8 HRM Research Methods
Where We Are and Where We Need to Go

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After reading this chapter, we expect you to be able to:

1. Describe the state-of-science and development trajectories of the research methods utilized in the HRM-performance relationship studies;
2. Identify the problems in the current methodological practices;
3. Understand the promises and challenges of the research methods discussed in this volume;
4. Become familiar with the different stakeholders in the field of HRM research and understand how they are connected with each other.

1. INTRODUCTION

The field of Human Resource Management (HRM) research has been subject to heavy methodological criticisms for a long time. As pointed out in Chapter 1, various common research designs pertinent to the strength and causal relationship between HRM and performance have been taken issue with. Many of these issues have been repeatedly discussed by scholars, such as cross-sectional (Boselie, Dietz, & Boon, 2005; Wright, Gardner, Moynihan, & Allen, 2005), single-actor (Gerhart, Wright, McMahan, & Snell, 2000; Gerhart, Wright, & McMahan, 2000; Huselid & Becker, 2000), and single-level research design (Boselie *et al.,* 2005; Klein & Kozlowski, 2000). As scientific progress is premised on rigorous research methods with sound design, accurate measurement, and appropriate analytic techniques, these critiques threaten the validity and legitimacy of the current HRM research (see Welbourne, 2012; Sanders, Bainbridge, Kim, Cogin, & Lin, 2012; Sanders, Cogin, & Bainbridge, *this volume*). Indeed, after nearly three decades of inquiry, methodological limitations have been considered directly responsible for the inability of HRM scholars to answer the core question, What is the relationship between HRM and performance? (Guest, 2011; Wall & Wood, 2005).

Given the important role sound methodology plays in HRM research, it's time for HRM researchers to improve their research design, validate the measures, and apply advanced analytic techniques. To achieve this, they need to be equipped with knowledge and skills of when and how to use the available advanced methods. This book aims to contribute in this aspect. The preceding six chapters each introduced an advanced research method or research approach. After reading them, we hope the readers will be more confident in applying these methods. Before we move forward with the advanced methods, however, it might be meaningful to systematically take stock of what research methods have already been used in the field. Such an audit would inform the state-of-science of HRM research methods, indicate where the field currently is in terms of research design, and suggest what changes are needed in the future (Casper, Eby, Bordeaux, Lockwood, & Lambert, 2007; Scandura & Williams, 2000). A chronological review would further assist in judging the trajectories the field is following and predicting the direction the field is heading. To accomplish this task we draw on a research project conducted by Sanders and colleagues (2012). One prominent feature of this research is that it not only described the frequencies of the method adoption in HRM research, but also flagged the trend of changes over time. Based on this study (Sanders *et al.,* 2012), we outline the research methods employed in mainstream journals between 1996 and 2010 in studies that have examined the relationship between HRM and performance (see Section 2 of this chapter).

In light of the results of the systematic review, we then discuss the promises of the advanced research methods introduced in this book in overcoming the common methodological limitations in the HRM literature (Section 3). Since research design always involves a dilemmatic trade-off among multiple choices (McGrath, 1982), we also present the challenges that are intrinsic to each of these methods so that researchers are aware of both the strengths and weaknesses of a research method. Finally, acknowledging that researchers' methodological choice is not only a matter of preference but also constrained (or enabled) by many other factors, we call for joint actions from all the stakeholders of HRM research to facilitate significant changes in the field. We argue that without collaborative efforts, substantial methodological progress in the HRM field would be extremely difficult, if not impossible (Section 4).

2. THE STATE-OF-SCIENCE OF HRM RESEARCH METHODS

To present the state-of-science of the methodological choices made in HRM research and reveal the trajectories the field has been following, Sanders and colleagues (2012) thoroughly investigated the methods employed in the HRM-performance literature. Studies from six leading management journals and three field-specific HR journals were selected over a 15-year time

frame (1996–2010). Since HRM researchers have increasingly come to the agreement that it is the combination of multiple HR practices that influences employee and organizational performance (Hayton, Piperopoulos, & Welbourne, 2011; Martín-Alcázar, Romero-Fernández, & Sánchez-Gardey, 2008; Wright & Boswell, 2002), Sanders *et al.* (2012) focused on research that examined the effect of *multiple* HR practices in relation to individual, group, and organizational outcomes. A total of 179 empirical studies that fulfilled their selection criteria were identified.

