

Human Resource Management Bundles and Employee Performance: A Mediated Model

Lian Kok Fei¹

Assistant Professor, Universiti Tunku Abdul Rahman, Sg Long Campus, Cheras,
Malaysia

Abstract

This research demonstrated the impact of human resource management bundles on employee performance, both direct and mediated by human capital and organizational commitment. The ability-enhancing, motivation-enhancing and empowerment-enhancing HRM bundles have significant direct impacts on employee performance and organizational commitment. However, only the motivation-enhancing HRM bundle has a significant direct impact on human capital. There are also significant impacts from human capital to employee performance, organizational commitment to human capital, organizational capital to social capital and social capital to human capital. Finally, human capital has a significant relationship with employee performance. Most of the hypothesized mediated effects were also found, except that their effects were smaller than those of the direct effects. Implications of the research findings and proposals for future research are discussed.

Keywords: Human resource bundles, human capital, social capital, organizational capital, organizational commitment.

Cite this article: Fei, L. K. (2019). Human Resource Management Bundles and Employee Performance: A Mediated Model. *International Journal of Management, Accounting and Economics*, 6(8), 582-598.

¹ Corresponding author's email: liankf@utar.edu.my

Introduction

Early studies of the impacts of human resource management have examined how single human resource practices like training and development, recruitment and selection and performance management impacted dependent variables like employee performance, job satisfaction and turnover.

However, researchers subsequently found that the human resources had a better effect on their dependent variables when they were bundled together to achieve synergistic effects (MacDuffie, 1995; Gooderham, Parry and Ringdal, 2008; Guest, Conway and Dewe, 2004). One of the popularly used framework for bundling the human resource practices is the ability-enhancing, motivation-enhancing and empowerment-enhancing (AME) human resource management framework (Subramony, 2009). The ability-enhancing bundle will enhance the knowledge, skills and attitudes of the employees, the motivation-enhancing bundle will provide employees with the drive to move towards their objectives and the empowerment-enhancing bundle will put employees into positions where they can contribute to organizational goals.

While studies by Jiang, Lepak, Hu and Baer (2012), Bella-Pintado (2015) and many other researchers have shown that the HRM bundles can affect a wide range of dependent variables from the proximate to the distant, the question has also been asked if there are indirect impacts caused by mediators. Perhaps the most important of these variables is intellectual capital (Stewart, 1998; Teece, 2000; Edvinsson and Malone, 1997). The three types of intellectual capital are human capital, social capital and organizational capital (Youndt and Snell, 2004).

Human capital refers to the knowledge and skills which are contained in the minds of the employees of an organization. Social capital is the web of relationships that exist between the organization, customers and suppliers. Finally, organizational capital is the knowledge stored in manuals, databases, patents and structures of the organization which facilitate work in the organization.

It can be observed that of the three types of intellectual capital, the one that is the most intimately associated with employee performance is the quality of human capital. Organizational capital contributes to social capital which in turn leads to improvement in human capital. In terms of the impacts of the three human resource management bundles on the type of intellectual capital, it should be on human capital alone.

One additional mediator is organizational commitment, which has been shown to be closely linked to both the exogenous and dependent variables based on previous research. Organizational commitment is defined as degree of the employees' identification with the organization (Porter, Steers, Mowday and Boulian, 1974). The dependent variable in this study is employee performance.

Literature Review

HRM Bundles, Intellectual Capital and Organizational Outcomes)

In this study, we have three exogenous variables, four mediator variables and one dependent variable. The exogenous variables are ability-enhancing HRM, motivation-enhancing HRM and empowerment-enhancing HRM. The four mediators are human capital, social capital, organizational capital and organizational commitment. The dependent variable is employee performance.

The relationship between HRM bundles, intellectual capital and organizational outcomes has been found in many studies. However, some of the earlier studies did not combine the HRM practices into HRM bundles using the AMO framework but used HRM practices like training, performance appraisal and staffing as their independent variables.

Longo and Mura (2011) found that human capital impacted job satisfaction and turnover through structural and relational capital based on data from a large Italian company.

Kianto, Saenz and Arumburu (2017) in a study of 180 Spanish firms established that intellectual capital positively mediates knowledge based HRM and innovation. They measured intellectual capital as comprising 3 components, human, structural and relational capital.

