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WORKING PAPER SERIES

The Impact of eHR on Professional Competence in HRM: Implications for the Development of HR Professionals

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Working Paper 06 – 03



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April 2006

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Abstract

Information technology has been cited as a critical driver of HR's transition from a focus on administrative tasks to a focus on serving as a strategic business partner. This strategic role not only adds a valuable dimension to the HR function but also changes the competencies that define the success of HR professionals. Interviews were conducted with HR representatives from 19 firms to examine the linkage between electronic human resources (eHR) and the reshaping of professional competence in HRM. Based on the findings, we draw implications for the development of HR competencies and identify learning strategies that HR professionals can utilize to fulfill their changing roles and responsibilities.

The Impact of eHR on Professional Competence in HRM: Implications for the Development of HR Professionals

As the latest advanced technologies offer the potential to streamline many HR functions, businesses increasingly are utilizing information technology to design and deliver their HR practices. This trend is not surprising given the substantial benefits that can emerge from integrating information technology into the HR function. The Cedar Human Resources Self-Service/Portal Survey (2001), for example, revealed that companies using self-service technologies could reduce HR transaction costs by up to 75% and typically recoup costs associated with the technology in less than two years.

In addition to costs, many organizations are utilizing electronic human resource (eHR) systems in an effort to enhance the efficiency and effectiveness of the HR function. For instance, a recent study by the Institute of Management & Administration (IOMA) found that 70% of companies reported that technology led to improvements in the quality and timeliness of HR services to employees and 67% reported that eHR has led to improvements in overall organizational efficiency (IOMA, 2002).

With the growth of information technology, much of the administrative aspects of human resource management can be accomplished through technology solutions hosted by the company or outsourced (Lawler & Mohrman, 2003). As technology frees up HR from some of its routine tasks, there is a greater opportunity for HR professionals to become a strategic partner (Ulrich, 1997; Brockbank, 1999). This means moving beyond administrative expertise and becoming an expert in areas such as strategic business partnership, change management, and employee advocacy (Ulrich, 1997; Wright, Dyer, & Talka, 1999). Although this transformation has been gradual, there is evidence that the roles and responsibilities of HR professionals are evolving (Lawler & Mohrman, 2003).

An important implication of this transformation is that it may change the competencies that HR professionals must master in order to be successful. Baill (1999), for example, has suggested that “traditional” HR competencies have not gone away, but rather must be supplemented with additional skills, such as a better understanding of the business. Brockbank, Ulrich, and Beatty (1999) also note that over the past decade HR professionals have needed to be more knowledgeable about financial management and external competitive and customer demands. In sum, evidence suggests that leading firms have shifted from a focus on HR administration to a focus on more strategic issues (e.g., Yeung, Brockbank, & Ulrich, 1994) and that this shift has implications for the competencies that define the success of HR professionals.

In the current article, we use data collected through interviews with senior HR professionals from 19 Fortune 500 companies to examine the linkage between eHR and the reshaping of professional competence in HRM. As noted earlier, information technology has been identified as an impetus of HR’s transition to becoming a strategic business partner (e.g., Lawler & Mohrman, 2003). In this study, we extend this work one step further and explore the role of information technology in shaping the competency requirements of HR professionals. The interview data is used to extract key trends in the changing nature of HR competence, and excerpts from the interviews are used to provide a deeper examination of these trends. We conclude the paper with a discussion of the practical implications of these findings, focusing special attention on identifying strategies that can be used to develop the competencies that HR professionals need to be successful in an eHR environment. In addition, we discuss the boundary conditions of our findings and highlight future research avenues.

HR Competencies

Losey (1999) notes that today, human resource management is a profession with its own body of knowledge. Over the past decade-and-a-half, efforts have been undertaken to define this body of knowledge and examine its transformation over time. For example, in 1998, the Society for Human Resource Management (SHRM) studied the future-oriented competencies of

HR professionals. The study revealed a set of core HR competencies, including customer focus, assessment and measurement skills, and technology expertise.

In this study, we utilize the competency framework developed by Ulrich, Brockbank, and their colleagues (e.g., Brockbank, et al., 1999; Ulrich, Brockbank, & Yeung, 1989; Ulrich, Brockbank, Yeung, & Lake, 1995). This work has identified three primary domains of HR competence: knowledge of the business, delivery of HR practices, and change management. In light of the growing integration of technology into the HR function, recent updates to these models have often included a fourth domain of competence: technology expertise (Hunter, 1999; Schoonover, 2003; Brockbank & Ulrich, 2003). Given our specific focus on the impact of technology on professional competence in the HR field, we have adopted this four-dimensional model. Each of the four categories is briefly described below.