Under the umbrella of multiple HR practices-performance relationship, the studies included in their investigation covered five basic research models, although many studies involved a combination of two or more of these basic models. The first research model answers the question: What is the *direct effect* of multiple HR practices on performance? This strand of research is characterized by researchers' endeavors to identify an effective set of HR practices and empirically test the direct relationship between multiple HR practices and their outcomes. Examples include Delaney and Huselid (1996) and Tsui, Pearce, Porter, and Tripoli (1997). Overall, 141 out of the 179 studies (79%) investigated the direct relationship between HRM and performance. The second research model is concerned with the question: *When* are multiple HR practices more (or less) effective? This strand of research holds the view that the effectiveness of HRM is contingent upon contextual factors. Organizational strategy, for instance, is one factor that is often studied (e.g., Guthrie, Spell, & Nyamori, 2002; Youndt, Snell, Dean, & Lepak, 1996). Forty-nine studies (27%) examined the moderating effect of some variables in the HRM-performance relationship. The third research model asks the question: *How* do HR practices relate to performance? The last few years have witnessed a surge of research addressing the intermediate linkage between HRM and performance measures (e.g., Chuang & Liao, 2010; Gong, Law, Chang, & Xin, 2009; Kaše, Paauwe, & Zupan, 2009). This body of research provides insights into the causal mechanisms of how and why HRM contributes to performance. Forty-five studies (25%) in the sample researched the intermediate variables linking HRM and performance. In the fourth research model, HRM is treated as endogenous; namely, another variable affects performance *through* HR practices. For example, Bae and Lawler (2000) argued that an organization's management values regarding HRM and its overall strategy determine its HRM strategy, which further influences the organization's performance. In 16 studies (9%) HRM worked as a *mediator.* In the fifth research model, the effect of another variable is facilitated or inhibited by HRM. That is, HRM works as a *moderator*. Eighteen studies (10%) were based on this model (e.g., Shaw, Dineen, Fang, & Vellella, 2009; Shaw, Gupta, & Delery, 2005). Sanders *et al.* (2012) found that over time the proportion of studies examining the direct relationship between HRM and performance was declining, whereas there was a growing interest in examining how HR practices related to performance via mediation designs. This trend echoed the call from many scholars for a diversion

of research attention to opening up the "black box" between HRM and performance (e.g., Becker & Gerhart, 1996; Lepak, Takeuchi, Erhardt, & Colakoglu, 2006).

In terms of general research method, single-method research comprised 95% of the sample. The prevalence of quantitative studies (91%) over qualitative studies (4%) and mixed methods studies (5%) was palpable. Specifically, most quantitative studies (162 out of the 163 quantitative studies) adopted a survey approach. Case studies (7 studies) and interviews (8 studies) were used infrequently. Researchers' overdependence on single-method research design dismisses the opportunity to compensate for the inherent weakness of one method with the strengths of another (Jick, 1979). What is discouraging is that there was a declining proportion of qualitative research, due in part to a move away from case-study research.

With regard to more specific research designs, Sanders *et al.* (2012) found that multi-level research was underrepresented in the sample (13 out of the 179 studies); 93% of the studies adopted a single-level research design. The preponderance of single-level research design suggested that HRM researchers largely failed to bridge macro and micro research (Wright & Boswell, 2002). By failing to do this, they risked erroneously attributing high-level phenomena to low level or vice versa (Rousseau, 1985). There was, however, evidence that multi-level research was gaining popularity and that the proportion of multi-level studies was increasing over time.

