

The effect of e-HRM on organizational performance and talent management: A strategic evolution perspective

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ABSTRACT

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The aim of this study is to clarify the effect of e-HRM on organizational performance and talent management following a quantitative method with a cross-sectional design to collect data by a questionnaire distributed to a sample of managers working at industrial firms in Jordan. Based on the strategic evolution perspective, the results pointed out that e-HRM contributes to the achievement of organizations strategic objectives through its significant and positive effects on both organizational performance and talent management. Hence, it was concluded that e-HRM is one of the most critical antecedents of reaching the organization's strategic objectives. Such results call firms to enhance their implementation of e-HRM practices and scholars to examine the effect of e-HRM on other variables such as competitive advantage, human resource development, and strategic alignment.

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1. Introduction

Human resource management (HRM) is a key success factor of organizational success. The reason behind this is that it relates to an important asset of the organization, which is human resources. Thus, attention must be paid to human resource management practices. According to the technological developments that organizations can benefit from in improving their operations and reducing operational costs, electronic human resources management practices (e-HRM) have been adopted. Organizations have been interested in these practices and researchers have been involved in studying antecedents and consequences of these practices. However, there is a lack of research on the role of e-HRM from a strategic perspective.

In fact, e-HRM has three drivers, which are operational, relational, and strategic drivers. The first one refers to achieving operational benefits such as reduction of human resource management costs and improving human resource management efficiency, while the second one signifies meeting the emergent demands of line managers and business partners; finally, the third driver refers to the role of e-HRM in the fulfilment of the organizational strategic objectives (Sareen & Subramanian, 2012). However, one of the most critical challenges of e-HRM research is “clarifying the strategic ambiguity of e-HRM” (Ruël & Bondarouk, 2014, P. 636). Marler and Fisher (2013) indicated that the strategic role of e-HRM is critical for the estimation of the benefits of e-HRM implementation. They added that the contribution of human resource management to the

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strategic objectives of the organization renders it into strategic HRM. This means that e-HRM from the strategic perspective should take a significant part in triumphing the strategic objectives.

Similarly, the current research is drawn by the perspective that strategic e-HRM should contribute to the strategic objectives of the organization (Galanaki et al., 2019). Such a contribution can be investigated through the role that e-HRM plays in numerous domains such as strategic decision-making (Pati et al., 2010), strategic alignment (Boswell, 2006), human resource development (Schalk et al., 2012), organizational performance (Galanaki et al., 2019), talent management (Alkerdawy, 2016), competitive advantage (Fındıklı & Bayarçelik, 2015). Therefore, the aim of this research is to inspect the effect of e-HRM on an organization's strategic outcomes (organizational performance and talent management). There is a significant gap in the literature on the effect of e-HRM on organizational strategic objectives. Hence, this study contributes to the literature by exploring how e-HRM plays an important role in enriching organizational success through enhancing the achievement of the organization's strategic objectives such as organizational performance and talent management.

2. Theoretical background and hypotheses

2.1 E-HRM

E-HRM has been defined as “an umbrella term covering all possible integration mechanisms and contents between HRM and information technologies aiming at creating value within and across organizations for targeted employees and management” (Bondarouk & Ruel, 2009, P. 507). According to Strohmeier (2007), e-HRM refers to using information technology to support human resource activities. Another definition of e-HRM states that e-HRM is “a way of implementing HR strategies, policies and practices in organisations through a conscious and directed support of and/or with the full use of web technology-based channels” (Ruel et al., 2004, P.365). Sareen and Subramanian (2012) defined e-HRM as an integration of technology, people, and processes with the aim of carrying out human resource management functions. Marler and Fisher (2013, P. 21) conceptualized e-HRM as “configurations of computer hardware, software, and electronic networking resources that enable intended or actual HRM activities (e.g., policies, practices, and services) through individual and group-level interactions within and across organizational boundaries”. Bondarouk et al. (2015) defined e-HRM as integrating information technology and HR activities to achieve efficient and high quality HRM processes. For Thite and Kavanagh (2009, cited in Parry & Tyson, 2011, P. 2), HRM is concerned with three key types of activities, which are transactional or daily activities such as record keeping, traditional activities such as selection and recruitment, compensation, performance management, and training, and transformational activities, which add a value for the organization such as talent management. Consequently, e-HRM can be defined as using electronic applications to execute HRM daily, traditional, and transformational activities.