Knowledge of the Business. Ulrich et al. (1989) state “knowledge of the business refers to the extent to which an HR professional understands the financial, strategic, and technological capabilities of an organization” (pp. 315-316). There is growing recognition that to be successful in HR, individuals need more than HR knowledge; they need to know the business and understand its language (Bates, 2002). Specific competencies that fall within this category include the ability to align HR strategies with business vision and the ability to consult with line management to analyze and solve problems (Kochanski & Ruse, 1996; Svoboda & Schroder, 2001; Ulrich et al., 1995).

HR professionals must understand how their business creates profit and they must be able to view issues from the perspective of customers (Yeung, Woolcock, & Sullivan, 1996). A greater understanding of the business allows HR professionals to partner with communications professionals to ensure that business messages are well understood by the work force (Baill, 1999). In addition, Lawler and Mohrman (2003) argue that business acumen allows HR professionals to combine their expertise with the expertise of line management to solve business problems. That is, HR professionals must be able to use their business knowledge to

make strategic contributions (Brockbank & Ulrich, 2003). Competence in this domain is viewed by many as the key to HR professionals making the transition to serving as a strategic business partner.

Delivery of HR Practices. Competence in this area refers to “knowing and being able to deliver state-of-the-art, innovative HR practices” (Ulrich et al., 1995). In essence, HR professionals must be experts in their specialties. In particular, HR professionals must have competence in areas such as staffing, development, compensation, and employee and labor relations (Lawson & Limbrick, 1996). However, competence in this area goes beyond knowledge; it requires HR professionals to deliver HR practices to organizational members. Expertise in the functional areas of HR is critical to being able to deliver state-of-the-art, innovative HR practices that add value, and HR professionals’ competence in this area largely determines the credibility and professional respect that they will command from others.

Change management. HR professionals who have the capacity to manage change are able to “increase an organization’s capability for change through creating meaning, problem solving, relationship influence, innovation, transformation, and role influence” (Ulrich et al., 1989, p. 316). Effective change agents are able to diagnose and solve problems, build relationships, articulate a vision, set a leadership agenda, and implement goals. They are also able to help overcome and manage individual resistance to change that often inhibits organizational adaptability (Ulrich et al., 1995). To be effective change agents, HR professionals must also anticipate new challenges and developments, be able to detect trends and early signals, and initiate flexibility in fast-changing business environments (Svoboda & Schroder, 2001). Companies today operate in a fast-paced and rapidly changing business environment, which means that an increasingly important element of HR’s value proposition stems from the ability to help create an overall organizational capacity for change.

Technology Expertise. As information technology emerges as a key delivery vehicle for HR services, it becomes increasingly important for HR professionals to demonstrate

technology expertise. As Hunter (1999, p. 148) notes, “Because of the ever-broadening scope of information technology, particularly Web-based solutions, varying degrees of technological ability also are generally required.” In particular, HR professionals need to be able to use HR technology and web-based channels to deliver services to employees (Brockbank & Ulrich, 2003). They must be proficient with HR information systems (HRIS) and must be able to teach others how to use such systems (Lawson & Limbrick, 1996). Schoonover (2003) suggests that technology expertise also is important for enabling HR professionals to manage technology vendors and ensure seamless delivery of excellent services. Specifically, he notes, “Whether supporting internal technology systems, or dealing with technology providers who provide the service externally, excelling in technology applications is emerging as a vital competency area for HR professionals” (p. 17).

Finally, HR professionals must often be capable of using technology to collect data and transform it into strategically valuable information (Lawler & Mohrman, 2003). HR professionals are increasingly being tasked with helping to identify technology needs, managing technology vendors, and mobilizing technologies to support and evaluate the HR function, all of which require technology competence.

These four areas are widely recognized as the core competencies that define the HR profession. However, no one has examined whether the adoption of eHR drives changes in the relative importance of these different competency domains over time. In the sections below, we describe a qualitative study conducted to address this question and the key findings that emerged from this investigation.

The Study

Sample

Participants in this study are executives from 19 Fortune 500 companies (see Appendix for list of participating firms). These companies were identified through their membership in an HR consortium sponsored by a large university in the northeast. The participating companies

represent a diversified sample that covers organizations of varying sizes and industries, and in total, represent nearly 2 million employees.¹ Representatives responsible for eHR at each of the companies were identified and interviewed.

