

The Adoption of Information and Communication Technologies in Human Resource Management in the era of Public Governance

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DOI:10.13165/VPA-19-18-2-12

Abstract: *The purpose of this essay is to provide a conceptual mapping of human resource management (HRM) functions in line with governance. The objectives of the review are to trace, determine and draw fresh insights from the literature on human resource management, particularly on the influence of Information Technology (IT), citizen gover-*

nance, and advocacy-oriented human resources. This paper employs a literature review to draw new perspectives on HRM functions. It focuses on a thematic review of human resource components such as Information and Communication Technologies (ICT), governance models related to citizens-led and people-centered human resource management, and advocacy to return the “human” to HRM. This essay seeks to contribute to human resource literature through a conceptual mapping of HRM functions tracing the development of human resource functions with the following three components: Information technology (IT) in the process of upgrading HRM, accountability through citizen governance as an outcome of data-driven and efficient sharing of information from the human resource institutions, and advocacy-oriented human resources management by focusing on the human capital as a partner towards socio-economic and political development in the governance era of new public management.

Keywords: public governance era, upgrading human resource management, citizen governance, advocacy-oriented human resources

Raktiniai žodžiai: viešojo valdymo era, žmogiškųjų išteklių vadybos tobulinimas, piliečių valdymas, į palaikymą orientuoti žmogiškieji ištekliai.

Introduction

Since the 1990s, the field of human resource, as a theory and practice, has become increasingly an area of concern for academia. Reilly (2012) points out some key reasons as to why there is a need to consider the shift towards a strategic and a more holistic approach to human resource management. These include the long term vision of the organization, (as opposed to short-term value) whereby skills, knowledge and experience employees are seen as competitive resource. The management of employee activities is brought together in an integrated manner, since the awareness of the importance of social and intellectual capital in the organisation and an emphasis on activities such as knowledge sharing, networking and relationship building have all become part of the human resource management equation.

For Robert Kozinets (2002), who coined the term ‘ethnography’ (online media research), improvements to human productivity and efficacy should start with understanding the people and their context. Ethnography can be seen as cultural research driven towards human understanding, so as to have a socially-grounded notion of betterment and welfare (p. 3). In a networked society, people choose to work in social networks which in turn have direct influence on their decisions (paid online advertisements for example), or indirectly through word of mouth referrals from their peers and colleagues. Hence, there is an increasing demand for human resource managers to bridge the gap by training their staff and employees in the context of gaining a competitive edge with tech savvy and technical expert employees. The contribution of an effective and efficient human resource should not be undervalued, hence the significant shift in imperative to examine people’s needs and aspirations relative to job satisfaction.

In today's increasingly networked and complex society, there is a need to bridge theory and practice, in this case regarding strategic human resource management. Strategic Human Resource Management (SHRM), as derived from Armstrong, can be seen as a key and reasonable way to deal with the administration of an organization's most esteemed resources—the staff who exclusively and aggregately add to the accomplishment of its goals (Armstrong, 2010). Managing people better leads to an efficient and productive workforce environment.

Since the outset, HRM has had myriad of definitions. Further, Storey (1995) argue for HRM as:

A distinctive perspective to deal with employment management which tries to accomplish competitive advantage through the strategic management of a highly dedicated and competent workforce, utilizing cultural approach, structural approach and staff procedures; while Byars & Rue (2004) see HRM as activities designed to provide for and coordinate the human resources of an organization.

In addition, Boxall & Purcell (2000) argue that “HRM includes anything and everything associated with the management of employment relationships in the firm.

The words anything and everything in the definition explains the wider range of issues comprising policies related to HRM, such as employment contracts as well as the ways in which employees may be involved and participate in areas not directly covered by the employment contract thus ensuring suitable work life. Further, HRM extends beyond employment relations or industrial relations, which personnel management would not have been able to render in organizations (Osibanjo & Adeniji 2012).