Although it is suggested that longitudinal data and experiments allow stronger inference of the direction of causality (Guest, 2011; Little, Card, Preacher, & McConnell, 2009; Wright *et al.,* 2005), 96% of the studies used cross-sectional data. Only one study in the sample was an experimental study. The limited number of longitudinal studies and experimental studies weakened the ability of researchers to infer the direction of causality between HR practices and performance. Furthermore, Sanders *et al.* (2012) found no evidence of an increasing proportion of longitudinal research.

In terms of measurement, more than half of the studies (59%) relied on data from the same source, which meant the same respondent answered questions on both HR practices and performance. Therefore, common method variance (CMV, Podsakoff, MacKenzie, Lee, & Podsakoff, 2003) posed a threat to the validity of the research results. It invoked suspicion that the significant relationship between multiple HR practices and performance may in fact be a methodological artifact. Disappointingly, no evidence was found of a change in preference for multiple informants for either the measurement of HR practices or performance.

In summary, the systematic review of Sanders *et al.* (2012) points to the following concerns in HR research: overreliance on a single method, particularly surveys; a dearth of a multi-level perspective; the prevalence of cross-sectional research design; and infrequent measurement drawn from multiple respondents. These limitations undermine HRM researchers' confidence in asserting that HRM makes an impact on performance. As a result,

no conclusive answers exist to the following questions: (1) Does adoption of HR practices lead to superior performance? (2) If HRM leads to superior performance, how large is the effect size? Due to the importance of these two questions to the practitioners and the ambiguity of the answers, the diffusion of HRM research results to the practitioners is much impeded (Wall & Wood, 2005; Welbourne, 2012). To enhance the impact of HRM research, significant changes in research methods are needed to improve research validity. More adoption of advanced research methods is desired, which promises to overcome the limitations in the HR literature.

3. PROMISES AND CHALLENGES OF ADVANCED RESEARCH METHODS

This book introduced mixed methods research, multi-level and multi-actor research, social network analysis, longitudinal research, experimental methods, and cross-cultural studies in HRM. In each chapter the authors discussed the advantages of that method, when it is appropriate to use it, and how to use it. They also illustrated the common decision points researchers will encounter at various stages of a research project, using examples either from published literature or from their own research experiences. Although we advocate these research methods and recognize their high values, we do also point out the challenges associated with them to the readers. In this section, we summarize the promises and challenges of each research method to give the readers an overview (see Table 8.1). Strategies for researchers for efficiently employing these methods are also developed.

In Chapter 2 (Bainbridge & Lee) a mixed methods approach was introduced. Johnson, Onwuegbuzie, and Turner (2007, p. 123) define mixed methods research as "the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches for the broad purpose of breadth and depth of understanding and corroboration." The strength of this approach lies in its capacity to address complex research problems by combining the "best of both worlds." Mixed methods draw upon the capacity of qualitative research to provide a contextualized deep understanding (Creswell, 1998), and quantitative research to develop generalizable findings. To the extent that results from the two methods converge, researchers can be more confident in the validity of their research, instead of attributing the research results to a methodological artifact (Bouchard, 1976).

Despite of these advantages, the authors of Chapter 2 recognize the demands of mixed methods. First, due to a broader scope of data collection and analysis, mixed methods research is complex. It sets higher demands on researchers' domain-specific knowledge, methodological expertise, project-management competency, and skills in integrating findings from

Table 8.1 Promises and challenges of the research methods introduced in this book

