

Print ISSN: 2288-4637 / Online ISSN 2288-4645
doi:10.13106/jafeb.2021.vol8.no12.0485

The Relationship between Autonomous Extrinsic Motivation of Salespeople and Work Performance: An Empirical Study from Vietnam

Minh Luan PHAM¹

Received: August 30, 2021 Revised: November 07, 2021 Accepted: November 15, 2021

Abstract

This study explores the direct relationship between challenge and hindrance demands affecting autonomous extrinsic motivation and sales performance. In addition, we examine the mediating role of autonomous extrinsic motivation in the relationship between challenge demands, hindrance demands, and sales performance. This study explores the direct relationship between challenge and hindrance demands affecting autonomous extrinsic motivation and sales performance. In addition, we examine the mediating role of autonomous extrinsic motivation in the relationship between challenge demands, hindrance demands, and sales performance. This study proceeded in two phases comprising preliminary and prime research. First, preliminary quantitative research was conducted through face-to-face interviews with 125 observations to analyze the reliability of the scale and exploratory factor analysis to evaluate the measurements. The data collected from 431 real estate market employees shows that both challenge and hindrance demands positively and negatively affect sales performance through autonomous extrinsic motivation. Furthermore, challenge demands and hindrance demands affect positive and negative sales performance through autonomous extrinsic motivation, respectively. This study suggests that business organizations should design job demands to ensure that challenging work is suitable for employees' job positions. Thus, they will contribute to motivation and help employees achieve job performance.

Keywords: Hindrance, Challenge Demands, Self-Regulation, Autonomous Extrinsic Motivation, Sales Performance

JEL Classification Code: M10, M11, M12

1. Introduction

Salespeople play a crucial role in implementing processes, coordinating with different functions in the sales organization to meet increasingly complex customer requirements nowadays (Liu, 2019; Westbrook & Peterson, 2020). For that reason, employees need to put in great effort and concentration to be effective (Loehr & Schwartz, 2001). Therefore, scholars suppose that the nature of sales requires employees to meet stressful job demands in a competitive

environment to achieve individual and organizational goals (González-Morales & Neves, 2015; Liu, 2019; Lu et al., 2016). As mentioned above, sales job demands are inherently stressful (Chaker et al., 2016; Pendey, 2019).

The stressors can be grouped into challenge demands (CD) and hindrance demands (HD) in the organization (Crawford et al., 2010; Van den Broeck et al., 2010). However, unlike hindrance demands (HD), challenge demands (CD) have positive characteristics because they can be a motivator to perform well (Li et al., 2020). Moreover, Mazzolla and Disselhorst (2019) also showed that CD affects performance inconsistently as the effects may be negative, positive, or insignificant.

The theory of job demands and job resources (JD-R) (Bakker & Demerouti, 2007; Demerouti et al., 2001) is only concerned with the external interaction between job characteristics and job engagement as a motivational state without considering the process of psychological internalization during job performance (Bakker & Demerouti, 2017; Tadić Vujčić et al., 2017). Meanwhile, self-determination theory (SDT) is a theory of motivation that expresses motivational

¹First Author and Corresponding Author. [1] Ph.D. Candidate, School of Management, University of Economics Ho Chi Minh City, Vietnam [2] Lecturer, Faculty of Business Administration, Ho Chi Minh City University of Food Industry, Vietnam [Postal Address: 140 Le Trong Tan Street, Tay Thanh Ward, Tan Phu District, Ho Chi Minh City, 700000, Vietnam]
Email: luanpm@hufi.edu.vn; phamminhluan.hufi@gmail.com

levels by emphasizing the proactive behavior of individuals (Ryan & Deci, 2020). In addition, previous studies have rarely explored the individual-level relationships between CD, HD, and autonomous extrinsic motivation (AEM) related to job outcomes (Homburg et al., 2019; Mazzolla & Disselhorst, 2019; Tadić Vujčić et al., 2017).

This study is to contribute some theoretical and practical content. Theoretically, the combination of JD-R and SDT theory will add to explaining the differential relationship between high CD and HD in using available resources to explain the motivational process of psychological internalization to achieve job performance at the individual level (Bakker & Demerouti, 2017; Deci & Ryan, 2008; Ryan & Deci, 2020). In practical terms, this research improves job design and helps increase organizational productivity.

The detailed objectives of the study are to investigate (1) the relationship between the effects of HD, CD, and AEM on job performance and (2) the mediating role of AEM in the effects of CD and HD on sales performance.

2. Theoretical Background

2.1. Challenge and Hindrance Demands Framework

LePine et al. (2005) argue that job demands can also play a role in motivational factors and differentiate into HD and CD. So, Van den Broeck et al. (2010) classified job characteristics into three types CD, HD, and job resources. The HD defines job demands that involve undue or undesirable constraints that impede or interfere with a person's ability to achieve a valuable goal (Cavanaugh et al., 2000; Van den Broeck et al., 2010). For example, HD are role conflict, role overload, and role ambiguity; Rules take the form of redundancies and bureaucratic procedures and are controversial (Bakker & Demerouti, 2017; Rodell & Judge, 2009). Conversely, the CD defines job demands that consume effort so that people can promote personal growth and employee achievement (Crawford et al., 2010; Podsakoff et al., 2007). For example, CD includes high levels of workload, time pressure, and responsibilities (Bakker & Demerouti, 2017). These demands are likely to be obtained for decent work rewards that people do the unpleasant work to associate with these requirements and are considered "good" stressors. However, Bakker and Sanz-Vergel (2013) have supposed that HD can be acted as HD (and vice versa) depending on the context. In addition, some scholars argue that job demands should assess both CD and HD (e.g., Searle & Auton, 2015; Webster et al., 2011). Thus, these findings open up new directions in exploring conditions under which job demands play the role of HD versus CD (Bakker & Demerouti, 2017).

The results of three meta-analyses demonstrate the different effects of CD and HD on some other work-related

outcomes (Crawford et al., 2010; LePine et al., 2005; Mazzolla & Disselhorst, 2019). For example, Mazzolla and Disselhorst (2019) show that HD affects different outcomes relatively uniformly. However, the CD has a heterogeneous relationship with other research results because the CD has both a negative (or positive) relationship and no relationship with job performance. In addition, the research is still not interested in explaining the difference between the hindrance and challenge demands for fluctuations (internal regulations) within people regarding work. (Homburg et al., 2019; Mazzolla & Disselhorst, 2019; Tadić Vujčić et al., 2017).

