

The Roles of Institutional Dependence and Slack Financial Resources:  
Implications for the Challenge–Hindrance Stressors Framework in  
Headquarters-Subsidiary Relationships

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# **The Roles of Institutional Dependence and Slack Financial Resources: Implications for the Challenge–Hindrance Stressors Framework in Headquarters-Subsidiary Relationships**

## **Abstract**

The present study addresses a lacuna in research on the effects of subsidiary job demands within headquarters–subsidiary relationships. Specifically, it examines the differential impacts of challenge demands and hindrance demands on subsidiary top-management-team’s work engagement, which in turn, predicts subsidiary operating revenue and local responsiveness performance. It also investigates whether institutional dependence and slack financial resources, representing the demands and resources from Job Demands–Resources model, moderate links between: challenge demands and work engagement; hindrance demands and work engagement; work engagement and operating revenue; and work engagement and local responsiveness. Based on a survey with 238 Chinese subsidiaries and a secondary dataset (i.e. OSIRIS) that objectively captures these subsidiaries’ operating revenue, the results confirm that challenge demands and hindrance demands are positively and negatively related to work engagement, respectively. Work engagement is positively linked to both operating revenue and local responsiveness. Institutional dependence strengthens the link between challenge demands and work engagement, but it weakens the association between work engagement and local responsiveness. Slack financial resources strengthens the challenge demands to work engagement, work engagement to operating revenue, and work engagement to local responsiveness linkages. Implications of these findings for theory development and managerial practice are discussed.

## **Keywords:**

*MNC subsidiary performance, Job demands-resources theory, Challenge–hindrance demands*

## **Conference track:**

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## **1. Introduction**

The aim of this study is to examine how and when challenge demands and hindrance demands within headquarters–subsidiary relationships affect subsidiary top-management-teams’ work engagement, and how and when their work engagement impacts subsidiary performance. Our focus is on subsidiary top-management-team work demands and engagement, and two subsidiary performance outcomes (i.e. operating revenue and local responsiveness) within the context of Chinese subsidiaries of non-Chinese MNC.

The study makes several contributions to existing knowledge. First, the international business literature has investigated work demands in expatriates or joint ventures context (e.g., Gong et al., 2001; Kawai and Mohr, 2015; Kraimer and Wayne, 2004), leading to a conclusion that there is a dearth of research capturing subsidiary top-management-team work demands (Lee et al., 2019). The present study specifically studies subsidiary top-management-team work demands due to headquarters’ demands in headquarters–subsidiary relations. Second, limited international business research distinguishes between stress types (cf. Kawai and Mohr, 2015; Firth et al., 2014), and no prior research has yet applied this notion in the context of subsidiary top management teams. Furthermore, the extant literature on expatriates’ work demands consistently focuses on individual well-being and performance (e.g., Shaffer et al. 2013; Bader et al., 2015), while research on IJVs’ work demands is focused on the general organizational performance (Gong et al., 2001; Mohr and Puck, 2007). Differently, not only does the present study distinguish between challenge and hindrance demands, it also includes two subsidiary-level performance outcomes, namely, operating revenue and local responsiveness.

Third, the study unveils that resources determine the extent to which challenge and hindrance demands affect subsidiary top-management-team work motivation (i.e. work engagement) as well as to what extent work engagement affects subsidiary performance. The extant studies support the moderating effects of resources, mainly on the relation between strategies and subsidiary performance (e.g., Lee and MacMillan, 2008; Michailova and Zhan, 2015). In enriching such knowledge in MNC context, the present study resorts to challenge–hindrance stressor framework (Cavanaugh et al., 2000) and JD–R theory (Bakker and Demerouti, 2008; Bakker and Demerouti, 2017) as a theoretical structure. Specifically, we posit moderating roles of institutional dependence and slack financial resources that represent job demands and resources from the theory on the relations between: challenge demands and work engagement;

hindrance demands and work engagement; work engagement and operating revenue; and work engagement and local responsiveness.

## **2. Theoretical background and hypotheses**

JD-R theory proposes the interactive effects of job demands and resources on employee well-being. On the one hand, job resources particularly boost employee work engagement when challenging job demands are high (Bakker and Demerouti, 2014; Tadić et al., 2015). On the other hand, job resources can attenuate the costs or negative effects of job demands (Van den Broeck et al., 2010; Tadić et al., 2015). However, the JD-R model has mostly been applied in domestic contexts (e.g., Auh et al., 2017; Miao and Evans, 2013; Menguc et al., 2017). In order to enrich the understanding of job demands in the international business context, the present study integrates challenge-hindrance stressor framework and JD-R theory and apply them in the context of subsidiary TMTs. Specifically, we examine the moderating effects of institutional dependence and slack financial resources on the following associations, respectively: (1) challenge demands and work engagement, (2) hindrance demands and work engagement, (3) work engagement and operating revenue, and (4) work engagement and local responsiveness. The hypotheses are listed below:

H1a. Institutional dependence strengthens the positive effect of challenge demands on work engagement.