Chen, Liu, Chu and Hsiao (2014) found that human capital and organizational capital impacted new product performance through customer capital in a sample of 93 firms. Jiang, Lepak Hu and Baer (2012) in a meta-analytic investigation found that the ability-enhancing, motivation-enhancing and opportunity-enhancing HRM bundles had impacts on both operational outcomes like productivity, operational performance and customer service and financial outcomes like market performance and return on equity, mediated by human capital and employee motivation.

Hauff, Alewell and Hansen (2018) found evidence for the universal applicability of the ability, motivation and opportunity-enhancing high performance work systems and financial performance, mediated by human capital, employee attitudes, employee performance and operational performance.

Blom, Kruyen, Van der Heijden and Thiel (2018) compared the effects of ability-enhancing, motivation-enhancing and opportunity-enhancing HRM bundles between public and private sector employees and found that they were equally affected by the 3 bundles, without significant differences. Ali, Lei and Wei (2018) found that strategic HRM resulted in organizational performance mediated by employee relations climate.

Al-Refaie (2015) found that HRM practices were positively related to service quality, employee satisfaction and customer satisfaction, which in turn contributed to hotel performance. Batarliene, Cizinene, Vaiciute, Sapalaite, and Jarasuniene (2017) concluded that HRM practices assisted organizations to achieve greater income and better market position. Beltran-Martin and Bou-Llusar (2018) found that skill-enhancing and opportunity-enhancing HRM bundles contributed to employee abilities and motivation whereas the opportunity-enhancing HRM also resulted in employee participation.

Ozbag, Esen and Esen (2013) based on primary data collected from 122 medium and large organizations, found that HR capabilities influence knowledge management (KM)

capability, which contributes to innovation. Moreover, HRM capabilities have both direct and indirect effects on innovation, mediated by knowledge management capabilities.

Cabello-Medina, Lopez-Cabrales and Valle-Cabrera (2011) found that HRM practices influenced firm innovativeness and performance through both human and social capital, with social capital having an indirect effect to firm performance through human capital.

Yang and Lin (2009) found that the human resource practices of selection and recruitment, training and development, performance appraisal and health and safety affected organizational performance mediated by intellectual capital. Huang and Hsueh (2007) found that human capital affected business performance through structural and relational capital.

Yaseen, Dajani and Hasan (2016) found that structural and relational capital, but not human capital, influenced competitive advantage in telecommunications companies. Nieves and Quintana (2018) found that human resources affected hotel industry performance through the mediating role of human capital.

Seeck and Diehl (2017) in their literature review of 33 cases on the impact of HRM on innovation, found, among other things, for the HRM-innovation link, mediated by creativity and knowledge management.

Donate, Pena and Sanchez de Pablo (2016) uncovered, among other things, the positive links between collaborative HRM practices and social capital, which in turn influence innovation. Social capital acts as the medium through which networks and knowledge exchange contribute to innovation.

Thus, we developed the following hypotheses for this study:

Hypothesis 1: *There will be direct and significant relationships between the ability-enhancing, motivation-enhancing and empowerment-enhancing HRM bundles and human capital (HC).*

Hypothesis 2: *There will be direct and significant relationships between the ability-enhancing, motivation-enhancing and empowerment-enhancing HRM bundles and employee performance (EP).*

Hypothesis 3: *There will be a direct and significant impact of organizational capital (OC) on social capital (SC).*

Hypothesis 4: *There will be mediated and significant relationships between the ability-enhancing, motivation-enhancing and empowerment-enhancing HRM bundles and employee performance through human capital (HC).*

Hypothesis 5: *There will be a mediated and significant relationship between organizational capital (OC) and human capital (HC) through social capital (SC).*

HRM Bundles, Organizational Commitment and Organizational Outcomes

Organizational commitment is the psychological and emotional feeling of the employee who wants to contribute to the organization. The employee not only feels that the organization is a place to come to work but that he is a part of the organization and he is concerned about and wants to contribute to its improvement.

There are many studies that have found positive relationships between human resource practices and organizational commitment. Ogilvie (1986) was able to demonstrate that human resource practices, more than any other factor, had a direct and positive relationship with organizational commitment. Sendogdu, Kocabacak and Guven (2013) found that there was a positive and significant relationship between human resource management practices and organizational commitment.

Agarwala (2003) found that innovative HRM was the most significant predictor of organizational commitment. Meyer and Smith (2000) found that employees' evaluations of HRM practices and organization commitment was mediated by perceptions of organizational support and procedural justice. Juhdi, Pa'wan and Hansaram (2013) found that HRM practices had an effect on employee turnover, mediated by organizational commitment and employee engagement.

