

HRM Practices in the Context of Organizational Performance-A Literature Review

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Abstract

Human resource management (HRM) is one of the most crucial and important emerging parameters to enhance the organizational performance in any company or organization. Also, HRM plays a crucial part in the performance of an organization. The aim of this study and research is to identify the HRM practices that are affective to boost up organizational performance. To achieve this aim, the method of document analysis was used. On the basis of scientific literature reviewed from academic databases, the HRM practices which were mentioned in connection with organizational performance, were detected and described for its impact on organizational performance. To explore which practices of HRM are affective for improvement of organizational performance, the systematic literature review was conducted. For the present study, the main sources of literature were online multidisciplinary academic databases and published research work. Researchers have reviewed the extensive and most acceptable literature that studies are purely focused on organizational performance and HRM. The outcomes of this research have given recommendations to policy makers, researchers, and top management of various organizations.

Keywords: HRM practices, Organizational performance, Studies literature, Policy makers, Academic databases.

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1. Introduction

HRM solely aims to ensure that the company or organization should be capable of attaining success through people. Accordingly Ulrich and Lake (1990) remarks that HRM

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systems can be the source of organizational capabilities that allow firms to learn and capitalize on new opportunities. Hence the drive to adopt HRM is based on that it is unnecessary to respond an outside threat out of increasing competition in the market. The study focusing on the influence of Human Resource Management (HRM) practices on organizational performance has become popular during the past three decades (Appelbaum & Batt, 1994; Chan, Shaffer, & Snape, 2004; Huselid, 1995; Sheehan, 2014). The previous literature includes surveys and studies that concentrates on efficiency and performance effect of certain HRM methods and practices for instance, training(Clark, 2008; Swezey & Salas, 1992). However, a lot of surveys came out with a result that there is a positive linkage between different HRM objectives and practices and perpetual and objective measures of firms performance, some researchers (Bell et al., 2017; Kozlowski et al., 2001; Liang, Moreland, & Argote,1995; Muqadas, Rehman, & Aslam, 2017a) have shown concern that outcomes may be prejudiced because of methodological challenges and problems. Still there is agreement among researchers that the attributes of Human Resource Management are in no way universal. The existing article aims to develop the links between organizational performance and HRM practices. From this perspective the article has its foundation in 50 articles published in impact factor journals published during 1990 to 2017.

2. Literature Review

2.1 Selection of HRM Practices for the Study and Rationale

The tag HRM has been widely in use for approximately the last ten to fifteen years. Previously, the field was commonly titled as “personal administration”(Storey, 2007).In 1920, it’s clearly defined that personal administration was principally concerned with the technical aspect like recruitment, evaluation, development and training, remuneration of employees and staff function(Armstrong, 1996). The personal administration did not focuses on the connection of employment practices on entire Firms’ performance or on the systematized relationships (Iles , Chuai, & Preece, 2010). Whereas HRM is known as personnel management groups all actions carried out by an organization to ensure the efficient utilization of workers towards accomplishment of group, organizational and individual objectives (Konrad, Yang, & Maurer, 2016; Muqadas et al., 2017b).Many studies such as (Ahmad & Schroeder, 2003; Boselie , Dietz, & Boon, 2005; Khan, 2010; Saboor, Mukhtar, & Sadiq, 2015; Snape & Redman, 2010; Aslam et al., 2018a) have been carried out to analyze the relationship between organizational performance and HRM practices. They concluded that growing organization will adopt HR practices for their strategy. For gaining the sustainable competitive advantage and survival for the long run different companies will adopt different designs, structural approaches of HRM practices which facilitate them to implement their unique type of strategy. For example, a firm will adopt cheap cost strategy which will distinguish from other firms, and then this firm will require different HRM practices to excel in product differentiation.

Further extant studies also argued that organizations enhance their abilities and align their direction to new business realities by adopting HRM practices. A lot of external factor will affect the organization e.g. globalization, technology, product life cycles, infrastructure design, legislation etc. But if the organization will implement the HRM practices in their day today business then these practices will largely cover these effects positively and reduce potential resistance to new business realities.

