

The Mediating Effects of HR Outcome and Operational Outcome in the Relationship between HPWS and Financial Performance in Public Enterprises in Ethiopia

Wondimagegne Assefa REDA ¹

Berhanu Temesgen ESHETU ²

¹ Department of Management, College of Business and Economics, Mekdela Amba University, South Wollo, Amhara Region, Ethiopia.

<https://orcid.org/0009-0005-9397-5732>. E-mail: wondmau@gmail.com

² Department of Public Administration and Development Management, College of Business and Economics, Addis Ababa University, Addis Ababa, Ethiopia. <https://orcid.org/0009-0006-3852-3474>. E-mail: berhanu.temesgen@aau.edu.et

Abstract

This study examines the contribution of high performance work system (HPWS) to organizational performance in the public sector in a developing country context. It relates HPWS to the human resource (HR) outcome, operational outcome, and financial performance of public enterprises in Ethiopia by focusing on the mediating effects of HR outcome and operational outcome. The results of the structural equation modeling (SEM) analysis, based on data gathered from a survey of 480 managers who work in nine public enterprises, demonstrate that operational outcome has a significant positive mediating effect in the HPWS-financial performance relationship. The research advises the public enterprises to design and implement HPWS practices as increased use of HPWS in the enterprises has a significant direct and indirect positive effect on financial performance. The paper suggests future researchers to examine the effects of high commitment work system (HCWS) and high involvement work system (HIWS) on the performance of public enterprises in a developing country context.

Keywords: HPWS, HR outcome, operational outcome, financial performance, public enterprise, Ethiopia

Introduction

The influence of an organization's HPWS on performance has generated considerable attention within the academic and practitioner communities (Becker & Huselid, 1998). Most of the researches that have been carried out over the last decade show the existence of positive association between the constructs (Armstrong, 2010; Hermans & Ulrich, 2021). The studies found out a positive association between the HPWS practices of an organization and objective (Guthrie, 2001; Huselid, 1995; MacDuffie, 1995) and perceptual (Delaney & Huselid, 1996; Bae & Lawler, 2000) measures of organizational performance; the research works agree that HPWS results in enhanced HR outcome, operational outcome, and financial outcome.

Although much has been known about the positive effect of HPWS on performance, deficiencies in knowledge still exist as the past literatures have not adequately addressed the problem (Guest, 2011; Jiang & Messersmith, 2018; Wright & Ulrich, 2017). A literature review has exposed our gap in knowledge by identifying the existence of very few studies that demonstrate the mechanism through which HPWS impacts performance (Becker & Gerhart, 1996; Boselie et al., 2005; Guest 2011; Jiang et al., 2012; Huselid, 1995; Kloutsiniotis & Mihail, 2018). The greater part of the research works failed to demonstrate the process through which HPWS practices affect organizational performance, which is usually referred by some human resource management (HRM) scholars as the 'black box' problem (Jiang et al., 2012; Kloutsiniotis & Mihail, 2018; Wright et al., 1999; Wright et al., 2003; Messersmith et al., 2011).

Therefore, the process through which an HPWS contributes to performance should be the main focus of future researches (Guest, 2011). There is a need for research studies that uncover the 'black-box' of what HPWS accomplishes and how (Björkman & Xiucheng, 2002; Guest, 2011; Kloutsiniotis & Mihail, 2018); the intermediate linkages between HPWS and performance should be empirically tested by future HRM scholars (Way, 2002). The research works should first examine the effect of HPWS practices on immediate outcomes such as HR and operational outcomes; and proceed to demonstrate the mediating effects of the immediate outcomes between HPWS and distal organizational outcomes such as financial performance (Björkman & Xiucheng, 2002; Fey et al.,

2000; Guest, 2011; Jiang et al., 2012; Jiang & Messersmith, 2018; Kloutsiniotis & Mihail, 2018). This study, therefore, has addressed this issue by providing empirical evidence showing the process through which HPWS contributes to the performance of public enterprises using the behavioral perspective as a framework.

Theoretical background and hypotheses development

This part discusses the appropriate theory that helps to understand how HPWS assists organizations to realize their performance objectives. It also develops the hypotheses of the study showing the association between HPWS, HR outcome, operational outcome, and financial performance (see Figure 1).