HRM is concerned with overseeing individuals as a hierarchical assets, as opposed to variables of creation. It includes a framework to be followed in businesses to enlist, select, contract, prepare and create human resources. It is concerned with both the individual and the group with within the organization. The fulfilment of organizational goals depends on which individuals are selected, created, and utilized by the organization. Along these lines, appropriate co-appointment of human endeavours and successful use of human and other material assets is essential for increased work efficiency and in fostering leadership amongst individuals in their work environment (Armstrong, 2010).

This essay seeks to contribute to human resource literature through a conceptual mapping of HRM functions, tracing the development of human resource functions with the following three components: Information technology (IT) in the process of upgrading HRM; accountability through citizen governance as an outcome of data-driven and efficient sharing of information from the human resource institutions; and advocacy-oriented human resource focusing on the human capital as a partner towards socio-economic and political development in the governance era of new public management. The first section tackles the traditional functions of HRM, which goes

beyond personnel management as discussed below. However, this paper is not context-specific, since primary data are not included, and is limited only to the conceptual development of human resource according to its functions relative to information technology, citizen governance and advocacy-oriented human resources. In light of this, I conclude with a discussion of the transformational role of human resources, albeit conceptually, on the need to consider the prospects of technological advancement, and on bringing back the “human” in human resource management through citizens-oriented human resource governance.

Traditional Functions of HRM

The concept of human resources can be traced to the 1980s, and is primarily drawn from economic theories of competitive advantage (Boxall and Purcell, 2016) where human capital is treated as a resource that cannot be replicated and thus is a valuable asset, and secondly, to the theory of organizational behaviour concerning the impact of organizational culture on the development of leadership and performance of individuals in an organization. This area of study is crucial to increasing employee commitment and motivation within the standards set forth by private companies and government institutions (O’Riordan, 2017, p.7).

Armstrong (2015) points out some key characteristics of HRM which include the following: diversity of human resource practices in every organizational structure; strategic human resources where strategies and practices of HRM must be embedded in the organizational planning, implementation, evaluation, and monitoring of activities in both private and public institutions; the commitment nature of human resources with people’s talents and skills regarded as human capital; an individualist approach (as much as human resources theory contends it is a management-driven activity); and lastly, emphasis is put on organizational values and business objectives as core to its philosophy. However, there is a growing concern for the need to include the welfare of the stakeholders in HRM, to view them as not only members of the workplace but also partners in societal development (O’Riordan, 2017). HRM is in charge of maintaining strong human relations within the organization. It is additionally concerned with the advancement of employees and accomplishing the various objectives of both the organization and the individual workers.

However, Guest (1987) highlights four key dimensions to HRM as follows:

- (1) Commitment, wherein employees are expected to identify the interests and goals of the organization, and be aligned and committed in achieving these goals;
- (2) Flexibility of the employees to adapt willingly to change within the organizational structure, without any strife or prejudice;

- (3) Quality, on expectation of high levels performance attainment of organization depends on the quality of members of staff and management of such organization and;
- (4) Integration which involves the matching of human resources strategies to the needs of the business strategy

Osibanjo & Adeniji, 2012

Essentially, the goals of HRM, aptly described by Armstrong and Taylor, are as follows:

- (a) support the organisation in achieving its objectives by developing and implementing HR strategies that are integrated with business strategy;
 - (b) contribute to the development of a high-performance culture;
 - (c) ensure that the organisation has the talented, skilled and engaged people it needs;
 - (d) create a positive employment relationship between management and employees and a climate of mutual trust; and
 - (e) encourage the application of an ethical approach to people management
- Armstrong and Taylor, 2015 p.9)

Again on HRM, Armstrong (2009) has emphasizes on a comprehensive understanding of human assets. This includes, for example, human capital administration, corporate social organization, IT, organizational development, resourcing (human resources planning, enrolment and choice, and capability), administration, learning and improvement, remuneration, human relations, welfare, and organization safety.

