conflict causes emotional exhaustion and emotional suffering, thus triggering turnover intentions, emotional exhaustion indirectly contributes. Therefore, the study proposes Hypothesis 5:

H5: The relationship between role conflict and turnover intention is mediated by emotional exhaustion Research indicates that role overload is a major stressor linked to a range of negative psychological outcomes, such as emotional exhaustion of workers [34, 40]. Additionally, role overload also exacerbates this imbalance [16], resulting in feelings of unfairness and, in turn, emotional exhaustion as employees perceive the inequitable interaction. On the other hand, emotional exhaustion is known as a key mediator linking role stress and turnover intention [5]. There is a positive link between emotional exhaustion and turnover intention, which has been well documented [7, 38, 41]. Drawing on the COR theory, employees are willing to leave the company in order to keep their limited and scarce resources. As a result, turnover may be a last resort for individuals who suffer from emotional exhaustion [41] in order to reduce the risks of resource loss and attain a better balance [42].

H6: The relationship between role overload and turnover intention is mediated by emotional exhaustion

C. Proposed research model

This study aimed to analyze the relationship between work-role stressors and turnover intention under the mediation effect of emotional exhaustion. A theoretical model for the current study is presented in Figure 1, which illustrates the expected effects of work-role stressors such as role ambiguity, conflict, and overload on employees' intention to leave the service sector. Furthermore, it explains how each construct of work-role stressors impacts turnover intention via the mediating role of emotional exhaustion.

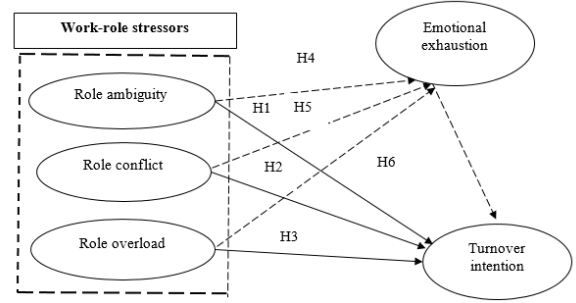


Fig. 1: Proposed research model

III. RESEARCH METHODS

A. Measurement and questionnaire design

A five-point Likert scale response format, ranging from 1 (Strongly disagree) to 5 (Strongly agree), was used to measure each construct. All scales are presented in Table 1. Role ambiguity (RA) was measured using a scale of six items, while role conflict (RC) was measured using a scale of eight items; both were modified from the study by Rizzo et al. [36]. Next, the scale to measure role overload (RO) was developed by Sondhi et al. [43] with seven items. Emotional exhaustion (EE) was measured by an eight-item scale derived from Maslach et al. [2]. Finally, turnover intention (TI) was measured using a scale extracted from Netemeyer et al. [35], which contained four items.

B. Data collection and analysis

A purposive sampling at the individual level was conducted in service organizations in Vietnam. Based on the research network, the study approached 18 organizations in the fields of wholesale–retail (24.6%), transportation – warehousing (32%), and accommodation – restaurant (43.4%) (Table 2). These are the three sectors accounting for the largest shares of the service industry and making significant contributions to Vietnam’s GDP in 2024 [44]. The sample covers three major service sectors, providing representation of different service contexts within the study setting. The self-reported survey questions were sent to employees who agreed to participate in the

Table 1: Scales of variables

Code	Items	Sources
Role ambiguity (RA)		Rizzo et al. [36]
RA1	I have clear, planned goals and objectives for my job (*)	
RA2	I know that I have divided my time properly (*)	
RA3	I know what my responsibilities are (*)	
RA4	I know exactly what is expected of me (*)	
RA5	I feel certain about how much authority I have (*)	
RA6	Explanation is clear of what has to be done (*)	
Role conflict (RC)		Rizzo et al. [36]
RC1	I have to do things that should be done differently.	
RC2	I receive an assignment without the manpower to complete it.	
RC3	I have to buck a rule or policy in order to carry out an assignment.	
RC4	I work with two or more groups who operate quite differently.	
RC5	I receive incompatible requests from two or more people.	
RC6	I do things that are apt to be accepted by one person and not accepted by others.	
RC7	I receive an assignment without adequate resources and materials to execute it.	
RC8	I work on unnecessary things	
Role overload (RO)		Sondhi et al. [43]
RO1	I feel that the number of requests I deal with is more than expected.	
RO2	I feel that the amount of work I do interferes with how well it is done.	
RO3	I feel rushed to complete the job.	
RO4	I feel pressured by my job responsibilities.	
RO5	It sometimes feels as though I never even have a chance to catch my breath before I have to move on to the next project/crisis.	
RO6	I usually bring work home with me.	
RO7	I have missed many of my family's import	
Emotional Exhaustion (EE)		Maslach et al. [2]
EE1	I feel emotionally drained from my work	
EE2	I feel used up at the end of the workday	
EE3	I feel fatigued when I get up in the morning and have to face another day on the job	
EE4	Working with people all day is really a strain for me	
EE5	I feel burned out from my work	
EE6	I feel frustrated by my job	
EE7	I feel I am working too hard on my job	
EE8	I feel like I am at the end of my rope	
Turnover intention (TI)		Netemeyer et al. [35]
TI1	I often think about quitting my present job	
TI2	I intend to quit my present job	
TI3	During the next 12 months, I intend to search for an alternative role (another job, full-time student, etc.) to my present job	
TI4	I have searched for a new job	

Note: Reversed items

survey through the support of human resources departments from September to October 2025. A total of 867 surveys were sent; there were 256 valid forms, and the response rate was 29.5%.

