

An investigation of firm performance via electronic ability-motivation-opportunity enhancing practices towards Saudi Arabian garment sector employees

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ABSTRACT – REZUMAT

An investigation of firm performance via electronic ability-motivation-opportunity enhancing practices towards Saudi Arabian garment sector employees

This study aims to explore ability-motivation-opportunity (AMO) practices to enhance sustainable HRM in the electronic environment. The authors further investigated whether sustainable e-HRM (SEHRM) may improve firm performance. Data was collected from the employees of the Saudi Arabian garment sector. Collected data was analyzed by applying structure equation modelling (SEM) by using smart-PLS. Results indicate that three dimensions of e-HRM positively and significantly impact firm performance. Results further suggest that SEHRM substantially mediates the relationship between e-HRM practices and firm performance. To establish SEHRM systems, an emphasis must be placed on e-HRM practices that improve employees' abilities and motivation. Once employees comprehend the importance of EHRM, they will be attracted towards this system routinely for activities such as goal planning and performance evaluation. Creating SEHRM helps improve the functions of the business. This study will help business professionals to adapt EHRM to improve the firm performance.

Keywords: *electronic HRM, ability enhancing, opportunity enhancing, motivation enhancing, firm performance, garments sector*

Studiu asupra performanței firmei prin practici electronice de îmbunătățire a abilităților, motivației și oportunităților față de angajații din sectorul de îmbrăcăminte din Arabia Saudită

Acest studiu își propune să exploreze practicile de îmbunătățire a abilităților, motivației și oportunităților (AMO) în managementul resurselor umane (HRM) durabil în mediul electronic. Autorii au investigat în continuare dacă e-HRM durabil (SEHRM) poate îmbunătăți performanța firmei. Datele au fost colectate de la angajații din sectorul de îmbrăcăminte din Arabia Saudită. Datele colectate au fost analizate prin aplicarea modelării ecuațiilor structurale (SEM), prin utilizarea smart-PLS. Rezultatele au indicat faptul că trei dimensiuni ale e-HRM au un impact pozitiv și semnificativ asupra performanței firmei. Rezultatele au mai evidențiat că SEHRM mediază în mod substanțial relația dintre practicile e-HRM și performanța firmei. Pentru a stabili sisteme SEHRM, trebuie să se pună accent pe practicile e-HRM care îmbunătățesc abilitățile și motivația angajaților. Odată ce angajații înțeleg importanța EHRM, ei vor adopta cu siguranță acest sistem în mod uzual pentru activități precum planificarea obiectivelor și evaluarea performanței. Crearea SEHRM este utilă pentru a îmbunătăți funcțiile afacerii. Acest studiu va ajuta profesioniștii din afaceri să adapteze EHRM pentru a îmbunătăți performanța firmei.

Cuvinte-cheie: *HRM electronic, îmbunătățirea abilităților, îmbunătățirea oportunităților, îmbunătățirea motivației, performanța firmei, sectorul de îmbrăcăminte*

INTRODUCTION

The implementation of e-HRM, also known as EHRM, resulted in profound changes to every facet of human resource management. Due to the all-pervasive nature of information technology, the management of human resources has taken on a greater level of significance [1]. When it comes down to it, electronic, human resource management (e-HRM) is just a phrase that refers to the utilisation of technology to carry out a wide variety of human resource management tasks (such as recruiting, selection, training, performance evaluation, and career advancement and development of employees in every company) [2]. It is essential to distinguish between tradi-

tional HR information systems and electronic human resource management [3]. The former is responsible for managing the human resources departments of organizations, while the latter is more concerned with the actions of employees and other stakeholders [4]. Another concern over the ability to maintain operations over the long run has surfaced as a direct result of the expanding usage of technology and the subsequent depletion of available resources. Sustainable development can be implemented concerning material and immaterial resources (intellectual, capital, and infrastructure) [5]. Although e-HRM practices and SEHRM systems have become more prevalent in the last decade, e-HRM was first discussed by some researchers [6,