Social welfare of employees is seen as among the core strategic priorities in boosting morale and productivity in the workplace (Václav & Petra, 2011 p. 59). Since the 1990s, HRM has incorporated strategies such as internet enabled web services (profile tracking and updating of employment records), HR balanced scorecard, strategic human resource commonplace, and other software tools in the decision-making process. The next section deals on human resource with ICT as an instrumental innovation in human resources.

Stages in the Development of HRM

Effective human resource management is imperative in the face of increasing human population growth and the advancements resulting from both the industrial and the technological revolutions of the 20th century. In retrospect, according to Roethlisberg (1939), the documentation of the advancement and improvement of human resource management practices can be traced back to the booming European economy of the 1900s. The industrial revolution was a period that showcased the formation in the developing world of the viability of the administration of people.

This has brought challenges to the mobilization of a disciplined group of people who are responsible for the development of a manual-based workforce. Table 1 below presents a timeline of the evolution and development of human resource management (Itika, 2011 p. 7).

Table 1. Timeline of the Evolution and Development of Human Resource Management

Historical timeline	Stages of HRM
1900	Welfare officer and employee welfare
1920-1930	Personnel administrator and administration
1940-1960	Personnel manager and personnel management
1970-1980	Personnel/HRM manager and personnel HRM
1990	Human resource manager for HRM
2000-current	Strategic human resource manager for a SHRM

As shown in the figure above, welfare services have been present since the turn of the century, as it was clear that taking care of the welfare of the individual will ensure better management of an individual's responsibility. This period also occurred on the backdrop of Western Europe, in particular Germany, preparing for World War I. Noticeably, there was a shift from welfare to personnel management in the 1920 and 1930s, when the growing size and pressure amongst organisations to improve productivity led to the need for a system to select, prepare, keep records, assess, propel, control the employment process; this led to the creation of the creation of a level of workers tasked with these components of work orientation.

Initially, this role had been taken care of by the welfare officer; however, the increase in the job description necessitated a change from mere welfare provider to personnel administrator, requiring certain competencies, knowledge and management skills.

In the period between 1940 to 1960, covering the period during and after World War II, there was an increasing demand for job and organizational efficiency. This was brought about by the development of professional service workers in academia and consultants who were dedicated to studying behavioral factors in work execution. This included the emergence of the school of thought around human relations, which was spearheaded by Elton Mayo and Kurt Lewin, in the investigations of Rush (1959), Robbins (1990) and Torrington et al. (2005), who focused on the enhancement of the workplace and work groups as a system to enhance efficiency.

This significant shift in human resource management recognized the need to secure the human dimension of personnel management, treating them as human beings, not just appendages to factories. Other critical works identified with human resource advancement originated from Abraham Maslow and his exploration of the human hierarchy of needs and the powerful effect of employee motivation on productivity (Maslow, 1970). Specifically, personnel management became known as a professional discipline focusing on personnel management theories, practices, and processes

(Chruden & Sherma, 1984; Cuming, 1985). In this way, better procedures and strategies of representative choice, preparation, organization of wages and compensation, and execution of examination were presented. One of the generally acknowledged formative ideas around work force administration was created by Michael Armstrong (1995) who characterizes staff administration as "the procedure and routine with regards to getting individuals in organization, evaluating and compensating for execution, and building up their maximum capacity for the accomplishment of organizational goals" (Itika, 2011).

The Strategic approach of the Human Resource Management School, led by scholars from America and Europe, opened up arguments and brought about improvements to human resource management as a philosophy distinct from personnel management. The works of Story (1989) and Schuler (2000) propounded the idea of a strong organizational culture and commitment to excellence in human resource management. In simple terms this means bringing back the "human" in human resource management -- considering their needs and aspirations as crucial to performance appraisal and efficiency in an ever-changing world.

ICT-enabled HRM

Driven by ICT revolution, the economies of China, Japan and other newly industrialising nations, including Southeast Asian countries such as Thailand, Malaysia, Indonesia, and Vietnam, have adopted ICT mechanisms to strengthen their human resource institutions (Debroux, 2003 p.5). The value of the openness to consult, communicate, and provide the necessary information is among the values cultivated by HRM with the aid of technology.