All interviewees were executive-level HR professionals charged with the strategic management of the firm's eHR system, but the specific roles of respondents varied depending on how their organization utilized eHR. For example, in several firms that were using eHR primarily for learning and development, we interviewed the Vice President of Learning or the Head of E-Learning. In other companies where eHR was being used more broadly, we spoke to the Chief Information Officer, the Director of HRIS, or a senior, corporate HR executive. In situations where the initial respondent was unable to fully answer questions about how his/her organization or function was utilizing eHR, we interviewed multiple (2-3) respondents in the firm. This occurred within three firms in our sample, and the data from the multiple respondents were combined for analysis.

Interview Methodology

Phone interviews were conducted with the 19 executives. Each participant was asked to answer two questions regarding (1) the ways in which the HR function in the company utilizes information technology, and (2) how the competency (i.e., knowledge, skills, and abilities) requirements for HR professionals in their organization have changed, if at all, as a result of their eHR initiatives. Occasionally interviewers would pose follow-up questions to explore an issue, but our goal was to utilize a nondirective approach that would provide unbiased responses and yield insight into those issues that the executives viewed as most critical. The interviews were recorded and transcribed. The first two authors independently coded responses to the second question. Specifically, the authors evaluated whether each of the four competency domains was indicated to be: (1) more important than in the past, (2) unchanged, (3) less important than in the past, or (4) not mentioned.² This temporal comparison was deemed appropriate since our focus was on how the relative importance of different

competency domains has changed since the adoption of eHR. A preliminary examination of the interview data revealed that representatives tended to distinguish between the delivery of transactional or administrative HR (e.g., payroll, record keeping) and the delivery of functional HR practices (e.g., staffing, training, performance management). Thus, delivery of HR practices was further divided into transactional /administrative HR competencies and functional HR competencies.

Results

Utilization of eHR

All of the 19 surveyed companies indicated that they utilize technology in the HR function. However, the extent of usage varied, ranging from a company that only recently started to implement ad hoc eHR initiatives to an organization that relies heavily on technology for most of its HR functions. Among the HR functions that the companies are transferring to technological applications, data management/employee record keeping (100%) and payroll and benefits (73.7%) were mentioned most frequently. Companies indicated that the desire to automate these transactional HR tasks served as an impetus for the decision to integrate information technology into the HR function.

Training and development (47.4%), staffing (36.8%), and performance management (36.8%) were also named as important eHR domains. In the training area, eHR was used for centralized online registration, classroom management, and record keeping. In the area of recruitment and selection, eHR was used for more basic transactional activities, such as job posting and resume collection, as well as more strategic activities such as generating metrics on time to fill positions and yield ratios. For performance appraisal, technology was used as a mechanism for collecting and analyzing employee performance information. For example, employees and managers at one large multinational company utilize online forms for annual performance appraisal and development discussions. The results are stored online and used

for succession planning purposes. The replacement of the paper process saved over one million pieces of paper plus the time and energy of HR and line managers.

Impact of eHR on HR Competence

Knowledge of the Business. The second question asked representatives to think about how the competency requirements for HR professionals in their organization have changed as a result of their eHR initiatives. The aggregate results are shown in Table 1. Consistent with the research reviewed earlier (e.g., Lawler & Mohrman, 2003), it appears that eHR plays a key role in allowing HR professionals to focus attention on the strategic business partner role. Specifically, 68.4% of the respondents indicated that eHR has made it more important for HR professionals within their organization to possess knowledge of the business.

Table I
Impact of eHR on HR Competency Requirements

Competency	More Important	Unchanged	Less Important	Not Mentioned
Knowledge of the Business	68.4%	5.3%	0%	26.3%
Transactional HR Delivery	0%	5.3%	68.4%	26.3%
Functional HR Delivery	47.4%	10.5%	0%	42.1%
Change Management	10.5%	5.3%	0%	84.2%
Technology Expertise	36.8%	5.3%	0%	57.9%

Respondents also indicated that within their firms, eHR has allowed HR professionals to shift their attention from administrative tasks to a more strategic business role. One respondent stated the following example:

“Where you really change the composition [of HR] is when you get into things like self-service and you eliminate as much administrative activity out of the HR as you can. Then you refocus the efforts of your workforce toward value added activities such as consulting and strategic business support. That needs a different kind of workforce than the administrative support environment.”