Bei Yu and Egri (2005) found that employee satisfaction with their HRM practices produced higher organizational affective commitment.

Therefore, we hypothesize the following:

Hypothesis 6: There will be direct and significant relationships between the ability-enhancing, motivation-enhancing and empowerment-enhancing HRM bundles and organizational commitment (ORGC).

Hypothesis 7: There will be a mediated and significant relationship between the ability-enhancing, motivation-enhancing and empowerment-enhancing HRM bundles and human capital through organizational commitment (OGC).

Conceptual Framework

The conceptual framework used in our study is shown in figure 1.

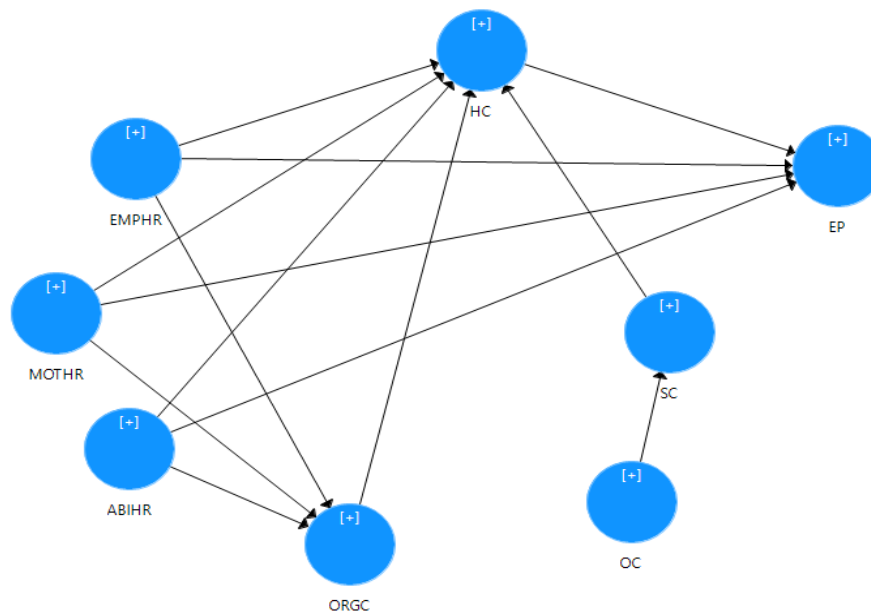


Figure 1 : Conceptual Framework

Methodology

Data Collection

A structured survey with two sections was distributed to 270 respondents in 8 firms in Kuala Lumpur and Selangor, who are entry-level, mid-level and senior-level managers. The first section of the survey form consisted of demographic variables like age, gender, tenure and years of education. The second section contained Likert 5 point scale items on the exogenous variables of ability-enhancing (ABIHR), motivation-enhancing (MOTHR) and empowerment-enhancing (EMPHR) HRM bundles, the mediating variables of organizational commitment (OC), human capital (HC), social capital (SC) and organizational capital (OC) and the dependent variable of employee performance (EP).

The sampling used was non-probability convenient sampling. A total of 201 completed forms was received. During the editing phase, it was discovered that a total of 9 survey forms contained many omissions and some illogical answers, to be of use in analysis. They were excluded from analysis. The final number of respondents included in the analysis was 192.

Note: EMPHR = empowerment-enhancing HR, MOTHR = motivation-enhancing HR, ABIHR = ability-enhancing HR, HC = human capital, ORGC = organizational commitment, OC = organizational capital, SC = social capital, EP = employee performance.

Data Collection

Measures were taken from published sources. The first section of the survey form consisted of demographic variables like age, gender, tenure, years of education and managerial grade. The remaining questions contained Likert 5 point scale items on the

three bundles of HRM, human capital and employee performance. The items for the three HRM bundles were taken from Subramony (2009). The items on the 3 types of capital are from Youndt and Snell (2004), the employee performance items are from Williams and Anderson (1991) and the items on OC and employee performance are from Williams and Anderson (1991).

Common Method Bias

To reduce common method bias since data are collected from one group of respondents, respondents were informed in the survey form that the survey was anonymous and confidential and to answer as honestly as possible. Secondly, items used to measure variables are taken from published sources with high reliability. Thirdly, respondents are told to select the first answer that comes to their minds as there are no right or wrong answers. Finally, a Harman One Factor test produces a result of 30.8 per cent of variance explained, which is well below that of the cut-off point of 50 per cent. Thus, this study does not suffer from common method bias.