7], when they categorised e-HRM into three significant categories: operational e-HRM, relational e-HRM, and strategic e-HRM (the latter of which deals with more core activities such as training, performance evaluation, and strategic e-HRM) [8]. An organization's operational activities are transformed when it implements a long-term sustainable electronic human resource management system (e-HRM) [9]. Three different e-HRM positions were defined in some studies [10, 11], which are referred to as transactional, classic, and transformative e-HRM roles. HRM's benefits to organizations can no longer be understated, especially in light of the wealth of information currently at our fingertips [12]. With the help of e-HRM, manual or analogue organizational records and data can be converted to digital form for use in the future [13]. Therefore, businesses might investigate the potential of electronic information transformation to achieve strategic goals, such as developing long-term e-HRM systems through electronic human resource management [14, 15].

In recent years, managing e-HRM practices and SEHRM systems in a dynamic capacity has become increasingly important. In this day and age, characterized by the economy of knowledge and the technical exchange of information among various organizations, successful results can be produced; recently, the global environment has grown more dynamic than ever before, which has altered the landscape for different human resource processes and emotional capacities [16, 17]. When companies and organizations use the most practical combination of available intellectual capital and technological resources, they can analyse and improve upon what has been produced in the past, allowing sustainable electronic and human resource practices and systems. However, according to the available research, EHRM's drawbacks have prevented many businesses from utilizing it [18]. Nevertheless, this technology is vital for long-term human resources management and business performance promotion because of the current epidemic and the fragile economic climate [19].

The outcomes of this study positively impact the management of information systems and human resources. The results of our research also revealed significant effects in the real business world. We found a beneficial impact on business outcomes brought about by e-HRM.

Section 2 presents the theoretical foundation, followed by the creation of hypotheses; Section 4 explains the research strategy; Section 5 focuses on Saudi Arabia and PLS-SEM-based analysis, and Section 6 concludes with theoretical and practical implications.

LITERATURE REVIEW

Theoretical background

Organizational theories and dynamic capabilities enable businesses to adjust their resource base actively. A business's capacity to strategically use its

resources and expertise is a primary factor in determining whether it will succeed in the long run [20]. It is possible to generate, reproduce, and reconfigure dynamic capabilities in various settings. These operations may be carried out in a variety of different environments. To direct the growth and development of organizations, dynamic talents, particularly those that pertain to human resources, need to be uncovered [21]. Because of the emotional skills and organizational behaviour of today's employees and staff, the dynamic capability view, also known as the DCV, is an excellent fit for today's modern organizations. A wide range of internal and external organizational elements affect dynamic capacity [22].

Hypotheses development

Even in the most recent decade, there has been a significant increase in the adoption of e-HRM practices and SEHRM. Integrating time-honoured HR practices with cutting-edge information and communication technology is the driving force behind EHRM, often known as e-HRM. The end goal of e-HRM is to deliver automated human resources services [23]. Only if it provides a SEHRM, which in turn offers unique strategic initiatives to adapt to the demands of organizations in terms of social, financial, economic, technological, and ecological elements, can the use of e-HRM be effective [1].

Companies must work together to put e-HRM practices into effect and keep them going if they want to achieve their strategic goals [24]. By utilizing Internet channels such as e-brochures or online marketing, companies' human resources departments play a critical part in recruiting potential applicants for open positions [25, 26]. E-HRM allows for incorporating training and development activities to cultivate organizational values. If an organization is focused on achieving its long-term strategic goals, it can have SEHRM. Thus, we hypothesise.

H1a: AEHRM practices significantly affect SEHRM systems.

H1b: AEHRM practices positively relate to firm performance.