Similarly, respondents noted that serving in this strategic capacity involves more than just delivering HR solutions, it means working closely with managers and associates to solve problems. For example, one representative told us the following:

“... it’s really been a move away from the hands-on approach for HR where it’s let me get the answer for you, to more of a let’s talk about the trends, patterns, and what the data are providing and let’s analyze this to help make better business decisions.”

While respondents indicated that eHR has facilitated this shift in HR activities, they also noted that the skill sets possessed by their HR staff determine whether this new model is successful. Specifically, respondents indicated that for HR professionals to be successful consultants, they need to understand the business, be able to think strategically and analytically, and be able to assist management in making decisions that are right for the business. For example, one respondent noted that that being a strategic business partner means:

“... engaging at the senior management levels and helping them with knowing the tactical and strategic issues with getting the most out of the people in an optimum way, and to make the right decisions with regard to resources and utilization of people for that organization.”

Similarly, another respondent indicated that eHR and the new roles it has created for HR professionals creates a:

“... need to work with our HR community to really understand what it means to be strategic and evaluate the skills they need now and the business acumen.”

In summary, respondents consistently noted that eHR has enabled their HR staff to focus more attention on serving as a strategic business partner. This new role places a greater premium on HR professionals’ knowledge of the business and their ability to use that knowledge to work with management to devise strategic business solutions.

Delivery of HR Practices. Given the trend toward using eHR to automate transactional HR functions and refocus attention on being directly involved in the business, it is not surprising that 68.4% of our respondents indicated that competency in transactional/administrative HR delivery is less important as a result of information technology. Benefits, compensation, and staffing were commonly mentioned as areas in which many routine transactions are now

performed electronically. This trend goes hand-in-hand with the push toward repositioning HR professionals as strategic business partners. The excerpts from respondents highlighted below illustrate this trend:

“Well for one, HR does not need to know much about benefits delivery anymore since it has been digitized.”

“Because we have been able to put many things online and provide employees and managers with their own access to it, we don’t have to process benefits enrollment or answer basic questions anymore.”

“... so all of the self-service that’s going out does allow us to streamline the back office or administrative side of the equation, so the HR function does change.”

“Resumes are organized automatically – no HR people are needed to do the transaction now – in the past, HR people had to create the requisition, contact outside agencies, advertising, responding to resumes – all is done electronically.”

“We do still think the HR generalist population ratios will stay fairly consistent, we are looking for there to be a change in their role in terms of their focusing less on administrative tasks and more on having more of a consulting role for the managers ...”

In light of this trend, one may be tempted to downplay the overall importance of competency in HR delivery. However, nearly half (47.4%) of our respondents indicated that eHR has made competence in functional HR delivery more important. These respondents indicated that by reducing administrative and transactional responsibilities, eHR has allowed HR staff within their organizations to adopt more specialized roles, which requires a higher level of expertise within specific functional areas of HR (e.g., staffing, training, performance management). Consider, for example, the quotes below from two respondents:

“It significantly also has required an upgrade in the particular functional areas – so leadership development people may have been training and development people before – we now need people who can assess talent ...In the compensation area, we have gone out and got highly technical people from a comp point of view... now we have professional, fully trained, certified comp professionals in the organization.”

“I think it forces you to get a lot more professional and metrics driven and process driven about everything you do as an HR team ...So, we need people that are content experts ... people with process expertise who fundamentally grasp the wisdom of having reliable methods and processes for carrying out our HR functions.”

So, overall, our results suggest that eHR has not resulted in less importance being placed on expertise in HR delivery, but rather has resulted in a greater emphasis being placed on functional HR excellence and more specialized HR roles and responsibilities. Among many of our respondents this shift to specialization was viewed as essential for developing HR solutions that add value to the business.

Change Management. One of the most unexpected results of our survey concerned how infrequently participants mentioned competencies falling within the domain of change management. Only two of the respondents indicated that eHR has resulted in a greater emphasis being placed on HR professionals' ability to serve as change agents. These respondents argued that HR professionals must drive culture change to support self-service HR systems. Specifically, HR professionals need to help managers and employees embrace these tools and take responsibility for managing their own and others' employment information. However, none of our respondents spoke to the issue of HR professionals driving broader organizational change. This is surprising, given the growing need for organizations to possess a capacity for change so that the rate of internal adaptive change is commensurate with the rapid rate of change in the external environment (Ulrich et al., 1995). It is possible that because the forces (e.g., globalization, customer expectations) that are driving this change are external to the business, eHR helps HR cope with change but does not alter the importance of HR professionals' change management competencies.