Based on JD-R theoretical model, this study approaches job demand functions based on JD-R theory in analyzing job demands into CD and HD to explain the motivational process and change inner psychology of employees in performing work effectively.

2.2. Self-Determination Theory

People self-regulate their behaviors in response to social contexts or pressures (Deci & Ryan, 2000; Ryan & Deci, 2018). The external causes are controlled and internalized by manifesting into an autonomous or controlled behavior. Employees with autonomous extrinsic motivation express the level of effort at work for their genuine interest and choice, and not for external pressure (Gagné et al., 2010; Tadić Vujčić et al., 2017). Besides, AEM supports basic needs, satisfaction, intrinsic motivation, and behavioral intentions (Ryan & Deci, 2020). AEM comprises identified regulation, a moderately autonomous level of motivation, and integrated regulation, which is a form of autonomous motivation. AEM is a relatively less autonomous kind of motivation because it is a behavioral regulation involving inwardly transformed values and therefore no longer requires the presence of an external reward such as the recognition and perception of guilts.

The cause of sales motivation is mainly related to organizational factors (work-related factors, organizational stress, and sales control systems) and personal factors (demographic factors, personal perception, and emotion) (Delpechitre et al., 2020; Khusainova et al., 2018). A meta-analysis study by Cerasoli et al. (2014) showed that intrinsic motivation and reward (external regulation) positively influence quantity and quality performance. However, intrinsic motivation affects quality performance better than quantity performance. Extrinsic motivation has a more significant influence on quantitative performance than quality performance. Delpechitre et al. (2020) and Khusainova et al. (2018) demonstrated that previous studies were still highly inconsistent in the relationship between intrinsic and extrinsic motivation affecting sales performance, whereas other studies supported extrinsic motivation. Deci et al. (2017) argued that motivation would

change over time within people and impact job performance. However, previous studies have seldom addressed the process of transforming employees' psychological state in the workplace into different forms of motivation to perform effectively (Bakker & Demerouti, 2017; Khusainova et al., 2018; Tadić et al., 2017).

This study employs AEM in SDT theory to assess the psychological transformation of real estate market employees in the face of hindrance and challenging demands in the motivational process because extrinsic motivation can be regulated internally (Gagné et al., 2010). In addition, the JD-R theoretical model approves incorporating SDT theory in exploring the relationships between CD or HD and AEM at the individual level (Bakker & Demerouti, 2017).

3. Research Model and Hypotheses Development

3.1. Proposed Model

The theoretical model indicates the direct influence relationship of CD and HD, AEM and sales performance. Furthermore, AEM acts as a mediating variable in the influence relationship of CD and HD on PERF.

3.2. Hypotheses Development

3.2.1. Hindrance Demands and Challenge Demands

Social contexts make opportunities for people to satisfy basic needs to stimulate forms of self-determination motivation, whereas contexts that hinder need satisfaction will create forms of non-self-determination motivation (Deci & Ryan, 1985). Many authors assume that the CD provides employees with opportunities for personal growth (Lepine et al., 2005; González-Morales & Neves, 2015) and achieves work goals, stimulating advancement, learning, and development of individuals in job resources (Demerouti et al., 2001). HD reduces one's ability to achieve valuable goals (Lepine et al., 2005; Rodell & Judge, 2009).

Other results in the service sector also show that CD and HD affect job engagement and intention to leave (Olugbade & Karatepe, 2019) and affect teacher's internalization (AEM) (Tadić Vujčić et al., 2017). Homogeneously, Fernet et al. (2020) showed that nurses' perceptions of job demands and work resources have changed within each employee in the motivational components (the level varies from 30-40%). Furthermore, Lepine et al. (2005) also showed that HD negatively affects and CD positively affects work motivation.

As mentioned above, the authors believe that with high job demands, available organizational resources, real estate brokerage salespersons will be aware of the role and value

of selling jobs. So, they will align their behaviors with organizational goals and values.

H1: Challenge demands positively influence autonomous extrinsic motivation.

H2: Hindrance demands harm autonomous extrinsic motivation.

Although authors have differentiated into in-role and extra-role sides of sales performance (Mackensize et al., 1998), this study concentrates on the in-role aspect of performance. For this reason, sales performance explained the perception of sales volume achieved, the quality of customer relationships they retain, and the knowledge they own about their company's products, competitions, and customer needs (Krishnan et al., 2002). As a result, today's sales force faces many obstacles and challenges because they have to deal with the context of a highly competitive, complex, and stressful business environment (Brown & Peterson, 1994; Herjanto & Franklin, 2019). However, stressors can be good (CD) or bad (HD) that have a positive or negative effect on job performance (Lepine et al., 2005).

Lepine et al. (2005) showed that HD negatively affects job performance but positively affects strain. On the contrary, the CD has a positive effect on job performance and strain. The meta-analysis study by Mazzola and Disselhorst (2019) also showed a correlation relationship between heterogeneous CD (with negative or positive relationship or no effect) with job performance. The study showed that HD (mean $r = -0.22$) and CD (mean $r = -0.03$) negatively correlated with job performance. Based on the CD and HD framework, the HD had a negative and statistically significant influence on job performance. However, the CD had little influence on job performance (except for Lepine et al., 2005) (Mazzola & Disselhorst, 2019). Therefore, this study provides more evidence to support the testing of the CD's and HD's impacts on the process of self-assessment of job performance at the individual level.

H3: Challenge demands are positively related to sales performance.

H4: Hindrance demands are negatively related to sales performance.

3.2.2. Autonomous Extrinsic Motivation

The SDT theory holds that self-determination is considered crucial for mundane tasks, as the work context favors self-determination to promote the transformation for acquiring many positive outcomes (Sheldon et al., 2003).

Meta-analysis results (Cerasoli et al., 2014) and review studies (Delpechitre et al., 2020; Khusainova et al., 2018) in the industry of sales show that extrinsic and

intrinsic motivations affect sales performance. In addition, other studies also suggest that the perceived influence of autonomous motivation can lead to sales performance through the sales process to internalize each employee (Homburg et al., 2019). The authors showed that AEM influenced the environmental motivation and organizational commitment (Wong-On-Wing et al., 2010), control through rewards, sales activities (Conde & Prybutok, 2021), HD, CD (Tadić Vujčić et al., 2017), or employee depression and anxiety (Cho & Yang, 2018). From the pressures of the work environment, employees will self-regulate their behavior to achieve personal and organizational goals (Ryan & Deci, 2020). In addition, when the employees change their behavior appropriately, they feel motivated to engage and express positive effects to the job (Tadić Vujčić et al., 2017) and job performance (Wong-On-Wing et al., 2010). Based on the above discussion, the author believes that AEM will positively affect job performance.