In conjunction with EHRM practices, work in organizations is undergoing significant transformation [23]. E-HRM practices are at the forefront of the movement toward acknowledging e-sustainability HRMs in this age of continuously developing technology. Without a doubt, it is essential to recognize that businesses that can use digital technology are modifying their perspectives on the best e-HRM practices and the most SEHRM [24]. Opportunities such as the establishment of electronic job designs can aid companies in encouraging employees to make ethical decisions, even though these employees may have different work profiles (administration, sales and marketing, finance, etc.) [27, 28]. In the current atmosphere of ruthless competition, developing sustainable paradigms for e-human resource management is an urgent necessity [29]. It is employee programs, which might take the shape of employee representatives and unions, that will play a significant role in this

respect [30, 31]. By conducting employee surveys on topics related to digital organizational culture, businesses can better predict whether or not e-HRM best practices will be adopted inside their organizations [32]. It is equally as important to be aware of the astoundingly excellent goods made possible by technological breakthroughs, which are helping in the global expansion of businesses, as it is to be mindful of the ethical difficulties linked to a SEHRM.

H2a. OEHRM practices significantly relate to SEHRM systems.

H2b. OEHRM practices positively influence firm performance.

When HRM systems and practices provide sufficient opportunities for employee growth and development, it becomes possible for organizations to have good work teams [33]. The relevance of such career-oriented initiatives has increased as a direct result of the application of contemporary technology to the procedures involved in human resource management [34, 35]. Regardless of employment status (part-time vs. full-time) and job description, companies will face various challenges associated with implementing electronic human resource management (e-HRM) and SEHRM. Workers' need to understand e-HRM practices and how they are connected to ethical behaviour has significantly increased in recent years [36]. Now more than ever, businesses must combine digital performance indicators and objectives with incentive and variable compensation programs [37, 38]. Despite the undeniable reality that digital platforms allow more freedom, companies must include corrective methods if ethical standards are violated. Therefore, we hypothesise:

H3a. MEHRM practices significantly affect SEHRM systems.

H3b. MEHRM practices positively relate to firm performance.

"SEHRM systems" are described as preserving the environment and all of its components for continued usage. In response to this need, business organizations have refocused their efforts on developing e-HRM systems that are more environmentally friendly [39, 40]. How an organization approaches problems relating to the environment is one of the most critical factors determining the effectiveness of

such programs. Procedures for ethical e-HRM are required to have a long-term e-HRM system [41]. Additionally, actions must be continuously monitored. The company provides its staff members with the appropriate training assignments, allowing them to acquire the knowledge and comprehension necessary to use the available e-HRM resources effectively [42]. It is anticipated that businesses that embrace environmentally friendly practices will see improvements in the performance of their employees [43]. In this context, a good return on investment may be obtained by a company if the company is successful in retaining workers through improved talent management achieved through the use of e-HRM practices [11]. Utilizing technologically advanced e-HRM solutions can further bolster the firm's reputation and goodwill in the market [44]. Because of this, businesses will be able to exercise more excellent cost management over the long term, ultimately improving their net productivity.

H4: SEHRM systems significantly affect firm performance.

H5a: AEHRM and FP is mediated by SEHRM

H5b: OEHRM and FP is mediated by SEHRM

H5c: MEHRM and FP is mediated by SEHRM

CONCEPTUAL FRAMEWORK

Figure 1 shows the direct and indirect relationships.

RESEARCH METHODOLOGY

The researchers behind this study developed a questionnaire based on previous theories. Participants in this study were the employees of the garments sector of Saudi Arabia. Participants filled out a questionnaire to give their responses. The reason behind selecting these five cities in Saudi Arabia is that this country is the most vibrant of human resources in business activities. Respondents were contacted through emails. It was decided to conduct pilot research with 40 participants. Revisions to the final questionnaire have been made to better suit the needs of research participants as a result of the input of academic experts and corporate sector specialists. In addition to checking for typos and grammatical issues, the team also double-checked the information