This study uses quantitative methods to test research hypotheses through the application of Smart-PLS 4.0 software. The PLS-SEM method is applied to verify the direct and indirect relationships of variables in the research model (work-role stress, emotional exhaustion, and turnover intention). For three interconnected rea-

sons, PLS-SEM was used in this investigation instead of covariance-based SEM (CB-SEM) [40]. First, in terms of prediction orientation, PLS-SEM is suitable for assessing the causal (mediation and/or moderation) and predictive relationships suggested in this work because it is a variance-based method that seeks to maximize the explained variance of endogenous constructs. In contrast, the main goals of CB-SEM are to confirm theoretically described models and

reproduce the covariance matrix. Second, when it comes to non-normality, PLS-SEM does not require multivariate normality and yields consistent parameter estimates even in cases when this assumption is violated. This is a prevalent condition in behavioral data, such as employees’ perceptions and work-related tendencies. Third, compared to CB-SEM, which usually requires larger samples and more stringent distributional constraints to produce accurate and asymptotically efficient estimates, PLS-SEM may estimate complicated structural models with smaller sample sizes. The goal of the study was to predict and explain employees’ desire to leave; PLS-SEM is the more suitable analytical technique.

IV. RESULTS AND DISCUSSION

A. Demographics of the sample

The total number of valid samples was 256. In terms of gender, females accounted for 64.5%, and males accounted for 35.5%. The majority of the participants were between 30 and 42 years old (73%), 20.7% were between 18 and 29 years old, and only 6.3% were over 43 years old. The married respondents were 71.9%. There were 64.1% at the university level and 35.9% at the college level. In terms of work experience, the percentage of employees with 1 to 3 years of experience was 54.3%; from 3 to less than 5 years was 35.6%, and over 5 years was only 9.8% (Table 2).

Table 2: Demographic statistics of the sample

	Category	Percent (%)
Gender	Female	64.5
	Male	35.5
Age	18 to 29 years old	20.7
	30 to 42 years old	73
	Over 43 years old	6.3
Marital status	Married	71.9
	Not married	28.1
Educational level	College	35.9
	University	64.1
Working experience with current organization	From 1 year to under 3 years	54.3
	From 3 years to under 5 years	35.9
	Over 5 years	9.8
Industry	Wholesale – retail	24.6
	Transportation – warehousing	32.0
	Accommodation – restaurant	43.4

B. Measurement model analysis

All variables in the research model are first-order constructs. Therefore, this study utilized assessment criteria to examine the measurement model. The results of the reliability, consistency, and validity assessment of the variables in the research model are presented in Table 2. Outer loadings exceeding 0.7 were retained to ensure sufficient convergent validity in the PLS model [40]. Item RC8 (I work on unnecessary things) was removed from the scales with outer loadings below 0.7 (RC8 = 0.552). The factor loadings of the remaining items ranged from 0.702 to 0.843, all exceeding the recommended threshold of 0.7 [40]. The Average Variance Extracted (AVE) values, which indicate the percentage of variance explained by variables, provided additional evidence for convergent validity. With AVE values higher than 0.5, every latent variable in the evaluated model demonstrated respectable convergent reliability [45]. The four scales’ Cronbach’s alpha values, which ranged from 0.792 (turnover intention) to 0.870 (role conflict), were all greater than 0.7 (Table 3). Composite reliability (CR) was used to assess indicator reliability; a score of more than 0.7 indicates adequate internal consistency of constructs [40].

Additionally, all datasets were evaluated for discriminant validity using the Heterotrait–Monotrait (HTMT) ratio [46]. When comparing various structures, the HTMT matrix value should not be greater than 0.90. The findings shown in Table 4 demonstrate adequate discriminant validity and fall below the cutoff.