	Promises	Challenges
Mixed methods research (Chapter 2)	• Accessibility to complex research questions • Deep understanding AND generalizability • Triangulation • High impact of research	• Complexity • Time • Unrealistic expectations of payoff • Compatibility of paradigms • Bilingual language
Multi-level and multi-actor research (Chapter 3)	• Bridging macro and micro research (multi-level) • Avoiding ecological and atomistic fallacy (multi-level) • Incorporating the perspectives of multiple stakeholders (multi-actor) • Avoiding common method variance (multi-actor)	• Alignment among the levels of theory, measurement, and analysis • Selection of data source • Adequate sample size at each level
Social network research (Chapter 4)	• Superiority in modeling interaction and interdependency • Modeling actor and relational effects at the same time • Can be used at various levels of analysis as well as across levels of analysis	• The conflict between tracking respondents and ensuring confidentiality • High participant rate needed • Additional ethical issues to be addressed • Complex and time-intensive analysis
Longitudinal research (Chapter 5)	• Stronger causal inference • Modeling change over time • Differentiation of time-varying and time-invariant factors	• Time frame • Number of assessments • Spacing of assessments • Recruitment, tracking, and retention of participants
Experimental methods (Chapter 6)	• Stronger causal inference – Controlling for confounding variables and ruling out alternative explanation	• Generalizability • Manipulation of a set of HR practices
Cross-cultural research (Chapter 7)	• Tests the boundary of theory • Delineates universal and culture-specific HR practices • Incorporates the influence of multiple levels	• Emic vs. etic approaches • Cross-cultural equivalence • Level of analysis • Causal inference

different research methods. Second, the greater breadth and depth of data collection and analysis involved implies a greater time commitment to the project. Third, the promise of mixed methods can lead researchers to create overly complex research designs and develop unrealistic expectations of the contribution that mixed methods can make to addressing research problems and smoothing the path of publication. Similarly, Creswell (2011) lists 11 key controversies and questions in mixed methods research. Although there are preliminary answers to some of these concerns, most are still being debated. The compatibility of paradigms and worldviews and the necessity of adopting a bilingual language in mixed methods research are two that are still being discussed. As Howe (2004) comments, the "natural home" of qualitative methods is "within an interpretivist framework" (pp. 53–54), whereas quantitative methods seem to be endorsed more by the positivists. If methods are linked to paradigms, can paradigms be mixed (Holmes, 2006)? Or should methods be delinked from paradigms (Johnson & Onwuegbuzie, 2004)? Different voices exist on this question (Creswell & Plano Clark, 2007, 2011; Greene & Caracelli, 1997). Also, when writing up a research report, there remains an open question as to whether researchers should adopt a bilingual language to accommodate the tastes of both qualitative and quantitative researchers (Creswell, 2011).

Chapter 3 (Mäkelä, Ehrnrooth, Smale, & Sumelius*)* discussed issues deserving attention in multi-level and multi-actor quantitative research. This research design has both theoretical and methodological strengths. Theoretically, multi-level research has the potential to integrate macro- and micro-level research and provide a holistic understanding of HRM (Rousseau, 1985; Wright & Boswell, 2002), while multi-actor research is justified by an emerging trend in HRM research that endorses a key-actor approach (Rupidara & McGraw, 2011) or stakeholder approach (Tsui, Ashford, St. Clair, & Xin, 1995). Methodologically, multi-level research avoids the ecological and atomistic fallacy common at single level of analysis and enables researchers to model more complex cross-level phenomenon, while multi-actor research can address the much criticized problem of common method variance (CMV).

Challenges in conducting multi-level research arise from the need to correctly identify level of theory, level of measurement, and level of analysis (Rousseau, 1985). First, researchers need to clearly identify their level of theorization. In strategic human resource management (SHRM), for example, some researchers assume that a set of HR practices is used across all employees in a firm, whereas Lepak and Snell (1999, 2002) propose that different employment modes are adopted for different types of human capital. With the former assumption, the level of theory is the organization, whereas with the latter, the appropriate level of theory is the employment mode. Even when the level of theory is clear, measurement can be problematic because unit membership may be ambiguous (Mathieu & Chen, 2011). Resolution of this problem requires close cooperation with organizational insiders who

can provide more information that helps researchers to make sound decisions. Finally, the level of data analysis has to be in alignment with the level of theory and data. To ensure the theory-data-analysis alignment, adequate sample size at each level needs to be obtained. Various possible external constraints, such as a fixed number of entities at a certain level, or unwillingness of organizations to participate in research, could hinder the successful development of a project.