Using the cybernetic model of open systems, this article argues that ICT is part of the energetic inputs into the system where HRM as the aggregating system transforms the energetic inputs towards the resulting product (i.e. automated activities done in a cost-efficient and time-saving manner). Central to the open system model is the idea of a negative feedback loop that informs the system when it is not functioning effectively, thereby allowing for some changes to remedy the discrepancies (Wright and Macmahon, 2001 p. 306). I agreed with the contention set forth by these authors as they have recognized the intrinsic value of human capital in the study of HRM. Putting the "human-e" dimension back into HRM by upgrading their technology skills would make them more competitive, as apposed to the notion that robots or machines will replace human labour. After all, human beings are smarter than machines. Technology is man-made to make production easier and cost-effective.

There is a general agreement that ICT has impact on organizational management, particularly on personnel management in the information age. Employees will increasingly become "knowledge workers" using brain skills instead of manual skills, primarily tasked with developing, creating, integrating and applying knowledge. As Peter Drucker, the father of management, puts it: "the integration of specialized

knowledge into a common task" requires that knowledge be shared and integrated. Hence, unlike the traditional division of labour, this technology-mediated approach aims at integrating distributed activities, facilitating coordination, advancing distributed decision making and knowledge sharing of informational systems, which serve as effective means to incorporate core capabilities into a firm's organizational context (Hoogervorst, 2002 p. 1252).

Empirical studies on ICT-led HRM

A study conducted by Oluwafemi and Sunday (2014) demonstrates how ICT application to HRM System (HRMS) design has been an improved replacement for conventional methods (manual HRM), the latter usually leaving room for bias, favouritism, and nepotism. The HRMS application improves processes, procedures and transactions that provide for efficiency, effectiveness, reliability, and overall high performance. Management is doing the right things efficiently, hence the adoption of ICT applications in HRM design not only lowers expenses in terms of cost, but also brings about an increase in both accuracy and efficiency in the organization's operation. One way of cost-saving is the streamlining of administrative work of staff by developing software to store, edit, and retrieve employee records. This includes:

- (i) Creating new employee records;
- (ii) Editing an existing employee record;
- (iii) View an existing employee record;
- (iv) Delete an existing employee record;
- (v) View technical report on employee record; and
- (vi) Administrative/user account.

In doing so, monitoring of employee training, development, transfer and deployment will be greatly enhanced

Oluwafemi and Sunday, 2014, p. 273-280

In one of the pioneering studies on the empirical assessment of IT in HRM, Mishra and Akman (2010), undertook a survey among 106 IT managers and professionals from various sectors. Based on these results the data shows that IT is used extensively in these organizations to perform HRM functions in Turkey's dynamic economy. The results also indicated that while IT has an impact to a certain extent on all sectors in terms of HRM, the types of IT used varied significantly between recruitment, maintenance, and development tasks. However, the empirical results here reveal that these organizations are not applying these technologies systematically and maturely in the performance of HRM functions (p. 243).

Investigating the relationship between integrated manufacturing -- defined as the use of advanced manufacturing technology (AMT), just-in-time inventory control (JIT), and total quality management (TQ) -- and HRM in a human capital perspective,

Scott & Dean Jr. (1992) find that AMT has a positive relationship to comprehensive training, developmental appraisal, and externally equitable rewards for operations employees and to selective staffing for quality employees. TQ was positively related to these same human resource practices in quality and was also related to the comprehensiveness of the training for employees. On the contrary, JIT was negatively related to selective staffing in operations and to performance appraisal in quality and positively related to staffing in quality. This means that there is still a lack of upgrading human resources skills in ICT and computer-generated mechanisms as part of the investment on human resource potential among business firms (p. 492-6).