Examples of the theoretical perspectives used to clarify e-HRM include the contingency theory, resource based-view (RBV), new institutional theory, transaction cost theory, and the strategic evolution perspective (Marler and Fisher, 2013; Fındıklı & Bayarçelik, 2015). Contingency theory provides a theoretical foundation on which a researcher can explain such an impact. According to Marler and Fisher (2013), the strategic objectives of the organization are contingent on the degree of fit between human resource management practices and business strategy, therefore, researchers within this contingency perspective were involved in finding the most effective human resource practices.

Moreover, resource based-view (RBV) indicates that human resources are the most valuable resources of an organization (Fındıklı & Bayarçelik, 2015). It represents a theoretical perspective by which the strategic role of human resource management is elucidated. Marler and Fisher (2013) indicated that this theory suggests that the organization's strategic objectives such as competitive advantage can be realized through the internal resources of the organization like its human and social capital, which means that the strategic role of the human resource management is become evident based on its contribution to the development of these internal resources. From this perspective, internal resources and capabilities represent a key source of the competitive advantage (Parry, 2011). Furthermore, transaction theory explains practices in terms of their cost effectiveness (Fındıklı & Bayarçelik, 2015). The strategic evolution perspective is followed to explain the strategic impact of HRM by investigating the relationship between HRM decisions as well as implementation and the achievement of the organization's strategic objectives (Marler and Fisher, 2013). Therefore, the strategic evolution perspective draws the current research.

2.2 E-HRM and organizational performance

Organizational performance (OP) has been defined using numerous perspectives. For El-Borsaly and Hassan (2020), OP refers to the organization ability to implement a specific strategy. It was also seen as a collective result of employees' performance (Berberoglu, 2018). OP is one of the most durable management challenges (Pinto, 2019). It is assessed using different measures such as financial performance, market performance, internal processes performance, growth and learning performance (El-Borsaly and Hassan, 2020). One of the most significant factors affecting OP is e-HRM, e-performance management, e-selection, e-application tracking, e-compensation & benefit, e-learning, HRIS & e-communication, e-recruitment, e-personal profile and e-leave exert a significant effect on the strategic organizational performance, while e-advertising, classical and virtual training, green HRM, and e-grievance tracking & handling are negatively related to the strategic organizational performance (Hosain, 2017). Al-Hmouze (2016) found a significant positive effect of e-HRM on organizational performance as operationalized in terms of innovation, rapid adaptation, customer satisfaction, faster time to market, and human resource process. Furthermore, Al-Hawary et al. (2020) indicate that e-HRM is positively related to organizational outcomes such as its learning capability. In order to investigate the effect of e-HRM on organizational performance, the following hypothesis was introduced:

H₁: *There is a statistically significant effect of e-HRM on organizational performance.*

2.3 E-HRM and talent management

Talent management has been defined as activities implemented to identify positions that contribute to talent pool development, a distinguished human resource architecture, and organization's sustainable competitive advantage (Collings, 2014). Numerous dimensions were named as talent management dimensions such as succession planning, talent attraction, talent retention, and talent training and development (Najm & Manasrah, 2017). Laumer et al. (2010) indicated that there are four key areas of talent management, which are talent attraction, talent recruitment, talent development, and talent retention. These areas cover both external talents (job seekers) and internal talents (current employees). In terms of the effect of e-HRM on talent management, there is a great lack in previous studies on such an effect. However, some papers showed that there is a significant effect of e-HRM on talent management (Alkerdawy, 2016; Shilpa & Gopal, 2011). According to Dixit (2015), talent management is considered one aspect of the transformational (strategic) e-HRM. It was expected that e-HRM leads to efficient talent management, therefore, the following hypothesis was supposed:

H₂: *There is a statistically significant effect of e-HRM on talent management.*

3. Research methods

3.1 Research sample and data collection

A random sample was chosen from managers working at industrial firms in Jordan consisting of 120 members in order to collect the required data. The questionnaire used for this purpose was administered to 120 managers from high, middle, and line organizational levels. All questionnaires were returned. However, 27 questionnaires were excluded due to incomplete responses and outliers. Therefore, 93 questionnaires were used in the data analysis process.

3.2 Research instrument

Research variables are measured based on the literature review. E-HRM was measured using 5 items adopted from (Alkerdawy (2016)), organizational performance was evaluated by 5 items (Al-Hmouze (2016)), as well as, talent management was measured using 5 items (Alkerdawy, 2016; Laumer et al., 2010). Respondents were asked to rate those items based on a five-point Likert scale ranging between 1 (strongly disagree) and 5 (strongly agree).

