

# Preface

## RATIONALE FOR THIS BOOK

The belief that the people working for a firm are one of its main assets and one of the decisive factors in determining its results is one that leaves little room for argument. There is no question regarding the fact that workers' qualities, attitudes, and behavior in the workplace go a long way to accounting for a company's success or lack of it. While this type of resource is one over which companies do not have complete control, there do exist certain instruments to enable them to exert their influence on the quality and performance of the human capital on which they rely. The human resource management (HRM) practices that they adopt will have a vital influence in this area and thereby on the results obtained by the firm. Driven by significant internal and external forces, HRM has evolved from largely a maintenance function to a source of sustainable competitive advantage and organizational effectiveness.

In the information era, organizations are progressively incorporating information communication technologies (ICT) into their processes, using different tools and solutions. These tools are applied in a wide variety of ways (i.e., manufacturing resource planning, office automation, computer-supported cooperative work, distributed teams, supply-chain, enterprise-wide resource planning, or virtual integration). ICT is transforming organizations and the way that people work, interact, and feel in knowledge-based organizations. To cope with these new human resources challenges, it is necessary to review and to transform HRM into electronic-HRM (e-HRM).

Recognizing the need for substantive revision on the HRM field, this encyclopedia is a start to analyze the management of people in the IT society. That is why it aims at describing the current state of HRM in the ICT era and to provide new knowledge on effective e-HRM and human resource information management systems (HRIS).

Since e-HRM does not mean to reinvent the wheel, the term HRM is used within this preface. It is already time to begin giving the "e" for granted. Erasing the "e" is part of our digital evolution to the e-world.

## CONTENT HIGHLIGHTS

This encyclopedia contains 132 articles organized in nine topics. In presenting the content we are aware that important topics are missing and some relevant ones are included. But, that is the way books are. Next, a brief description of the main issues discussed is presented to help the readers find their topic of interest and to acknowledge each of the contributors to this virtual and collaborative project.

### Topic I

Topic I, "Present Concepts and Emerging Trends in HRIS and HRM," is an overview of the human capital management concept and its role as key differentiator for sustainable competitive advantage (Akinyemi). Changing the HR function in a more HR technological environment is a must, but to do it, organizations need first

to consider how human capital can be a source for a successful business strategy implementation. To achieve this goal, a human resources policy needs to be perfectly aligned with business strategy. This match demands functional integration with HRIS (as presented by Staudinger, Ostermann, and Staudinger). This integration is required to achieve higher degrees of business process efficiency. Well-aligned systems and processes provide an organization with competitive advantages. With this need in mind, both IT and organizational development (OD) efforts have to be also aligned with business strategy. The lack of business/IT alignment and business/OD alignment and its consequences are discussed by Cameron and Knight.

The use of ICT induces the development of new organizational, productive, strategic, and managerial models (Jiménez, Martínez, and González). And, at the same time, the level of use of ICT determines the HRM and the labor structures increasing the capabilities of the organization (as presented by Mishra). HRIS allow self-service HR administrative activities and facilitate the collection of strategic information that contributes to the business strategy formulation (Pennarola and Caporarello). Therefore, HR managers must understand their organization's strategy to sustain competitive advantage by adopting HRIS and e-HRM. Nevertheless, in this new organizational word, HRIS need to be redefined not only as technology evolves but also as the perception of its impact changes. Bocatto and Pérez's article aims to deepen the comprehension of how information systems (IS) are used as a tool of organizational change and development.

As information technology (IT) becomes a strategic partner for HRM, the factors that determine the utilization of HR information for strategic decision-making purposes must be better understood. This is what Burbach and Dundon do by ranging HRIT application through a continuum, from an administrative use to a strategic one. The development of more flexible organizational structures and the development of IT are some of the drivers of the necessity for HRIS. Benchmarking activities show the potential to generate valuable information for the management of HRIS. Ostermann, Staudinger, and Staudinger provide an overview of different approaches to benchmark the potential benefits and impacts of HRIS. As they point out, "future trends to benchmarking HRIS should focus in the value-adding contribution of HR and HRIS to overall business performance."