HRM practices focus on the strategic unity of the mindset that is positively effect on the firm's distinct competence, with in the business. Those organizations will not be practicing the HRM practices, where the employee is working in ordinary direction just accomplishing the organization mission. But on the other hand, where the HRM practices are operationally held, the employees are working with the share mindset which is directly aligning to the organization successive mission, goal, objectives and aims.

It is also observed that rare research has been conducted on HRM practices and strategy (Pfeffer, 1994). Delery and Doty (1996) argued that some HRM practices are continually linked with organizational performance. They also stated that growing organization will fulfill its target by adopting the HRM practices and having their ability to retain and develop its key employees, providing the training and development session to the worker time to time, giving reward for their potential effort in their task and these types of companies will become the role model of others. Geanuracos and Meiklejohn (1994) postulated that at the heart of this new thinking is an understanding that reliance on financial measures alone often undermines the strategies the company must pursue to survive long term. Today's smart firms are searching for ways to incorporate into their regular performance evaluation non-financial measures such as quality, market share, customer satisfaction, human resources, innovation and learning.

2.2 *Linking HRM and Performance*

Researchers from various discipline have proposed different conceptual structures as explanation of the connections amid progressive organizational performances and HRM practices. Schuler and Jackson (1995) in their study review stated that methods as diverse as general system theory (Bertalanffy, 1950), human capital theory (Becker, 1964), role behavior theory (Aslam et al., 2018b), institutional theory (Meyer & Rowan, 1977), resource dependence theory (Pfeffer & Blake, 1987), transaction cost economics (Williamson, 1981) and the resource based hypothesis of the organization (Barney, 1991) have been utilized for the analyses of imperative role of HRM in the identification of firms performance. Guest (1997) documented that HRM practices will positively effects on the knowledge, skills, ability, attitude, actions, aptitude, proficiency, competence of the employees and may therefore on the organization performance. Hence it is right to say that the configuration and arrangement

design of the HRM practices with organization policy and practices like development and training, career opportunity, selection and recruitment, performance appraisal, man power, job design and rotation can play a vital role for the organization (Hartog, Boselie, & Paauwe, 2004).

2.3 *HR Best Practices*

A lot of scholars carry out studies on HRM practices from time to time and they identified different types to HRM practices. Chandler and McEvoy (2000) propose that HRM is one the best tools, operational technique and practice through which the organization manage their employee. When making the linkage between firm performances and HRM practices through the best practices or performance practice, we require a strong uniformity among HRM that internal fit in view of attaining high performance of the organization. HRM practices affect organizational performance directly or indirectly by several variables which are explained in the following literature.

2.4 *HRM Practices and Employee Relationship*

Through the effective HRM the organization attains the employee's unity, employee teamwork, shared vision toward the organization(Kooij et al., 2010; Ulrich, 1998). Guzzo and Noonan (1994) suggest that HR practices are superior universal approach through which mutual understanding develop among the employee within the organization and build communication channel between the employer and employees. Likewise, Tzafirir et al. (2004) illustrated that organization gain the employees trust, faith, belief through the effective HRM practices. The outcomes demonstrated that there is significant and positive trust relationship among employees and the manager through organization communication, practical impartiality, and empowerment.

2.5 *HRM Practices & Service Quality*

Scholars gave the strong proof that HR practices have a considerable influence on the service quality of the firm (Batt, 2002; Boylan, 2002; Wright et al., 2005). Tsaur and Lin (2004) Analyzed that there was a substantial relationship between HRM and service quality by creating the interceding variable via service behavior. The outcomes show that Human Resource Management practices have an indirect effect through the workers service behavior and a direct effect on the insight of the consumer service quality.

2.6 *HRM Practices and Employee Commitment*

Human Resource Management practices reflect that how much employees are committed to their organization, how much they are contributing their efforts toward the organization. Maheshwari et al. (2005) carry out a research on the commitment of health officials and the result show negative relationship with the department. The condition needs improvement of the HRM practices in that manner to strength the operation and function of the health system. The research also proposes that there is dire need for the carrier and growth expansion of the health experts for which the firm has to build up numerous strategies and polices. In the same way, Smeenk et al. (2006) illustrate that there is a significant relationship between the Dutch university employees in two diverse faculties' educational uniqueness (separatist and hegemonies) and organization commitment.

