

A Mediated Moderation Analysis Of The Efficacy Of E-Hrm

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Abstract. *The aim of this paper is to examine the effectiveness of e-HRM by a mediated moderation analysis. This paper used both descriptive and quantitative approaches, while the research unit of analysis consists of Line managers and HR specialists. Purposeful sampling was used for the sampling process in this study while, the research sample consists of 373 Line managers and HR specialists. A questionnaire was used to collect data and PLS-SEM was used to evaluate the study. This study responds to two concerns raised in earlier e-HRM studies; first, to draw attention to the importance of the connection between technology and organisational features; and second, to indicate that the implementation of e-HRM leads to higher-quality HRM services. The main factors affecting the excellent quality of HRM services are the benefits of both traditional HRM and e-HRM. Repeated use of e-HRM and user guidance confirmed their mediating effect, while appropriation of e-HRM and acceptance of the e-HRM system demonstrated their moderating influence. This paper encourage line managers and HR specialists must ensure that e-HRM systems are user-friendly and understandable to the intended audience (e.g. Operational: e-payroll processes, Relational: e-recruitment and selection, Transformational: online talent management). This paper has made a significant contribution to knowledge and to the operationalization of e-HRM literature, which could help to develop theory, model, practice and research in areas of HRM quality of service.*

Keywords . *e-HRM utilization, HRM quality of service, e-HRM consequence, e-HRM technology*

INTRODUCTION

E-HRM includes both human resource management (HRM) and information technology (IT) (Strohmeier and Kabst, 2014, Njoku *et al.*, 2019). Over the past few decades, various definitions of e-HRM have been presented, and these definitions have taken on a range of shades of meaning in response to altering technological and HRM landscapes. E-HRM has been variously characterised as the use of computers and telecommunications devices to gather, retrieve, save, and distribute HR data for commercial objectives. HR collaboration is described as the use of information technology in any of its forms (planning, implementation, and application) to connect and support the work of two or more persons or groups involved in HR operations (Njoku and Ebie, 2015, Bondarouk *et al.*, 2017a). E-HRM is a method of implementing HRM strategies, policies, and practices in organisations by actively employing web-based channels or providing intentional and direct support (Shahreki *et al.*, 2019, Marler and Parry, 2016). According to study, e-HRM has the potential to enhance HRM quality of service, which is defined as the outcomes (intangibles) attained by HR professionals on behalf of internal customers (Shahreki *et al.*, 2023b, Myllymaki, 2021, Ruel *et al.*, 2007).

For instance, line managers (LMs) must learn how to carry out the proper HR tasks in a brand-new e-HRM environment (Bondarouk and Ruel, 2013, Zhou *et al.*, 2022). Overall, the

findings indicate that e-HRM is primarily concerned with other objectives, such as cost reductions and improve efficiency, and that the actual improvement in HRM services that it makes possible is not well defined. As a result, our study's main objective is to determine how e-HRM affects the standard of HRM services. The interaction between IT and HRM has received particular attention in recent studies that look at the factors that influence e-HRM outcomes. The research of significant e-HRM settings by Strohmeier and Kabst (2014) and Shahreki *et al.* (2023a) suggests that a power users configuration may be essential to an organization's success. Because it shows a fit with the crucial external contextual variables and a fit with the organisational dynamics, it was believed that the setup for power users represented a significant percentage of businesses, it involves using e-HRM in all of its operational, relational, and transformational forms. These authors emphasised the importance of organisational support for e-HRM deployment in order to achieve good e-HRM results. The secondary goal of our study is to determine what characteristics lead to successful e-HRM adoption in order to better address this issue. To answer these and similar problems, we build on data from current e-HRM studies and develop two research objectives: (i) to determine why technological and organisational factors matter, and (ii) to assess the quality of HRM services following e-HRM implementation. The original contributions made by the paper to the field of e-HRM are as follows: The study's primary goal is to examine how e-HRM affects the standard of HRM services. Second, by focusing on the function of e-HRM deployment, it aids in understanding the e-HRM application. According to “Adaptive Structuration Theory (AST)”, our definition of e-HRM implementation covers how frequently employees utilize e-HRM as well as how well they understand and apply it (DeSanctis and Poole, 1994). Third, the paper asserts that the standard of HRM services is impacted by e-HRM and investigates the variables that may affect this impact.