## Topic II

Topic II, "Setting New Directions to HRM Functions," provides a description of some of the key ways in which HRM can enhance the development, implementation, and success of new technologies. It also focuses on how HRM can enhance its own value through the use of new technologies (Härtel). One of the consequences of applying IT to the HRM is the modification of HR-related practices (as examined by Wang and Lang, and Yamamoto and Özbek). On the other hand, in our today's competitive world the need for a personnel management with standardized and integrated processes is crucial. The development of this idea and its implications are presented by Staudinger, Ostermann, and Staudinger.

As organizations are increasingly using HRIS, it is important to talk about the potential impacts of technology on HRM in terms of the rationale behind the introduction of a HRIS (Parry). A better business and HRM performance are some of the HRIS benefits. Stepping forward, Katou presents an integrative framework for understanding the link between HRM and business performance and the integration of e-resourcing. Most of the time, the success of the implementation of such new technological systems depends upon the mindsets of the people involved. Sasovova and Leenders state how such mindsets emerge and evolve through the social relationships of the users of the HRIS. Others relevant factors affecting HRIS planning projects are described by Othman.

Topic II also deals with how the balanced scorecard approach can be applied in the management information system (MIS) (Kettunen). Hurley-Hanson analyzes the role of HRIS in crisis response planning, and Guilloux, Kalika, and Laval examine how Web-based technology permits new online HR services to employees and management.

### Topic III

Topic III, “Staffing the Organization,” is devoted to specific HR functions such as recruitment and selection.

How can we transfer the concept of relationship marketing to personnel recruitment and why? This is Keim and Fritsch’s main question, which they answer by presenting an approach for the IS-supported management of employer-candidate relationships. Keim and Weitzel illustrate that HRIS adoption increases over time and decreases as the phases of the recruitment process progress. The use of technology in personnel recruiting is also the main worry of Puck and Paul’s work. An international perspective of e-recruitment is presented in articles by Fernández-Sánchez, de Juana-Espinosa, and Valdés-Conca, Rao, and Joia and Alves. In the recruitment process, it is also important to understand the value of the employer brand image (Harold and Nolan) as well as why and how some organizations externalize work activities and use employment intermediaries (Guilloux and Kalika). To improve person-job fit, Pollack addresses issues related to online employment testing software, and Cegielski and Hall examine the perceived value of information technology certification.

Finally, there is still room for organizational ethical responsibility. Manley, from a U.S.-perspective, presents possible solutions to ensure HR managers are complying with fair selection. In a similar way, Ready, Novicevic, and Evans invite the reader to think about HRIS and the need to consider how HRIS affect employment practices.

### Topic IV

Topic IV, “Building Human Capital: Training and Development,” includes Hall and Inskeep’s work. These authors discuss the importance of developing a curricula framework that meets the organization’s business and learning objectives. In an organization that has e-HRM systems, these curricula frameworks fall within its online e-learning application. As the new curricula demands new skills, integrating networking skills to have better professionals becomes a key factor in HR development (Jeffries and Papp).

But, can we rely on e-training to address a forecasted worldwide shortage of skilled workers? To answer this question, Murray and Efendioglu examine the key supply and demand determinants of the global worker shortage and analyze the systematic requirements that favor the use of asymmetric and interactive e-training technologies. Other worthy ideas to be explored are learning theories (Wang), transformative learning (King), and simulations in management development through ICT (Stokes).

Case, Dick, and Van Slyke focus on corporate learning management systems (LMS) and the role reusable learning objects are playing in corporate LMS. Gilbert connects the collaborative theory with the current innovations occurring on the World Wide Web that are enabling users to experience a sense of community (such as Second Life®). King pays attention to mobile learning, including podcasting. Galla discusses the use of online or electronic e-training in ethical behavior and why this training is maybe more important today than in the past.

To evaluate the effectiveness of e-training programs Carretero-Gómez studies two particular techniques: utility analysis and multiattribute utility analysis. Yiu and Saner examine the need to invest in training and to adopt technology-based learning modality for up-scaling of training coverage. They also highlight the benefits of implementing the International Standard ISO 10015. Yiu and Saner deeply discuss two training related standards.