2.7 *HRM Human Capital and Performance*

For the growth of the firm the human capital plays a significant role, human capital deals with the employee abilities, skill and knowledge which enhance the productivity of the firm both effectively and efficiently (Aslam et al., 2016; Aslam et al., 2015; Subramaniam & Youndt, 2005). Human capital made the boundary between the customers and the firm through the customer-contract employee service settings (Mills, Chase, & Margulies, 1983). Due to this reason the collective human capital relate to the HRM and high organizational performance and the firm will gain competitive benefits which include rare, inimitable, non-substitutable and valuable resources (Tsaur & Lin, 2004). Guest (1997) argued that motivating the employee in workplace and practicing him/her knowledge, skills, and abilities which boosts the high quality of human capital and it will generate and develop a competitive advantage for the organization. Organizations will carry out these practices to those employee who significantly contribute to the firm success (Aslam et al., 2016; MacDuffie, 1995). Those companies which believe that human capital really present the competitive advantage; HR practices will really contribute to increase the competences of the employees, so these firms will invest in human capital to increase their productivity and high performance (Guthrie, 2001; Muqadas et al., 2017a).

2.8 *HRM Practices and Employees Productivity*

Several scholars propose that such practices of HRM like team work, greater prudence, self-sufficiency in work place environment employee decision making, pay of performance, motivation enhance the employee productivity (Batt, 2002; Boylan, 2002; Guest, 1997; Hartog, Boselie, & Paauwe, 2004; Muqadas et al., 2017b; Wright et al., 2005). Those employees, who are working according to their job designation, their contribution toward the organization is proactive and these employees give valuable proposal to the organization which ultimately

increase the employee productivity (Arthur, 1994). Banker et al. (1996) suggested that such practice like cross functional team, job design, job alternation, good quality infrastructure of the firm increase the employee productivity.

2.9 *HRM Knowledge Sharing and Performance*

Sharing of knowledge is the relational act in which individual will exchange their information (sending and receiving knowledge) and communicate one's knowledge by cooperative behavior and mutual understanding (Saboor, Ilyas, & Rehman, 2017; Hooff & Weenen, 2004). Researcher proposed that individual employees will be more committed and innovative to those firms where knowledge share process is practiced (Muqadas, Ilyas, & Aslam, 2016; Muqadas et al., 2017a; Saboor et al., 2017).

The researchers have argued that sometimes the firm pay heavy cost on employee attitudes and behavior point of view that's why companies are continuously perceived and experienced by employees as intended. To comprehend the linkages between the classes of knowledge sharing and management. Hayton (2005) describe the individual level mechanism which include motivations, cognition and behavior and interaction between the individuals through the linkage between HRM and cooperate entrepreneurship.

2.10 *HR Practices and Information Technology*

It is a dilemma to comprehend the affect to information technology (IT) and HRM practices because both affect each other. HRM practice supports the IT for implementation of system in their module, completion of the task basically almost relies on the end user behavior. End users are willing and capable to perform the task with advance software application but the key problem is that it is hard to assess the target employee who introduces the new software for creating the advance proper utilization. In that case the HRM practices variables supports the IT(Das & Ara, 2015). On the hand with expansion of IT, some of the activities of HRM is accomplished by the information technology especially in administrative phase (Lawler et al., 2003; Muqadas et al., 2016).

2.11 *HR Practices and Job Satisfaction*

Many researchers and practitioners show the evidence that HRM practices consequences in enhanced degree of job gratification which eventually increase the company's performance. Ileana Petrescu and Simmons (2008) carried out an analysis on HR practices and employees' satisfaction with wages and job satisfaction. The findings and results indicated that some of the HR practices like incentive, compensation, permanent job, job security and reward recognition enhance the job satisfaction and satisfaction with the wages.

2.12 HRM Perceived Organizational Support (POS) Performance

Perceived organization assistance is a product of different attitudes and for the long run support of the worker, the perceived organization assistance is connected with the reliability of organizational politics. In different situations the employees will expect that the organization will support them, the perceived organization endorsement will influence the employee to understand the organization motives underlying the treatment (Eisenberger et al., 2001). Perceived organization assistance also influences on the positive action and behavior of the employee toward their job performance because by supporting them employee feels gratitude and react auspiciously to the organization objectives (Aslam et al., 2015; Loi, Yue, & Foley, 2006).