This is how the article develops. Following that, we present a brief description of the concept of e-HRM-related HRM quality of service, claiming that this quality is determined by how end users interact with the technology. The significance of strong HRM and e-HRM as antecedents is then discussed. Following that, we present a model and research hypotheses to explain the connections between these two primary antecedents and the quality of e-HRM services, with a focus on the impact of usage frequency and appropriation. Following the introduction of the study strategy, we proceed to a breakdown of the findings. The paper concludes with a brief discussion of the study's implications, limitations, and possible future research directions.

Theoretical Background

Recent evaluations of the e-HRM literature all point to strong expectations that e-HRM will improve the quality of HRM services (Muhammad *et al.*, 2022, Shahreki *et al.*, 2023b, Njoku and Ebie, 2015, Zhou *et al.*, 2022, Strohmeier, 2009). To begin with, research has revealed that the quality of a service is determined by three major factors: the degree to which the service is intangible, the degree to which the client is involved in the creation of the service, and the degree to which the production and consumption of the service are linked (Santos, 2003, Edvardsson, 1998, Cronin Jr and Taylor, 1992, Johnston, 1995, Zeithaml *et al.*, 1996, Shahreki, 2023b). Second, several schools of modern services research characterise the methods by which value is produced in the service industry in terms of service-dominant logic, information technology and services, and transformational services. According to the logic of the service-dominant paradigm, HR professionals, employees, and LMs are all participants inside an organisation, and the usage of intangible resources like networks, interactions, and linkages should be a component of HRM services (Biswas, 2009, Alfes *et al.*, 2013, Haywood-Farmer, 1988, Ibrahim *et al.*, 2020). Research on transformative services has shown that (Anderson and Ostrom, 2015, Rosenbaum, 2015, Shahreki, 2019), HRM has the potential to help businesses achieve their goals by increasing worker and consumer satisfaction (Bell *et al.*, 2006, Gould-Williams and Davies, 2005, Bowen and Ostroff, 2004, Nguyen *et al.*, 2021, Shahreki *et al.*, 2020c). HRM services are deemed successful if they create a good balance between demand and supply and reduce customer wait times. This approach is inspired by studies in operations management that take a macro view of service providing. The financial results and the degree of client satisfaction of the business are directly impacted by this. Studies in service management have two primary effects on HRM services. We begin by assuming that HR professionals give experiences (i.e., intangible) to internal consumers (LMs and workers), as well as the fact that these clients are informed, responsible, and engaged with IT. The HRM service viewpoint encourages HR professionals to give personalized responses to their clients' demands and to perceive clients as active players in the co-production of HRM services, rather than as passive users of HRM services (Parry and Tyson, 2011, Shahreki *et al.*, 2020a, Bondarouk and Brewster, 2016, Strohmeier, 2020, Park *et al.*, 2019, Shahreki and Nakanishi, 2016). Following that, we will go into the aspects that precede HRM service excellence. Several e-HRM-related qualities have been highlighted in the literature as potential determinants of HRM service quality. The two most essential elements influencing HRM quality of service will be argued to be HRM capability and e-HRM capability.