Furthermore, maximizing the benefits of ICT in HR applications could not be ignored. The use of human resource information systems (HRIS) has been taking place in Turkey. An HRIS is a systematic procedure for collecting, storing, maintaining, retrieving and validating the data needed by an organization for its human resources, personnel activities and organization unit characteristics. It can also provide management with a decision-making tool, rather than merely a robust database. In the case of Turkey, HR technology has reduced the response time and enhanced the quality of HR service in the workplace (Mishra & Akman, 2010 p. 244).

Another study on an ICT-centric subject is an overview of HRM initiated by Václav, Antonín, & Petra (2011) on the processes, performance drivers, and ICT tools in HRM within key result areas. These important areas that should be covered by human resources information system (HRIS) were identified by definition of relationship. The authors presented an example, indicating how a specific performance driver can help achieve higher performance levels by improving HR process using a specific HRIS, for example software development and online application technique in personnel management are some of the more useful components. Interestingly, the authors have recommended more future research on this topic to create a complete overview of drivers, processes, and components, with practical validation on ICT-led HRM as part of the empirical works which remains to be done. This research milieu is significant to validate the case for how ICT-led mechanisms enhance the performance capabilities of economic firms through boosting the technological infrastructure of the organization.

Citizen-centered HRM in the era of public governance

The idea of citizen-centred human resources is viewed from the context of new public management (NPM). NPM is a shift from the traditional, hierarchical, vertical approach of government towards a modern, decentralized, and horizontal relationship to governance, wherein individuals are seen as not mere recipients of governmental programs, but rather as partners in an increasingly business-oriented, globalizing world. Hays and Kearney (1997) aptly describes NPM with the following principles:

- (1) downsizing-reducing the size and scope of government;
- (2) managerialism-using business protocols in government;

- (3) decentralization-moving decision making closer to the service recipients;
- (4) restructuring government to emphasising policy outcomes rather than mere processes; and
- (5) privatization (public-private partnership) allocation of government goods and services to outside firms.

These are all interdependent factors relying on the management principles of rationalizing government staff aimed at cutting bureaucratic malpractices, thus efficiently serving the people and improving on client-oriented human resource (Vigoda, 2002 p. 533). The author, quoting from Savas (1994,) argues that the central legacy of NPM lies in the increasing dependency of modern-day states to private institutions and “small” government to decrease corruption, hence better serving the needs of the people (Vigoda, 2002). In this regard, human resource management recognizes the role of citizens as clients, where satisfaction is primordial to boosting the incentives of motivation and commitment to efficient performance.

Challenging the traditional "hard" model of HRM, which puts emphasis on people-management systems, is the “Harvard model” developed in the US and Europe since the mid-1990s and which was sought to challenge the hard matching type model of the traditional human resource model. This model highlights the "soft" side of HRM by paying attention to the employer-employee relationship. Efficient HRM systems are fostered through a "high commitment" mind-set that can be developed through a combination of the individualistic, unitarist paradigm of HRM such as performance evaluation and rewards, and empowerment with collective dimensions, such as common goals and values, teamwork, harmony, information sharing, training and development (Guest, 1995) in Debroux (2017 p. 6). The soft HRM model is commonly practiced in East and Southeast Asian organizations and is ingrained through the socio-cultural values of communalism, obedience to authority, and social harmony highly valued among eastern cultures. However, the knowledge-driven economy of the 20th century pushed \ developing countries in southeast Asian to adapt the performance-oriented and skills-based approach of the US model. However, due to the lack of skilled workers, as is one of the major challenges among developing nations, countries like Philippines and Indonesia have still maintained a more "soft" approach to HRM, maintaining socio-cultural practices such as managerial concern to help employees' compliance with the new managerial measures (Smith & Abdullah, 2004). Nonetheless, the performance-oriented and merit-based culture of selecting and hiring qualified and competent employees have continued to be adopted by Asian companies since the 1990s (Dessler, 2009) in Debroux (2017).

In this context, employees are seen as citizens who are amongst the most important stakeholders in the organization, even in those organizations not owned by the employees. This emphasis has increased in line with the adoption of strategies of total quality management and customer-focused management. Treating customers as strategic partners is a result of the "just-in-time" manufacturing initiatives and total

quality management. Customers are treated as investors and must be part of the strategic process of human resources. This is the social goal of human resources; societal needs must be met in just and fair treatment within the legal framework under which the organization operates (Schuler, 2000 p. 246).