Technology Expertise. The final category of competence we examined focuses on technology expertise. Our findings suggest that eHR has not resulted in a substantial change in the technology expertise required of HR professionals. The results revealed that 36.8% of our sample believed technology expertise is more important as a result of their utilization of information technology in the HR function. All of these respondents argued that the shift to eHR has meant that HR professionals need to be computer-literate and be comfortable with technologies (e.g., web) so that eHR is fully integrated into the HR role. One respondent added

that, within his/her firm, there has also been an increase in the number people with advanced technological backgrounds within the HR function. Specifically, the individual stated:

“10 years ago, in HR, we would have virtually 0% of our workforce that had an IT or computer science background. Now, we have about 20% and a dedicated HR IT team embedded inside of the HR function that enables all of the processes to move to web locations and to be supported electronically.”

Although these findings suggest a link between eHR and technological competence, this theme was not predominant in our interviews. In many organizations, the development of eHR systems is either outsourced or handled by internal information technology (IT) specialists. The end systems used by HR professionals may be designed to simplify transactions and be user friendly and, therefore, may not require a high level of technological expertise on the part of the HR staff. Accordingly, more important than technology expertise may be the need for HR professionals to manage their partnership with the IT function and ensure that the applications that are developed meet targeted HR and business needs. Consistent with this argument, one respondent noted the following:

“HR has to form a very strong partnership with the IT function, who will actually build the application or assist HR with finding the right vendor who has the right application. I think that HR has had to develop many skills – program/project management, partnering. HR doesn’t have the skills to do the project but they have to manage the project and the application launch.”

Discussion

It has been argued that the core competencies that define the HR profession have not changed in the recent past and are unlikely to change in the near future (Yeung, 1996). What will change, however, is the relative importance of these competencies over time (e.g., Ulrich et al., 1995). Our data suggest that information technology has the potential to play an important role in this change process. The HR executives we interviewed indicated that information technology has allowed the HR function to focus less attention on routine, administrative tasks and dedicate more energy to delivering services that add value to the business. This finding is consistent with much of the research reviewed earlier. Where our data make a unique

contribution is in not only validating the link between technology and competency requirements in the HR profession but also providing insight into the process by which information technology is reshaping HR competence. The representatives we interviewed indicated that eHR requires HR professionals to possess a greater understanding of the business and capacity to consult and work closely with management in solving business problems. In addition, eHR appears to place a premium on specialization and expertise in functional HR delivery. When combined, these competencies enable HR professionals to offer state-of-the-art services that are aligned with the needs of the business. As Ulrich et al. (1995) state, "HR professionals add value to an organization when they understand how the business operates because it helps the HR professional adapt HR and organizational activities to changing business conditions" (p. 475).

Practical Implications

An important implication of this competency shift is that as companies implement eHR initiatives they also will need to focus attention on how best to prepare HR staff for their new roles and responsibilities. This shift means utilizing development activities that provide HR professionals with the competencies necessary to be successful in an eHR environment. On the surface, this transformation may seem as straightforward as providing HR professionals with business knowledge and developing their functional HR expertise. However, the key to creating the capacity for strategic application of this expertise is integrating these two competency domains.

Specifically, HR professionals not only must possess expertise in HR delivery and an understanding of the business, they must also understand the bi-directional relationship between HR practices and the business. As Yeung, Woolcock, and Sullivan (1996) state, "you need to bring in the content knowledge of HR, the knowledge about your business, and financial knowledge. Then, you have to synthesize all three kinds of knowledge" (p. 55).

The question, however, is how does an organization configure the learning experiences of its HR professionals so as to create strategic competence through the synthesis of these

different knowledge domains? In the following sections, we highlight three learning strategies that can be utilized to design development activities that support this competency integration, and in so doing, can help prepare HR professionals for the new roles they will face in eHR environments. These strategies are summarized in Table 2.