In Chapter 4 (Kaše*)* social network research, a method that has been underutilized in HRM research, was presented. Social network research addresses "a social phenomenon (or social phenomena, *author added*) composed of entities connected by specific ties reflecting interaction and interdependence" (Carpenter, Li, & Jiang, 2012, p. 1329). Because the assumption of social network theory is that individuals are not independent but embedded in relational networks, social network analysis is extremely well suited for modeling the interactions and interdependence among different entities. It allows researchers to model actor and relational effects at the same time and at various levels as well as across levels.

Challenges of conducting social network research reside primarily in the process of data collection and analysis. First, the dual goals of tracking respondents and keeping them anonymous at the same time are difficult. Multitime passwords are recommended as one way of addressing this problem. Second, to capture the relational ties within a network, a high participation rate is desirable as missing data can be highly problematic. Obtaining support from the top management of a focal organization thus becomes vital to the success of social network data collection. Close cooperation with the management, however, opens some ethical issues (Cross, Kaše, Kilduff, & King, 2013). Finally, in terms of data analysis, because observations from network data violate the independence assumption and are thus subject to autocorrelation problem (Krackhardt, 1988), it requires different analytic approaches. Due to its distance from traditional regression analysis, analysis of network data is complex and time-consuming.

Chapter 5 (Bednall*)* reviews longitudinal research designs. Longitudinal research overcomes the shortcomings of cross-sectional design by permitting a stronger inference of the direction of causality (Little *et al.*, 2009; Wright *et al.,* 2005). It allows researchers to model the change of variables over time and determine what factor causes the difference in change. A further strength of longitudinal research is the ability to allow researchers to distinguish the effects of time-varying and time-invariant factors.

Challenges of conducting longitudinal research are firstly those concerned with determining the time frame of data collection, number of assessments, and spacing of assessments. Sound decisions are based on researchers' reasonable assumption about the rate of changes. However, in HRM research it can be demanding to determine the time needed for HRM to result in change in individual, group, or organizational performance, especially when different indicators of performance are involved (Combs, Crook, & Shook, 2005;

Dyer & Reeves, 1995). The attrition of participants in the phase of data collection poses another challenge. Various strategies for the recruitment, tracking, and retention of participants are suggested. As far as data analysis is concerned, missing data is an issue that needs to be addressed carefully. Chapter 5 outlines strategies for dealing with different types of missing data depending on whether the data is missing completely at random (MCAR), missing at random (MAR), or missing not at random (MNAR).

In Chapter 6 (Yang & Dickinson*)* the application of experimental methods into HRM research was discussed. The merit of experimental methods is that they allow researchers to claim a cause-and-effect relationship more confidently by manipulating the independent variables and controlling for confounding variables. Thus, experimental methods are one route for enhancing the internal validity of a study. Because it is not easy to randomly manipulate real HR practices in organizational settings, in this chapter the authors particularly concentrated on discussing the vignette technique. A vignette asks respondents to react to specific, recognizable situations (Wason & Cox, 1996). This allows researchers to systematically manipulate the focal factors in a study (Alexander & Becker, 1978).

Although in theory experimental study provides a powerful tool to test the causal relationship between HRM and performance, its potential has not been fully utilized by HRM researchers. The concern that the results produced in the lab or by a vignette study might not generalize to the field probably has hindered its widespread use. Another reason might be that as SHRM research has gained popularity, researchers have turned their attention toward HRM systems (Lepak, Liao, Chuang, & Harden, 2006). The manipulation of a set of HR practices is far more complex than manipulating a single HR practice.

Chapter 7 (Liao, Sun, & Thomas) introduced cross-cultural research in HRM. Cross-cultural research has received more attention against the backdrop of intensified globalization. Cross-cultural HRM research focuses on the impact of culture on the adoption and effectiveness of HR practices. It explores indigenous HR practices in various cultures, compares effectiveness of HR practices in different cultural contexts, and provides a better understanding of the influence of cultural factors on HR practices and effectiveness. As a result, it helps multinational corporations (MNCs) to navigate through diverse international environments.