C. Common method bias

This study analyzes the relationships between variables using self-reported data collected at a single point in time, a practice that introduces the risk of common-method bias. To address this issue, procedural and statistical controls recommended by Podsakoff et al. [47] were implemented. Procedural measures included designing the questionnaire to alleviate apprehension regarding evaluation by ensuring respondent

Table 3: Construct validity and reliability

Construct (items)	Outer loading	Cronbach's alpha	Composite reliability (CR)	Average variance extracted (AVE)
Role ambiguity (RA)		0.846	0.886	0.565
RA1*	0.750			
RA2*	0.744			
RA3*	0.785			
RA4*	0.739			
RA5*	0.718			
RA6*	0.772			
Role conflict (RC)		0.870	0.900	0.562
RC1	0.741			
RC2	0.787			
RC3	0.775			
RC4	0.749			
RC5	0.715			
RC6	0.754			
RC7	0.723			
Role overload (RO)		0.883	0.909	0.588
RO1	0.749			
RO2	0.89			
RO3	0.745			
RO4	0.749			
RO5	0.737			
Emotional exhaustion (EE)		0.880	0.905	0.543
EE1	0.745			
EE2	0.729			
EE3	0.770			
EE4	0.721			
EE5	0.764			
EE6	0.737			
EE7	0.723			
EE8	0.702			
Turnover intention (TI)		0.792	0.862	0.611
TI1	0.739			
TI2	0.726			
TI3	0.813			
TI4	0.843			

Table 4: Discriminant validity of the constructs – HTMT matrix

	EE	RO	RA	RC	TI
EE					
RO	0.702				
RA	0.592	0.422			
RC	0.652	0.464	0.528		
TI	0.870	0.537	0.470	0.427	

anonymity and data confidentiality. On the introductory page, participants were informed that there were no right or wrong answers and that the data would be used solely for academic research purposes; this helped minimize inflated or ‘socially desirable’ responses. Furthermore, the questionnaire was structured to create psychological separation between independent and dependent variables, thereby reducing the likelihood of respondents inferring relationships between

variables or forming automatic or implicit causal assumptions while answering.

Common-method variance (CMV) can threaten the validity of research findings when data for all variables are collected from the same source at a single point in time (cross-sectional design). To address this, statistical controls were applied to assess the extent of CMV’s impact. Specifically, Harman’s one-factor test was conducted by including all measurement items in an exploratory factor analysis [47]. The results indicated that the first factor accounted for 34.635% of the total variance. This figure is below the commonly accepted threshold of 50%, indicating that CMV is not a cause for concern. Furthermore, a full collinearity assessment was conducted to evaluate both collinearity among research constructs and the potential risk of CMV. According to Hair et al. [40] and Kock [48], full collinearity variance inflation factor (VIF) values below 3.3 indicate that neither collinearity nor CMV poses a significant issue. The highest recorded VIF value was 2.220 (Table 5), well below the recommended threshold. These results confirm the absence of serious collinearity issues and suggest that CMV is unlikely to threaten the validity of the research findings.

Table 5: Values of variance inflation factor

	VIF
EE → TI	2.220
RO → EE	1.261
RO → TI	1.650
RA → EE	1.353
RA → TI	1.454
RC → EE	1.397
RC → TI	1.608

D. Structural model analysis

Measuring coefficients

In order to confirm the proposed linkages, this step entailed examining the structural model. Determining R² and Q² is the basis for two methods commonly used to evaluate the model’s prediction quality. R² (coefficient of determination) reflects the proportion of variance in each

endogenous (dependent) latent construct that is explained by its predictor (exogenous). Table 6 showed that the structural model explained 55% of the variance in EE and 57.5% in TI. This study also used a PLS-predict algorithm to acquire the values of Q^2 , which used training and holdout samples to generate and evaluate predictions from PLS path model estimation [49]. The Q^2 value of the predictive constructs must be greater than zero for the predictive relevance to be confirmed [49]. The results validated the predictive significance of the model with Q^2 values of EE ($Q^2 = 0.528$) and TI ($Q^2 = 0.259$) exceeding zero. Additionally, the effect size (f^2) is categorized as small (0.02), medium (0.15), and large (0.35). If the f^2 value is lower than 0.02, there is a very small or no significant effect. The effect size of RA on EE was small ($f^2 = 0.075$), while RC and RO had moderate and substantial effects in relation to EE ($f^2 = 0.151$, $f^2 = 0.309$, respectively). The effect size of these three work-role stressors in relation to TI was very small (f^2 value is lower than 0.02). This suggests that the impact of work role on TI could be carried out through a fully mediated mechanism, which will be explained more clearly when the structural model is validated. The effect size of EE on TI was substantial ($f^2 = 0.681$) (Table 6).

Hypothesis testing

To assess the significance of path coefficients and test the hypotheses, the PLS algorithm analysis was employed. The path coefficient analysis of total effects is presented in Table 7.

The first three hypotheses were about the relationship between three dimensions of the work-role stressors and TI. The findings indicated that RO has a positive, significant impact on TI, with a positive total effect value ($\beta = 0.329$) and a significant p-value ($p = 0.001$). The same results were found for RC ($\beta = 0.156$; $p = 0.008$) and RA ($\beta = 0.191$; $p = 0.005$) (Table 7). Thereby, H1, H2 and H3 were confirmed. This means that RO, RA, and RC positively impact TI. Among these factors, role overload has the strongest impact on the turnover intention of service sector employees. This is followed by role ambiguity and

role conflict, which lead to negative behavioral reactions among employees.