Results

Data Analysis

SPSS version 23 was used to compute means and frequencies. SMART-PLS was used to test the hypotheses in the study.

Means and Frequencies

There were 106 females and 86 males in the sample. The mean age is 74 years with an average job tenure of 9 years. The level of education was as follows: 4 per cent had a level qualifications, 12 per cent diploma, 42 per cent first degree, 31 per cent masters' degree and 5 per cent had doctoral degree. The remaining respondents did not indicate their educational level.

Results of Hypotheses Tests

To carry out the hypotheses tests, two models had to be assessed using SMART PLS software, the measurement model and the structural model.

Measurement Model: Reliability

First, we check on the internal consistency of the model by examining the composite validity which must exceed 0.7 to be acceptable. From table 1, we can see that all our values exceed 0.7. Therefore, this study has internal consistency reliability.

We next examine the average variance extracted (AVE). As can be seen from table 2 below, all our values exceed the threshold value of 0.5 for AVE.

Table 1: Composite Reliability of Variables

ABIHR	0.812
EMPHR	0.855
MOTHR	0.866
SC	0.875
OC	0.898
HC	0.925
ORGC	0.934
EP	0.960

Measurement Model: Convergent Validity

Table 2: Average Variance Extracted (AVE)

ABIHR	0.521
EMPHR	0.664
MOTHR	0.763
SC	0.700
OC	0.815
HC	0.711
ORGC	0.703
EP	0.875

Next, we check on the outer loadings of the constructs to make sure they meet the minimum level of 0.708 as recommended by Hair et. al. (2014).

Table 3: Loadings of the Indicators to Constructs

	ABIHR	EMPHR	EP	HC	MOTHR	OC	ORGC	SC
Emphr1		0.711						
Emphr5		0.848						
Emphr6		0.875						
Empp1			0.931					
Empp2			0.948					
Empp3			0.923					
Empp4			0.900					
Humanc1				0.901				
Humanc2				0.863				
Humanc3				0.859				
Humanc4				0.839				
Humanc5				0.748				

Mothr1					0.841			
Mothr5					0.905			
OC10							0.812	
OC3							0.760	
OC5							0.832	
OC6							0.894	
OC7							0.847	
OC8							0.878	
Orgc3						0.915		
Orgc4						0.891		
Abihr3	0.615							
Abihr4	0.741							
Abihr5	0.784							
Abihr6	0.736							
Socialc1								0.823
Socialc2								0.890
Socialc3								0.794

As can be seen in table 3, all our outer loadings meet the minimum threshold level of 0.708 as recommended by Hair, Hult, Ringle and Sarstedt (2017) except for Abihr3. However, because Abihr4 to Abihr6 is well above 0.708, the AVE for ABIHR exceeds the threshold of 5.0. Because this study has met the requirements for the AVE and the cross-loadings, it has satisfied convergent validity. The last component of the measurement model is that of discriminant validity.

Measurement Model: Discriminant Validity

Discriminant validity is established by using the Heterotrait-Monotrait (HTMT) Ratio, which must not exceed the stringent value of 0.85, according to Kline (2011). As can be seen in table 4, our highest value is 0.756, which is well below the threshold of 0.85.

Table 4: HTMT Results

	ABIHR	EMPHR	EP	HC	MOTHR	OC	ORGC
ABIHR							
EMPHR	0.756						
EP	0.320	0.159					
HC	0.447	0.556	0.512				
MOTHR	0.417	0.375	0.663	0.530			
OC	0.466	0.596	0.354	0.678	0.406		
ORGC	0.513	0.608	0.324	0.635	0.501	0.473	
SC	0.515	0.614	0.395	0.85	0.312	0.7	0.511

In addition, we also performed complete bootstrapping with two tail significance to verify that the lower or upper confidence interval did not include the value of 1. Thus, the study has achieved discriminant validity. Thus, the measurement model has met all requirements. The next step in the process is to examine the structural model.

Structural Model

The first step in the structural model involves checking the collinearity statistic, the Variance Inflation Factor (VIF). Diamantopoulos and Sigouw (2006) had recommend that the VIF be equal to or less than 3.3 whereas Hair, Hult, Ringle and Sarstedt (2017) had recommended the VIF be equal to 5.0 or less. Because our values are well below 3.3 as shown in table 5, we can proceed to the next step.