H5: *Autonomous extrinsic motivation positively affects sales performance.*

Tadić Vujčić et al. (2017) showed that AEM mediated the positive and negative influences of CD and HD on teachers' positive effects and job engagement, respectively. Further, AEM also played the mediating role of the relationship between needs satisfaction and viability of business owners (Olafsen & Frølund, 2018), task conflict, creative environment, empowered leadership, colleague support and creative performance (Hon, 2012), inside sales agents' sales activities, inside sales agents' sales performance, and tenure (Conde & Prybutok, 2021). Moreover, a meta-analysis by Lepine et al. (2005) also showed that work motivation also played a mediating role in the relationship between the negative and positive individual-level effects of HD and CD on work performance and the positive and negative influence of the strain, separately. Therefore, the authors propose:

H6: *Autonomous extrinsic motivation mediates the positive relationship between challenge demands and sales performance.*

H7: *Autonomous extrinsic motivation mediates the negative relationship between hindrance demands and sales performance.*

4. Methodology

4.1. Research Sample and Procedure

This study proceeded in two phases comprising preliminary and prime research. The respondents in the research periods are all real estate market staff (salespeople) working for real estate brokerage organizations in Ho Chi

Minh City, one of the ten cities with the fast growth rate of real estate business services in Asia (Newell, 2021).

Preliminary qualitative research was conducted face-to-face interviews with eight staff to adjust the scales per the research context. In addition, this study helps to reduce the common method variance (Podsakoff et al., 2003). Preliminary quantitative research was conducted through face-to-face interviews with 125 observations to analyze the reliability of the scale and exploratory factor analysis (EFA) to evaluate the measurements. The final sample was applied a convenient method through face-to-face interviews with 431 salespeople in Ho Chi Minh City to test the value of the scales and hypotheses by the structural equation model (SEM).

4.2. Measurement

The English scales are translated into Vietnamese by a bilingual scholar because English is not the native language of real estate agencies. Back-translation ensures the reliability of original scales. A seven-point Likert scale is used for all items.

The hindrance and challenge demand scales were borrowed from Rodell and Judge (2009). The preliminary qualitative study results found that the HD scale removed two items (“I have received assignments without adequate resources and materials to execute them” and “I have worked with two or more groups who operate quite differently”), and the CD also deleted two manifests (“The volume of work that must be accomplished in the allocated time has been difficult” and “My job has required me to use several complex or high-level skills”) because they were not appropriate for the context.

The autonomous extrinsic motivation was measured by a multidimensional work motivation scale from Tremblay et al. (2009). Identified regulation (three items) and integrated regulation (three manifests). These subscales were kept as the original scales and unchanged in the preliminary qualitative research. In addition, the participants were asked to answer the question, “Why are you presently involved in your work?”

The sales performance scale was borrowed from Krishnan et al. (2002) with three observed variables. First, the results of the qualitative study showed that many participants agreed and recommended the item “How do you rate yourself in terms of quality of your performance with knowledge of your products, company, competitors' products, and customer needs?” should be separated into two different items related to products and competitors and needs of the client because it was too long and very difficult to remember the statement. Therefore, two new variables are included: “I understand the knowledge of your products, company, competitors' products,” and “I understand the

needs of customers.” Finally, the self-reported scale was responded to and began with the phrase “comparing with colleagues in your organization...”

4.3. Measurement Refinement

The preliminary quantitative study conducted by SPSS 25.0 software with 125 observations showed that CD, HD, AEM, and PERF had Cronbach’s alpha coefficients of 0.864, 0.785, 0.668, 0.771, and 0.855, respectively. In particular, item HD6 was rejected due to low item-total correlation (0.246). The EFA was examined by the principal component method with varimax rotation and extracted four factors from twenty-one items measuring five instruments in the model with 60.45% of variance extracted at eigenvalues of 1.534. Two components of identified and integrated regulation combined into one factor with six observed variables. These subscales were supposed that have no difference because they usually have high correlation relationships in practice (Howard et al., 2016; Ju, 2020). In addition, all factor loadings are high (≥ 0.559). All scales satisfy the requirements in terms of reliability and validity. Therefore, these scales remain used for formal research.

5. Empirical Results and Discussion

5.1. Sample Characteristics

The final sample includes 431 real estate market employees in Ho Chi Minh City. The proportions of men and women are 56.6% and 43.4%, respectively. The percentages of employees aged 18–24, 25–34, 35–44, and 45–54 are 41.8%, 47.8%, 9.5%, and 0.7%, respectively. Regarding the working experience, their employees are grouped into more than three months to less than one year (30.6%), 1–3 years (44.1%), 3–5 years (18.3%), 5–7 years (4.4%), and more than 7 years (2.6%). Regarding the education level, most of the respondents have college (33.4%) and university (53.1%) degrees, while only 1.9% of them have higher education degrees and 11.6% of them have intermediate or lower levels. Regarding the average monthly incomes of the real estate market salespeople, 19.7% earn below 6.5 million VND, 29.5% earn from 6.5 to under 10 million VND, 36.2% earn from 10 million to under 20 million VND, and 14.6% earn more than 20 million VND.

This study was conducted in two phases. First, confirmatory factor analysis (CFA) was applied to determine the validity. Second, the Maximum Likelihood (ML) method was used for testing the theoretical model and hypotheses, which was done by AMOS 25.0 software. The screening showed that the data set had a slight deviation from the threshold. However, the results showed that most of the kurtosis and skewness are in the range $[-1, 1]$. So, the ML

method is still the appropriate method (Muthen & Kaplan, 1985). In addition, the results of testing the stability of the indexes under market data related to the overall model according to Bollen - Stine Bootstrap with $N = 2000$ also showed that the model results were stable with $p = 0.03$ (Bollen & Stine, 1992).