To explain how RA, RO, and RC impact TI, the study verifies the mediating role of EE by testing H4, H5, and H6, as illustrated in Table 8. To test the mediating role of EE in the relationship between RA and TI (H4), the specific indirect path is significant (p -value = $0.001 < 0.05$ or t -statistic = $3.448 > 1.96$). However, the direct path of RA and TI is not significant ($p = 0.719 > 0.05$), and the VAF value reaches 90.05%. This means that the mediating variable (EE) explains 90.05% of the total effect of RA on TI, which exceeds the 80% threshold. RA exerts its influence on TI only under a certain condition of EE on TI; thus, EE fully mediates the link between RA and TI [40]. The findings also found that EE fully mediates the linkage between RC, RO, and TI, with significant indirect effects (p -value is less than 0.05 or t -statistic is more than 1.96). The direct paths of RC and RO on TI when considering the mediating role of EE are not significant ($p = 0.103$; 0.890 , respectively), while these indirect relations are significant. The mediating variable (EE) explains 158.3% and 102.12% of the total effect of RC and RO on TI (H5 and H6 accepted). This means that the entire impact of RC and RO on an employee's intention to quit is transmitted through emotional exhaustion. These findings suggest that the indirect effects through emotional exhaustion account for the observed relationships between role conflict, role overload, and turnover intention. Full mediation of emotional exhaustion is established in the research model.

E. Discussion of findings

Drawing on the COR and SET theories, this study theorized and clarified a positive indirect effect of work-role stressors on turnover intention via emotional exhaustion. This study offers two noteworthy conclusions. First, the H1, H2, and H3 hypotheses were supported, demonstrating the positive impacts of work-role stressors on turnover intention. This is consistent with Hus-sain et al. [39] that has affirmed that role overload significantly increases turnover intention due to

Table 6: Coefficient (R^2), predictive relevance (Q^2), and effect size (f^2) values

Constructs	R^2	Q^2	f^2			
			RA	RC	RO	EE
TI	0.575 (substantial)	0.259	0.001 (very small)	0.012 (very small)	0.000 (very small)	0.681 (substantial)
EE	0.550 (substantial)	0.528	0.075 (small)	0.151 (moderate)	0.309 (substantial)	

Table 7: Results of total effects

Hypothesis	β	Standard deviation	T statistics	P values	Remark
Total effects					
H1 RA $\rightarrow$ TI	0.191	0.069	2.788	0.005	Accepted
H2 RC $\rightarrow$ TI	0.156	0.059	2.647	0.008	Accepted
H3 RO $\rightarrow$ TI	0.329	0.056	5.905	0.000	Accepted

the overwhelming demands on employees. Employees experience greater stress at work and are more likely to consider leaving when they are pushed to fulfill unrealistic or impossible deadlines and workloads. Role conflict is found to be a critical predictor of turnover intention, as it fosters stress and dissatisfaction [38]. Employees find it difficult to meet the level of standards for each activity that needs to be completed when they are faced with two or more competing requests at work at the same time. They will become more inclined to quit the company if they lack the resources necessary to meet these requests. Role ambiguity leads to higher turnover intention because unclear expectations create frustration and insecurity, resulting in not knowing what to do. Long-term exposure to burdensome work demands depletes people’s emotional reserves and energy. Likewise, employees who are unsure of their job duties and obligations have negative experiences and may decide to quit [41].

Second, this finding successfully clarifies the fully mediating mechanism to explain how work-role stressors lead to increased turnover intention via emotional exhaustion (H4, H5, and H6 supported). The results indicate that emotional exhaustion strengthens the positive relationship between work-role stressors and service employees’ turnover intention. In light of the COR theory, excessive role overload can drain an employee’s emotional reserves and hinder their ability to cope, resulting in unpleasant feelings, exhaustion, and tension [40]. Role ambiguity increases emo-

tional exhaustion by creating uncertainty in job expectations, which intensifies stress and reduces employees’ ability to effectively cope with workplace demands. Role conflict intensifies emotional exhaustion by draining emotional reserves [6]. Emotional exhaustion shapes how employees translate workplace stress into decisions to leave, and without it, work-role stressors would not directly lead to turnover intention. Emotional exhaustion, a core component of burnout, acts as a primary catalyst for turnover intention by creating a state of chronic emotional depletion, making employees feel unable to continue meeting job demands. Under SET, when job demands break the reciprocal, fair exchange between employees and organizations, employees feel over-invested and undervalued, driving a desire to leave [26]. Moreover, employment is a transaction of effort for rewards (e.g., pay, support). When emotional exhaustion makes the ‘cost’ (effort) higher than the ‘reward’, reciprocity is broken, triggering turnover. Thus, this further supports Cho et al. [5], who argue that emotional exhaustion critically mediates the link between role stressors and turnover intention.

F. Managerial implications and recommendations

A key finding in this study is that role ambiguity, role conflict, and role overload are associated with turnover intention through emotional exhaustion. Therefore, managerial practices should focus on reducing employee emotional exhaustion.