H1b. Institutional dependence weakens the negative effect of hindrance demands on work engagement.

H2: Institutional dependence can strengthen the positive effects of work engagement on operating revenue.

H3: Institutional dependence can strengthen the positive effect of work engagement on local responsiveness.

H4a: Slack financial resources can boost the positive effect of challenge demands on work engagement.

H4b: Slack financial resources can buffer the negative effect of hindrance demands on work engagement.

H5: Slack financial resources can boost the positive effect of work engagement on operating revenue.

H6: Slack financial resources boost the positive effect of work engagement on local responsiveness.

### **3. Sample and data collection**

We identified a random sample of 1000 wholly-owned manufacturing subsidiaries located in China with overseas headquarters. The information about these firms was garnered by using OSIRIS database, which is a commercially available financial database provided by Bureau van Dijk and includes nearly 70,000 companies (subsidiaries and headquarters) in the world. OSIRIS is regarded as one of the most comprehensive sources of data on listed companies (Shao et al., 2010), and is increasingly used for international business studies (e.g., Chakrabarti et al., 2007; Hu et al., 2019; Rugman et al., 2012).

Our sample subsidiaries were established in some more developed areas in China such as Beijing, Shanghai, Guangdong, Jiangsu, and Zhejiang. Together, these provinces accounted for around 34.3% of China's overall GDP in 2018. The key informants in this study were those subsidiaries' senior managers (Chinese or non-Chinese managers based in China), including CEOs, CMOs, CXOs, and Vice Presidents. Foreign headquarters tend to rely on these managers for business operations of Chinese subsidiaries. Prior to the main investigation, we conducted field interviews with six subsidiary managers, which confirmed the existence of challenge and hindrance demands in these senior managers' work related to headquarters.

### **4. Hypotheses testing**

In order to correct potential endogeneity effects, we followed Hamilton and Nickerson (2003) and utilized a residual-based three-stage least square (3SLS) regression approach. The 3SLS method is widely used in the international business and strategy literatures (e.g., Mudambi et al., 2014; Poppo et al., 2016; Najafi-Tavani et al., 2018). See Table 1 for correlation matrix. The other results and analysis tables have been excluded from this paper for space reasons but will be included in the discussion at the conference session.

Providing support for H<sub>1a</sub> assertion, our results show that the interaction effect of challenge demands and institutional dependence is positively associated with work engagement (Model 3:  $\beta = 0.105$ ,  $p < 0.01$ ; Model 7:  $\beta = 0.073$ ,  $p < 0.05$ ). However, the results do not uphold H<sub>1b</sub>, since Model 5 and Model 7 provide no support for the moderating effect of institutional dependence on the link between hindrance demands and work engagement (Model 5:  $\beta = 0.013$ ,  $p > 0.10$ ; Model 7:  $\beta = 0.018$ ,  $p > 0.10$ ). The interaction effect of work engagement and

institutional dependence is not significantly associated with subsidiary operating revenue (Model 3:  $\beta = 0.054$ ,  $p > 0.10$ ; Model 5:  $\beta = -0.006$ ,  $p > 0.10$ ). Thus, we reject H<sub>2</sub>. Contrary to H<sub>3</sub> prediction, the interaction effect of work engagement and institutional dependence is not significantly associated with subsidiary local responsiveness (Model 3:  $\beta = -0.049$ ,  $p > 0.10$ ), but in the overall model, the interaction effect becomes negatively and significantly related to local responsiveness (Model 5:  $\beta = -0.086$ ,  $p < 0.05$ ).

Next, we found that the interaction effect of challenge demands and slack financial resources is related positively and significantly to work engagement (Model 4:  $\beta = 0.147$ ,  $p < 0.001$ ; Model 7:  $\beta = 0.120$ ,  $p < 0.01$ ). Hence, H<sub>4a</sub> is supported. The interaction effect of hindrance demands and slack financial resources is not significantly related to work engagement (Model 6:  $\beta = -0.026$ ,  $p > 0.10$ ; Model 7:  $\beta = -0.036$ ,  $p > 0.10$ ) and therefore, H<sub>4b</sub> is rejected. The interaction effect of work engagement and slack financial resources is positively and significantly associated with operating revenue (Model 4:  $\beta = 0.134$ ,  $p < 0.01$ ; Model 5:  $\beta = 0.137$ ,  $p < 0.01$ ). Thus, H<sub>5</sub> is accepted. The interaction effect of work engagement and slack financial resources is not significantly related to local responsiveness in Model 4 ( $\beta = 0.043$ ,  $p > 0.10$ ), but in Model 5 this effect is positively and significantly related to local responsiveness ( $\beta = 0.084$ ,  $p < 0.05$ ). Therefore, we accept H<sub>6</sub>.