Table 5: VIF Values

	ABIHR	EMPHR	EP	HC	MOTHR	OC	ORGC	SC
ABIHR			1.686	1.74			1.659	
EMPHR			1.703	1.849			1.588	
EP								
HC			1.447					
MOTHR			1.265	1.241			1.131	
OC								1.000
ORGC				1.636				
SC				1.394				

As can be seen in table 6, the path coefficients are all significant, with two exceptions, ability- enhancing HRM bundle to human capital and empowerment-enhancing HRM bundle to human capital. The path coefficients are shown in diagrammatic form in figure 1. The strongest paths are from SC → HC (0.554), followed by OC → SC (0.547) and MOTHR → EP (0.408).

To get a better understanding of why the ability-enhancing HRM bundle and empowerment-enhancing HRM bundle does not have a significant relationship with human capital, there is a need to examine indirect effects, which are shown in table 7. It should also be noted that the relationship between empowerment and employee performance in row 4 is negative and this will be discussed in the discussions and conclusions section later in this paper.

As can be seen in rows 10 and 11 of table 7, the ability-enhancing HRM bundle and empowerment-enhancing HRM bundle impacts human capital only in the presence of organizational commitment. The strongest indirect paths are from OC → SC → HC (0.303), followed by SC → HC → EP (0.181) and OC → SC → HC → EP (0.099).

The amount of variance explained is shown in table 8. As can be seen in the table, the model used was able to explain 39 per cent of employee performance, 62 per cent of human capital, 35 per cent of organizational commitment and 30 per cent of social capital.

Rules of thumb for acceptable R^2 are difficult to formulate as it depends on the area of study and its complexity. However, the results obtained are generally respectable figures.

Table 6: Path Coefficients

	Path coefficient	T Statistics	Significance	Result
ABIHR -> EP	0.186	2.369	0.009	Supported
ABIHR -> HC	-0.019	0.310	0.378	Not supported
ABIHR -> ORGC	0.171	2.739	0.003	Supported
EMPHR -> EP	-0.233	3.410	0.000	Supported
EMPHR -> HC	0.017	0.242	0.405	Not supported
EMPHR -> ORGC	0.339	4.367	0.000	Supported
HC -> EP	0.327	4.215	0.000	Supported
MOTHR -> EP	0.408	5.418	0.000	Supported
MOTHR -> HC	0.185	3.345	0.000	Supported
MOTHR -> ORGC	0.263	3.410	0.000	Supported
OC -> SC	0.547	8.563	0.000	Supported
ORGC -> HC	0.263	4.264	0.000	Supported
SC -> HC	0.554	8.844	0.000	Supported

Cohen (1988) has mentioned that f^2 values of 0.02, 0.15 and 0.35 as small, medium and large effects. As can be seen in table 9, the ability-enhancing HRM bundle has a small effect size on employee performance and organizational commitment. Empowerment HRM bundle has a small effect on employee performance organizational commitment. Human capital has a medium effect on employee performance. The motivation HRM bundle has a medium effect on employee performance and small effect size on human capital and organizational commitment. Organizational capital has a large effect on social capital. Organizational commitment has a medium effect on human capital and social capital has a large effect on human capital.