Behavioral Perspective

The resource-based view perspective mainly describes the reason why HRs and HPWS are essential for organizational performance (Jiang & Messersmith, 2018). On the other hand, the behavioral perspective highlights how HPWS support organizations attain their goals (Jiang & Messersmith, 2018). The behavioral perspective argues that effective HPWS practices help to generate a competitive advantage by bringing forth positive workforce behaviors and attitudes that support firm strategy (Jackson & Schuler, 1995).

Although there are strong evidences that support the association between HPWS and different organizational outcomes, a lot remains hidden regarding the process through which HPWS influences the outcomes (Jiang et al., 2012). Therefore, various scholars have started to use the behavioral perspective theory of HPWS to study the mediating mechanisms of the association between HPWS and organizational outcomes to suggest that HPWS influence firm performance by affecting workforce behaviors (Jiang et al., 2012; Jiang & Messersmith, 2018). In addition, the behavioral perspective has also extended the criteria used to evaluate the success of HPWS by including other organizational effectiveness measures such as operational outcome and financial outcome while evaluating the association between HPWS and firm performance (Kessler, 2013).

Hence, this study used the behavioral perspective to examine the role of HR and operational outcomes in the link between the HPWS and financial performance of the public enterprise in Ethiopia.

HPWS, HR Outcome, and Organizational Performance

Organization performance may not come out from the HPWS practices themselves but from the HR outcomes that are consequences of using the HPWS practices. The effectiveness of HPWS practices, therefore, is measured by the extent of their positive impact on employee satisfaction, commitment, and empowerment which ultimately results in the realization of essential organization outcomes (Messersmith et al., 2011). Various empirical studies also demonstrate the role of HR outcome in the association between HPWS and firm performance. Rogg et al. (2001) investigated the effect of organizational climate in the association between HPWS and customer satisfaction in 351 small enterprises that were operating in similar industry context. The study found out that organizational climate mediates the HPWS-customer satisfaction link of small businesses. While the indirect impact of HPWS through organizational satisfaction on customer satisfaction was significant, the direct influence of the practices on customer satisfaction was insignificant and close to zero.

By taking 101 multinational organizations operating in Russia, Fey et al. (2000) also assessed the effect of HPWS on organization performance. The mediating effect of HR outcome in the association between HPWS practices and the foreign organizations performance was also investigated; the study found out some support on the mediating effect of HR outcome in the link between the HPWS and the multinational organization subsidiaries performance that were operating in Russia. Moreover, Meyer and Smith (2000) investigated the mechanism through which HPWS affect organizational commitment by surveying 281 employees from various organizations. The authors found that support from an organization and procedural justice mediate the link between HPWS and employees' normative and affective commitment; this finding shows that organizations can impact the level of their employees' commitment positively through their HPWS practices.

The results of the studies are consistent with the argument that HR outcome mediates the HPWS-organizational performance relationship. That is, broader use of HPWS creates employees with better behavior and attitude, and having employees with positive attitude and behavior is reflected in enhanced financial performance in the public enterprises. Consistent with the aforementioned discussion, this research hypothesizes that:

Hypothesis 1: HR outcome mediates the relationship between HPWS and financial performance in public enterprises in Ethiopia.

HPWS, Operational Outcome, and Organizational Performance

HPWS helps an organization to enhance its operational outcomes such as better quality, timely delivery, low cost, and innovation, which in turn, increases the financial performance of an organization (Ahmed & Schroeder, 2003). Quality, innovation, productivity, and shrinkage forecast the financial performance of an organization (Wright et al., 2003). For example, by surveying 968 organizations, Huselid (1995) discovered a significant association between HPWS and turnover, profit, and market value in USA. Similarly, Guthrie (2001) investigated that HPWS was significantly related with immediate organizational outcomes and profitability of organizations in New Zealand. By taking data from 74 organizations in China, Zheng (2001) found out that organizations that had HPWS that focuses on incentive and compensation management were able to secure better immediate organizational outcomes; on the other hand, enterprises that focus on free market selection and performance management obtain better financial performance.

Richard and Johnson (2001) also examined the influence of HPWS effectiveness in the banking sector; the authors conducted a survey of banks that are located in California and Kentucky and found that HPWS effectiveness decreases turnover and enhances market performance.

This shows the mediating effects of operational outcome in the HPWS-financial performance association. The results illustrate how HPWS impact operational outcome, which subsequently result in enhanced financial performance. Hence,

Hypothesis 2: Operational outcome mediates the relationship between HPWS and financial performance in public enterprises in Ethiopia.