2.13 HRM Practices & Financial Performance

HR high performance practices having a strong connection with the firms' financial performance, the research statistically result shoes that HR practices reduce the turnover of intermediate employee and enhance the long-term and the short-term measures of the business financial efficiency. Some scholar conducted the research on the financial performance of the organization in the light of HR practices. As Banker et al. (1996) suggested that HR practices increase the organizational profitability, they examine that there is significant relationship between HR practices and organizational profitability and also, conducted a research on HR practice impact on performance of 101 foreign owned subsidiaries in Russia. The result present support statement that firm think that the investment in HR practices increase the outcome and enhance the performance, instead of thinking expense in the investment of HR practices.

3. Conclusion

The review of the previous literature on HRM practices demonstrated that organization should use attributes and variables of HRM practices like human capital, sharing of knowledge etc. to gain the competitive edge and business profitability continuity in this fast-global market trend. HR best practices is not only enhancing the firm growth but also the best combination of practices give pillars, shade, successive hope to the downsizing organization which are financially disturbed, having poorer productivity, having status quo stages, so much failure facing in market trend. Different organization practicing different combination of HR practices according to their need and requirement like hospital, school, and education having different best practices approaches because they have different organizational structure chart and hierarchies of employee management. The purpose of this intention is that the organization will improve its performance and employee will contribute to the firm objectives through the HR practices systems. The present study is also useful for the future

studies to lessen the risk of general method bias and helpful to assemble and accumulate HR practices and organizational performance data. This paper possibly will assist the strategy makers of the HR professionals to look into HR practices and realign them according to the ambitions of employees.

References

- 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.
- Arthur, J. B. (1994). Effects of human resource systems on manufacturing performance and turnover. *Academy of Management Journal*, 37(3), 670-687.
- Aslam, U., Arfeen, M., Mohti, W., & Rahman, U. U. (2015). Organizational cynicism and its impact on privatization (evidence from federal government agency of Pakistan). *Transforming Government: People, Process and Policy*, 9(4), 401-425.
- Aslam, U., Ilyas, M., Imran, M. K., & Rahman, U.U. (2016). Detrimental effects of cynicism on organizational change: an interactive model of organizational cynicism (a study of employees in public sector organizations). *Journal of Organizational Change Management*, 29(4), 580-598.
- Aslam, U., Muqadas, F., Imran, M.K. & Saboor, A. (2018a). Emerging organizational parameters and their roles in implementation of organizational change. *Journal of Organizational Change Management*, 31(1), 1084-1104.
- Aslam, U., Muqadas, F., Imran, M. K., & Rahman, U. U. (2018b). Investigating the antecedents of work disengagement in the workplace. *Journal of Management Development*, 37(2), 149-164.
- Appelbaum, E., & Batt, R. (1994). *The New American Workplace*. Ithaca: Cornell University Press.
- Armstrong, M. (1996). *A handbook of personnel management practice*: Kogan Page.
- Banker, R. D., Lee, S.-Y., Potter, G., & Srinivasan, D. (1996). Contextual analysis of performance impacts of outcome-based incentive compensation. *Academy of Management Journal*, 39(4), 920-948.

- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120.
- Batt, R. (2002). Managing customer services: Human resource practices, quit rates, and sales growth. *Academy of Management Journal*, 45(3), 587-597.
- Becker, G. S. (1964). Human capital theory. Columbia, New York.
- Bell, B. S., Tannenbaum, S. I., Ford, J. K., Noe, R. A. and Kraiger, K. (2017). 100 years of training and development research: what we know and where we should go. *Journal of Applied Psychology*, 102(1), 305–23.
- Boselie, P., Dietz, G., & Boon, C. (2005). Commonalities and contradictions in HRM and performance research. *Human Resource Management Journal*, 15(3), 67-94.
- Boylan, A. M. (2002). *The Origins of Women's Activism: New York and Boston, 1797-1840*. Chapel Hill: University of North Carolina Press.
- Chan, L. L., Shaffer, M. A., & Snape, E. (2004). In search of sustained competitive advantage: the impact of organizational culture, competitive strategy and human resource management practices on firm performance. *The International Journal of Human Resource Management*, 15(1), 17-35.
- Chandler, G. N., & McEvoy, G. M. (2000). Human resource management, TQM, and firm performance in small and medium-size enterprises. *Entrepreneurship: Theory and Practice*, 25(1), 43-43.
- Clark, R. C. (2008). *Building expertise: Cognitive methods for training and performance improvement*: John Wiley & Sons.
- Das, K. K., & Ara, M. A. (2015). Impact of Human Resource Information Systems on Organizational Performance: An Empirical Study. *Splint International Journal of Professionals*, 2(1), 47-64.
- Delery, J. E., & Doty, D. H. (1996). Modes of theorizing in strategic human resource management: Tests of universalistic, contingency, and configurational performance predictions. *Academy of Management Journal*, 39(4), 802-835.
- Den Hartog, D. N., Boselie, P., & Paauwe, J. (2004). Performance management: A model and research agenda. *Applied Psychology*, 53(4), 556-569.