Finally, Sullivan, Mainiero, and Terjesen review the concept of the kaleidoscope career, discussing the implications of the model for HRIS. Mentoring, as a tool for human capital development, has been impacted by the use of Internet technologies giving rise to the so-called “e-mentoring,” a concept discussed by Colomo-Palacios, Gómez-Berbers, García-Cresco, and Casado- Lumbreras.

### Topic V

With Topic V, “Competence Development and Compensation,” Berio, Harzallah, and Sacco describe an integrating architecture for competence management. Kesti, Syväjärvi, and Stenvall search for a new e-HRM system to measure and analyze tacit human signals and human competence recognition, and Urquiza’s article is de-

voted to competence management automation practices. Finally, based in the competency management theory, Valdés-Conca, Canós-Darós, and de Juana-Espinosa present the foundations for the design of an Intranet for the development of business-to-employee relationships. A conceptual model which allows expanding existing barriers of HR systems can be found by Povalej and Weiß.

Problems that arise from performance evaluation are presented in the next articles. In that sense, performance management systems as an important part of HRIS are discussed by Case and Hoell. Bondarouk and Looise also contribute to the performance discussion by developing a contingency framework of how the organizational conditions are likely to support the process of adoption of e-performance management. And Panina presents a model of electronic monitoring effectiveness.

Following the performance evaluation discussion, Hall and Inskeep explore innovative alternatives for attracting, retaining, and managing talent in our e-world. As employee commitment depends upon well designed rewards systems, Ostermann, Staudinger, Thoeni, and Staudinger sketch the functionalities of a complex and strategically fit reward system, and Adenike looks into effective systems. Finally, Liang provides a comparison of major compensation software products and services developed using Internet technology.

## Topic VI

Topic VI, *“Managing Individuals and Groups in the Organization,”* is devoted to issues related to individual and group behavior. Akinyemi explores the concept and changing nature of the psychological contract. Chung points out that in coping with today’s business environment and work settings, a process-oriented motivation theory is more effective than the traditional theories. The organizational implications for managing the HRIS employee experience are discussed by Ruta, and Guzman presents a cultural approach to the study of the people who work in IS through the concept of “occupational culture.”

The goal of Diederichsen’s article is to depict applications—ranging from company internal employee communities to company external applicant communities—of virtual communities in HR relevant processes. Capriotti presents the main impacts that new technologies (and, principally, the Internet) are having on employee communication, which can help us to understand the changes that have been produced in organizations by the evolution from traditional employee communication to e-communication. Lastres-Segret and Núñez-Gorrín talk about the challenges and possibilities that IT offer as an internal marketing support, mainly, being an important channel for internal e-communication, since e-communication organizations can “offer jobs, environments, work places, incentives programs more suitable to every employee.” Kratzer, Leenders, and Van Engelen attempt to shed some light at the determination of media ensembles by formal and informal communication.

The study of trust and trusting relationships is presented in articles by Bello and Márquez-García who claim that IT play a key role in rising or diminishing trust within the organization. O’Neill and Nilson also examine the role of relationship building and the development of trust among workers who rarely meet face-to-face. Aneas focuses on virtual team work and the managing of virtual intercultural communication. In the following studies, Forcadell focuses on the organizational factors that enable effective implementation of organizational democracy; these factors work along with ICT in this kind of transformation into more democratic organizations. Triana talks about organizational justice and the study of fairness in virtual team setting.

Rethinking leadership and leadership styles are discussed by Victor C. Wang. Crawford-Mathis describes the leadership theory, the competencies of effective leaders, and the implications for the future. Provitera and Esendal review the concept of e-leadership and illustrate how it has impacted human resource management. In a similar way, Crawford-Mathis presents the changes in work force dynamics as the reason for e-leadership. What do the more traditional leadership approaches have to offer those involved in virtual organizational settings? This question is answered by Mackenzie and Pate. Trust and good leadership are needed to build a “healthy work ethic” which is discussed by Victor C. Wang. In the last two articles included in Topic VI, Ebner talks about conflict resolution and management and alternative dispute resolution (ADR). As HRM makes the transition to e-HRM, traditional ADR is adopting new methods for coping with conflict through e-methods, for example, online mediation. Bello and Adenike also focus on conflict resolution mechanisms and the three major models of conflict resolutions, namely, distributive bargaining, integrated bargaining, and interactive problem solving.