First, organizations should create a supportive environment. Open communication can create a safe space where employees can speak with managers about high-stress interactions, such as difficult customers, without judgment. Additionally, service employees should be provided with

Table 8: Results of indirect effects

	Hypothesis	β	Standard deviation	T statistics	P values	VAF	Mediation effect	Remark
H4	Direct path					90.05%	Full mediation	Accepted
	RA $\rightarrow$ TI	0.020	0.055	0.359	0.719			
	Indirect path							
	RA $\rightarrow$ EE $\rightarrow$ TI	0.172	0.050	3.448	0.001			
H5	Direct path					158.3%	Full mediation	Accepted
	RC $\rightarrow$ TI	-0.091	0.056	1.631	0.103			
	Indirect path							
	RC $\rightarrow$ EE $\rightarrow$ TI	0.247	0.038	6.580	0.000			
H6	Direct path					102.12%	Full mediation	Accepted
	RO $\rightarrow$ TI	-0.007	0.048	0.139	0.890			
	Indirect path							
	RO $\rightarrow$ EE $\rightarrow$ TI	0.336	0.049	6.899	0.000			

social support from their organizations, such as facilitating opportunities for coworkers to debrief after stressful incidents, which helps process emotional experiences, and offering mental health resources, such as assistance programs, counseling, or mental health days. When organizations create supportive environments, they can help employees cope with stressors, transforming them into opportunities for growth. These environments reduce emotional exhaustion and enhance employees’ engagement with their tasks.

Second, redesigning the workflow should be encouraged, such as clarifying roles, balancing workloads, and clearly assigning tasks to employees. Frequent task rotation can prevent emotional fatigue from high-intensity, customer-facing work. Managers should review workloads and deadlines to prevent excessive pressure. By focusing on managing work-role stressors, providing support, and addressing emotional exhaustion, organizations can cultivate a healthier workplace that fosters employee satisfaction and retention.

Third, work-life balance policies should be promoted. Managers should respect off-hours time by setting clear expectations that employees are not required to respond to emails or messages outside of work hours. The organization should provide flexible working options, such as flexible hours, where possible. Furthermore, employees should be actively encouraged to use their full annual leave to recharge after peak season.

G. Theoretical contributions

The study provides several theoretical contributions by addressing gaps in the existing literature. The findings confirm that all three dimensions of work-role stressors positively influence turnover intention, consistent with previous research [28, 40, 42]. Work-role stressors are considered predictors of employees’ turnover intentions because of their effects on employees’ emotional responses and behaviors. Furthermore, this study provides new insights into the underlying mechanism that fully mediates the relationship between job stressors and turnover intention. Among these factors, role overload has the strongest impact on emotional exhaustion, which leads to increased withdrawal behavior. Role conflict and role ambiguity follow, contributing to employee emotional exhaustion and fostering negative attitudes. These findings highlight the critical role of employees’ emotional resources; the depletion of these resources can lead to severe consequences for service-sector workers.

Additionally, this study contributes to theoretical advancements in both the COR and SET theories by providing evidence for the mediating role of emotional exhaustion. First, it reaffirms the core tenet of the COR theory that resource depletion, such as emotional exhaustion stemming from work-role stressors, acts as a critical intermediary in triggering turnover intention [11, 32]. From the SET perspective, the study elucidates that emotional exhaustion disrupts the reciprocal relationship between employees and

organizations [33]. When employees experience exhaustion, their ability to uphold obligations in the exchange relationship diminishes, leading to withdrawal behaviors like turnover intention. Furthermore, the fully mediating role of emotional exhaustion in this relationship indicates that work-role stressors only produce a negative outcome (turnover intention) if they cause employees to be emotionally exhausted, which is considered the employee's optimal stress level. It emphasizes the central role of psychological states in the SET frameworks. The result indicates that when workplace stressors fail to transform into employee motivation, instead leading to emotional exhaustion, it can cause employees to react negatively through turnover intention. Specifically, this insight broadens the COR theory by highlighting how stressors can act as both a challenge and a resource. Besides, it extends the SET by emphasizing the reciprocal nature of support and effort in the workplace. This study opens up new directions for future research, allowing researchers to further examine the conditions influencing this relationship by identifying moderating variables that explain when or under what conditions these relationships strengthen or weaken. These moderating variables could include organizational support, organization-based self-esteem, and affective commitment. Last but not least, the Vietnamese service sector is not simply the empirical context of this study but also provides a meaningful setting for understanding the observed relationships. The cultural characteristics commonly associated with Vietnam, particularly high-power distance, collectivism, and being afraid to lose face [29], may intensify the effects of work role stressors. High power distance in the superior-subordinate relationship may discourage employees from sharing work-related problems (such as work overload, role conflict, or role ambiguity). In Vietnamese culture, the nature of interaction is defined by hierarchical social status and the maintenance of relational harmony. Vietnamese employees often tend to interrupt communication regarding social matters to preserve this harmony; however, this

practice can lead to unresolved issues and misunderstandings. These cultural values can also amplify the impact of role-related stressors on emotional exhaustion. This study not only contributes by extending the evidence base to the Vietnamese context but also points the way for future research that cultural context can shape how role-related stressors influence employees' turnover intentions.