Table II
Learning Strategies for Developing Strategic Competence

Learning Strategies/Descriptions	Implementation Examples
<p>» Active learning</p> <ul style="list-style-type: none"> ▪ Participants learn by tackling real problems with real implications. Knowledge connections formed through experience and experimentation. 	<p>» Work-integrated learning experiences</p>
<p>» Experiential variety</p> <ul style="list-style-type: none"> ▪ Participants apply their knowledge and skills in a variety of situations. Breadth of experience builds contextual knowledge necessary for strategic application. 	<p>» Rotational development programs</p>
<p>» Learning from errors</p> <ul style="list-style-type: none"> ▪ Participants learn their mistakes. Errors broaden knowledge and highlight when strategies are appropriate and inappropriate. 	<p>» After-action reviews</p>

Active Learning. Classroom learning is important in the development of both HR and business competence because it provides the knowledge base on which strategic competence is built (Brockbank et al., 1999). However, some observers have argued that traditional HR education has poorly prepared the HR profession to meet emerging business challenges, such as those posed by technological innovations (Hempel, 2004). Moreover, while there exist a number of pedagogical strategies, such as case-based and problem-based learning, that can make the classroom a more “hands-on” learning environment, it is unlikely that what students learn in the classroom will prepare them to walk into a strategic business partner role (Baill, 1999). As Hernez-Broome and Hughes (2004) argue, “developmental experiences are likely to have the greatest impact when they can be linked to or embedded in a person’s ongoing work and when they are an integrated set of experiences” (p. 25).

Deutsche Bank, for example, transformed its HR function through work-integrated learning in which participants develop competence through tackling real problems. Svoboda and Schroder (2001) note that using real challenges as learning opportunities means that individuals have to consider the implications of their actions within the larger organizational environment. Development activities that stress active learning can help strengthen HR professionals' understanding of the connections between their HR and business knowledge and develop their capacity to adapt their HR expertise to solve different types of business problems.

Experiential Variety. A second critical condition for developing strategic competence involves providing individuals with an opportunity to apply their knowledge and skills in a variety of different situations (Ford & Kraiger, 1995). Our interview data suggest that, at least in some companies, eHR has stimulated a trend toward moving HR staff into more specialized functional roles. One unintended consequence of this action, however, may be a limiting of the experiential variety that is critical for the development of strategic competence. As Lawler and Mohrman (2003) state, "HR functions should focus on providing their HR professionals with many different development opportunities...that broaden and deepen their knowledge and experience bases relevant to being a strategic partner" (p. 28).

An optimal strategy, then, may be to move individuals into specialized roles only after they have had exposure to a variety of developmental experiences. In recent years, many companies have instituted rotational development programs for new entrants to the HR function (Kuok & Bell, 2005). One specific program that has received recognition is General Electric's Human Resource Leadership Program (HRLP). The program combines rotational assignments, educational seminars, and networking to provide a variety of developmental experiences (Baill, 1999). Further, the program requires participants to do one cross-functional assignment outside of HR, which further broadens the scope of participants' learning and helps participants to draw connections between their HR and business knowledge. After participants complete the program, typically at the end of two years, they are given permanent functional assignment

within HR. This sequencing of breadth followed by depth may be optimal, but it will be important to ensure that individuals have continued exposure to diverse learning opportunities after moving into a specialized role or their strategic competence may diminish.

Learning from Errors. A final strategy that can be valuable for promoting strategic competence involves creating development experiences in which individuals are encouraged to learn from their mistakes. Information from errors can be used to broaden one's knowledge base. Indeed, expertise is characterized by an understanding of not only when and why particular strategies are appropriate, but also when they are not (Ford & Kraiger, 1995).

Lawson and Limbrick (1996) argue that valuable, on-the-job development experiences for HR professionals ensure that both success and failure are possible and visible to others. Extending this further, we would argue that failures, when they occur, should be framed as opportunities for learning. For example, after-action reviews (AARs), which originated within the US Army, are increasingly being used by organizations to help individuals improve their performance by having them reflect back on their actions. AARs involve holding a discussion about an event or assignment, during which a set of structured questions is used to analyze performance, identify successes and failures, and extract lessons learned. Yeung et al. (1996) describe a variant of this approach that was instituted at Quantum, in which networks of HR professionals met monthly to review each other's work and learn from one another's successes and failures. Through this analysis of errors and knowledge sharing, after action reviews can help build HR professionals' functional knowledge as well as their understanding of how to apply that knowledge in different business situations.

Limitations and Future Research Directions

This study represents an insightful, yet preliminary examination of how the technological transformation of the HR function is reshaping professional competence in the field of HR and some practical implications of this shift. Future research is needed to dive deeper into these issues, and several limitations of the current study can be highlighted to help guide future work

in this area. One limitation of the current research is that data on the firms in our sample were collected primarily by interviewing single respondents. While the use of single response methodology in HR management research has been a debated issue (cf. Gerhart, Wright, McMahan, & Snell, 2000; Huselid & Becker, 2000), future research can gain further insight into the implications of eHR by drawing upon multiple sources of data (e.g., multiple interviews, surveys of HR professionals and management, organizational records).