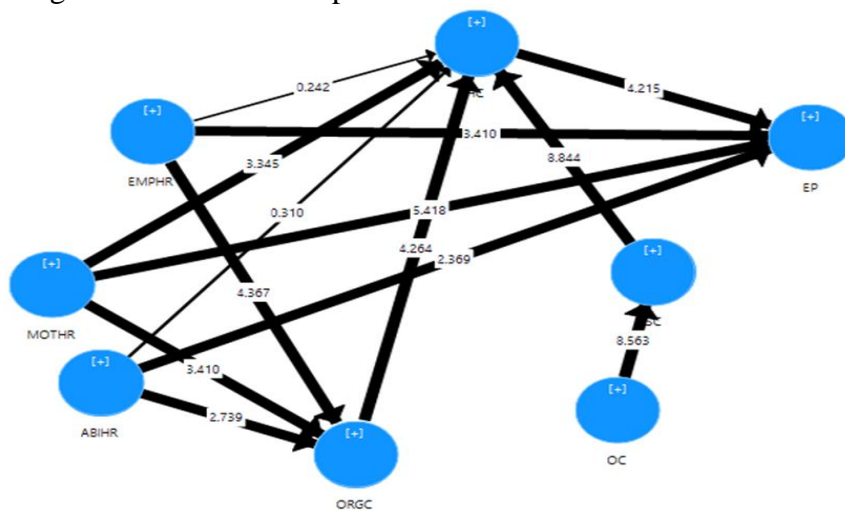


Figure 2: Path Coefficients

Note: Significant paths in bold

Table 7: Specific Indirect Effects

Path	Path coefficient	T Statistics	Sig.	Result
ABIHR -> HC -> EP	-0.006	0.298	0.383	Not supported
EMPHR -> HC -> EP	0.005	0.231	0.409	Not supported
MOTHR -> HC -> EP	0.006	2.417	0.008	Supported
ABIHR -> ORGC -> HC -> EP	0.015	1.953	0.026	Supported
EMPHR -> ORGC -> HC -> EP	0.029	2.486	0.007	Supported
ORGC -> HC -> EP	0.086	3.147	0.001	Supported
MOTHR -> ORGC -> HC -> EP	0.023	2.034	0.021	Supported
SC -> HC -> EP	0.181	3.926	0.000	Supported
OC -> SC -> HC -> EP	0.099	3.22	0.001	Supported
ABIHR -> ORGC -> HC	0.045	2.177	0.015	Supported
EMPHR -> ORGC -> HC	0.089	3.149	0.001	Supported
MOTHR -> ORGC -> HC	0.069	2.201	0.014	Supported
OC -> SC -> HC	0.303	5.238	0.000	Supported

Table 8: Amount of Variance Explained for Dependent Variables

	R Square	R Square Adjusted
EP	0.405	0.392
HC	0.626	0.616
ORGC	0.361	0.351
SC	0.300	0.296

Finally, this model has predictive relevance (Q²) based on the values in table 10, that are calculated by the blindfolding procedure. Thus, this model has predictive relevance for employee performance of 32, human capital of 41, organizational commitment of 23 and social capital of almost 20. These are all high values because they are way above 0 (Hair, Hult, Ringle and Sarstedt, 2017).

Table 9: Effect Size

	ABIHR	EMPHR	EP	HC	MOTHR	OC	ORGC	SC
ABIHR			0.035	0.001			0.028	
EMPHR			0.054	0.000			0.114	
HC			0.124					
MOTHR			0.222	0.073			0.096	
OC								0.428
ORGC				0.113				
SC				0.589				

Table 10: Predictive Relevance

	SSO	SSE	Q ²
ABIHR	768	768	
EMPHR	576	576	
EP	768	524.11	0.318
HC	960	567.377	0.409
MOTHR	384	384	
OC	384	384	
ORGC	1,152.00	885.164	0.232
SC	576	462.401	0.197

Discussion and Conclusion

Most of the hypotheses have been confirmed. The strongest direct paths are from SC → HC (0.554), followed by OC → SC (0.547) and MOTHR → EP (0.408). The strongest indirect paths are from OC → SC → HC (0.303), followed by SC → HC → EP (0.181) and OC → SC → HC → EP (0.099). These results are expected because HC, SC and OC are all different aspects of intellectual capital.

However, the ability-enhancing HRM bundle and empowerment-enhancing HRM bundle did not have a significant relationship with human capital, there is a need to examine indirect effects. This involves the quality of human capital, which is affected by not only knowledge and skills of managers, but also their attitudes. Managers may be competent but may not be willing to perform. However, as shown in the specific indirect effects table in Table 7, the effects of the ability-enhancing HRM bundle and empowerment-enhancing HRM bundle on employees who are organizationally committed to the organization are in the expected direction, with positive impacts on employee performance.

Most findings report positive effects of empowerment on outcomes. However, row 4 reported that the relationship between empowerment and employee performance is significant but negative. Previous literature has cautioned that empowerment does not always lead to positive outcomes. For example, Bowen (1995) commented that organizations need to change their policies, practices and culture to make empowerment a success. However, if organizations continue to use top-down structures with a control mindset, empowerment will fail. It cannot be assumed that all managers are skillful in empowering their subordinates. Some simply do not know how to empower.

Hui, Au and Fock (2004) also raise the issue of the influence of culture on empowerment. They mentioned that empowerment was negatively associated with job satisfaction in one high-power distance country but that no relationship had been found between empowerment and job satisfaction in three other countries, which represented both high and low-power distance countries. Butts, Vandenberg, Dejoy, Schaffer and Wilson (2009) also report empowerment alone did not have a positive effect on job performance. Instead, empowerment had a positive impact on job performance

accompanied by high perceived organizational support and a negative effect with low perceived organizational support.

This study has filled in a gap in the literature on human resource management and intellectual capital in Malaysia. It has also confirmed that there are both mediated and direct impacts of human resource management bundles.