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Table 1. Descriptive statistics

Construct	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.Challenge Demands	<u>0.66</u>														
2.Hindrane Demands	0.16*	<u>0.69</u>													
3.Work Engagement	0.50**	-0.24**	<u>0.73</u>												
4.Institutional Dependence	0.34**	0.04	0.41**	<u>0.75</u>											
5.Slack Financial Resources	0.44**	0.03	0.61**	0.41**	<u>0.73</u>										
6.Operating Revenue	0.35**	-0.19**	0.64**	0.31**	0.34**	<u>NA</u>									
7.Local Responsiveness	0.49**	-0.14*	0.62**	0.56**	0.66**	0.40**	<u>0.75</u>								
8.Subsidiary Age	-0.03	-0.03	-0.10	-0.09	-0.10	-0.08	-0.13	<u>NA</u>							
9.Subsidiary Size	0.10	-0.02	0.17**	0.05	0.10	0.29**	0.07	-0.06	<u>NA</u>						
10.Number of Expatriates	0.06	0.05	0.20**	-0.01	0.14*	0.14*	-0.01	0.07	0.15*	<u>NA</u>					
11.R&D Expenditure	0.12	0.08	0.12	0.08	0.06	0.11	0.11	-0.01	-0.08	-0.05	<u>NA</u>				
12.Creation (Role)	0.04	0.01	0.23**	0.07	0.10	0.14*	0.06	0.02	0.20**	0.12	0.07	<u>NA</u>			
13.Improvements (Role)	0.04	0.03	0.20**	0.18**	0.13	0.14*	0.14*	-0.06	-0.09	0.05	-0.04	0.21**	<u>NA</u>		
14.Sector-FMCG (dummy)	0.07	-0.01	0.01	0.03	0.06	-0.04	0.01	0.06	0.04	0.11	0.20**	-0.04	-0.002	<u>NA</u>	
15.Sector-Clothing and Textiles (dummy)	0.09	-0.01	-0.06	0.02	-0.09	0.04	-0.01	0.04	-0.06	0.02	-0.12	-0.05	-0.06	-0.13	<u>NA</u>
16.Sector-Petroleum, Chemicals and Plastics (dummy)	-0.11	0.01	-0.03	0.07	-0.10	-0.15*	0.08	-0.17**	-0.06	-0.12	-0.02	-0.06	-0.04	-0.20**	-0.09
17.Sector-Electronics, Computers and Transportation (dummy)	0.06	0.01	0.14*	-0.04	0.04	0.16*	-0.03	0.02	0.05	-0.01	-0.05	0.10	0.04	-0.58**	-0.26**
18.Sector-Metal Manufacturing (dummy)	-0.19**	-0.003	-0.21**	-0.08	-0.09	-0.09	-0.07	0.04	-0.03	-0.02	-0.11	-0.01	0.04	-0.13	-0.06
19.Asia HQ Origin (dummy)	-0.02	-0.03	0.08	-0.08	-0.05	0.02	-0.06	-0.03	0.09	-0.08	-0.17**	0.04	0.07	-0.30**	-0.11
20.Europe HQ Origin (dummy)	-0.002	-0.01	-0.08	0.08	-0.04	0.01	0.02	-0.04	-0.12	0.03	0.09	-0.05	-0.06	0.13	0.12
21.North America HQ Origin (dummy)	0.03	0.08	-0.003	0.002	0.11	-0.02	0.05	0.08	0.06	0.06	0.09	0.05	-0.01	0.20**	-0.01
22.Political Ties	0.50**	-0.18*	0.63**	0.53**	0.64**	0.35**	0.64**	-0.11	0.12	0.03	0.12	0.12	0.14*	0.11	-0.01
23.Competition Intensity	0.32**	0.19*	0.50**	0.44**	0.48**	0.35**	0.50**	0.06	0.22**	0.18**	-0.08	0.17*	0.03	-0.06	-0.01
24.Geographic Distance	0.05	0.07	-0.08	0.06	0.08	-0.04	0.06	0.05	-0.05	0.08	0.16*	-0.03	-0.08	0.29**	0.12
25.Cultural Distance	0.09	0.06	-0.10	-0.03	-0.01	-0.06	-0.01	0.10	-0.02	0.01	0.23**	-0.04	-0.14*	0.05	0.07
Mean	4.47	3.82	4.45	4.24	4.49	6.21	4.60	2.68	6.60	1.51	6.63	0.78	0.79	0.21	0.05
S.D.	1.13	1.23	1.23	1.27	1.27	1.37	1.33	0.87	1.24	0.76	2.13	0.42	0.41	0.41	0.23