A second issue that deserves discussion involves the nature of the firms in our sample. Our research focused on a limited number of very large, well established, geographically distributed companies from across several industries. It is possible that the eHR practices of these firms may differ considerably from those of smaller firms with fewer resources or firms where a high percentage of employees are co-located. Whether our results will generalize to these firms is an open question that should be addressed by research on eHR conducted across a larger and more diverse set of firms.

A final issue that should be explored by future research concerns the specific mechanisms through which eHR shapes and redefines the HR function. Previous research has emphasized the fact that technology can be used to perform many of the routine, administrative HR functions, thereby allowing HR professionals to focus their time and energies on more strategic business issues (Ulrich, 1997; Brockbank, 1999). Our research provides support for this argument, as highlighted by the respondent comments presented earlier. However, eHR may also be driving other changes that influence the strategic alignment of the HR function. For example, HRIS can facilitate the collection and analysis of data needed to quantify the impact of HR on important organizational outcomes. These metrics can then be used by HR professionals to validate and market the function to top management. Future research into these issues can help provide greater insight into exactly how eHR is reshaping professional competence in the field of HR.

Conclusion

It is important to recognize that not all companies are utilizing information technology to move HR toward becoming a strategic business partner. As Lawler and Mohrman (2003) state, “some companies may be investing in IT simply to reduce transaction costs and reduce the size of HR” (p. 22). Yet, the data collected through our interviews suggests that in many companies eHR is a driving force in the transformation of the HR function. Perhaps more importantly, our data suggest that this transformation is reshaping the competencies that define HR professionals’ success. Now more than ever, HR professionals are expected to demonstrate skill in adapting HR practices to changing business conditions. This strategic competence will require a synthesis of HR professionals’ expertise in HR delivery and their business knowledge. Recognizing that developmental experiences are one of many levers (e.g., assessment, performance management) that can be used for competency development, we have highlighted three learning strategies that have proven successful for developing strategic competence. Our hope is that as companies implement eHR initiatives they will be able to use these strategies to help prepare HR professionals to fulfill their new roles and responsibilities.

Endnotes

¹ Past research suggests that HR competency requirements are similar across different industries and business of varying sizes, and that the relative importance of competencies is the same regardless of the primary role (e.g., individual contributor, general manager) of the HR professional (Ulrich et al., 1995).

² Inter-rater agreement was assessed using Cohen's kappa statistic, which takes into consideration chance agreement. Average inter-rater agreement across the five rating categories was .81. Kappa values greater than .70 are generally considered to indicate acceptable levels of agreement (e.g., Landis & Koch, 1977). Any disagreements among the raters were resolved through discussion.

Author Biographies

Bradford S. Bell is an assistant professor in the School of Industrial and Labor Relations at Cornell University. He received his B.A. in psychology from the University of Maryland at College Park and his M.A. and Ph.D. in industrial and organizational psychology from Michigan State University. His research focuses primarily on issues surrounding training and development, both at the individual- and team-levels. His work has appeared in a number of book chapters and journals, including *Journal of Applied Psychology*, *Personnel Psychology*, and *Group and Organization Management*. He has also consulted for a number of both public and private organizations.

Sae-Won Lee is an International HR Specialist at Grand Circle Corporation in Boston, MA. After receiving her B.A. from Korea University, she joined Samsung Electronics in Seoul, Korea as a Global Recruiter, searching for and retaining worldwide talent. After her stint with Samsung, she continued her education at the School of Industrial and Labor Relations at Cornell University. While working towards her degree, she worked with Rolls-Royce North America on a project designed to streamline their college recruiting process. Her professional interests are finding ways to accurately measure performance and devising strategies for retaining high-performing employees.

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Author Note

The authors would like to thank the Center for Advanced Human Resource Studies (CAHRS) and the Center's Executive Director, Pamela Stepp, for invaluable assistance with this project.