This study has a few limitations. First, it is a cross-sectional study and it would be good to replicate the study to see if the findings are stable across time and in non-profit organizations. Moreover, it would be beneficial to compare the impacts of human resource bundles and intellectual capital in different sectors within firms, for example service versus manufacturing sectors to see their differences. Finally, the role of culture as a mediator would further enhance managerial understanding and application in real business situations.

References

- Agarwala, T. (2003). Innovative human resource practices and organizational commitment: An empirical investigation. *International Journal of Human Resource Management*, 14 (2), 175-197.
- Ali, M., Lei, S., and Wei, X-Y. (2018). The mediating role of the employee relations climate in the relationship between strategic HRM and organizational performance in Chinese banks. *Journal of Innovation and Knowledge*, 3, 115-122.
- Al-Refaie, A. (2015). Effects of human resource management on hotel performance using structural equation modeling. *Computers in Human Behavior*, 43, 293-303.
- Batarliene, N., Cizinene, K., Vaiciute, K., Sapalaite, J., and Jarasuniene, A. (2017). The impact of human resource management on the competitiveness of transport companies. *Procedia Engineering*, 187, 110-116.
- Bei Yu, B., and Egri, C.P. (2005). Human resource management and affective organizational commitment: A comparison of Chinese employees in a state owned enterprise and a joint venture. *Asia Pacific Journal of Human Resources*, 43 (30), 332-360.
- Bello-Pintado, A. (2015). Bundles of HRM practices and performance: Empirical evidence from a Latin American context. *Human Resource Management Journal*, 25 (3), 311-330.
- Beltran-Martin, I., and Bou-Llugar, J.C. (2018). Examining the intermediate role of employee abilities, motivation and opportunities to participate in the relationship between HR bundles and employee performance. *Business Research Quarterly*, 21, 99-110.
- Blom, R., Kruyen, P.M., Van der Heijden, B.I.J.M., Thiel, S.V. (2018). One HRM fits all? A meta-analysis of HRM practices in the public, semi-public and private sector.

Review of *Public Personnel Administration*, 1-33. DOI:10.1177/0734371X18773492.

- Bowen, D.E. (1995). Empowering service employees. *Sloan Management Review*, 36, 73-84.
- Butts, M.M., Vandenberg, R.J., Dejoy, D.M., Schaffer, B.S., and Wilson, M.G. (2009). Individual reactions to high involvement work processes: investigating the role of empowerment and perceived organizational support. *Journal of Occupational Health Psychology*, 14 (2), 122-136.
- Cabello-Medina, C., Lopez-Cabrales, A., and Valle-Cabrera, R. (2011). Leveraging the innovation performance of human capital through HRM and social capital in Spanish firms. *International Journal of Human Resource Management*, 22 (4), 807-828.
- Chen, C-J., Liu, T-C., Chu, M-A., and Hsiao, Y-C. (2014). Intellectual capital and new product development. *Journal of Engineering and Technology Management*, 33, 154-173.
- Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences*. Mahwah, NJ: Lawrence Erlbaum.
- Diamantopoulos, A., and Siguaw, A. (2006). Formative versus reflective indicators in organizational measure development: A comparison and empirical illustration. *British Journal of Management*, 17 (4), 263-282.
- Donate, M.J., and Pena, I., Sanchez de Pablo, J.D. (2016). HRM practices for human and social capital development: effects on innovation capabilities. *International Journal of Human Resource Management*, 27 (9), 928-953.
- Edvinsson, L., and Malone, M.S. (1997). *Intellectual capital: Realizing your company's true value by finding its hidden roots*. New York: Harper Business.
- Gooderham, P., Parry, E., and Ringdal, K. (2008). The impact of bundles of strategic human resource management on the performance of European firms. *International Journal of Human Resource Management*, 19 (11), 2041-2056.
- Guest, D., Conway, N., and Dewe, P. (2004). Using Sequential Tree Analysis to Search for Bundles of Human Resources Practices. *Human Resource Management Journal*, 14, 79-96.
- Hair, J.F., Hult, G.T.M, Ringle, C.M., and Sarstedt, M. (2017). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. Los Angeles: Sage.
- Hauff, S., Alewell, D., and Hansen, N.K. (2018). Further exploring the links between high-performance work practices and firm performance: A multiple-mediation model in the German context. *German Journal of Human Resource Management*, 32 (1), 5-26.