Theoretical Model And Hypothesis Development

HRM Capability And HRM Quality Of Service

The concept of HRM capability was first introduced by Bowen and Ostroff (2004) and heavily draws from theories of signaling and attribution. Signaling theory states that the strength of an HRM system can be determined by whether the majority of the staff agrees that it is extremely unique, consistently used, and based on broad consensus (Bowen and Ostroff, 2004, Moratis, 2018, Bergh *et al.*, 2014). Every action a company takes is viewed as a message under the "signaling" theory. Therefore, HRM systems need to employ e-HRM to explain the values and characteristics that affect how customers view working for the firm (Shahreki *et al.*, 2020b, Ruel and Van der Kaap, 2012). The ability of an organisation to connect with its employees in a way that improves understanding of appropriate responses to various scenarios and helps staff come to consensus on expectations is known as HRM capability (Zhang and Edgar, 2022, Park *et al.*, 2019, Uwizeyemungu *et al.*, 2018, Shahreki, 2023b). The three meta-features of uniqueness, consistency, and agreement can be used to identify both the sender and the recipient of an HRM communication (Bowen and Ostroff, 2004, Shahreki *et al.*, 2019). A strong HRM is known to be excellent in each of these meta-features. The HR field formerly believed that having more HRM knowledge was sufficient to enhance HR services when it came to communicating HR policies and procedures to stakeholders (Marler and Parry, 2016, Shahreki *et al.*, 2023b). E-HRM has the ability to be viewed as a vehicle via which HR practises may influence how consumers perceive HRM products by giving a channel for simpler two-way communication between HR departments and their clients (Njoku and Ebie, 2015, Strohmeier and Kabst, 2014, Shahreki *et al.*, 2023b, Schalk *et al.*, 2013, Muhammad *et al.*, 2022). In light of these factors, using HRM tools can affect both how well HRM systems work and how well HRM services are provided. As a result, we provide the following hypotheses:

H1: HRM capability has a positive effect on HRM quality of service

H2: Repetition of e-HRM utilization mediates the connection among HRM capability and HRM quality of service

E-Hrm Capability And Hrm Quality Of Service

E-HRM technology, in our opinion, is trustworthy as long as it is user-friendly and the HR data is helpful for the organization. It might be possible to communicate with the end user in a clear, pertinent, and understandable way by using e-HRM technology. Employees and managers are also required to use e-HRM, although for different reasons. HR professionals are the only ones whose jobs are directly related to how they use e-HRM (Marler and Parry, 2016, Shahreki, 2023a, Zhou *et al.*, 2022). As a result, employees may perceive a high amount of HR task diversity and a low level of routineness. Because of this, employees may believe that their e-HRM activities are neither routine nor simple (Goodhue and Thompson, 1995, Shahreki *et al.*, 2023b, Talukdar and Ganguly, 2022, Bondarouk *et al.*, 2017b). Given this information, we suggest that in order to satisfy the requirements

of e-HRM users, frequent integration of information reminders into the database is required. In order to succeed, e-HRM must excel in terms of the quality of its contextual and intrinsic data. Determining the impact of an e-HRM system requires understanding how frequently it is utilised. No changes to services will be made if the technology is not adopted. Employees are more likely to adopt new IT if they believe it is useful, has a low complexity, and provides high-quality information. We believe that more individuals will utilize e-HRM systems more regularly since they are easy to use and produce high-quality data. Timeliness, accessibility, and relevancy of information have been demonstrated to have a significant effect on how well customers rate the quality of a service. With the introduction of e-HRM, HR operations are now more often performed and made available to staff via digital tools, this might change how those employees feel about HR as a whole. Depending on how often it is utilised, the capability of e-HRM, however, may unintentionally have a small but significant impact on the quality of HRM services. These considerations argue that a worker's perception of e-HRM services should be influenced by how frequently they are used. Consequently, the next hypotheses are presented:

H3: e-HRM capability has a positive effect on HRM quality of service

H4: Repetition of e-HRM utilization mediates the connection among e-HRM capability and HRM quality of service

Moderating Role Of Appropriation Of E-Hrm

Numerous studies that examined the outcomes and impacts of excellent HRM especially concentrated on the various viewpoints of corporate workers. LMs and workers in the service sector (Kehoe and Han, 2020, Shahreki *et al.*, 2021) and the construction industry (Bos-Nehles *et al.*, 2013, Turulja and Bajgoric, 2018), along with LMs and trade union representatives, even among one particular group of workers in the service industry, have been discovered to have different viewpoints on management (Al-Harazneh and Sila, 2021, Shahreki *et al.*, 2022) also, have several applications of HRM that result in different degrees of performance (Bos-Nehles and Meijerink, 2018, Ibrahim *et al.*, 2020, Shahreki, 2023b). In view of how individuals feel about the work they do while utilising e-HRM technology, e-HRM researchers have not yet looked at the strength-quality association between HRM functions. Research on the prospective and contingent mediation impact of e-HRM technology is also still in its early stages. On the basis of these concepts, we propose that the degree to which e-HRM tools are used in a certain environment may affect the moderating effect of e-HRM usage frequency. The electronic messages produced by HRM may become more logical and understandable if the authorized user use the proper instruments. In light of this, we propose that the level of appropriation determines whether or not e-HRM usage works as a moderator in the relationship between HRM capacity and HRM quality of service:

H5: Repetition of e-HRM utilization has a stronger mediating effect in situations where there is a high degree of appropriation than it does in situations where there is a low degree of appropriation in the connection among HRM capability and HRM quality of service.