APPENDIX

Participating firms in eHR competence research

Aetna Inc.	Bristol-Myers Squibb Company
CIGNA	Corning, Inc.
EMC Corporation	General Electric Company
The Gillette Company	The Hartford
Home Depot	Honeywell, Inc.
IBM	Johnson & Johnson
Monsanto Company	Novartis AG
Prudential	Royal Dutch/Shell Group of Companies
Sun Microsystems, Inc.	TRW
Xerox Corporation	

References

- Baill, B. (1999). The changing requirements of the HR professional: Implications for the development of HR professionals. *Human Resource Management*, 38, 171-175.
- Bates, S. (2002). Facing the future. *HR Magazine*, 47(7), 26-32.
- Brockbank, W. (1999). If HR were really strategically proactive: Present and future directions in HR's contribution to competitive advantage. *Human Resource Management*, 38, 337-352.
- Brockbank, W., & Ulrich, D. (2003). *Competencies for the new HR*. Alexandria, VA: Society for Human Resource Management.
- Brockbank, W., Ulrich, D., & Beatty, R. W. (1999). HR professional development: Creating the future creators at the University of Michigan Business School. *Human Resource Management*, 38, 111-118.
- Cedar (2001). *Cedar 2001 Human Resources Self Service/Portal Survey*. Baltimore, MD: Cedar.
- Ford, J. K., & Kraiger, K. (1995). The application of cognitive constructs and principles to the instructional systems model of training: Implications for needs assessment, design, and transfer. In C. L. Cooper & I. T. Robertson (Eds.). *International review of Industrial and Organizational Psychology* (vol. 10, pp. 1-48). Hoboken, NJ: Wiley.
- Gerhart, B., Wright, P. M., McMahan, G. C., & Snell, S. A. (2000). Measurement error in research on human resources and firm performance: How much error is there and how does it influence effect size estimates. *Personnel Psychology*, 53, 803-834.
- Hempel, P. S. (2004). Preparing the HR profession for technology and information work. *Human Resource Management*, 43, 163-177.
- Hernez-Broome, G., & Hughes, R. L. Leadership development: Past, present, and future. *Human Resource Planning*, 27, 24-33.
- Hunter, R. H. (1999). The "new HR" and the new HR consultant: Developing human resource consultants at Anderson consulting. *Human Resource Management*, 38, 147-155.
- Huselid, M. A., & Becker, B. E. (2000). Comment on "Measurement error in research on human resources and firm performance: How much error is there and how does it influence effect size estimates?" by Gerhart, Wright, McMahan, and Snell. *Personnel Psychology*, 53, 835-854.
- IOMA. (2002, April). Three new surveys track the growth of e-HR. *HR Focus*. 4-6.
- Kochanski, J. T., & Ruse, D. H. (1996). Designing a competency-based human resources organization. *Human Resource Management*, 35, 19-33.
- Kuok, K. L., & Bell, B. S. (2005). Design, implementation, and evaluation of HR leadership development programs. *CAHRS Working Paper Series (05-02)*. Ithaca, NY: CAHRS.

- Landis, J., & Koch, G. G. (1977). The measurement of observer agreement for categorical data. *Biometrics*, 33, 159-174.
- Lawler, E. E., & Mohrman, S. A. (2003). HR as a strategic partner: What does it take to make it happen? *Human Resource Planning*, 26, 15-29.
- Lawson, T. E., & Limbrick, V. (1996). Critical competencies and developmental experiences for top HR executives. *Human Resource Management*, 35, 67-85.
- Losey, M. R. (1999). Mastering the competencies of HR management. *Human Resource Management*, 38, 99-102.
- Schoonover, S. C. (2003). *Human resource competencies for the new century*. Falmouth, MA: Schoonover Associates.
- Svoboda, M., & Schröder, S. (2001). Transforming human resources in the new economy: Developing the next generation of global HR managers at Deutsche Bank AG. *Human Resource Management*, 40, 261-273.
- Ulrich, D. (1997). HR of the future: Conclusions and observations. *Human Resource Management*, 36, 175-179.
- Ulrich, D., Brockbank, W., & Yeung, A. (1989). Beyond belief: A benchmark for human resources. *Human Resource Management*, 28, 311-335.
- Ulrich, D., Brockbank, W., Yeung, A. K., & Lake, D. G. (1995). Human resource competencies: An empirical assessment. *Human Resource Management*, 34, 473-495.
- Wright, P., Dyer, L., & Takla, M. (1999). *State-of-the-art & practice council report*. New York: The Human Resource Planning Society.
- Yeung, A. (1996). Competencies for HR professionals: An interview with Richard E. Boyatzis. *Human Resource Management*, 35, 119-131.
- Yeung, A., Brockbank, W., & Ulrich, D. (1994). Lower cost, high value: Human resources function in transition. *Human Resource Planning*, 17, 1-6.
- Yeung, A., Woolcock, P., & Sullivan, J. (1996). Identifying and developing HR competencies for the future: Keys to sustaining the transformation of HR functions. *Human Resource Planning*, 19, 48-58.