3.3 Research conceptual model

The conceptual model as illustrated in Fig. 1 contains three variables with two hypotheses. The independent variable (e-HRM) and dependent variables (organizational performance-OP and talent management-TM). The first hypothesis (H1) assumed that e-HRM has a statistically significant effect on organizational performance, while the second hypothesis proposed that e-HRM has a statistically significant effect on talent management. The model was developed based on the strategic evolution perspective (Marler and Fisher, 2013), which assumes that the strategic role of human resource management depends on its contribution to the achievement of the strategic objectives of the organization.

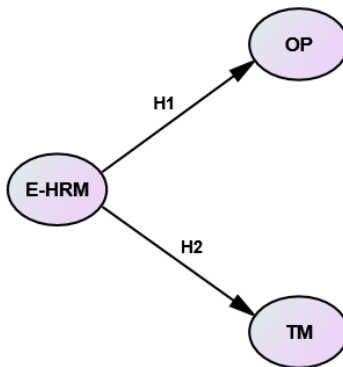


Fig. 1. Research conceptual model

4. Research results

4.1 Validity and reliability

The results of validity and reliability as depicted in Table 1 are calculated based on factor loadings and the average variance extracted (AVE) for validity and composite reliability as well as Cronbach's alpha coefficients (α) for reliability. The Table shows that all validity and reliability values were accepted.

Table 1
Validity and reliability results

Variables	Items	Validity		Reliability	
		Factor Loadings ^A	AVE ^B	CR ^C	A ^D
Electronic human resource management (e-HRM)	Ehm1	0.834	0.718	0.927	0.912
	Ehm2	0.871			
	Ehm3	0.828			
	Ehm4	0.944			
	Ehm5	0.749			
Organizational performance (OP)	OP1	0.903	0.669	0.909	0.897
	OP2	0.808			
	OP3	0.759			
	OP4	0.718			
	OP5	0.887			
Talent management (TM)	TM1	0.904	0.760	0.940	0.938
	TM2	0.913			
	TM3	0.837			
	TM4	0.891			
	TM5	0.809			

A; factor loading should be higher than 0.5. B: AVE values should be greater than 0.50. C & D: alpha coefficients and CR values should be more than 0.70.

4.2 Model fit

The results of model fit as represented in Table 2 are computed based on variance inflation factor (VIF) and tolerance to test multicollinearity in addition to four model fit indices, which are Chi-square-to-degree of freedom ratio (CMIN/DF), the Goodness of Fit Index (GFI), the Comparative Fit Index (CFI), and the Root Mean Squared Approximation of Error (RMSEA). It can be noted that the current data is free from multicollinearity problems and the model fits the current data well.

Table 2
Results of model fit and multicollinearity

Index	Model fit indices			Collinearity statistics ^B		
	Value	Criteria ^A	Result	VIF	tolerance	Result
CMIN/DF	2.672	< 3.00	Accepted	1.248	0.801	Accepted
GFI	0.933	> 0.90	Accepted	1.276	0.784	Accepted
CFI	0.951	> 0.90	Accepted	1.523	0.657	Accepted
RMSEA	0.066	< 0.08	Accepted	1.534	0.652	Accepted

A: CMIN/DF < 3, GFI and CFI > 0.90, and RMSEA < 0.08. B: VIF values should be less than 10 and tolerance values should be greater than 0.10.

4.3 Descriptive statistics and correlation matrix

The results of the descriptive statistics and correlation coefficients as described in Table 3 are figured based on means and standard deviations measures for descriptive statistics and Pearson coefficients for correlations. The Table displays that the degrees of the research variables have moderate levels and significantly correlated.

Table 3
Descriptive statistics and correlation matrix

Research variables	Descriptive stat.		Correlations and Sig. levels ^A			
	Mean	SD	(1)	(2)	(3)	Sig.
(1) Organizational performance	3.20	0.844	1			✓
(2) Talent management	3.63	0.972	0.398	1		✓
(3) E-HRM	3.57	0.701	0.384	0.418	0.432	✓

A: Correlation is significant at the 0.01 level (2-tailed). Correlations between independent variables should be less than 0.80.

4.4 Hypotheses testing

The results of hypothesis testing as painted in Fig. 2 are extracted using IBM AMOS 23.0 to display the structural associations between e-HRM as an exogenous construct and organizational performance (OP) as well as talent management (TM) as endogenous variables. Detailed results of hypothesis testing are illustrated in Table 4.