- Eisenberger, R., Armeli, S., Rexwinkel, B., Lynch, P. D., & Rhoades, L. (2001). Reciprocation of perceived organizational support. *Journal of Applied Psychology*, 86(1), 42-57.
- Geanuracos, J., & Meiklejohn, I. (1994). Performance Measurement: the New Agenda—using non-financial measures to improve profitability. Business Intelligence, London.
- Guest, D. E. (1997). Human resource management and performance: a review and research agenda. *International Journal of Human Resource Management*, 8(3), 263-276.
- Guthrie, J. P. (2001). High-involvement work practices, turnover, and productivity: Evidence from New Zealand. *Academy of Management Journal*, 44(1), 180-190.
- Guzzo, R. A., & Noonan, K. A. (1994). Human resource practices as communications and the psychological contract. *Human Resource Management*, 33(3), 447-462.
- 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.
- Hayton, J. C. (2005). Promoting corporate entrepreneurship through human resource management practices: A review of empirical research. *Human Resource Management Review*, 15(1), 21-41.
- Ileana Petrescu, A., & Simmons, R. (2008). Human resource management practices and workers' job satisfaction. *International Journal of Manpower*, 29(7), 651-667.
- Iles, P., Chuai, X., & Preece, D. (2010). Talent management and HRM in multinational companies in Beijing: Definitions, differences and drivers. *Journal of World Business*, 45(2), 179-189.
- Khan, M. A. (2010). Effects of human resource management practices on organizational performance—an empirical study of oil and gas industry in Pakistan. *European Journal of Economics, Finance and Administrative Sciences*, 24(6), 157-174.
- Konrad, A. M., Yang, Y., & Maurer, C. C. (2016). Antecedents and outcomes of diversity and equality management systems: an integrated institutional agency and strategic human resource management approach. *Human Resource Management*, 55(1), 83-107.

- Kooij, D. T., Jansen, P. G., Dijkers, J. S., & De Lange, A. H. (2010). The influence of age on the associations between HR practices and both affective commitment and job satisfaction: A meta-analysis. *Journal of Organizational Behavior*, 31(8), 1111-1136.
- Kozlowski, S. W., Gully, S. M., Brown, K. G., Salas, E., Smith, E. M., & Nason, E. R. (2001). Effects of training goals and goal orientation traits on multidimensional training outcomes and performance adaptability. *Organizational Behavior and Human Decision Processes*, 85(1), 1-31.
- Lawler, E., Mohrman, S., Mark, A., Neilson, B., & Osganian, N. (2003). Creating a strategic human resources organization: An assessment of trends and new directions: Stanford University Press.
- Loi, R., Hang-Yue, N., & Foley, S. (2006). Linking employees' justice perceptions to organizational commitment and intention to leave: The mediating role of perceived organizational support. *Journal of occupational and Organizational Psychology*, 79(1), 101-120.
- MacDuffie, J. P. (1995). Human resource bundles and manufacturing performance: Organizational logic and flexible production systems in the world auto industry. *ilr Review*, 48(2), 197-221.
- Maheshwari, S., Bhat, R., & Saha S. (2005). Human resource practices and commitment of senior officials in health system: reflections from a progressive state in developing economy”, research and publications, Indian institute of ahmedabad, w.p. no.2005 – 09 – 02. Retrieved from http://115.111.81.83:8080/xmlui/bitstream/handle/123456789/100/2005-09_02ramesh.pdf?sequence=1&isAllowed=y
- Meyer, J. W., & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology*, 83(2), 340-363.
- Mills, P. K., Chase, R. B., & Margulies, N. (1983). Motivating the client/employee system as a service production strategy. *Academy of Management Review*, 8(2), 301-310.
- Muqadas, F., Rehman, C. A., & Aslam, U. (2017a). Organizational justice and employee's job dissatisfaction: a moderating role of psychological empowerment. *Pakistan Business Review*, 18(4), 848-864.
- Muqadas, F., Ilyas, M., & Aslam, U. (2016). Antecedents of knowledge sharing and its impact on employees' creativity and work performance. *Pakistan Business Review*, 18(3), 655-674.