5.2. Measurement Validation

As presented in the preliminary quantitative research results, the four scales (CD, HD, AEM, and PERF) were evaluated by CFA in the main dataset collected from 431 employees. The saturated model was performed on the measurement model and found acceptable fit to the data: $\chi^2[164] = 262,468$ ($p = 0.000$), GFI = 0.943, TLI = 0.966, CFI = 0.971, RMSEA = 0.037, and CLOSE = 0.995. Noticeably, the observation variable HD5 made the average variance extracted (AVE) unsatisfactory (47.7%) so it was deleted (Fornell & Larcker, 1981).

Table 1 presents the standardized CFA factor loadings (SCFL) of items, Cronbach’s alpha (CA), composite reliability (CR), and average variance extracted of the scales. The standardized regression weights of all scales were valuable (≥ 0.64) and significant ($p < 0.001$), and the t -value (critical ratios) for each factor loading is higher than 1.96 (Hair et al., 2010). The CA ranged from 0.814 to 0.858, which exceeds the cut-off level of 0.70 set for basic research (Nunnally & Bernstein, 1994). The convergent validity of the measurement determined as the CR for all constructs ranged from 0.814 to 0.861 – better than 0.70, as recommended by Fornell and Larcker (1981) and Hair et al. (2010). In addition, the AVE for all factors ranged from 0.504 to 0.556, exceeding the generally accepted value of 0.50 (Fornell & Larcker, 1981). Finally, maximal reliability MaxR(H) for all factors ranged from 0.816 to 0.869 compared to the threshold of 0.8 (Hancock & Mueller, 2001), thus supporting the convergent validity of all the concepts included in the measurement model.

The discriminant validity of the factors included in the measurement model was also confirmed, according to the criterion of Fornell and Larcker (1981) and Chin (1998), by the fact that the average variance extracted for each construct was more significant than the maximum Shared Squared Variance (MSV) (Table 1 & 2).

5.3. Common Method Variance

We collected data from the same source about self-reporting sales performance, so there may be a common method bias (CMB) in the study (Podsakoff et al., 2003). Therefore, the study implements three post hoc statistical analyses to test for potential biases. First, the Harman’s one-factor test shows that the percentage of variance

Table 1: The Final Measurement Model

Scales/Items	SCFL	t-values
Challenge demand ^a (CD) (CA = 0.858, CR = 0.859, AVE = 0.504, MaxR(H) = 0.861)		
I've had to work on a large number of assignments. (CD1)	0.723	NA
My job has required me to work very hard. (CD2)	0.692	13.217
I have experienced severe time pressures in my work. (CD3)	0.712	13.566
I've felt the amount of responsibility I have at work. (CD4)	0.68	12.991
I have been responsible for counseling others and/or helping them solve their problems. (CD5)	0.689	13.149
My job has required a lot of selling skills. (CD6)	0.759	14.405
Hindrance demands ^a (HD) (CA = 0.814, CR = 0.814, AVE = 0.523, MaxR(H) = 0.816)		
I have had to go through a lot of red tapes to get my job done. (HD1)	0.759	NA
My duties and work objectives have been unclear to me. (HD2)	0.723	13.218
I have not fully understood what is expected of me [®] . (HD3)	0.697	12.826
I have had many hassles to go through to get assignments done. (HD4)	0.711	13.04
I have worked with two or more groups that operate quite differently. (HD5)		
Autonomous extrinsic motivation ^b (AEM) (CA = 0.858, CR = 0.861, AVE = 0.509, MaxR(H) = 0.869)		
Because this is the type of work, I chose to do to attain a certain lifestyle. (IDENT1)	0.75	NA
Because I chose this type of work to attain my career goals. (IDENT2)	0.666	13.258
Because it is the type of work, I have chosen to attain certain important objectives. (IDENT3)	0.64	12.726
Because it has become a fundamental part of who I am. (INTE1)	0.694	13.837
Because it is part of the way in which I have chosen to live my life. (INTE2)	0.708	14.132
Because this job is a part of my life. (INTE3)	0.811	16.198
Sales performance (PERF) (CA = 0.827, CR = 0.833, AVE = 0.556, MaxR(H) = 0.851)		
I achieved sales volume. (PERF1)	0.657	NA
I maintain client relationships. (PERF2)	0.741	12.72
I understand the knowledge of your products, company, and competitors' products. (PERF3)	0.72	12.446
I understand the needs of customers. (PERF4)	0.852	13.788

^aRanged from "strongly disagree" to "strongly agree"; ^bRanged from "does not correspond at all" to "correspond exactly"; ^cRange from "worst" to "best"; [®]indicates a reverse-coded item; *** $p < 0.001$; NA: not applicable.

(26.689%) is less than 50%. Second, the correlation coefficients between the variables (see Table 2) are all less than 0.9 (Lindell & Whitney, 2001). Third, the common latent factors (CLF) or the unmeasured latent method is used to test CMB's problem (Williams & McGonagle, 2016). Finally, we compared the constraint model with the unconstraint model. The results showed that all factor loadings were less than 0.2. Hence, the results of this test also show that CMB is not a considerable issue that affects the results.

5.4. Structural Results

5.4.1. Hypotheses Testing

The indicators in the model (Figure 1) show a good fit with the research data and are acceptable ($\chi^2 [164] = 262,468$, $\chi^2/df = 1.6$, $P = 0.000$, GFI = 0.943, TLI = 0.966, CFI = 0.971, PCLOSE = 0.995, RMSEA = 0.037). Research results demonstrate that the hypotheses H1 to H5 are