V. CONCLUSION

The study demonstrated the underlying mechanism of the relationship between work-role stressors and turnover intention via the role of emotional exhaustion. The key finding of the study is that role overload, role conflict, and role ambiguity have positive effects on employees' intention to leave. Furthermore, this study finds that emotional exhaustion fully mediates these impacts. This study adds new discussions to explain how work-role stressors increase turnover intention. It also significantly reinforces the existing theoretical foundations of the COR and SET theories and encourages future research to explore environmental factors that can moderate the relationship between stress and psychological outcomes. Based on these findings, several recommendations are proposed for service practitioners to minimize turnover intention as well as reduce the effects of work-role stressors through interventions for emotional exhaustion.

The study has several limitations. First, the cross-sectional design of this study limits its ability to analyze causal relationships because the cross-sectional method only reflects respondents' views at a given point in time. Thus, a longitudinal or experimental approach is needed to explore the underlying mediating mechanisms between stress and individual outcomes in future research. Second, the study's generalizability is constrained by its focus on service employees in three main fields (wholesale – retail, transportation – warehousing, accommodation – restaurant) in Vietnam. Future research should examine service employees from a wider range of organizations in other service contexts (such as

healthcare, banking, and education) to generalize the findings.

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REFERENCES

- [1] Ashtar S, Yom-Tov GB, Akiva N, Rafaeli A. When do service employees smile? Response-dependent emotion regulation in emotional labor. *Journal of Organizational Behavior*. 2021;42(9): 1202–1227. <https://doi.org/10.1002/job.2562>.
- [2] Maslach C, Jackson SE. The measurement of experienced burnout. *Journal of Organizational Behavior*. 1981;2(2): 99–113. <https://doi.org/10.1002/job.4030020205>.
- [3] Maslach C, Leiter MP. *The truth about burnout: How organizations cause personal stress and what to do about it*. San Francisco, United States: John Wiley & Sons; 2000.
- [4] O'Brady S, Doellgast V. Collective voice and worker well-being: union influence on performance monitoring and emotional exhaustion in call centers. *Industrial Relations: A Journal of Economy and Society*. 2021;60(3): 307–337. <https://doi.org/10.1111/irel.12286>.
- [5] Cho JE, Choi HC, Lee WJ. An empirical investigation of the relationship between role stressors, emotional exhaustion and turnover intention in the airline industry. *Asia Pacific Journal of Tourism Research*. 2014;19(9): 1023–1043. <https://doi.org/10.1080/10941665.2013.837398>.
- [6] Edmondson DR, Matthews LM, Ambrose SC. A meta-analytic review of emotional exhaustion in a sales context. *Journal of Personal Selling & Sales Management*. 2019;39(3): 275–286. <https://doi.org/10.1080/08853134.2019.1592684>.
- [7] Pu B, Sang W, Ji S, Hu J, Phau I. The effect of customer incivility on employees' turnover intention in hospitality industry: A chain mediating effect of emotional exhaustion and job satisfaction. *International Journal of Hospitality Management*. 2024;118: 103665. <https://doi.org/10.1016/j.ijhm.2023.103665>.
- [8] D'Souza GS, Irudayasamy FG, Parayitam S. Emotional exhaustion, emotional intelligence and task performance of employees in educational institutions during COVID 19 global pandemic: A moderated-mediation model. *Personnel Review*. 2023;52(3): 539–572. <https://doi.org/10.1108/PR-03-2021-0215>.
- [9] Anasori E, Bayighomog SW, Tanova C. Workplace bullying, psychological distress, resilience, mindfulness, and emotional exhaustion. *The Service Industries Journal*. 2020;40(1–2): 65–89. <https://doi.org/10.1080/02642069.2019.1589456>.
- [10] Jiang H, Jiang X, Sun P, Li X. Coping with workplace ostracism: the roles of emotional exhaustion and resilience in deviant behavior. *Management Decision*. 2021;59(2): 358–371. <https://doi.org/10.1108/MD-06-2019-0848>.
- [11] Hobfoll SE. Conservation of resources: a new attempt at conceptualizing stress. *American Psychologist*. 1989;44(3): 513–524. <https://doi.org/10.1037//0003-066x.44.3.513>.
- [12] Wang X, Yang L, Chen K, Zheng Y. Understanding teacher emotional exhaustion: exploring the role of teaching motivation, perceived autonomy, and teacher–student relationships. *Frontiers in Psychology*. 2024;14: 1342598. <https://doi.org/10.3389/fpsyg.2023.1342598>.
- [13] Lartey JKS, Amponsah-Tawiah K, Osafo J. Emotional intelligence and perceived organizational support as predictors of emotional exhaustion among nurses and midwives. *International Journal of Workplace Health Management*. 2021;14(3): 261–273. <https://doi.org/10.1108/IJWHM-10-2020-0173>.
- [14] Al-Hawari MA, Bani-Melhem S, Quratlain S. Do frontline employees cope effectively with abusive supervision and customer incivility? Testing the effect of employee resilience. *Journal of Business and Psychology*. 2020;35(2): 223–240. <https://doi.org/10.1007/s10869-019-09621-2>.
- [15] Quan NH, Linh VP, Anh PN, Chi VQ, Thanh NK, Hang DM. Workplace incivility and frontline employees' capacity to satisfy customers: what stands in-between? *International Journal of Process Management and Benchmarking*. 2023;15(1): 107–130. <https://doi.org/10.1504/IJPMB.2023.132666>.
- [16] Kahn RL, Wolfe DM, Quinn RP, Snoek JD, Rosenthal RA. *Organizational stress: Studies in role conflict and ambiguity*. New York, United States: John Wiley; 1964.
- [17] Bowling NA, Alarcon GM, Bragg CB, Hartman MJ. A meta-analytic examination of the potential correlates and consequences of workload. *Work & Stress*. 2015;29(2): 95–113. <https://doi.org/10.1080/02678373.2015.1033037>.
- [18] Nixon AE, Mazzola JJ, Bauer J, Krueger JR, Spector PE. Can work make you sick? A meta-analysis of the relationships between job stressors and physical symptoms. *Work & Stress*. 2011;25(1): 1–22. <https://doi.org/10.1080/02678373.2011.569175>.
- [19] Thin SM, Nakpun T, Nitadpakorn S,