## Topic VII

Topic VII, “*Managing People and Technology in New Work Environments*,” begins with a reflection on how organizations have generated a language of electronic signs (Sanchez-Alarcos and Revilla) and the challenges of organizational semiotics.

Are HRIS accepted by employees? Deakins offers insights that will help system developers and human resources managers to design and introduce user-accepted e-HRM systems.

How are ICT impacting the internal work environment of organizations? Some ideas can be found in Dixon and Shelton’s study. These authors refer to the concept of adaptable work arrangements as “non-traditional job designs that utilize ICT in order to enable individuals to work from different locations, and at any time during day or night.” Wielki also deals with the challenges connected with the utilization of Internet technology-based tools in the workplace. The home-based working (Benito-Osorio) and its flexibility are strictly related to improve the conciliation between labor and family life (also discussed in Lekoko’s). Many firms are adapting their human resources policies and their technology to create more flexible workplaces. The results of empirical research regarding the implications for organizational performance of a number of flexible practices—such as telework—are commented by Rimbau-Gilabert.

The above articles are complemented by Cox’s and Vilette’s articles. Cox proposes a multidimensional model for assessing the impact of mobile technologies on work-life balance considering social, organizational, legal, technological, and ethical issues to inform the development of human resource strategies.

John Wang, Yao, and Hsu and Yao and John Wang approach the world of decision support systems (DSS) and group support systems (GSS) that facilitate HR groups collaborative work. Córdoba presents a tool of collaborative technology for group facilitation, and the uses of collaborative technologies are discussed by Oiry. Córdoba explores the meaning of trans-disciplinary collaboration in organizations and the role of information systems and technologies to support it.

Strohmeier examines whether portal technology is feasible in e-HRM and hence can serve as a measure of integration of heterogeneous HR systems. Ruta presents the coevolution of technology and HRM, considering the enabler role that IT plays in the reconfiguration of the HR function. Ruta shifts from the concept of HRM to the concept of relational resource management. The increased use of IT leads to the generation of huge amounts of data which have to be stored and analyzed by data warehouse systems. The application of these systems to e-HRM is illustrated by Burgard and Piazza. Reynolds, Fedorovich, and Williams consider that there is a gap between research focusing on the technological aspects of computer technologies, and the human resource impacts. This article focuses on emerging trends in computer technologies, and the HRM implications of these technologies.

Human computer interaction (HCI) is another issue to be taken into account. Campderrich refers to the interdisciplinary field of human computer interaction (HCI) and Kathleen P. King and James J. King talk about ergonomics and the problems that result from using increasingly ubiquitous office/computer technologies.

In a different level, Araujo conducts a literature review and examines the longitudinal effects of computer-mediated work on team processes and performance, while Shwartz-Asher, Ahituv, and Etzion explore the influence of virtuality and structural levels on processes that affect team output. These research articles contribute to better understanding of virtual teams.

John Wang, Yan, and Zhang take a closer look to project management by reviewing the types of methodologies and tools that exist in business today. Hall and Inskeep present an overview of project management and introduce concepts for gaining control of any undertaking, especially e-HRM projects, based on the generally accepted principles of project management.

## Topic VIII

Topic VIII, “*Knowledge and Organizational Learning*,” presents one of the major challenges for today’s organizations, that is, to understand the role of knowledge and learning for business success. In the process of knowledge



management (KM) some companies emphasize the use of technology to capture, handle, and locate knowledge while others focus on knowledge sharing among workers and the rest of the firm's stakeholders. But the most important things have to do with the transformation of individual knowledge into organizational knowledge and with the building of knowledge management systems (KMS). To achieve this goal one has to be aware of the historical context and the fundamental concepts of the knowledge management discipline (Pérez-Montoro's article). To suit the role of technology in KM initiatives, Meroño-Cerdán adopts a KMS approach based on knowledge processes and Cox and Perkins adopt a KM to view the dyad between human ability, organizational need, and the extent to which electronic IS can mediate between them.