- Huang, C-F., and Hsueh, S-L. (2007). A study of the relationship between intellectual capital and business performance in the engineering consulting business: A path analysis, *Journal of Civil Engineering and Management*, XIII (4), 265-271.
- Hui, M.K., Au, K., and Fock, H. (2004). Empowerment effects across cultures. *Journal of International Business Studies*, 35, 46-60.
- Hui, M.K., Au, K., and Fock, H. (2004). Empowerment effects across cultures. *Journal of International Business Studies*, 35, 46-60.
- Jiang, K., Lepak, D.P., Hu, J., Baer, J.C. (2012). How does human resource management influence organizational outcomes? A meta-analytic investigation of mediating mechanisms. *Academy of Management Journal*, 55 (6), 1264-1294.
- Juhdi, N., Pa'wan, F., and Hansaram, R.M.K. (2013). HRM practices and turnover: The mediating roles of organizational commitment and organizational engagement in a selected region in Malaysia. *International Journal of Human Resource Management*, 24 (15), 3002-3019.
- Kianto, A., Saenz, J., and Aramburu, N. (2017). Knowledge-based human resource management practices, intellectual capital and innovation. *Journal of Business Research*, 81, 11-20.
- Kline, R.B. (2011). *Principles and Practice of Structural Equation Modeling*. New York: The Guilford Press.
- Longo, M., and Mura, M. (2011). The effect of intellectual capital on employees' satisfaction and retention. *Information and Management*, 48, 278-287.
- MacDuffie, J.P. (1995). Human Resource Bundles and Manufacturing Performance: Organizational Logic and Flexible Production Systems in the World Auto Industry. *Industrial and Labor Relations*, 48 (2), 197- 221.
- Marcus, M.M., Vandenberg, R.J., Dejoy, D.M., Schaffer, B.S., and Wilson, M.G. (2009). Individual Reactions to High Involvement Work Processes: Investigating the Role of Empowerment, and Perceived Organizational Support. *Journal of Occupational Health Psychology*, 14 (2), 122-136.
- Meyer, J.P., and Smith, C.A. (2000). HRM practices and organizational commitment: Test of a mediation model. *Canadian Journal of Administrative Sciences*, 17 (4), 319-331.
- Nieves, J., and Quintana, A. (2018). Human resource practices and innovation in the hotel industry: The mediating role of human capital. *Tourism and Hospitality Research*, 18 (1), 72-83.
- Ozbag, G.K., Esen, E., and Esen, D. (2013). *The Impact of HRM Capabilities on Innovation Mediated by Knowledge Management Capability*. Retrieved 20 February 2019, from <http://www.sciencedirect.com>.

- Porter, L.W., Steers, R.M., Mowday, R.T., and Boulian, P.V. (1974). Organizational commitment, job satisfaction and turnover among psychiatric technicians *Journal of Applied Psychology*, 59 (5), 603-609.
- Seeck, H., and Diehl, M-R. (2017). A literature review on HRM and innovation-taking stock and future directions. *International Journal of Human Resource Management*, 28 (6), 913-944.
- Sendogdu, A.A., Kocabacak, A., and Guven, S. (2013). The relationship between human resource management practices and organizational commitment: A field study. *Procedia Social and Behavioral Sciences*, 99, 818-827.
- Stewart, T.A. (1998). *Intellectual capital: The new wealth of organization*. New York: Nicholas Brealey Publishing.
- Subramony, M. (2009). A meta-analytic investigation of the relationship between HRM bundles and firm performance. *Human Resource Management*, 48, 745-768.
- Teece, D.J., (2000). *Managing intellectual capital: Organizational, strategic and policy dimensions*. Oxford: Oxford University Press.
- Williams, L.J., and Anderson, S.E. (1991). Job Satisfaction and Organizational Commitment as predictors of organizational citizenship and in-role behaviors. *Journal of Management*, 17 (3), 601-617.
- Yang, C-C., and Lin, C. Y-Y. (2009). Does intellectual capital mediate the relationship between HRM and organizational performance? Perspective of a healthcare industry in Taiwan. *International Journal of Human Resource Management*, 20, 1965-1984.
- Yaseen, S.G., Dajani, D., and Hasan, Y. (2016). The impact of intellectual capital on the competitive advantage” Applied study in Jordanian telecommunications companies. *Computers in Human Behavior*, 62, 168-175.
- Youndt, M.A. and Snell, S.A. (2004). Human resource configurations, intellectual capital and organizational performance. *Journal of Managerial Issues*, XVI (3), 337-360.