We also focus on the idea that every user would have different technological experiences (Orlikowski, 2000, Vazquez and Sunyer, 2021, Haep, 2022). In other words, it is possible for LMs, team members, and HR specialists to perceive the same signals produced by e-HRM software systems in different ways. The London Ambulance Service (LAS) is used in this case study to show the value of appropriation in evaluating the effects of technological developments. A notably ineffective piece of technology is frequently highlighted as the information and command mechanism for the LAS. The proposed uses of the LAS system include answering calls, delivering ambulances, and tracking their positions. When a LAS system fault was reported, it was assumed that numerous lives had been lost (Beynon-Davies, 1995, Heeks, 2006). Later investigations into the LAS breakdown revealed that the system had been overworked (there were more incoming calls than before), causing issues like message repetition and inaccurate database generation. Ambulance employees tried to update everyone as soon as possible, but the stress of their jobs hindered them (Fitzgerald and Russo, 2005, Bartis and Mitev, 2008, Hashemi *et al.*, 2023). The adoption of e-HRM by users has a significant impact on the quality of HRM services, according to our argument, which is based on the concept of IT appropriation. If HRM and goals are not understood, deploying e-foundations could be ineffective and have unanticipated consequences. Hence, it seems that teaching staff on how to utilize e-HRM efficiently is critical. Hence, it is suggested that:

H6: Repetition of e-HRM utilization has a stronger mediating effect in situations where there is a high degree of appropriation than it does in situations where there is a low degree of appropriation in the relationship between e-HRM capability and HRM quality of service.

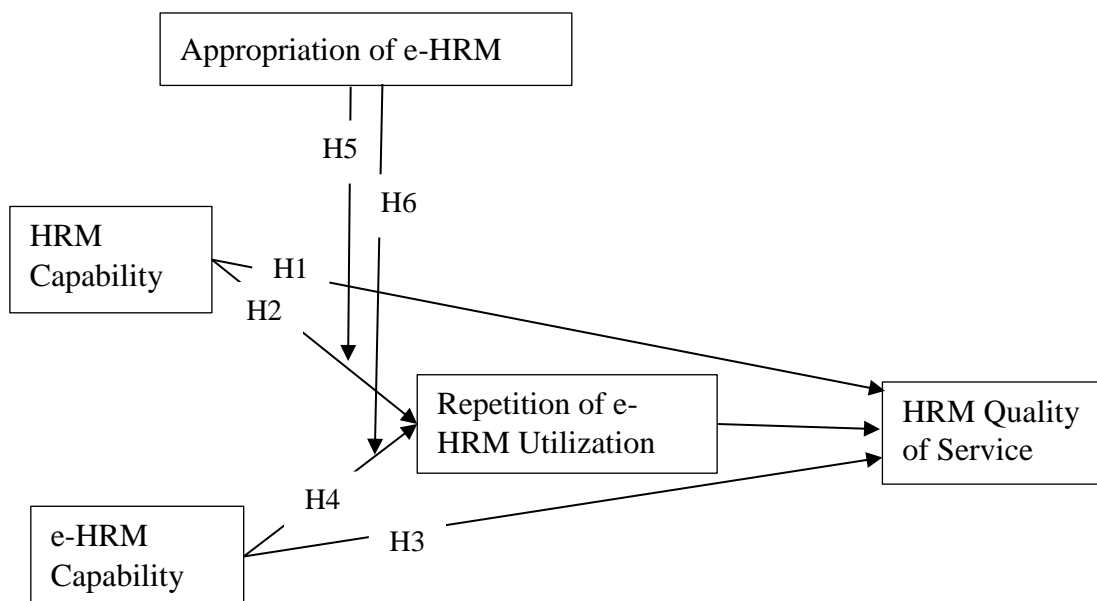


Figure 1: Framework.