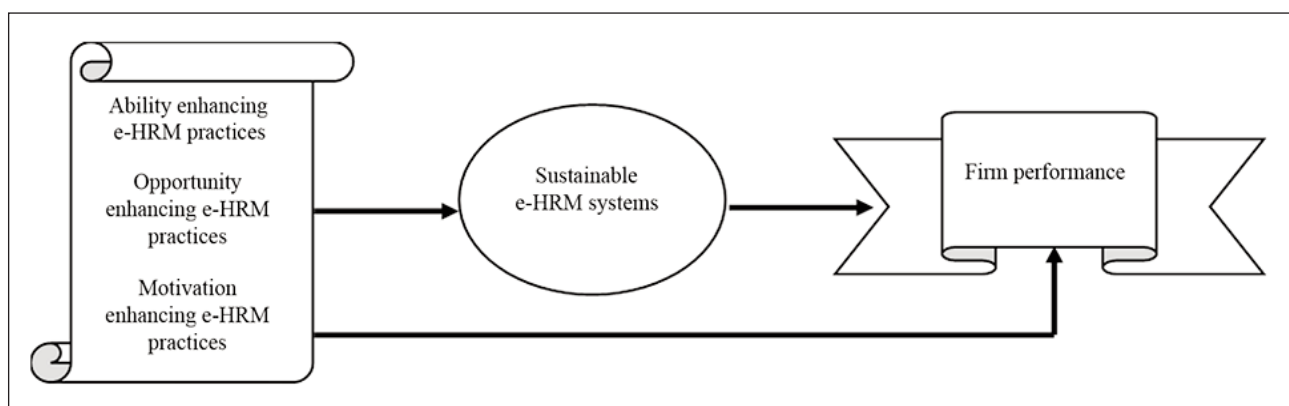


Fig. 1. Conceptual framework

for completeness. The experts have recommended minor language adjustments to improve e-HRM practices and the company's performance. This study used a convenient sampling technique to collect data from respondents. A total of 615 questionnaires were distributed among respondents, and 373 questionnaires were returned from respondents. After scrutiny, some responses needed to be completed, appropriate, and excluded from the final sample. Now there were 365 appropriate replies considered for the last analysis with a response rate of 59.34%.

INSTRUMENT DEVELOPMENT

This study used firm performance as DV and nine items adapted from [45]. In addition, we used three independent variables, i.e., six items adapted from [45] and [46] to measure AEHRM. Seven items were adapted from [45] and [46] to compute OEHRM, four items were utilized for MEHRM from the prior study of [45] and [46], and the four items were used for mediating variable SEHRM and these items were obtained from the study of [47].

DATA ANALYSIS

Statistical model applied

This study uses a partial miniature square modelling technique rather than other co-variance-based techniques such as LISREL and AMOS. PLS-SEM is the method of choice for our investigation since it lends itself to confirmatory and exploratory study types [48]. Covariance-based and partial least square SEM are the two techniques for structural equation modelling

(SEM). PLS is generally utilized for hypothesis validation, whereas covariance-based (CB)-SEM is most useful for expanding on existing hypotheses. The PLS-SEM approach would consist of two stages: the first would be weighing, and the second would be measuring. PLS-SEM is excellent for a multiple-order, multi-variables model. PLS-SEM can benefit just as much from analysing small data sets. PLS-SEM makes it possible to quickly determine the model's parameters. Version 3.9 of Smart PLS was used to carry out the analysis presented here [49]. The value of Cronbach Alpha for each construct must be more significant than 0.70 to be considered valid [48]. As a result, every one of the values is more than 0.7.

Scale reliability for each item and Cronbach's alpha are examples of convergent validity measurements [48]. In the opinion of the knowledgeable party, CR and AVE should have values more than or equal to 0.7 and 0.5 correspondingly. Employing the test's composite reliability and average variance extracted scores, we calculated the test's convergent validity [50]. An unacceptable degree of convergent validity and internal consistency has been demonstrated in table 1 by the average variance derived from all indicators above 0.50 and the composite reliability exceeding 0.70. Therefore, a combined dependability rating of not less than 0.70 is deemed acceptable and a positive predictor of intra-organizational consistency [48]. Likewise, a composite reliability value of 0.70 or above is considered satisfactory. In addition, convergent validity is supported by average variance extracted scores greater than 0.50. This is because the scores suggest that the required signals