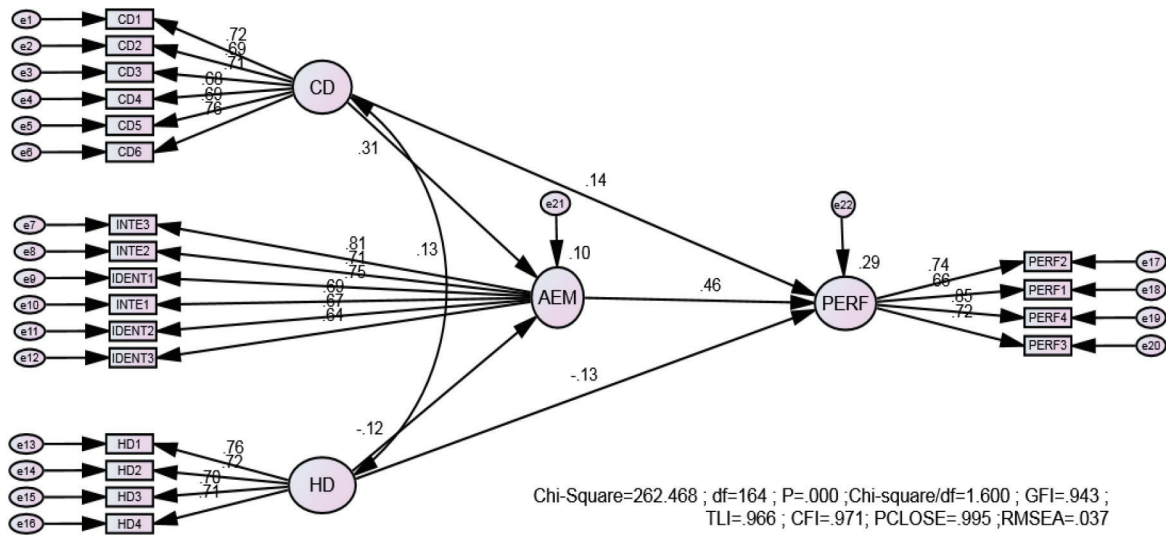


Figure 1: Standardized Structural Path Model

Table 2: Mean, Standard Deviation, Maximum Shared Squared Variance, and Correlation Between Constructs

Variables	Mean	SD	MSV	AEM	CD	PERF	HD
Autonomous extrinsic motivation	5.563	0.888	0.259	0.714			
Challenge demands	5.532	0.814	0.089	0.298	0.71		
Sales performance	5.285	1.063	0.259	0.509	0.264	0.746	
Hindrance demands	5.521	0.657	0.020	-0.076	0.132	-0.142	0.723

Discriminate Validity: AVE > MSV (Chin, 1998); Maximum Shared Squared Variance (MSV), Standard Deviation (SD).

Table 3: Direct Structural Path Model

Hypothesis	Structural Path	Unstandardized Estimate	Standard Error	Standardized Estimate	t-value	P
H1	CD → AEM	0.383	0.070	0.313	5.467	0.001
H2	HD → AEM	-0.168	0.080	-0.117	-2.083	0.037
H3	CD → PERF	0.185	0.070	0.145	2.635	0.008
H4	HD → PERF	-0.189	0.080	-0.126	-2.374	0.018
H5	AEM → PERF	0.477	0.063	0.456	7.624	0.001

accepted (Table 3). Specifically, CD positively affects AEM ($\beta = 0.383, p = 0.001$) and PERF ($\beta = 0.185, p = 0.008$). In contrast, HD negatively affects AEM ($\beta = -0.168, p = 0.037$) and PERF ($\beta = -0.189, p = 0.018$). AEM positively affects PERF ($\beta = 0.477, p = 0.001$). Thus, in the direct path model, factors affect sales performance with $\beta = 0.473$.

5.4.2. The Mediating Role Testing

To test the mediating role of AEM, we chose the bias-corrected confidence interval 97% and performance bootstrap with 2,000 samples from the original data set based on random sampling (Preacher & Hayes, 2008). The results

Table 4: Bootstrap Estimate for the Effect of Factors on Sales Performance

Construct	Effect	Unstandaized Estimate	P-value	97% Bootstrap CI	Conclusion
HD	Direct	-0.189	0.023		Partially mediated
	Indirect	-0.080	0.040	[-0.176, 0.003]	
	Total	-0.269			
CD	Direct	0.185	0.010		Partially mediated
	Indirect	0.183	0.001	[0.108, 0.283]	
	Total	0.368			
AEM	Direct	0.477	0.001		Accepted
	Indirect	0.00	-		
	Total	0.477	0.001		
Total Effects	Direct	0.473			
	Indirect	0.103			
	Total	0.576			

demonstrate the stable mediating model (all critical ratios ranged from -2.17 to 2.17 with $p < 0.03$) and fit indexes of the model are the same as the theoretical model. The indirect relationship between HD, CD, and sales performance through AEM is respectively negative ($\beta = -0.080$) and positive ($\beta = 0.183$). And the 97 % confidence interval (CI) for HD is from -0.176 to 0.003 ($p = 0.040$), while that of CD is from 0.108 to 0.283 ($p = 0.001$).

The full mediating model shows that the influence of HD, CD on PERF and through AEM is higher than the effect level of the theoretical model ($\beta = 0.576$). Therefore, the mediating model is the best estimator for this study (Table 4).

5.5. Discussion

The results show that in terms of the high job demand of real estate market employees, they self-regulate their behaviors in response to current pressures (Román et al., 2021; Ryan & Deci, 2018, 2020). Furthermore, the research shows that CD positively affects the AEM at work ($\beta = 0.183$, $p = 0.01$), and it is consistent with previous studies (Lepine et al., 2005; Tadić Vujčić et al., 2017). On the contrary, the HD negatively influences the AEM ($\beta = -0.189$, $p = 0.023$), and it supports many previous studies (Lepine et al., 2005; Tadić Vujčić et al., 2017). Besides, CD positively affects PERF ($\beta = 0.383$, $p = 0.001$) and is in line with existing studies (Lepine et al., 2005; Lu et al., 2016; Webster et al., 2011, Yuan et al., 2014; Byron et al., 2018). However, HD negatively affects sales performance ($\beta = -0.168$, $p = 0.037$), and the results of this study are consistent with previous studies (Karatepe et al., 2018; Lepine et al., 2005; Nixon et al., 2011). Moreover, AEM positively affects employees'

PERF ($\beta = 0.477$, $p = 0.001$), which is consistent with the results of Homburg et al. (2019) and Wong-On-Wing et al. (2010). The research results also indicate that the AEM plays a partial mediating role in the influences of CD and HD on PERF. Specifically, the CD has a positive effect ($\beta = 0.183$, $p = 0.001$) on PERF through AEM. In contrast, AEM acts as an intermediate variable of job demands with a negative influence on sales performance ($\beta = -0.08$, $p = 0.04$). This finding supports the view of Tadić Vujčić et al. (2017). The full mediating model shows that the three factors AEM, CD, and HD, can explain 57.6% of the difference in influencing sales performance (see Table 3).

6. Conclusion

The study reveals that HD, CD, and AEM affect PERF. In addition, AEM acts as a partial mediator of psychological changes in the impacts of HD and CD on PERF. However, the findings also have certain limitations.