Challenges of cross-cultural research in HRM lie in the selection of research approaches, establishment of cross-cultural equivalence, potential confusion of levels of analysis, and difficulties in drawing causal inferences. A derived etic approach was recommended to combine both emic and etic aspects of culture. In terms of cross-cultural equivalence, the authors outlined ways to ensure conceptual, methodological, and measurement equivalence. Different levels of analysis embedded in cross-cultural studies sometimes lead to confusions of levels and inappropriate data transformation across

levels. However, a well-designed study should be able to incorporate the impact from different levels and establish a comprehensive model. Finally, since most cross-cultural studies are quasiexperimental in nature, systematic contrast strategies and covariate strategies were recommended to strengthen causal inferences by strategically choosing countries or statistically controlling confounding variables and ruling out alternative explanations.

Strategies for Researchers

The advanced methods discussed in this book hold clear advantages over the single-method, single-actor, single-level, and cross-sectional research designs that prevail in the current HRM research. But their utilization also comes with challenges that can make their application a daunting task. How to balance the advantages and challenges of a research method or multiple research methods in a research project? Below we develop some strategies for researchers. We recommend that researchers undergo the evaluation process described below before embarking on a project. Using the hypothetical description of Marjan's PhD research, we illustrate how these methodological considerations might be addressed.

The first step is to determine the primary research purpose and evaluate the nature of the research question. Adequate research designs are always driven by the question being asked (Bono & McNamara, 2011). This implies a consideration of the nature of the research question at the very beginning of a project. For example, is the research question causal or associative? The answer has clear implications for the research design. For instance, if the purpose is to examine the coexistence of a pay-for-performance practice and a promotion-from-within system, the question is associative. In contrast, the question of whether HRM is effective in terms of enhancing employee and organizational performance is causal. Other potential questions might include: Are different stakeholders' interests involved in the research question under investigation? Can a single actor's answer be a valid representation of different stakeholders' opinions or perceptions? Answers to these questions suggest the degree of applicability of a multi-actor research design.

Second, based on the evaluation of the nature of the research question, a researcher should attempt to identify the components of an *ideal* research design. If the research question is causal, an experimental study or a longitudinal study is superior to a cross-sectional survey in inferring causality. If the question is associative and the variables are relatively stable over time, a cross-sectional design may be sufficient. If the question asks how HR policies are shaped, based on the upper echelon theory (Hambrick & Mason, 1984) one can assume that it is the judgment of the most senior HR manager who makes the decision on HR design. Consequently, the best informant would be that HR manager. If a researcher assumes that the final HR policies are a result of political struggles among different parties, a multi-actor

research design is superior to a single-actor research design. Researchers are directed to review Cook and Campbell's (1976) chapter for experimental research and Mitchell's (1985) checklist for correlational research as a guide to avoiding pitfalls in research design. At the stage of determining the ideal study design, one is encouraged to consider a match between his or her research question and the various aspects of research designs regardless of the resources available. A comprehensive consideration would avoid opportunities being dismissed prematurely.

Finally, researchers should assess the available resources and make necessary compromises. For example, a longitudinal study with time intervals of a year might not be the best choice for a PhD student. Or due to the difficulty of accessing multiple respondents, a multi-actor research design has to be abandoned. Despite all kinds of such constraints, researchers should make an effort to match their research designs with their research question as much as possible. For example, one could try to obtain multiple actors for a portion of the sample if it's not possible for the whole. Then the researcher can compare the conclusions drawn from this sample with that from the whole sample. This would give some hints about how much discrepancy there could be between using a single actor and multiple actors. By comparing the compromised research design with the ideal, researchers can determine the study limitations that can suggest paths for future research.

Choosing a research design: How does it work in practice?

Marjan is a PhD candidate interested in teachers' informal learning. From her own experiences Marjan knows the importance of teachers who are eager to learn and improve their teaching capabilities. Marjan's overarching research question is, How can HRM, especially training and performance appraisal and HRM strength, as was introduced by Bowen & Ostroff (2004; see also Bednall, Sanders, & Runhaar, in press) promote informal learning of teachers over time? The idea behind this question is that HRM content such as training and performance appraisal are positively related to informal learning. If teachers can understand what is expected from them, this will strengthen the positive effect of HRM content. Because this question assumes that the change in HRM leads to the change in teachers' informal learning, Marjan determines that it is causal in nature. A random experimental study or longitudinal study would be ideal options to address this question.