METHOD

In the present study, a descriptive research design was employed. As a kind of non-probability sampling method where participants are chosen based on specific factors, purposeful sampling was used for the sampling process (Hair *et al.*, 2019a, Kothari, 2004), for example, Malaysian employees at SMEs who use e-HRM in their regular operations. Line managers and HR specialists who worked with HR programmes such as payroll management, workflow registration, holiday administration, personnel planning, recruiting and selection, training and development, and e-learning were among those who answered. In addition, because theory informs research, a quantitative research methodology and a deductive approach were employed (Bell *et al.*, 2022). The questionnaire's reliability was assessed by 18 HRM professors. The online pilot study comprised 80 respondents who utilized e-HRM in their regular activities to test the reliability and validity of the tools and research. Some changes were made in response to their feedback (see Appendix A). We assured the HR departments of the SMEs on the confidentiality of the study's data and its objectives. The questionnaire was divided into two parts. The first component of the survey had 15 items that were scored on a 7-point Likert scale for each of the ten modelled constructs (1 being "strongly disagree", and 7 being "strongly agree"). The demographic information of the respondents was requested in the second part. Overall, 378 questionnaires were collected, of which 5 are considered invalid. Information from companies in the industrial and service sectors was gathered using only 373 valid surveys. Table 1 shows that 31.4% of respondents were women and 68.6% of respondents were men. In terms of education, 65.4% of respondents had a bachelor's degree, and 48% were in their 30s or 40s. In addition, 62.7% of those with more than four years' experience and 85.8% of managers utilized e-HRM (see Table 1).

Table 1: Demographic Information

Variables	Category	Frequency	%
Gender	Male	256	68.6
	Female	117	31.4
Education	Diploma	69	18.5
	Bachelor	244	65.4
	Master	48	12.9
	PhD	12	3.2
Age	Under 30	74	19.8
	30-40	179	48.0
	41-50	100	26.8
	Above 51	20	5.4
Designation	Manager	320	85.8
	Executive	43	11.5
	Others	10	2.7
Experience	Below 5 Years	48	12.9
	5 - 20 Years	234	62.7
	More than 20 Years	91	24.4
e-HRM Utilization	Less than two years	17	4.6
	Between two and four years	106	29.5

	More than four years	238	62.7
	Others	12	3.2

RESULTS AND DISCUSSION

The “statistical package for the social sciences (SPSS)” and “structural equation modelling (SEM)” were utilized to analyse the data in this study.

Measurement Model Evaluation

Three criteria must be met in order to evaluate the measurement model: all t-values must exceed 1.96, all variance errors must be positive, and all standardised loading factors must exceed 0.50 (Hair *et al.*, 2019b, Ringle *et al.*, 2020). Table 2 shows that all of the loadings were significant and more than 0.7. Additionally, for all constructs, the average variance extracted (AVE) was higher than 0.5. Each construct has a high scale reliability, as shown by the analysis of composite reliability and Cronbach's alpha. On the other hand, the results of the Skewness (-1 to 1) and Kurtosis (-2 to 2) tests showed that the data was normally distributed. According to Table 3, the square root of each construct's AVE is bigger than its inter-correlation, and HTMT is less than 0.9. Overall, it shows a high level of reliability and validity (Sarstedt *et al.*, 2020).

Table 2: Construct validity and reliability.