- Sorofman BA, Kittisopee T. What drives pharmacists' turnover intention: A systematic review. *Pharmacy Practice*. 2021;19(4): 2559. <https://doi.org/10.18549/PharmPract.2021.4.2559>.
- [20] Jasiński AM, Derbis R. Work stressors and intention to leave the current workplace and profession: The mediating role of negative affect at work. *International Journal of Environmental Research and Public Health*. 2022;19(21): 13992. <https://doi.org/10.3390/ijerph192113992>.
- [21] Baquero A, Khairy HA, Al-Romeedy BS. Workplace stressors and the intention to quit: The role of psychological distress and psychological flexibility among hospitality employees. *Tourism and Hospitality*. 2025;6(2): 72. <https://doi.org/10.3390/tourhosp6020072>.
- [22] Suong HTT. Impacts of job stress and dissatisfaction on turnover intention. A critical analysis of logistics industry-evidence from Vietnam. *International Journal of Economics & Business Administration*. 2020;8(4): 914–929. <https://doi.org/10.35808/ijeba/640>.
- [23] Pham TX, Mai QL, Do PT, Tran PT. The relationship between job stress and turnover intention-an empirical examination of moderation of technical support. *International Journal of Operations and Quantitative Management*. 2024;30(3): 183–195. <https://submissions.ijoqm.org/index.php/ijoqm/article/view/378/171> [Accessed 24 February 2025].
- [24] Le H. Exploring the factors influencing resignation intentions among university lecturers: A case study in Vietnam. *Journal of Finance – Marketing Research*. 2025;3(3): 95–113. <https://jfm.edu.vn/index.php/jfme/article/view/1048/656> [Accessed 18 December 2025].
- [25] Nguyen MH, Nguyen XN, Vo NH. Exploring the impact of organizational work factors on turnover intention due to job stress: a mixed-methods study in Vietnamese public hospitals. *International Journal of Applied Management Science*. 2026;18(1): 35–63. <https://doi.org/10.1504/IJAMS.2026.151292>.
- [26] Fogarty TJ, Singh J, Rhoads GK, Moore RK. Antecedents and consequences of burnout in accounting: Beyond the role stress model. *Behavioral Research in Accounting*. 2000;12: 31–68. <https://doi.org/10.2308/BRIA-3034424>.
- [27] Khan J, Saeed I, Ali A, Nisar HG. The mediating role of emotional exhaustion in the relationship between abusive supervision and employee cyberloafing behavior. *Journal of Management and Research*. 2021;8(1): 160–178. <https://doi.org/10.29145/jmr/81/080107>.
- [28] Hang-Yue N, Foley S, Loi R. Work role stressors and turnover intentions: a study of professional clergy in Hong Kong. *The International Journal of Human Resource Management*. 2005; 16(11): 2133–2146. <https://doi.org/10.1080/09585190500315141>.
- [29] Tran TTQ, Admiraal W, Saab N. Cultural distance in the workplace: differences in work-related attitudes between Vietnamese employees and Western employers. *International Journal of Business and Management*. 2017;12(10): 91–110. <https://doi.org/10.5539/ijbm.v12n10p91>.
- [30] Blau PM. Justice in social exchange. *Sociological Inquiry*. 1964;34(2): 193–206. <https://doi.org/10.1111/j.1475-682X.1964.tb00583.x>.
- [31] Halbesleben JR, Neveu JP, Paustian-Underdahl SC, Westman M. Getting to the “COR” understanding the role of resources in conservation of resources theory. *Journal of Management*. 2014;40(5): 1334–1364. <https://doi.org/10.1177/0149206314527130>.
- [32] Hobfoll SE, Halbesleben J, Neveu JP, Westman M. Conservation of resources in the organizational context: The reality of resources and their consequences. *Annual Review of Organizational Psychology and Organizational Behavior*. 2018;5(1): 103–128. <https://doi.org/10.1146/annurev-orgpsych-032117-104640>.
- [33] Cropanzano R, Anthony EL, Daniels SR, Hall AV. Social exchange theory: a critical review with theoretical remedies. *Academy of Management Annals*. 2017;11(1): 479–516. <https://doi.org/10.5465/annals.2015.0099>.
- [34] Blau P. *Exchange and power in social life*. 2nd ed. New York, United States: Routledge; 2017. <https://doi.org/10.4324/9780203792643>.
- [35] Netemeyer RG, James SB, Robert M. Development and validation of work-family conflict and family-work conflict scales. *Journal of Applied Psychology*. 1996;81(4): 400–410. <https://doi.org/10.1037/0021-9010.81.4.400>.
- [36] Rizzo JR, House RJ, Lirtzman SI. Role conflict and ambiguity in complex organizations. *Administrative Science Quarterly*. 1970;15(2): 150–163. <https://doi.org/10.2307/2391486>.
- [37] Schaubroeck J, Cotton JL, Jennings KR. Antecedents and consequences of role stress: A covariance structure analysis. *Journal of Organizational Behavior*. 1989;10(1): 35–58. <https://doi.org/10.1002/job.4030100104>.
- [38] Asfahani AM. The impact of role conflict on turnover intention among faculty members: a moderated mediation model of emotional exhaustion and workplace relational conflict. *Frontiers in Psychology*. 2022;13: 1087947. <https://doi.org/10.3389/fpsyg.2022.1087947>.
- [39] Hussain K, Iqbal MA, Rehman S. Unpacking the relationship between work overload, job satisfaction, and turnover intention: the mediating role of job stress. *International Journal of Business and Economic Affairs*. 2023;8(2): 20–26. <https://doi.org/10.24088/IJBEA-2023-82003>.
- [40] Hair JF, Risher JJ, Sarstedt M, Ringle CM. When