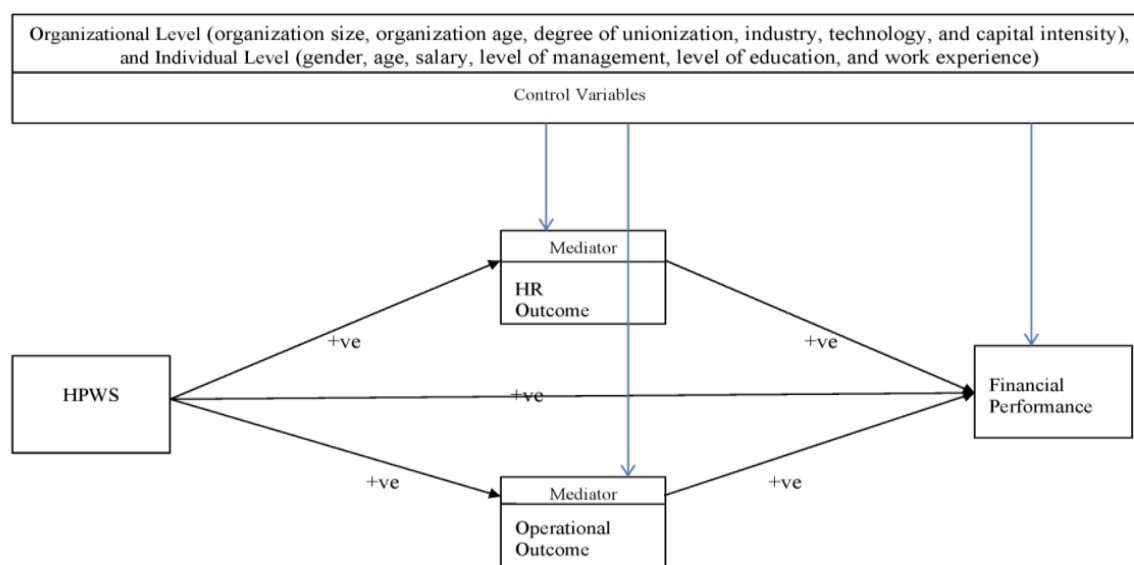


Figure 1: Conceptual Framework

Research Methodology

Quantitative research approach with cross-sectional survey research strategy was employed to examine the mediating effects of HR outcome and operational outcome in the relationship between HPWS and financial performance. The research population consisted of 1691 managers from nine organizations.

Determination of sample size is generally governed by the level of certainty that we want to have in our data, the margin of error that we are willing to tolerate, the type of analysis we undertake, and the population size from which we select our sample (De Vaus, 2002; Saunders et al., 2012). According to Saunders et al. (2012), management researchers normally work with a 95 per cent confidence level and a margin of error that is within plus or minus 3 to 5 per cent. Therefore, the 480 sample size for this study was determined by using a 95 per cent level of certainty, a 5 percent margin of error, and an expected non-response rate of 20 per cent (De Vaus, 2002).

The data were collected using validated five-point Likert scale items that were modified from prior studies on HPWS. As part of the measurement model analysis, confirmatory factor analysis (CFA) was performed (Table 1); based up on the results of the CFA, indicators with factor loadings below 0.60 were dropped (Collier, 2020). In addition, the construct reliability assessment result of the scales showed a composite reliability and Cronbach's alpha that were above the 0.70 threshold value. Moreover, the Heterotrait-Monotrait ratio and average variance

extracted tests that were performed to see the discriminant validity and convergent validity of the scales demonstrated values that were under the 0.9 and above the 0.5 recommended values respectively.

Table 1: CFA

Construct	Item	Standardized Factor Loading
HPWS	Item1	0.635
	Item2	0.757
	Item3	0.791
	Item4	0.730
	Item5	0.704
	Item6	0.668
	Item7	0.632
HR Outcome	Item1	0.845
	Item2	0.801
	Item3	0.858
	Item4	0.785
	Item5	0.665
	Item6	0.609
Operational Outcome	Item1	0.827
	Item2	0.857
	Item3	0.712
Financial Performance	Item1	0.854
	Item2	0.859
	Item3	0.843
	Item4	0.795

The model fit statistics such as χ^2 , CFI, IFI, TLI, SRMR, and RMSEA were also computed to determine the measurement and structural models overall goodness of fit. Accordingly, the observed fit indices either met or exceeded the recommended threshold values.