The study helps to clarify the difference between HD and CD in the job demand function affecting PERF and AEM as called for by Bakker and Demerouti (2017). Furthermore, this study fills the theoretical gap JD-R by applying the SDT theory to explain the external interaction between job demands and employees' sales performance through internalizing at the personal level in the context of high job demands (Bakker & Demerouti, 2017; Ryan & Deci, 2020; Schaufel & Taris, 2014; Tadić vujčić et al., 2017).

Business organizations should design job demands to ensure that challenging work is suitable for employees' job positions. They will contribute to motivation and help employees achieve job performance. Reversely, if the job

demands are too high and not suitable for employees, it will create obstacles that reduce motivation and job performance (Huang et al., 2016; Pendey, 2019). Managers need to discover and appreciate the different types of motivation to develop and apply appropriate motivational policies (e.g., provide benefits related to promotion opportunities and rewards for achieving sales goals) to help employees become more aware and love their jobs. In addition, managers should support their employees to self-regulate through regular coaching and training to help them navigate career opportunities and define goals. Moreover, they regularly communicate standards and values of the organization to influence orientation to motivate and perform tasks by the organization and help employees feel a loved work.

This study has certain limitations. First, the research model only focuses on real estate market employees in Ho Chi Minh City. Employees in different areas and service occupations may have different perceptions to internalize them under other pressures. Therefore, future studies should re-test this model in other contexts. Second, AEM and intrinsic motivation are the autonomous motivation that helps employees self-regulate their behaviors in the face of social contexts or pressures as they have autonomous motivation (Román et al., 2021; Ryan & Deci, 2018). Therefore, future studies should add intrinsic motivation to examine the role of autonomous motivation with other relationships in this research. Third, in a challenging or threatening work environment, employees can perceive stressors as challenging demands that will produce positive job performance. Conversely, stressors reviewed as threatening will influence negative performance (Min et al., 2015). Future studies should further examine positivity as a personal resource related to regulating the relationship between motivation and job demands (Khelifat et al., 2021; Mitchell et al., 2019).

References

- Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of Managerial Psychology*, 22(3), 309–328. <https://doi.org/10.1108/02683940710733115>
- Bakker, A. B., & Demerouti, E. (2017). Job demands–resources theory: taking stock and looking forward. *Journal of Occupational Health Psychology*, 22(3), 273–285. <https://doi.org/10.1037/ocp0000056>
- Bakker, A. B., & Sanz-Vergel, A. I. (2013). Weekly work engagement and flourishing: The role of hindrance and challenge job demands. *Journal of Vocational Behavior*, 83(3), 397–409. <https://doi.org/10.1016/j.jvb.2013.06.008>
- Bollen, K. A., & Stine, R. A. (1992). Bootstrapping goodness-of-fit measures in structural equation models. *Sociological Methods & Research*, 21(2), 205–229. <https://doi.org/10.1177/0049124192021002004>
- Brown, S. P., & Peterson, R. A. (1994). The effect of effort on sales performance and job satisfaction. *Journal of Marketing*, 58(2), 70–80. <https://doi.org/10.2307/1252270>
- Byron, K., Peterson, S. J., Zhang, Z., & LePine, J. A. (2018). Realizing challenges and guarding against threats: Interactive effects of regulatory focus and stress on performance. *Journal of Management*, 44(8), 3011–3037. <https://doi.org/10.1177/0149206316658349>
- Cavanaugh, M. A., Boswell, W. R., Roehling, M. V., & Boudreau, J. W. (2000). An empirical examination of self-reported work stress among US managers. *Journal of Applied Psychology*, 85(1), 65. <https://doi.org/10.1037/0021-9010.85.1.65>
- Cerasoli, C. P., & Ford, M. T. (2014). Intrinsic motivation, performance, and the mediating role of mastery goal orientation: A test of self-determination theory. *The Journal of Psychology*, 148(3), 267–286. <https://doi.org/10.1080/00223980.2013.783778>
- Chaker, N. N., Schumann, D. W., Zablah, A. R., & Flint, D. J. (2016). Exploring the state of salesperson insecurity: how it emerges and why it matters? *Journal of Marketing Theory and Practice*, 24(3), 344–364. <https://doi.org/10.1080/10696679.2016.1170530>
- Chin, W. W. (1998). Commentary: Issues and opinion on structural equation modeling. *MIS Quarterly*, 22, 7–16. <https://www.jstor.org/stable/249674>
- Cho, H. T., & Yang, J. S. (2018). How perceptions of organizational politics influence self-determined motivation: The mediating role of work mood. *Asia Pacific Management Review*, 23(1), 60–69. <https://doi.org/10.1016/j.apmr.2017.05.003>
- Conde, R., & Prybutok, V. (2021). Inside sales agent’s sales activities influence on work outcomes and sales agent tenure through autonomous motivation. *Journal of Business & Industrial Marketing*, 36(5), 867–880. <https://doi.org/10.1108/JBIM-09-2019-0412>
- Crawford, E., LePine, J., & Rich, B. (2010). Linking job demands and resources to employee engagement and burnout: A theoretical extension and meta-analytic test. *Journal of Applied Psychology*, 95(5), 834–848. <https://doi.org/10.1037/a0019364>
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic Motivation and Self-Determination in Human Behavior*. Berlin: Springer Science & Business Media.
- Deci, E. L., & Ryan, R. M. (2000). The ‘what’ and ‘why’ of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227–268. https://doi.org/10.1207/S15327965PLI1104_01
- Deci, E. L., & Ryan, R. M. (2008). Self-determination theory: A macrotheory of human motivation, development, and health. *Canadian Psychology/Psychologie Canadienne*, 49(3), 182. <https://doi.org/10.1037/a0012801>
- Deci, E. L., Olafsen, A. H., & Ryan, R. M. (2017). Self-determination theory in work organizations: The state of a science. *Annual Review of Organizational Psychology and*