Following this discussion, Edelstein and Lee focus on the creation of a successful knowledge transfer process, Costa and Revilla and Sánchez-Alarcos refer to networks of expertise (or communities of practice), and Mayfield, Mayfield, and Lunce provide a model to explicate a blueprint for tacit knowledge enhancement through HRIS techniques. Victor Wang opens a discussion about the relationship of knowledge facilitator and knowledge dictator in order to determine effective management for HR development (HRD) and HRM. Later, Leray focuses on new practices of knowledge's acquisition, introducing a different view between knowledge and power. In the following articles, Burakova-Lorgnier outlines theoretical discussions around the social capital theory, as well as its quantifiability and contribution to the further improvement of e-HRM, and Gibney, Zagenczyk, and Masters argue about self-service technology and its relation with social capital.

Castilla and Gallardo, considering HRIS like an intersection between HRM and IT, propose an intellectual capital model taking into consideration that a correct definition of intangible assets will determine an appropriate HRIS and viceversa. In the following articles, Yang discusses issues related to the learning organization, and Victor Wang points out that "without in-depth knowledge of learning organizations vs. static organizations, e-HRM would become an empty term." In the era of knowledge economy intellectual capital and learning become major sources of competitiveness. Consequently, HRIS need to embrace these concepts. Open source projects and the development of organizational learning are presented by Guilloux and Kalika. And finally in this part, Ramalho Correia and Mesquita invite the reader to think about lifelong learning in the context of a knowledge based society as a tool to update the knowledge that organizations will need to remain in the market in competitive positions. People are the most important asset in a "knowledge based/learning economy" and this requires that every citizen be equipped with the right knowledge, skills, and attitudes to achieve.

## Topic IX

Topic IX, "*Other Trends and Issues in E-HRM*," begins with a research on the relationship between corporate social responsibility and financial performance (Arora). In the e-HRM world investing in building better employment relations has also both direct and indirect benefits for the organizations. Searching for similar conclusions, Blanco reviews the application of the total quality management (TQM) philosophy to e-HRM. As Blanco states "TQM affects all employee-related issues from productivity, loyalty, and work ethic to overall well-being" as social responsibility does. When deploying the human capital of an organization service quality can be influenced. Lastres-Segret and Cadagan-García present an empirical study which identifies different factors that influence the quality of service taking into account how different organizations from the service sector manage their human resources.

Needless to say that technological advances and HRIS technology are affecting operational structures within organizations. A direct consequence of that is the growing up of call centers which have been tightly integrated into e-HRM practices, as presented in Carroll's work. This article ends by drawing out the balance between HRM practices and operational structural design.

But how are these changes affecting other organizations and sectors? Mockler and Dologite, and Crisóstomo-Acevedo and Medina-Garrido present the new technological work environment in the healthcare sector. IT systems have been incorporated to services at hospitals so a new type of worker, the healthcare teleworker, is needed. Different sources of the resistance to incorporate telemedicine are briefly discussed. In the next article, Joseph and Ezzedeem discuss governments' use of e-HRM as a means of improving overall public sector performance.

The level of e-HRM adoption among European firms is presented by Galanaki and Panayotopoulou. These authors consider three important elements: the extent of e-HRM deployment, the characteristics of the companies that adopt e-HRM, and the level of satisfaction with the system. A contrast, from an Anglosaxon perspective, can be found in Olivas-Luján and Florkowski's work where an empirical study of the diffusion of HRIT is presented. Finally, Val Hooper and Lau investigate the adoption of e-HRM in large organizations in New Zealand. These three articles are essential to understand how organizations are adopting and accepting technological changes with regard to HRM functions. Without no doubt, top management commitment is not a trivial factor influencing the adoption of technological centered HRM.

Technology and computer-mediated relationships, in both public and private organizations, are not free of worries. In that sense Ritter's work brings good final reflections about old problems, such as sexual harassment, which are still alive in our more technological work environments. Building more friendly working environments does not depend on technology. It is up to our values and behaviors.

The Spanish anthropologists Eudald Carbonell and Robert Sala wrote a book entitled *Encara no som humans* (*We are not Human Beings Yet*, Editorial Empúries, Barcelona. 2002). They state that we will only be able to progress as human beings if we really use the technology and apply critical knowledge to evolve. In doing so, we must never forget that we all are much more than workers and/or e-workers.

*For more information on the Topics discussed, please see the Contents by Topic section.*