Hypothesis Testing

To test the mediating effect of HR outcome and operational outcome, a bootstrapping approach was used. Bootstrapping approach to mediation analysis provides the best combined estimated coefficients by selecting a large number of subsamples (Hair et al., 2019). By yielding better levels of statistical power, the approach provides a more accurate assessment of the mediating effect as compared with the Baron and Kenny approach and the Sobel test (Hair et al., 2019). Therefore, the full structural model of the study simultaneously examined the mediating effects of HR outcome and operational outcome in the relationship between the HPWS and financial performance of the public enterprises. This simultaneous analysis of all the mediators in one model helps to get a better understanding of the mechanism by which HPWS affects financial performance in the public enterprises; the combination of mediation in a more general framework helps to capture the full picture of relationships and provides a valuable perspective on interpreting mediation (Hair et al., 2019).

The results of the two hypothesized indirect relationship tests are summarized in Table 2. The table includes the direct and indirect effect coefficients, confidence intervals, p-values, decisions on the hypotheses that tested mediating relationships, and conclusions of the hypotheses testing. The study used unstandardized coefficients to interpret and present the mediation testing analysis results. The unstandardized indirect effects were reported for mediation analysis because unstandardized coefficients are normally reported by most studies that perform mediation analysis; therefore, it is appropriate to use the unstandardized indirect effects as it is customary to see them with most mediation analysis (Collier, 2020).

Table 2: Test for Mediation Using a Bootstrap Analysis with a 95% Confidence Interval

Hypotheses and paths	Direct Effect	Indirect Effect	Confidence Interval Low/High	p-value	Decision	Conclusion
HPWS → HR Outcome → Financial Performance	0.412	.083	-.003/.195	.056	H1 not supported	No Mediation
HPWS → Operational Outcome → Financial Performance	0.412	.209	.057/.410	.005	H2 Supported	Partial Mediation

Note: Unstandardized coefficients reported. Bootstrap Sample = 5,000 with replacement.

Mediation Path 1: HPWS → HR Outcome → Financial Performance

Hypothesis 1 investigated if HR outcome mediates the HPWS-financial performance link in the study organizations. It was hypothesized that HR outcome would mediate the association between the two constructs. However, the result shows that HR outcome plays no mediating role in the HPWS-financial performance relationship ($\beta = .083$, $p = .056$). Therefore, Hypothesis 1 was not supported.

Mediation Path 2: HPWS → Operational Outcome → Financial Performance

Hypothesis 2 examined whether operational outcome mediates the association between HPWS and financial performance. It was hypothesized that operational outcome would have a mediating role in the relationship between the constructs. The finding confirms a positive and significant complementary partial mediation path ($\beta = .209$, $p = .005$). Hence, Hypothesis 2 was supported.

Discussion

The impact of HPWS on financial performance can partly be explained due to its influence on HR outcome and operational outcome (Armstrong, 2009; Dyer & Reeves, 1995; Guest, 2011; Huselid, 1995). HPWS directly impacts the HR outcome and operational outcome of an organization. When HR outcome and operational outcome show improvement, the organization will have an improved financial performance (Armstrong, 2009; Dyer & Reeves, 1995; Guest, 2011; Huselid, 1995). However, very few studies show the mechanism through which HPWS impacts firm performance (Becker & Gerhart, 1996; Boselie et al., 2005; Guest 2011; Huselid, 1995; Jiang et al., 2012; Kloutsiniotis & Mihail, 2018). The greater part of the research works failed to demonstrate the process through which HPWS practices affect organizational performance, which is usually referred by some HRM scholars as the 'black box' problem (Kloutsiniotis & Mihail, 2018; Messersmith et al., 2011; Wright et al., 2003; Wright et al., 1999). Hence, this study used the behavioral perspective theory as a framework to find out the role of HR outcome and operational outcome in the relationship between the HPWS and financial performance of the study organizations.