Gleaned from the above mentioned discussion is the significant role of national cultures and practices to be considered in human resource strategies for reforms and innovation in order to cope up with the challenges and opportunities of the market-driven society. Certainly, what is being argued in this section is that employee participation in the decision making process must be encouraged as it is part of the rights and responsibilities delegated to them by their employer. Similarly, contemporary HRM practices have increasingly recognized people as the most important single asset of the organization, thus seeking to enhance organizational performance alongside employee needs and societal welfare.

People-centered human resource management in the era of public governance

Due to the paradigm shift from government (people as mere recipient of governmental programs) towards governance (citizens as partners in the decision making process), a new approach has been called to the attention of human resource practitioners in government and public administration, such that human resource management has become an instrument in mediating between the need to have an efficient bureaucracy and the recognition of the development of human capital to promote and uphold openness and accountable governance. It can be argued that human resource management is a political function for regulation within and outside public agencies, which mediates between bureaucracy and the ethical and political aims embodied in a public agencies institutional mission, hence rectifying the prevailing notion of human resource management as established in the 1980s which oversimplifies the process-control with the management style of private enterprise, where human assets are ignored and opportunities for training and capacity building have lagged (Nogueira & de Santana 2015).

Three important dimensions are purported to have been developed in HRM in the public sector namely results, leadership and governance, and values. In the case of Australia, HRM reforms since the 1990s has seen the institutional transformation of civil servants, emphasizing service-oriented values as a means to change the outlook and behaviour of civil servants on the basis of values fully regulated and prescribed by the Australian central government as constituents of good human resource management (APS, 1999). This includes the following:

- (1) All staff understand and are committed to the goals and values of the organization;

- (2) Meeting the needs of government, clients and the community is a primary focus of all staff;
 - (3) Decisions on managing people are ethical and transparent;
 - (4) Staff are encouraged to find innovative ways to enhance organizational performance;
 - (5) The work environment reflects a respect for a healthy balance of work and personal life;
 - (6) The diverse backgrounds, cultural values, skills and knowledge of employees are viewed positively and used effectively to add value to business outcomes;
 - (7) Staffing practices incorporate equal employment opportunity, natural justice, privacy and elimination of unjustified discrimination and;
 - (8) Recognition and rewards are values and performance based.
- Nogueira & de Santana (2015 p. 14-15)

What has been reiterated by the authors is the need to strengthen human resource management in public sector reform as a matter of policy regulation towards building a just, and equitable access to the merit system of professional civil service, while also recognizing the diversity of socio-cultural norms and values in the process of implementing strategic goals and objectives, in the midst of profit-oriented, market-driven public organizations.

Discussion and Conclusion

The concept of human resource management plays a significant role in the era of a citizen-centered, rights-based regime of democratic governance. Traditionally, the role of HRM has been confined to the selection, recruitment, and performance appraisal of employees in both private and public organizations. More importantly, since the late 1990s the advancement in industrial and labour relations brought about by the ICT has resulted in significant changes in the dynamics of how people engage in business activities. It has also challenged the governance processes in both developed and developing countries. As revealed in this paper, the development of human resource as a concept has been shaped by at least three major factors. Firstly, ICT-enabled transactions have significantly contributed to making staffing and management of people's records and documentation easier and are a cost-saving mechanism. However, using software tools is also a technical skill which must be acquired by organizations through employee training and information sharing activities. Secondly, the reinvention of government, whereby citizens are no longer treated as mere passive recipients of governmental services but rather as partners in the governance process is more of a theoretical principle, rather than something observed in practice. Much of governmental practices, particularly in developing countries in Southeast Asia, have best practices such as conflict management through reverence to authority and social harmony.