Constructs	Loadings	AVE	CR	α	Skewness	Kurtosis
HRM Capability (HRMc)		0.800	0.910	0.901		
HRMc1	0.814				-0.504	-0.608
HRMc2	0.829				-0.141	-0.128
HRMc3	0.897				-0.252	-0.631
e-HRM Capability (e-HRMc)		0.789	0.833	0.869		
e-HRMc1	0.923				-0.322	-0.797
e-HRMc2	0.854				-0.458	-0.759
e-HRMc3	0.900				-0.251	1.224
Repetition of e-HRM Utilization (Rep)		0.786	0.901	0.907		
Rep1	0.819				0.812	1.545
Rep2	0.938				-0.610	-0.222
Rep3	0.920				-0.241	0.922
Appropriation of e-HRM (App)		0.779	0.909	0.904		
App1	0.884				-0.312	-0.621
App2	0.959				0.323	-0.910
App3	0.918				-0.728	-0.915
HRM Quality of Service (QS)		0.777	0.912	0.916		
QS1	0.830				0.823	1.556
QS2	0.949				-0.621	-0.233
QS3	0.932				-0.252	0.935

Notes: α = “Cronbach’s alpha”; AVE = “average variance extracted”; CR = “composite reliability”. **p < 0.01.

Table 3: Assessment of discriminant validity.

Constructs	1	2	3	4	5
1. HRMc	0.83	0.50	0.47	0.53	0.49
2. e-HRMc	0.56	0.82	0.53	0.54	0.53
3. Rep	0.49	0.58	0.80	0.49	0.50
4. App	0.54	0.57	0.52	0.86	0.48
5. QS	0.51	0.56	0.53	0.52	0.87

Notes: “Diagonal measures (bold) are the square root of the average variance extracted (AVE) for every construct, while the other entries represent the correlations”. The HTMT ratios are situated above the bolded diagonal factors.

Structural Model Assessment

In Table 4, the path coefficient (β) for the measurement model is displayed. Hypothesis 1 states that there is a highly substantial association between HRM Capability and HRM Quality of Service ($\beta = 0.738$, $p < 0.01$). Hypothesis 3 reveals a highly level of collaboration between e-HRM capability and HRM Quality of Service ($\beta = 0.782$, $p < 0.01$). Moreover, the effect size (f^2) test demonstrates that the range of 0.290 to 0.301 has a medium to strong influence based on “Cohen's cut-offs of small effect = 0.02, medium effect = 0.15, and strong effect = 0.35”. Furthermore, we assessed the predictive potential of our model by evaluating the R^2 and Q^2 standards of our predictor components. For our endogenous constructs, all R^2 values exceeded the 0.10 threshold, and all Stone-Geisser Q^2 values were positive (Hair *et al.*, 2019b).

Table 4: Structural model results

Hypothesis	Path	Estimate	t-statistics	f2	Decision
H1	HRM Capability → HRM Quality of Service	0.738**	7.53	0.290	Supported
H3	e-HRM Capability → HRM Quality of Service	0.782**	10.75	0.301	Supported

Notes: HRM Quality of Service: $R^2 = 0.701$; $Q^2 = 0.157$, ** $p < 0.01$.

Mediating Effect

We employed bootstrapping-based resampling to assess the importance of the indirect effects using the product-of-coefficients method (Hayes and Scharkow, 2013). According to Baron and Kenny (1986), determining the instrument's mediation impact requires examining a satisfying relationship between the mediator and the outcome variables, as well as the mediator and the predictor variable. Through continued use of e-HRM, HRM capabilities was found to have an indirect impact on HRM quality of service ($\beta = 0.271$). Furthermore, the direct influence of HRM capability and HRM service quality was statistically significant ($\beta = 0.129$), hypothesis 2 is approved by partial mediation. Through continued e-HRM use, it was observed that e-HRM capabilities had an indirect impact on HRM quality of service ($\beta = 0.299$). Additionally, the direct relationship between e-HRM capability and HRM service quality was not statistically significant ($\beta = 0.060$), Hypothesis 4 is backed by fully mediation (see Table 5).

Table 5: Mediation test results

Path	95% Bootstrapped Confidence Interval								Mediation
	Indirect Effect	SE	LL	UL	Direct Effect	SE	LL	UL	
H2: HRM Capability → Rep → QS	0.271	0.048	0.172	0.309	0.129	0.054	0.018	0.249	Yes (Partial)
H4: e-HRM Capability → Rep → QS	0.299	0.062	0.182	0.343	0.060	0.058	-0.024	0.102	Yes (Full)

Note: LL: Lower Limit; UL: Upper Limit. Repetition of e-HRM Utilization (Rep), HRM Quality of Service (QS).