- to use and how to report the results of PLS-SEM. *European Business Review*. 2019;31(1): 2–24. <https://doi.org/10.1108/EBR-11-2018-0203>.
- [41] Shin Y, Hur WM, Park K, Hwang H. How managers' job crafting reduces turnover intention: The mediating roles of role ambiguity and emotional exhaustion. *International Journal of Environmental Research and Public Health*. 2020;17(11): 3972. <https://doi.org/10.3390/ijerph17113972>.
- [42] Wen B, Zhou X, Hu Y, Zhang X. Role stress and turnover intention of front-line hotel employees: the roles of burnout and service climate. *Frontiers in Psychology*. 2020;11: 473451. <https://doi.org/10.3389/fpsyg.2020.00036>.
- [43] Sondhi N, Chawla D, Jain P, Kashyap M. Work-exhaustion-A Consequential framework: Validating the model in the Indian context. *Indian Journal of Industrial Relations*. 2008;43(4): 547–573. <https://www.jstor.org/stable/27768155>.
- [44] Nam Hai. *Vietnam's economy achieved a growth rate of 7.09% in 2024 [Năm 2024, nền kinh tế Việt Nam đạt mức tăng trưởng 7,09%]*. <https://tapchinganhang.gov.vn/nam-2024-nen-kinh-te-viet-nam-dat-muc-tang-truong-709-15095-15095.html&link=autochanger> [Accessed 24 February 2025].
- [45] Fornell C, Larcker DF. Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research*. 1981;18(3): 382–482. <https://doi.org/10.2307/3150980>.
- [46] Henseler J, Ringle CM, Sarstedt M. Testing measurement invariance of composites using partial least squares. *International Marketing Review*. 2016;33(3): 405–431. <https://doi.org/10.1108/IMR-09-2014-0304>.
- [47] Podsakoff PM, MacKenzie SB, Lee JY, Podsakoff NP. Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology*. 2003;88(5): 879–903. <https://doi.org/10.1037/0021-9010.88.5.879>.
- [48] Kock N. Common method bias in PLS-SEM: a full collinearity assessment approach. *International Journal of e-Collaboration*. 2015;11(4): 1–10. <https://doi.org/10.4018/ijec.2015100101>.
- [49] Shmueli G, Sarstedt M, Hair JF, Cheah JH, Ting H, Vaithilingam S, et al. Predictive model assessment in PLS-SEM: guidelines for using PLSpredict. *European Journal of Marketing*. 2019;53(11): 2322–2347. <https://doi.org/10.1108/EJM-02-2019-0189>.