These are among the socio-cultural practices which have been recognized by western countries, and could be considered as part of the reforms to be made in the context of organizational culture and improving on leadership and collective values. Lastly, the need to reconcile the hierarchical nature of bureaucracy vis-à-vis the increasing people-to-people relations found in organizations remains a challenge to HRM, which needs mutual efforts, funding sources and the institutionalization of business firms and public organizations to cope up with the prevalence of social networks and IT-mediated labour practices. The transformational role of human resource is dependent upon the upgrading of skills and knowledge-sharing pertaining to IT and technical skills brought about by the technology revolution. In addition, human resource departments at governmental organization, like the civil service, where the traditional hierarchy of human resources is still prevalent, ought to strike a balance between a professional and merit-based system of selection, hiring, and promotion on one hand, and to promote and uphold the societal needs of their employees on the other.

On the whole, this paper is a modest attempt to conceptually map the traditional, transactional, and transformational role of human resource management relative to the governance process. Giving emphasis to the mediating role of internet-enabled human resource, the relative openness brought about by information and communications technology have provided challenges and opportunities for HRM practitioners, students, and policymakers. There have been significant improvements in the practices and norms since the pre-WWI 1920s where the focus was merely on basic welfare (food and shelter), to the post-industrialization, modern era of technological advancement, whereby automated jobs threatened human workers. As a matter of recommendation, improving on the ICT-skills of the human asset in an organization must be considered in today's technology-driven world. Training on data processing and retrieval of electronic records for personnel management for example, promotes technical know-how and proactive learning of the members of the organization, serving as an incentive and motivation to be more effective and efficient in assigned tasks, and leading to more responsive and efficient public service delivery.

In addition, managing people better is key to coping with societal change precipitated by technological breakthroughs such as the internet and online communities. Indeed, the study of human resource management will bear more challenges in the foreseeable future in the context of the growing demand for skilled workers and IT savvy experts on one hand, and the transformational role of human resource in acknowledging human capital development towards a more effective, efficient and productive human resource management on the other. The few but significant works reviewed in this essay are relevant in gaining a fresh perspective on how HRM practitioners and scholars of public sector management can benefit by doing more empirical studies on a context-specific and governance oriented human resources.

Reference

1. Armstrong M and Taylor S. (2015), *Armstrong's handbook of human resource management practice*, London: Kogan Page.
2. Armstrong, M. (2010), *Armstrong's essential human resource management practice: A guide to people management*, London: Kogan Page Publishers
3. Boxall P and Purcell J. (2016), *Strategy and human resource management*, London: Palgrave Macmillan.
4. Debroux, P. (2017), *The evolution of human resource management in in East and South-East Asia*. Available from: https://www.soka.ac.jp/files/ja/20170419_145443.pdf [accessed on 09-01-2018 02:29 UTC].
5. Hoogervorst, J.A.P., P.L. Koopman & Henk van der Flier. (December 2002), “*Human resource strategy for the new ICT-driven business context*”, *International Journal of Human Resource Management*, Vol. 13, No. 8, pp. 1245-1265.
6. Itika, J.S. (2011), *Fundamentals of human resource management: Emerging experiences from Africa*, African Public Administration and Management series, Vol. 2, pp. 6-23.
7. Kozinets, R. V. (2002), *Netnography: Understanding Networked Communication Society*, Chapter for The SAGE handbook of social media research methods, pp. 1-5.
8. Mishra A. & I. Akman. (2010), *Information Technology in Human Resource Management: An Empirical Assessment*, *Public Personnel Management*, 39 (3) (Fall 2010), 243-62 pp. Available from: <http://ise.atilim.edu.tr/shares/personel/197/Information%20Technology%20in%20Human%20Resource%20Management-An%20Empirical%20Assessment.pdf> [accessed on 01-01-2018].
9. Oluwafemi, A.J. & O.A. Sunday. (December 2014), “*ICT Application to Human Resources Management System Design*”, *Journal of Multidisciplinary Engineering Science and Technology (JMEST)*, Vol.1, No. 5, pp. 273-80, Available from: www.jmest.org [accessed on 01-01-2018].
10. O’Riordan, J. (July 2017), *The practice of human resource management in state of public service*, research paper, series 20, pp. 1-20.
11. Osibanjo, A.O. & A.A. Adeniji. (July 2010), *Human Resource Management: Theory and Practice*. Pumarik Nigeria Ltd. (Educational Publishers), Available from: <https://www.researchgate.net/publication/305954894> [accessed on 30-12-2017].
12. Reilly P (2012), “*The practice of strategy*”, *Strategic HR Review*. Vol.11 No. 3, pp.129-135.
13. Santana, R.P. & de Santana J.P. (January 2015), *Human resource management and public sector reforms: trends and origins of a new approach*, Discussion Paper 115, [Originally published by Institute for Applied Economic Research in June 2002 as number 888 of the series *Texto para Discussão*].
14. Scott A. S., & J. W Dean Jr. (1992), “*Integrated manufacturing and human resource management: A human capital perspective*” *The Academy of Management Journal*, *Academy of Management*, Vol. 35, No. 3, (Aug., 1992) 467-504 pp. Available from: <http://www.jstor.org/stable/256484> [accessed on 30-12- 2017].
15. Schuler, R.S. (2000), *The internationalization of human resource management*, *Journal of International Management*, Vol. 6, pp. 239-260.