The results of the research demonstrate that operational outcome had a significant complementary partial mediation effect in the link between the two constructs. This shows that higher level of HPWS leads to enhanced innovation, quality, and customer satisfaction, which in turn, positively impacts the financial performance of the public enterprises. The result is similar with prior studies such as Huselid (1995) and Rogg et al. (2001). However, HR outcome did not have a significant mediating effect at $p < 0.05$ level. The finding contradicts prior research works such as Fey et al. (2000), Huselid (1995), and Messersmith et al. (2011). This does not, however, mean that having a satisfied, committed, and empowered manpower will not lead to improved financial performance in the public enterprises; it only shows that HPWS has a direct effect on the financial performance of the public enterprises and an indirect effect through the operational outcome of the organizations.

To sum up, this study used the behavioral perspective to examine the mediating roles of HR outcome and operational outcome. The findings of the hypotheses testing demonstrated that operational outcome plays a significant positive role in the HPWS-financial performance relationship. The finding supports the behavioral perspective as the theory includes organizational effectiveness measures such as HR outcome, operational outcome, and financial outcome while examining the association between HPWS and organizational performance. Nevertheless, the study was not able to find support for the mediating effect of HR outcome in the association between HPWS and financial performance.

Conclusions

This research contributes to our understanding of the significance of HPWS in the public sector. The findings of the study open the black box by demonstrating how HPWS influences the financial performance of public enterprises in Ethiopia. The results of the indirect relationship test show that operational outcome partially mediates the association between HPWS and financial performance in the public enterprises; that is, the use of HPWS enhances the innovation, quality, and customer satisfaction level of the enterprises, which, in turn, helps them to get better financial performance. However, HR outcome did not have a significant mediation effect in the HPWS-financial performance relationship. The paper suggests future researchers to examine the effects of HCWS and HIWS on the performance of public enterprises in a developing country context.

References

- Aczel, A. D., & Sounderpandian, J. (2009). *Complete business statistics* (7th ed.). McGraw-Hill Companies.
- Ahmad, S., & Schroeder, R.G. (2003). The impact of human resource management practices on operational performance: recognizing country and industry differences. *Journal of Operations Management*, 21(1), 19-43.
- Allen, N.J., & Meyer, J.P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of Occupational Psychology*, 63, 1-18.
- Anderson, D. R., Sweeney, D. J., & Williams, T. A. (2011). *Statistics for business and economics* (11th ed.). South-Western Cengage Learning.
- Armstrong, M. (2010). *Armstrong's Essential Human Resource Management Practice: A Guide to People Management*. Kogan Page Limited.
- Armstrong, M. (2009). *Armstrong's Handbook of Human Resource Management Practice* (11th ed.). Kogan Page Limited.
- Arthur, J. (1994). Effects of Human Resource Systems on Manufacturing Performance and Turnover. *Academy of Management Journal*, 37, 670-687. <https://www.jstor.org/stable/256705>
- Bae, J., & Lawler, J. J. (2000). Organizational and HRM strategies in Korea: Impact on firm performance in an emerging economy. *Academy of Management Journal*, 43, 502-518. <https://www.jstor.org/stable/1556407>
- Becker, B., & Gerhart, B. (1996). The impact of human resource management on organizational performance: progress and prospects. *Academy of Management Journal*, 39(4), 779-801.
- Becker, B., & Huselid, M.A. (1998). High Performance Work Systems and Firm Performance: A Synthesis of Research and Managerial Implications. *Research in Personnel and Human Resources Management*, 16, 53-101.
- Becker, B., Huselid, M.A., Pickus, P.S., & Spratt, M.F. (1997). HR as a Source of Shareholder Value: Research and Recommendations. *Human Resource Management*, 36, 39-47.
- Bentler, P.M., & Bonett, D.G. (1980). Significance Tests and Goodness of Fit in the Analysis of Covariance Structures. *Psychological Bulletin*, 88(3), 588-606.
- Björkman, I., & Xiucheng, F. (2002). Human resource management and the performance of Western firms in China. *International Journal of Human Resource Management*, 13(6), 853-864. <https://doi.org/10.1080/09585190210134246>
- Boon, C., Den Hartog, D. N., & Lepak, D. P. (2019). A systematic review of human resource management systems and their measurement. *Journal of Management*, 45(6), 2498-2537. <https://doi.org/10.1177/0149206318818718>
- Boselie, J.P, Dietz, G., & Boon, C. (2005). Commonalities and contradictions in research on human resource management and performance. *Human resource management journal*. 15(3), 67-94. <https://dx.doi.org/10.1111/j.1748-8583.2005.tb00154.x>
- Boselie, P., & Wiele, T. (2002). High performance work systems: "research on research" and the stability of factors over time. ERIM Report Series reference number: ERS-2002-44-ORG. <http://www.eur.nl/WebDOC/doc/erim/erimrs20020419150437.pdf>
- Creswell, J. W. (2014). *Research methods: qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE Publications.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16, 297-334.
- Datta, D. K., Guthrie, J. P., & Wright, P. M. (2005). Human resource management and labor productivity: Does industry matter? *Academy of Management Journal*, 48(1), 135-145.
- Delaney, J. T., & Huselid, M. A. (1996). The impact of human resource management practices on perceptions of organizational performance. *Academy of Management Journal*, 39, 949-969.
- Dess, G.G., & Robinson, R.B. Jr. (1984). Measuring organizational performance in the absence of objective measures: the case of privately held firms and conglomerate business units. *Strategic Management Journal*, 5, 265-73. <https://www.jstor.org/stable/2486280>
- Dyer, L., & Reeves, T. (1995). Human resource strategies and firm performance: what do we know and where do we need to go? (CAHRS Working Paper #94-29). Ithaca, NY: Cornell University, School of Industrial and Labor Relations, Center for Advanced Human Resource Studies.
- Fey, C.F, Björkman, I., & Pavlovskaya, A. (2000). The effect of human resource management practices on firm performance in Russia. *International Journal of Human Resource Management*, 11(1), 1-18. <https://doi.org/10.1080/095851900339963>
- Geringer, M.J., & Hebert, L. (1991). Measuring performance of international joint ventures. *Journal of International Business Studies*, 28, 249-263.
- Gold, A.H., Malhotra, A., & Segars, A.H. (2001). Knowledge management: An organizational capabilities perspective. *Journal of Management Information Systems*, 18(1), 185-214.