To get more contextualized understandings of her research question and inform her later research design, Marjan interviewed teachers, team leaders, and HR professionals at different schools and got several insights from these interviews. During the interviews she learned that one of the schools would implement a new HRM system in a few months; this gave her the unique opportunity to conduct a quasiexperimental study. Although she wanted to combine the quasiexperimental method with a longitudinal research design to strengthen the causal

inference, her scholarship is only for three years. A multiple-wave longitudinal study seems not likely. Finally, she made the choice to do a two-wave data collection from the quasiexperimental study with a six-month interval. Then she could have the data within one year. In writing up her thesis, Marjan found that the insights she got from the interviews greatly helped her in the interpretation of the results from the two-wave quasiexperimental study.

4. JOINT ACTIONS TO MOVE THE FIELD FORWARD

While this book acquaints the readers with advanced research methods, a question can be asked whether simply becoming familiar with these tools is sufficient to change the methods used by the HRM field. Planned behavior theory (Ajzen, 1985, 1991) suggests that an individual's intention to act is a confluence of his or her attitude toward certain behavior, his or her perception of the norms held by significant others regarding that behavior, and his or her perceived control of that behavior. Similarly, researchers' methodological choices are not only influenced by their own skills. They are also shaped by the climate of the whole scholarly community and the support researchers obtain from within and outside the community. If a strong climate exists in the HRM scholarly community that proper research methods are desirable, researchers are more likely to conform. Furthermore, as advanced research methods are often more complex in terms of research design and data collection, to the extent that researchers can get support from interested organizations, they are more likely to implement the complex research designs.

Because the factors that influence researchers' decisions to employ advanced research methods involve a number of stakeholders, joint actions from all stakeholders are called for to enable significant changes in the field. As we believe that an action plan is only feasible when most stakeholders' missions or goals are compatible with each other within the framework of that plan, below we briefly discuss some important missions or goals of the stakeholders and make recommendations as to how these missions or goals might be realized.

HRM researchers (including PhD candidates) need to discover and create knowledge on the management of people and work. The most quantifiable measurement of knowledge output probably is publication. This might explain why publication is one of the most important criteria in the decision making concerning faculty recruitment, pay increases, and promotion. We expect that either being intrinsically or extrinsically motivated, HRM researchers would make an effort to maximize their knowledge output, which is reflected in their publications.

Business schools shoulder the responsibility to disseminate knowledge to students and, further, to society. This mission can be better served when

researchers who obtain insights from the latest research feed these insights back to their teaching. By employing faculty who are good at doing research and thereby enhancing teaching quality, business schools can realize their mission. With that said, the missions of business schools and researchers are congruent.

Journal editors are charged with the task of increasing journals' impact factor and expanding their reach to readers. To accomplish these tasks a journal needs to encourage high-quality submissions. High-quality research is characterized by important research questions, rigorous research methods, and valid findings. Research with these features is cited and read more frequently (Arvey & Campion, 1998). It also provides more value to practitioners and, therefore, has a higher probability to reach practitioners. To increase the number of high-quality publications in their journals, editors are nevertheless dependent on researchers' efforts to conduct high-quality research.

Organizations focus on surviving, making a profit, and competing with other companies to keep or strengthen their market position. Management based on scientific evidence that overcomes the sole reliance on intuition, unsystematic experience, unexamined ideologies, and idiosyncratic situational cues is essential to support this goal (Charlier, Brown, & Rynes, 2011). There is evidence demonstrating that organizations whose HR professionals read academic research have higher financial performance (Terpstra & Rozell, 1997). Although research finds a large knowledge gap (Rynes, Colbert, & Brown, 2002; Sanders, Riemsdijk, & Groen, 2008) and discrepant interests (Deadrick & Gibson, 2007) between academics and managers, the latter would benefit from a recognition that organizational performance can be supported by research.