Moderating Effect

We employed Fassott *et al.* (2016) two-stage technique to test for the presence of interaction effects in order to investigate the moderating function of e-HRM appropriation and e-HRM system acceptance by users. The findings reveal a positive, substantial interaction, the repetition of e-HRM utilization has a stronger mediating effect in situations with a high degree of appropriation than it does in situations with a low degree of appropriation in the relationship between HRM capability and HRM quality of service (hypotheses 5). Besides, the results indicate a positive, considerable interaction, in the connection between e-HRM capability and HRM quality of service, the repetition of e-HRM utilization has a stronger mediating effect in situations with a high degree of appropriation than it does in situations with a low degree of appropriation (hypotheses 6), also see Table 6.

Table 6: Moderating Effects.

Path	β	SD	t-Value	p-Value	Moderation
H5: HRM Capability × App → Rep	0.352	0.219	3.346**	0.001	Yes (Supported)
H6: e-HRM Capability × App → Rep	0.348	0.214	3.342**	0.003	Yes (Supported)

Note: Appropriation of e-HRM (App); Repetition of e-HRM Utilization (Rep); HRM Quality of Service (QS); ** $p < 0.01$.

DISCUSSION AND CONCLUSION

Theoretical Implications

Our first unique contribution examines the effects of HRM and technology on HR service quality. We offer the concept of e-HRM capability to characterise the aspects of an e-HRM system that promote clear communication between e-HRM stakeholders. The foundation of our case is the advantages of HRM and e-HRM. A great HRM system ensures clear HR message due to its originality, dependability, and consensus, all of which are required for success in the HR area. Likewise, it is widely acknowledged that an e-HRM system is strong if it provides users with accurate, relevant, and understandable information. Consequently, the research's findings support the idea that e-HRM and HRM effectiveness depend on three factors of service quality in the HRM field. We can infer some cautious conclusions about the relative

contribution of HRM power and e-applications to HRM service quality. It is important to remember that technical attributes were crucial in explaining the standard of HRM service that was rendered.

The second thing we've done is in response to e-HRM academics who asked us to investigate how e-HRM usage, specifically, appropriation and frequency affects e-HRM outcomes in organizations. This contribution would not be complete without implementing the e-HRM appropriation concept that was borrowed from AST. The benefits of e-HRM, according to our argument, would depend on the accurate work of the technology. To put it another way, we predicted that employee adoption of e-HRM features would have a moderating effect on the relationship between those features and HRM service quality (as mediated by their frequency of usage).

Third, the level of mediation differed between systems with different levels of appropriation, and the findings held true across a wide range of e-HRM use frequencies. The research of Marler and Parry (2016), Njoku and Ebie (2015) and Shahreki *et al.* (2023b) who also investigated the effect of technology adoption in the creation of e-HRM value, provides an important point of comparison. They found that e-HRM utilization was positively connected with HRM productivity and effectiveness, both of which were related to HRM service quality. Based on their research, when utilized as intended, rather than simply more frequently, e-HRM will most likely be more effective, because e-HRM adoption had greater explanatory power than frequency of use in their study. Instead of looking into the obvious links between e-HRM utilization, HRM capabilities, and superior HRM service, our study looked at how the frequency with which one variable was monitored influenced the other.

Forth, the outcome emphasizes the significance of user instruction in affecting successful e-HRM utilization. As a result, new knowledge is presented regarding how user instruction modifies the effects of relational, operational, and transformational e-HRM on the effectiveness of HR services. In this section, we introduce the idea of e-HRM practices to describe the components of an e-HRM system that allow for efficient interaction among e-HRM stakeholders.

In response to requests from e-HRM scholars, our fifth contribution investigates how user acceptance of e-HRM systems affects the link between e-HRM utilization and the standard of HR services. This is consistent with the conclusions of Ruel and Van der Kaap (2012) and Shahreki *et al.* (2019) that contextual elements, especially the TAM, must be considered when evaluating the results of e-HRM implementation. This main finding highlights the importance

of user acceptance in e-HRM success, with higher acceptance contributing to better results, whether primary or transformative.