16. Storey, J. (1989), *New perspectives on human resource management*. John Storey Routledge. London.
17. Václav, O., Antonín, P., & Petra, J. (2011), Processes, performance drivers and ICT tools in human resources management, *Journal of Competitiveness*, Issue No. 2, pp.58-70, Available from: <http://www.cjournal.cz/files/58.pdf> [accessed on 30-12-2017].
18. Vigoda, E. Sep-Oct., 2002), From responsiveness to collaboration: governance, citizens, and the next generation of public administration, *Public Administration Review*, Vol. 62, No. 5, pp. 527-54., Available from: <http://www.jstor.org/stable/3110014>, [accessed on 09-01-2018 02:45 UTC].
19. Wright, P.M., & G.C. McMahan. (1992), Theoretical perspective for strategic human resource management, in *Journal of Management*, Vol.18, No. 2, pp. 295-320

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Ikt žmogiškųjų išteklių vadyba viešojo valdymo eroje

Anotacija

Šio straipsnio tikslas - pateikti konceptualų žmogiškųjų išteklių vadybos (HRM) funkcijų atvaizdavimą valdymo kontekste. Atliktos apžvalgos tikslai yra atsekti, nustatyti ir pateikti naujausios mokslinės literatūros apie žmogiškųjų išteklių vadybą įžvalgas, ypač apie informacinių technologijų, piliečių valdymo ir orientavimo į paramą žmogiškiems ištekliams įtaką. Šiame darbe pateikiama literatūros apžvalga siekiama atskleisti naujas žmogiškųjų išteklių vadybos funkcijų perspektyvas. Straipsnyje pagrindinis dėmesys skiriamas tokiems žmogiškųjų išteklių komponentams, kaip informacinės ir ryšių technologijos, pilietiškasis ir žmogaus orientuotas žmogiškųjų išteklių valdymo modelis, „žmogiškojo faktoriaus“ grąžinimo į žmogiškųjų išteklių vadybą propagavimas. Šia publikacija siekiama prisidėti prie tyrimų žmogiškųjų išteklių srityje, konceptualiai apibūdinant žmogiškųjų išteklių funkcijas, siejant jų plėtrą su šiais komponentais: informacinės technologijos (IT) žmogiškųjų išteklių modernizavimo procese, atskaitomybė piliečių valdyme, kaip veiksmingo, duomenimis grįsto žmogiškųjų išteklių institucijų keitimosi informacija rezultatas ir į paramą orientuotų žmogiškųjų išteklių, sutelktų į žmogiškąjį kapitalą, kaip į socio-ekonominės ir politinės plėtros partnerį, veikiantį naujosios viešosios vadybos viešojo valdymo eroje.

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