Recommendations

Based on the above discussion of each stakeholder's mission or goal, we develop the following recommendations.

Highlight the importance of valid research methods. Journal editors should *explicitly* highlight the importance of valid research methods via editorials emphasizing the importance of valid methods, special issues discussing research methodology, or in authors' submission guidelines. For example, *Academy of Management Journal* notes in an editorial (Bono & McNamara, 2011) that many papers using cross-sectional design are rejected because they are not sufficient in answering their research questions that implicitly address issues of change. *Human Resource Management* expresses its disfavor with experiments using student samples. Similarly, *Journal of International Business Studies* discourages empirical studies employing student samples unless strong justification can be provided. *Personal Psychology* particularly welcomes multi-level research that includes individual, team, and organizational levels. By highlighting the importance of valid research methods and publish-

ing rigorous research, journals heighten their impact and widen their reach. They also benefit organizations by providing reliable research evidence and improving managers' decision quality.

Promote implications for practice in published research/research outputs. Researchers need to listen to managers and HR professionals from organizations to understand their concerns (Deadrick & Gibson, 2007). Research questions generated from practitioners' concerns will be better valued and embraced by them. Journal editors as gatekeepers for the published articles can ask researchers to explicitly articulate the practical implications of their research. *Human Resource Management* is one of the few high-impact research-based journals that is practicing this. Submitters to *Human Resource Management* are asked to explain the implications of their research to practitioners. Editors of practitioner-oriented journals can go even further. *Harvard Business Review* seeks research "whose practical application has been thought through in clear jargon-free language." Their editors clearly ask the question "How much does this idea benefit managers in practice?" (http://hbr.org/guidlines-for-authors-hbr). It requires HR researchers not only to conduct practice-relevant research, but also to write in "practice-based language" that is understandable to the managers (Deadrick & Gibson, 2007, p. 137). By emphasizing the practical value of research, academic efforts and results will be more appreciated by practitioners.

Evidence-based management is a decision-making process combining critical thinking with the use of the best available scientific evidence and business information (Rousseau & Barends, 2011). It requires managers to seek systematic evidence from the best available academic research and translate principles based on the evidence into practice. An appealing promise of evidence-based management is that it consistently helps attain organizational goals (Rousseau, 2006). Research shows that organizations using evidence-based management gain a seven percent profit increase (Lovallo & Sibony, 2010). Therefore, organizations are encouraged to pursue evidence-based management. Because organizations aiming at evidence-based management are aware of the value of research, we expect that they are more willing to participate in research, since participation in research increases the salience of the logic behind evidence and exposes organizations directly to scientific information (Rousseau, 2006). Organizations' interest in research evidence and in participating in research will consequently benefit researchers and reduce the difficulty in accessing organizations.

Add engagement with organizations to researchers' promotion schemes. In the current promotion schemes of most business schools little or no attention is paid to the collaboration researchers have with organizations. Adding engagement with organizations into researchers' promotion schemes will stimulate collaborations. It would motivate researchers to actively seek collaboration opportunities with organizations and, at the same time, promote their thinking on the practical values of their studies. Although, beyond the

scope of this chapter, how to measure the degree of engagement is definitely an issue that deserves consideration in practice.

In summary, the above recommendations serve two goals: to raise the awareness of researchers that advanced research methods are encouraged, and to facilitate the collaboration between the scholarly community and the practitioners. The former can be realized primarily by journal editors who set high standards on valid research methods and further by business schools that place value on researchers who produce valid knowledge. The achievement of the latter on the one hand requires researchers and journals to enhance the practical value of their research; on the other hand it calls for organizations to embrace evidence-based management to make scientific decisions. Business schools can facilitate the collaboration process by motivating researchers through promotion schemes. If these recommendations can be implemented, more advanced research methods will be applied and more valid HR research will be spawned. Organizations will gain insights from valid research results, increasing trust in HR research and enhancing opportunities for collaboration in the research process. In turn, academic research will be spurred, exploring more relevant questions. Research and practice inform and stimulate each other, which will move the HRM research to a higher level. This is where we need to go.

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