Managerial Implications

First, our results have clear applications in the real world. Even though it may seem like stating the obvious, it is crucial to emphasise that e-HRM deployment does not always provide organisations with the immediate benefits they expect for. Thus, before implementing HRM online, individuals in charge of it at a company should ensure that HRM systems (policies and practises) are created and effectively communicated. The development of an HRM system that is highly distinctive, consistent, and supported by all HR professionals is essential to the success of any HR department. Even though it might seem obvious, this is the first study to offer empirical support for the significance of giving HRM content priority over IT content in the context of e-HRM initiatives. The findings show that HRM-driven discussions should come before e-HRM deployment.

Second, as demonstrated, qualities of the system's contextual and intrinsic information can affect whether or not the information saved in e-HRM is reliable and useful for the HR tasks in a certain organization, this might influence the quality of the HRM service. For this reason, experts must make sure that e-HRM systems are user-friendly and clear for the target audience. An e-HRM software needs to be customised for its target audience, developed and tested by professionals, and maintained by a customer-oriented support staff. According to our research, e-HRM software need to be considered a tool for HRM.

Third, HR managers are becoming more aware of how relational, operational, and transformational e-HRM may significantly improve the effectiveness of HR services when users are properly trained. To say it clearly, only user training for HR systems can provide effective HR service. Based on e-HRM goals and business objectives, a more strategic approach is replacing traditional HRM practises. This enhances the performance of the business. In terms of application, through the use of technical applications and employee involvement to build competitive strategies, valuable resources are aligned with business objectives. Hence, line managers and HR specialists must ensure that e-HRM systems are user-friendly and understandable to the intended audience (e.g., Operational: e-payroll processes, Relational: e-recruitment and selection, Transformational: online talent management).

Limitations And Future Research Scope

We understand that there are certain limitations to our results that need to be taken into consideration. We just partially adapted AST for the new e-HRM configuration, investigating the theory's limitations and qualitative advancements could be beneficial for future e-HRM

study. Our findings, together with those of Ruel and Van der Kaap (2012) and Shahreki *et al.* (2023b), bring the concept of appropriation into the field of e-HRM research, allowing scholars interested in the changing nature of e-HRM deployments to operationalize structuration processes. Evaluation of the concept of appropriation should be considered carefully, because it will encourage academics with a wide range of interests to investigate how larger institutional and social environment changes are influenced by and entrenched in e-HRM deployments. Nevertheless, we advise e-HRM researchers to look for chances to evaluate the use of e-HRM technology from a structuration viewpoint. Our findings highlight the need for more scholarly research into e-HRM, with an emphasis on ways for integrating and disseminating HRM content via IT to improve the standard, efficacy, and durability of HRM procedures for specific user groups both within and across enterprises.

Appendix A Questionnaire items

Constructs	Items	Source
HRM Capability	The HR department's responsibilities are clear in this organization.	(Delmotte <i>et al.</i> , 2012)
	The HR activities improve the efficiency of our company.	
	Managing directors and HR experts undoubtedly share the same HR vision.	
e-HRM Capability	I have no trouble getting the e-HRM to do what I want.	(Venkatesh <i>et al.</i> , 2003); (Shahreki <i>et al.</i> , 2019)
	In general, I find e-HRM to be simple to use.	
	"For my HR-related activities, the data on the e-HRM website is up-to-date and accurate".	
Repetition of e-HRM Utilization	"I use e-HRM in my regular work".	(Shahreki <i>et al.</i> , 2019); (Tan and Teo, 2000)
	I utilize e-HRM frequently.	
	I make extensive use of e-HRM.	
Appropriation of e-HRM	I follow the guidelines in the manuals when using the e-HRM tools.	(Ruel <i>et al.</i> , 2007); (Shahreki <i>et al.</i> , 2023b)
	IT professionals agree with how I utilize e-HRM tools.	
	I utilize the e-HRM applications well.	
HRM Quality of Service	The first time around, HR services are delivered correctly.	(Brady and Cronin Jr, 2001); (Santos, 2003)
	When I require HR assistance, the HR department responds quickly.	
	Duplication of HR documents has decreased significantly since the implementation of e-HRM.	

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