Table 4
Results of hypotheses testing

Hypotheses	Paths	Estimate	S.E.	C.R.	Sig. ^A
H1	e-HRM → OP	0.371	0.124	4.248	0.000
H5	e-HRM → TM	0.462	0.118	6.357	0.000

A: Significant level ≤ 0.05

The results of hypothesis testing as shown in Table 4 pointed out significant as well as positive effects of e-HRM on organizational performance ($\beta = 0.371$, C.R. = 4.248, $P < 0.05$) and talent management ($\beta = 0.462$, C.R. = 6.357, $P < 0.05$). These results asserted that both H1 and H2 were supported by the current data.

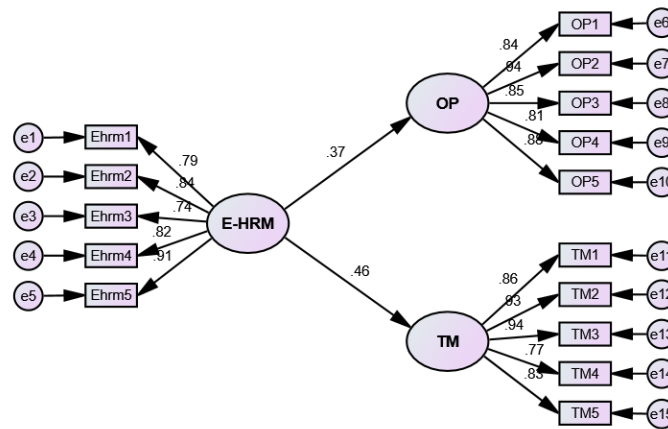


Fig. 2. Research structural model

5. Research discussion and conclusion

The study was conducted to highlight the importance of the electronic human resource management in the achievement of organizations strategic objectives, examining the effects of two major strategic objectives, which are organizational performance and talent management. Therefore, the study tests two hypotheses related to the effect of e-HRM on organizational performance (H1) and the effect of e-HRM on talent management (H2). These two hypotheses were supported, which means that e-HRM is considered as a strategic driver of the organizational strategic goals such as organizational performance and talent management. Sareen and Subramanian (2012) indicated that e-HRM is deemed strategic if it leads to the fulfilment of the organizational strategic objectives. In line with Marler and Fisher (2013), these results assist organizations to estimate the benefits of e-HRM and reduce the strategic ambiguity of e-HRM (Ruël & Bondarouk, 2014). For Galanaki et al. (2019) and Pati et al. (2010), e-HRM should contribute to the strategic objectives of the organization.

E-HRM plays three significant roles, which are transactional role to performed human resource daily activities, a traditional role such as selecting, recruiting, compensating, training, and managing employee performance, in addition to a transformational role in which e-HRM add a value to the organization through help attaining its strategic goals (Parry & Tyson, 2011). The current results emphasized the transformational role of e-HRM. Theoretically, several perspectives including the contingency theory, resource based-view (RBV), and the strategic evolution perspective explain e-HRM roles (Marler and Fisher, 2013; Fındıklı & Bayarçelik, 2015). The first perspective assumes that reaching the organization's strategic objectives depends on the degree of fit between human resource management practices and business strategy (Marler and Fisher, 2013). The second perspective presumes that the organizational strategic objectives rest on the internal resources of the organization such as its human resources (Fındıklı & Bayarçelik, 2015). The third perspective, which is the strategic evolution perspective, supposes that the strategic role of e-HRM is subject to its contribution to getting the organization strategic objectives (Marler and Fisher, 2013). For Al-Alwan et al. (2022), e-HRM results in lifting both organizational performance and talent management as it plays an important role in enhancing employee ability to carry out different job tasks, acquiring new skills, and adopting new behaviors. Obeidat (2016) added that the importance of e-HRM can be understood through its part in improving HRM effectiveness.

Compared to the results of previous studies, the current results agree with Hosain (2017) who found a significant positive effect of e-HRM on organizational performance, Alkerdawy (2016) as well as Shilpa and Gopal (2011) who found a significant positive of e-HRM on talent management. Moreover, AlHamad et al. (2022) found a positive association between e-HRM implementation and organizational health as measured by organizational good communications, employee autonomy and innovation as well as managers' ability to utilize employee talents. It was concluded that e-HRM is one of the most critical antecedents of the achievement of the organization's strategic objectives. However, the current study is limited to organizational performance and talent management; therefore, researchers are requested to investigate the effect of e-HRM on other variables such as organization competitive advantage, human resource development, and strategic alignment.

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