	16	17	18	19	20	21	22	23	24	25
1.Challenge Demands	-0.11	0.06	-0.19**	-0.02	-0.002	0.03	0.50**	0.32**	0.05	0.09
2.Hindrane Demands	0.01	0.01	-0.003	-0.03	-0.01	0.08	-0.18*	0.19*	0.07	0.06
3.Work Engagement	-0.03	0.14*	-0.21**	0.08	-0.08	-0.003	0.63**	0.50**	-0.08	-0.1
4.Institutional Dependence	0.07	-0.04	-0.08	-0.08	0.08	0.002	0.53**	0.44**	0.06	-0.03
5.Slack Financial Resources	-0.10	0.04	-0.09	-0.05	-0.04	0.11	0.64**	0.48**	0.08	-0.01
6.Operating Revenue	-0.15*	0.16*	-0.09	0.02	0.01	-0.02	0.35**	0.35**	-0.04	-0.06
7.Local Responsiveness	0.08	-0.03	-0.07	-0.06	0.02	0.05	0.64**	0.50**	0.06	-0.01
8.Subsidiary Age	-0.17**	0.02	0.04	-0.03	-0.04	0.08	-0.11	0.06	0.05	0.1
9.Subsidiary Size	-0.06	0.05	-0.03	0.09	-0.12	0.06	0.12	0.22**	-0.05	-0.02
10.Number of Expatriates	-0.12	-0.01	-0.02	-0.08	0.03	0.06	0.03	0.18**	0.08	0.01
11.R&D Expenditure	-0.02	-0.05	-0.11	-0.17**	0.09	0.09	0.12	-0.08	0.16*	0.23**
12.Creation (Role)	-0.06	0.10	-0.01	0.04	-0.05	0.05	0.12	0.17*	-0.03	-0.04
13.Improvements (Role)	-0.04	0.04	0.04	0.07	-0.06	-0.01	0.14*	0.03	-0.08	-0.14*
14.Sector-FMCG (dummy)	-0.20**	-0.58**	-0.13	-0.30**	0.13	0.20**	0.11	-0.06	0.29**	0.05
15.Sector-Clothing and Textiles (dummy)	-0.09	-0.26**	-0.06	-0.11	0.12	-0.01	-0.01	-0.01	0.12	0.07
16.Sector-Petroleum, Chemicals and Plastics (dummy)	<u>NA</u>									
17.Sector-Electronics, Computers and Transportation (dummy)	-0.43**	<u>NA</u>								
18.Sector-Metal Manufacturing (dummy)	-0.09	-0.26**	<u>NA</u>							
19.Asia HQ Origin (dummy)	-0.02	0.25**	0.12	<u>NA</u>						
20.Europe HQ Origin (dummy)	0.09	-0.22**	0.01	-0.60**	<u>NA</u>					
21.North America HQ Origin (dummy)	-0.07	-0.05	-0.14*	-0.44**	-0.44**	<u>NA</u>				
22.Political Ties	0.20	-0.05	-0.11	-0.05	-0.01	0.06	<u>NA</u>			
23.Competition Intensity	-0.01	0.09	-0.06	0.003	-0.05	0.05	0.43**	<u>NA</u>		
24.Geographic Distance	0.01	-0.24**	-0.13*	-0.52**	0.35**	0.66**	0.04	0.02	<u>NA</u>	
25.Cultural Distance	0.10	-0.13*	-0.01	-0.66**	0.32**	0.28**	-0.07	-0.03	0.61**	<u>NA</u>
Mean	<b>0.13</b>	<b>0.55</b>	<b>0.05</b>	<b>0.37</b>	<b>0.37</b>	<b>0.24</b>	<b>4.48</b>	<b>4.60</b>	<b>8.66</b>	<b>0.17</b>
S.D.	<b>0.34</b>	<b>0.50</b>	<b>0.23</b>	<b>0.49</b>	<b>0.49</b>	<b>0.43</b>	<b>1.33</b>	<b>1.51</b>	<b>0.61</b>	<b>0.21</b>

Note: **Bold and underlined** numbers on the diagonal show the square root of the AVEs when applicable.

\*\* p < 0.01. \* p < 0.05 (n=238).

\* The other results and analysis tables have been excluded from this paper for space reasons but will be included in the discussion at the conference session.