- Organizational Behavior*, 4, 19–43. <https://doi.org/10.1146/annurev-orgpsych-032516-113108>
- Delpechitre, D., Gupta, A., Zadeh, A. H., Lim, J. H., & Taylor, S. A. (2020). Toward a new perspective on salesperson success and motivation: a trifocal framework. *Journal of Personal Selling & Sales Management*, 40(4), 267–288. <https://doi.org/10.1080/08853134.2020.1805748>
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*, 86(3), 499. <https://doi.org/10.1037/0021-9010.86.3.499>
- Fernet, C., Litalien, D., Morin, A. J., Austin, S., Gagné, M., Lavoie-Tremblay, M., & Forest, J. (2020). On the temporal stability of self-determined work motivation profiles: a latent transition analysis. *European Journal of Work and Organizational Psychology*, 29(1), 49–63. <https://doi.org/10.1080/1359432X.2019.1688301>
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50. <https://doi.org/10.1177/002224378101800104>
- Gagné, M., Forest, J., Gilbert, M. H., Aubé, C., Morin, E., & Malorni, A. (2010). The motivation at work scale: Validation evidence in two languages. *Educational and Psychological Measurement*, 70(4), 628–646. <https://doi.org/10.1177/0013164409355698>
- González-Morales, M. G., & Neves, P. (2015). When stressors make you work: Mechanisms linking challenge stressors to performance. *Work & Stress*, 29(3), 213–229. <https://doi.org/10.1080/02678373.2015.1074628>
- Hair J.F., Black W.C., Babin B.J., & Anderson, R.E. (2010). *Multivariate Data Analysis* (7th ed.). New York: Prentice Hall International.
- Hancock, G. R., & Mueller, R. O. (2001). Rethinking Construct Reliability within Latent Variable Systems. In: Cudeck, R., du Toit, S., & Sörbom, D., (Eds.), *Structural Equation Modeling: Present and Future—A Festschrift in Honor of Karl Joreskog* (pp. 195–216), Lincolnwood, IL: Scientific Software International.
- Herjanto, H., & Franklin, D. (2019). Investigating salesperson performance factors: A systematic review of the literature on the characteristics of effective salespersons. *Australasian Marketing Journal (AMJ)*, 27(2), 104–112. <https://doi.org/10.1016/j.ausmj.2018.12.001>
- Homburg, C., Hohenberg, S., & Hahn, A. (2019). Steering the sales force for new product selling: Why is it different, and how can firms motivate different sales reps? *Journal of Product Innovation Management*, 36(3), 282–304. <https://doi.org/10.1111/jpim.12476>
- Hon, A. H. (2012). Shaping environments conducive to creativity: The role of intrinsic motivation. *Cornell Hospitality Quarterly*, 53(1), 53–64. <https://doi.org/10.1177/1938965511424725>
- Howard, J., Gagn, M., Morin, A.J., & Van den Broeck, A. (2016). Motivation profiles at work: A self-determination theory approach. *Journal of Vocational Behavior*, 95–96, 74–89. <https://doi.org/10.1016/j.jvb.2016.07.004>
- Huang, J., Wang, Y., & You, X. (2016). The job demands-resources model and job burnout: The mediating role of personal resources. *Current Psychology*, 35(4), 562–569. <https://doi.org/10.1007/s12144-015-9321-2>
- Ju, C. (2020). Work motivation of safety professionals: A person-centred approach. *Safety Science*, 127, 104697. <https://doi.org/10.1016/j.ssci.2020.104697>
- Karatepe, O. M., Yavas, U., Babakus, E., & Deitz, G. D. (2018). The effects of organizational and personal resources on stress, engagement, and job outcomes. *International Journal of Hospitality Management*, 74, 147–161. <https://doi.org/10.1016/j.ijhm.2018.04.005>
- Khliefat, A., Chen, H., Ayoun, B., & Eyou, K. (2021). The impact of the challenge and hindrance stress on hotel employees interpersonal citizenship behaviors: Psychological capital as a moderator. *International Journal of Hospitality Management*, 94, 102886. <https://doi.org/10.1016/j.ijhm.2021.102886>
- Khusainova, R., de Jong, A., Lee, N., Marshall, G. W., & Rudd, J. M. (2018). (Re) defining salesperson motivation: current status, main challenges, and research directions. *Journal of Personal Selling & Sales Management*, 38(1), 2–29. <https://doi.org/10.1080/08853134.2017.1415761>
- Krishnan, B. C., Netemeyer, R. G., & Boles, J. S. (2002). Self-Efficacy, Competitiveness, and Effort as Antecedents of Salesperson Performance. *Journal of Personal Selling & Sales Management*, 22(4), 285–295. <https://doi.org/10.1080/08853134.2002.10754315>
- LePine, J. A., Podsakoff, N. P., & LePine, M. A. (2005). A meta-analytic test of the challenge stressor–hindrance stressor framework: An explanation for inconsistent relationships among stressors and performance. *Academy of Management Journal*, 48(5), 764–775. <https://doi.org/10.5465/AMJ.2005.18803921>
- Li, P., Taris, T. W., & Peeters, M. C. (2020). Challenge and hindrance appraisals of job demands: one man’s meat, another man’s poison? *Anxiety, Stress, & Coping*, 33(1), 31–46. <https://doi.org/10.1080/10615806.2019.1673133>
- Lindell, M. K., & Whitney, D. J. (2001). Accounting for common method variance in cross-sectional research designs. *Journal of Applied Psychology*, 86(1), 114. <https://doi.org/10.1037/0021-9010.86.1.114>
- Liu, Y. (2019). Selling to All Involved: A Contingent Model Linking Internal Selling Behavior to Salesperson Role Stress and Sales Performance. In: Perrewé, P. L. & Harms, P. D., (Eds.), *Examining the Role of Well-being in the Marketing Discipline* (pp. 1–25), Bingley, Emerald Publishing Limited. <https://doi.org/10.1108/S1479-355520190000017001>
- Loehr, J., & Schwartz, T. (2001). The making of a corporate athlete. *Harvard Business Review*, 79(1), 120–129. <https://hbr.org/2001/01/the-making-of-a-corporate-athlete>