- Muqadas, F., Rehman, M., Aslam, U., & Ur-Rahman, U. (2017b). Exploring the challenges, trends and issues for knowledge sharing: A study on employees in public sector universities. *VINE Journal of Information and Knowledge Management Systems*, 47(1), 2-15.
- Pfeffer, J. (1994). *Managing with power: Politics and influence in organizations*. Harvard Business Press.
- Pfeffer, J., & Davis-Blake, A. (1987). The effect of the proportion of women on salaries: The case of college administrators. *Administrative Science Quarterly*, 32(1), 1-24.
- Saboor, A., Ilyas, M., & Rehman, S. (2017). Linking empowerment and capability development with innovative behavior: testing a moderating model of employee's creative self-efficacy. *Pakistan Business Review*, 19(1), 176-194.
- Saboor, A., Mukhtar, M., & Sadiq, M. K. (2015). LMX as a Predictor of Performance Behaviour: Empirical Evidence from Life Insurance Sector of Pakistan. *Journal of Human Resource Management*, 3(1), 1-5.
- Schuler, R. S., & Jackson, S. E. (1995). Understanding human resource management in the context of organizations and their environment. *Annual Review of Psychology*, 46(1), 237-264.
- Sheehan, M. (2014). Human resource management and performance: Evidence from small and medium-sized firms. *International Small Business Journal*, 32(5), 545-570.
- Smeenk, S., Eisinga, R., Doorewaard, J., & Teelken, J. (2006). *Organisational Commitment among European University Employees: Documentation of a Survey on Predictors and Consequences of Organisational Commitment in European Universities Conducted in 2004/2005*. Den Haag, The Netherlands: DANS
- Snape, E., & Redman, T. (2010). HRM practices, organizational citizenship behaviour, and performance: A multi-level analysis. *Journal of Management Studies*, 47(7), 1219-1247.
- Storey, J. (2007). *Human resource management: A critical text*: Cengage Learning EMEA.
- Subramaniam, M., & Youndt, M. A. (2005). The influence of intellectual capital on the types of innovative capabilities. *Academy of Management Journal*, 48(3), 450-463.
- Swezey, R. W., & Salas, E. E. (1992). *Teams: Their training and performance*: Ablex Publishing.

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- Tsaur, S. H., & Lin, Y. C. (2004). Promoting service quality in tourist hotels: the role of HRM practices and service behavior. *Tourism Management*, 25(4), 471-481.
- Tzafrir, S. S., Harel, I. G. H., Baruch, Y., & Dolan, S. L. (2004). The consequences of emerging HRM practices for employees' trust in their managers. *Personnel Review*, 33(6), 628-647.
- Ulrich, D. (1998). A new mandate for human resources. *Harvard Business Review*, 76(1), 124-135.
- Ulrich, D. and Lake, D. (1990). *Organizational Capability: Competing from the Inside-Out*. New York: Wiley
- Van den Hooff, B., & de Leeuw van Weenen, F. (2004). Committed to share: commitment and CMC use as antecedents of knowledge sharing. *Knowledge and Process Management*, 11(1), 13-24.
- Von Bertalanffy, L. (1950). An outline of general system theory. *The British Journal for the Philosophy of Science*, 1(2), 134-165.
- Williamson, O. E. (1981). The economics of organization: The transaction cost approach. *American Journal of Sociology*, 87(3), 548-577.
- Wright, P. M., Gardner, T. M., Moynihan, L. M., & Allen, M. R. (2005). The relationship between HR practices and firm performance: Examining causal order. *Personnel Psychology*, 58(2), 409-446.