- Groves, R. M., Fowler, F. J., Couper, M. P., Lepkowski, J. M., Singer, E., & Tourangeau, R. (2004). *Survey methodology*. John Wiley & Sons.
- Guest, D. E. (2011). Human resource management and performance: still searching for some answers. *Human Resource Management Journal*, 21(1), 3-13. <https://doi.org/10.1111/j.1748-8583.2010.00164.x>
- Guthrie, J. P. (2001). High-involvement work practices, turnover, and productivity: evidence from New Zealand. *Academy of Management Journal*, 44(1), 180-192. <http://www.jstor.com/stable/3069345>
- Hair, J.F, Black, W.C, Babin, B.J., & Anderson, R.E. (2019). *Multivariate Data Analysis* (8th edi.). Cengage Learning EMEA.
- Hair, J.F, Black, W.C, Babin, B.J., & Anderson, R.E. (2018). *Multivariate Data Analysis* (7th edi.). Cengage Learning EMEA.
- Henseler, J., Ringle, C.M., & Sarstedt, M. (2015). A New Criterion for Assessing Discriminant Validity in Variance-Based Structural Equation Modeling. *Journal of the Academy of Marketing Science*, 43(1), 115–135.
- Hermans, M., & Ulrich, M. D. (2021). How symbolic human resource function actions affect the implementation of high-performance work practices: The mediating effect of influence on strategic decision-making. *Human Resource Management Journal*, 31, 1063-1081. <https://doi.org/10.1111/1748-8583.12361>
- Huselid, M.A. (1995). The Impact of Human Resource Management Practices on Turnover, Productivity, and Corporate Financial Performance. *Academy of Management Journal*, 38(3), 635–672.
- Ichniowski, C., Shaw, K., & Prennushi, G. (1995). The effects of human resource management practices on productivity. (NBER Working Paper #5333). Cambridge, MA: National Bureau of Economic Research.
- Jackson, S.E., & Schuler, R.S. (1995). Understanding human resource management in the context of organizations and their environments. *Annual Review of Psychology*, 46, 237-264.
- 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. <https://dx.doi.org/10.5465/amj.2011.0088>
- Jiang, K., & Messersmith, J. (2018). On the shoulders of giants: A meta-review of strategic human resource management. *The International Journal of Human Resource Management*, 29(1), 6-33. <https://doi.org/10.1080/09585192.2017.1384930>
- Kessler, E. (2013). *Encyclopedia of Management Theory*. Sage.
- Kline, R.B. (2016). *Principles and Practice of Structural Equation Modeling* (3rd edi.). Guilford Press.
- Kloutsiniotis, P. V., & Mihail, D. M. (2018). The link between perceived high-performance work practices, employee attitudes and service quality: The mediating and moderating role of trust. *Employee Relations*, 40(5), 801–821. <http://doi.org/10.1108/ER-08-2017-0201>
- Kothari, C. R. (2004). *Research methodology: methods and techniques* (2th edi.). New age international publishers.
- Lado, A. A., & Wilson, M. C. (1994). Human resources systems and sustained competitive advantage: A competency-based perspective. *Academy of Management Review*, 19(4), 699–727. <https://www.jstor.org/stable/258742>
- MacCallum, R.C., Browne, M.W., & Sugawara, H.M. (1996). Power Analysis and Determination of Sample Size for Covariance Structure Modeling. *Psychological Methods*, 1(2), 130–149.
- MacDuffie, J. (1995). Human Resource Bundles and Manufacturing Performance: Organizational Logic and Flexible Production Systems in the World Auto Industry. *Industrial and Labor Relations Review*, 48(2), 197–221.
- Messersmith, J. G., Patel, P. C., & Lepak, D. P. (2011). Unlocking the Black Box: Exploring the Link between High-Performance Work Systems and Performance. *Journal of Applied Psychology*, 96(6), 1105-1118. <https://doi.org/10.1037/a0024710>
- Meyer, J. P., & Smith, C. A. (2000). HRM Practices and Organizational Commitment: Test of a Mediation Model. *Canadian Journal of Administrative Sciences* 17(4), 319-331.
- Powell, T.C. (1992). Organizational alignment as a competitive advantage. *Strategic Management Journal*, 13(2), 119–134. <https://www.jstor.org/stable/2486409>
- Richard, O. C., & Johnson, N. B. (2001). Strategic human resource management effectiveness and firm performance. *International Journal of Human Resource Management*, 12(2), 299-310. <https://doi.org/10.1080/09585190121674>
- Robinson, R.B., & Pearce, J.A. (1988). Planned patterns of strategic behavior and their relationship to business-unit performance. *Strategic Management Journal*, 9(1), 43-60. <https://www.jstor.org/stable/2486001>
- Rogg, K. L., Schmidt, D. B., Shull, C., & Schmitt, N. (2001). Human resource practices, organizational climate, and customer satisfaction. *Journal of Management* 27, 431–449. <https://doi.org/10.1177/014920630102700403>