- Lu, C. Q., Du, D. Y., & Xu, X. M. (2016). What differentiates employees' job performance under stressful situations: The role of general self-efficacy. *The Journal of Psychology, 150*(7), 837–848. <https://doi.org/10.1080/00223980.2016.1203277>
- Mazzola, J. J., & Disselhorst, R. (2019). Should we be “challenging” employees?: A critical review and meta-analysis of the challenge-hindrance model of stress. *Journal of Organizational Behavior, 40*(8), 949–961. <https://doi.org/10.1002/job.2412>
- Min, H., Kim, H. J., & Lee, S. B. (2015). Extending the challenge–hindrance stressor framework: The role of psychological capital. *International Journal of Hospitality Management, 50*, 105–114. <https://doi.org/10.1016/j.ijhm.2015.07.006>
- Mitchell, M. S., Greenbaum, R. L., Vogel, R. M., Mawritz, M. B., & Keating, D. J. (2019). Can you handle the pressure? The effect of performance pressure on stress appraisals, self-regulation, and behavior. *Academy of Management Journal, 62*(2), 531–552. <https://doi.org/10.5465/amj.2016.0646>
- Muthen, B., & Kaplan, D. (1985). A comparison of some methodologies for the factor analysis of non-normal Likert variables. *British Journal of Mathematical and Statistical Psychology, 38*(2), 171–189. <https://doi.org/10.1111/j.2044-8317.1985.tb00832.x>
- Newell, G. (2021). Future research opportunities for Asian real estate. *International Journal of Urban Sciences, 25*(2), 272–290. <https://doi.org/10.1080/12265934.2019.1596039>
- Nixon, A. E., Mazzola, J. J., Bauer, J., Krueger, J. R., & Spector, P. E. (2011). Can work make you sick? A meta-analysis of the relationships between job stressors and physical symptoms. *Work & Stress, 25*(1), 1–22. <https://doi.org/10.1080/02678373.2011.569175>
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). New York: McGraw-Hill.
- Olafsen, A. H., & Frølund, C. W. (2018). Challenge accepted! Distinguishing between challenge-and hindrance demands. *Journal of Managerial Psychology, 33*(4/5), 345–357. <https://doi.org/10.1108/JMP-04-2017-0143>
- Olugbade, O. A., & Karatepe, O. M. (2019). Stressors, work engagement and their effects on hotel employee outcomes. *The Service Industries Journal, 39*(3–4), 279–298. <https://doi.org/10.1080/02642069.2018.1520842>
- Podsakoff, N. P., LePine, J. A., & LePine, M. A. (2007). Differential challenge stressor-hindrance stressor relationships with job attitudes, turnover intentions, turnover, and withdrawal behavior: a meta-analysis. *Journal of Applied Psychology, 92*(2), 438–454. <https://doi.org/10.1037/0021-9010.92.2.438>
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*(5), 879–903. <https://doi.org/10.1037/0021-9010.88.5.879>
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods, 40*(3), 879–891. <http://dx.doi.org/10.3758/BRM.40.3.879>
- Rodell, J. B., & Judge, T. A. (2009). Can “good” stressors spark “bad” behaviors? The mediating role of emotions in links of challenge and hindrance stressors with citizenship and counterproductive behaviors. *Journal of Applied Psychology, 94*(6), 1438. <https://doi.org/10.1037/a0016752>
- Román, N., Rigó, A., Kato, Y., Horváth, Z., & Urbán, R. (2021). Cross-cultural comparison of the motivations for healthy eating: Investigating the validity and invariance of the motivation for healthy eating scale. *Psychology & Health, 36*(3), 367–383. <https://doi.org/10.1080/08870446.2020.1773462>
- Ryan, R. M., & Deci, E. L. (2018). *Self-determination theory: Basic psychological needs in motivation, development, and wellness*. New York: The Guilford Publications. <https://doi.org/10.1521/978.14625/28806>
- Ryan, R. M., & Deci, E. L. (2020). Intrinsic and extrinsic motivation from a self-determination theory perspective: Definitions, theory, practices, and future directions. *Contemporary Educational Psychology, 61*, 101860. <https://doi.org/10.1016/j.cedpsych.2020.101860>
- Searle, B. J., & Auton, J. C. (2015). The merits of measuring challenge and hindrance appraisals. *Anxiety, Stress and Coping, 28*(2), 121–143. <https://doi.org/10.1080/10615806.2014.931378>
- Sheldon, K. M., Turban, D. B., Brown, K. G., Barrick, M. R., & Judge, T. A. (2003). Applying self-determination theory to organizational research. *Research in Personnel and Human Resources Management, 22*, 357–393. [https://doi.org/10.1016/S0742-7301\(03\)22008-9](https://doi.org/10.1016/S0742-7301(03)22008-9)
- Tadić Vujčić, M., Oerlemans, W. G., & Bakker, A. B. (2017). How challenging was your work today? The role of autonomous work motivation. *European Journal of Work and Organizational Psychology, 26*(1), 81–93. <https://doi.org/10.1080/1359432X.2016.1208653>
- Tremblay, M. A., Blanchard, C. M., Taylor, S., Pelletier, L. G., & Villeneuve, M. (2009). Work Extrinsic and Intrinsic Motivation Scale: Its value for organizational psychology research. *Canadian Journal of Behavioural Science / Revue Canadienne des Sciences du Comportement, 41*(4), 213–226. <https://doi.org/10.1037/a0018176>
- Van den Broeck, A., De Cuyper, N., De Witte, H., & Vansteenkiste, M. (2010). Not all job demands are equal: Differentiating job hindrances and job challenges in the Job Demands–Resources model. *European Journal of Work and Organizational Psychology, 19*(6), 735–759. <http://dx.doi.org/10.1080/13594320903223839>
- Webster, J. R., Beehr, T. A., & Love, K. (2011). Extending the challenge-hindrance model of occupational stress: The role of appraisal. *Journal of Vocational Behavior, 79*(2), 505–516. <https://doi.org/10.1016/j.jvb.2011.02.001>
- Westbrook, K. W., & Peterson, R. M. (2020). Sales enablement and hindrance stressors' effects on burnout, turnover intentions, and sales performance. *Marketing Management Journal, 28*(4), 305–320. <https://doi.org/10.1080/10597139.2020.1811111>

30(2), 64–85. <http://www.mmaglobal.org/publications/MMJ/MMJ-Issues/2020-Fall/MMJ-2020-Vol30-Issue2-Westbrook-Peterson-pp64-85.pdf>

- Williams, L. J., & McGonagle, A. K. (2016). Four research designs and a comprehensive analysis strategy for investigating common method variance with self-report measures using latent variables. *Journal of Business and Psychology*, 31(3), 339–359. <https://doi.org/10.1007/s10869-015-9422-9>
- Wong-On-Wing, B., Guo, L., & Lui, G. (2010). Intrinsic and extrinsic motivation and participation in budgeting: Antecedents and consequences. *Behavioral Research in Accounting*, 22(2), 133–153. <https://doi.org/10.2308/bria.2010.22.2.133>
- Yuan, Z., Li, Y., & Lin, J. (2014). Linking challenge and hindrance stress to safety performance: The moderating effect of core self-evaluation. *Personality and Individual Differences*, 68, 154–159. <https://doi.org/10.1016/j.paid.2014.04.025>