- Saunders, M; Lewis, P., & Thornhill, A. (2012). *Research methods for business students* (6th edi.). Pearson Education Limited.
- Schumacker, R.E., & Lomax, R.G. (2004). *A Beginner's Guide to Structural Equation Modeling* (2nd edi.). Lawrence Erlbaum Associates, Inc.
- Spreitzer, G.M. (1995). Psychological empowerment in the workplace: dimensions, measurement, and validation. *The Academy of Management Journal*, 38(5), 1442-1465.
- Way, S. A. (2002). High performance work systems and intermediate indicators of firm performance within the US small business sector. *Journal of Management*, 28(6), 765-785.
- Wright, P. M., & Boswell, W. R. (2002). Desegregating HRM: A review and synthesis of micro and macro human resource management research. *Journal of Management*, 28(3), 247–276.
- Wright, P. M., Gardner, T. M., & Moynihan, L. M. (2003). The impact of HR practices on the performance of business units. *Human Resource Management Journal*, 13(3), 21-36.
- Wright, P.M , McCormick, B., Sherman, W.S., & McMahan, G.C. (1999). The role of human resource practices in petro-chemical refinery performance. *International Journal of Human Resource Management*, 10(4), 551-571. <https://doi.org/10.1080/095851999340260>
- Wright, P. M., & Ulrich, M. D. (2017). A Road Well Traveled: The Past, Present, and Future Journey of Strategic Human Resource Management. *Annual Review of Organizational Psychology and Organizational Behavior*, 4(1), 45–65. <https://doi.org/10.1146/annurev-orgpsych-032516-113052>
- Youndt, M. A., Snell, S. A., Dean, J. W., & Lepak, D. P. (1996). Human Resource Management, Manufacturing Strategy, and Firm Performance. *Academy of Management Journal*, 39(4), 836–866. <https://www.jstor.org/stable/256714>
- Zheng, C. (2001). The relationship between HRM and Chinese SME performance. *International Journal of Organizational Behavior*, 4(4), 125-137.