Table 1

DISCRIMINANT VALIDITY											
Fornell-Larcker criterion						Heterotrait-monotrait (HTMT) ratios					
Indicator	SE	AE	OE	ME	FP	Indicator	SE	AE	AE	ME	FP
SE	0.751					SE	0.671				
AE	0.679	0.759				AE	0.839	0.731			
OE	0.629	0.621	0.691			OE	0.829	0.669	0.809		
ME	0.631	0.631	0.531	0.781		ME	0.711	0.769	0.799	0.709	
FP	0.589	0.581	0.539	0.651	0.741	FP	0.791	0.681	0.881	0.801	0.781

Table 2

HYPOTHESIS TESTING						
Hypothesis		Ptah coefficient (t-value)	Confidence interval	F square	P values	Accepted
H1a	AE→SE	0.419(9.213)	0.141 to 0.209	0.219	0.000	Yes
H1b	AE→FP	0.281 (4.991)	0.051 to 0.111	0.069	0.000	Yes
H2a	OE→SE	0.210 (4.791)	0.031 to 0.061	0.051	0.000	Yes
H2b	OE→FP	0.161 (3.209)	0.011 to 0.041	0.031	0.001	Yes
H3a	ME→SE	0.229 (4.919)	0.029 to 0.069	0.061	0.000	Yes
H3b	ME→FP	0.049 (4.918)	-0.011 to 0.011	0.059	0.023	Yes
H4	SE→FP	0.321 (4.101)	0.059 to 0.141	0.091	0.000	Yes

clarified a specific construct with more than 50% variance [51].

Two methods, namely the Fornell–Larcker criteria and the heterotrait–monotrait (HTMT) method, are utilized to ascertain the discriminant validity [48]. This signifies that the model is valid regarding its ability to discriminate between groups [28]. According to table 2, the top value of the variable with the highest correlation is the discriminant validity that was produced. In addition, the HTMT ratios need to be lower than 0.85, but values in the range of 0.90 to 0.95 are acceptable [48]. The results of this study's classification are presented in table 2, which reveals that every HTMT ratio is less than 0.90, providing further evidence to support the claim that discriminant validity was achieved.

In this investigation, the VIF values were computed to check the collinearity concerns with the Framework. According to the experts, if the Variance Intensity Function (VIF) value is less than 5, there are no collinearity concerns in the data [48]. According to the findings of the analysis, the values of the items' inner VIF range from 1.321 to 1.876. Therefore, there is no evidence of a collinearity issue with the data presented in this study, and the findings are consistent. The early results give a suitable model whenever R² is more than 0.5. A value of R Square larger than 0.5 on each exogenous construct indicates that the model has solid predictive accuracy. The model appears to have a high degree of predictive power based on the Q² values of all five latent variables [48].

Table 2 depicts that SE positively enhances FP with values ($\beta = 0.321$, t-value = 4.101, p = 0.000). Table 2 explains that AE is an important factor in improving SE and the values are ($\beta = 0.419$, t-value = 9.213, p = 0.000). Furthermore, the table depicts the positive impact of AE on FP with the results ($\beta = 0.281$, t-value = 4.991, p = 0.000). Moreover, according to the table results, OE significantly influences SE ($\beta = 0.229$, t-value = 4.919, p = 0.000). Another relationship of OE towards FP is significant ($\beta = 0.049$, t-value = 4.918, p = 0.023). The next relationship of the impact of OE on SE is also positive ($\beta = 0.210$, t-value = 4.791, p = 0.000). In the end, OE positively improves FP ($\beta = 0.161$, t-value = 3.209, p = 0.000). In conclusion, table 2 expresses that all the hypotheses are approved.

Mediation analysis

Utilizing the VAF approach, we discovered the mediating function that SE plays between AE, OE, ME, and firm performance [48]. When the value of the

VAF is more than 80 percent, complete mediation has occurred. The value of the VAF that is more than 20% but less than 80% suggests that there was some mediation of the effects of mediation, while the value of the VAF that is less than 20% indicates that there was no mediation. The findings demonstrate that SE is a partial mediator of the link between AE and FP concerning the direct effect. This study's results reveal a partial role for Se in mediating the association between AE and FP, with a partial mediation effect of 71.29% for both the direct and indirect impacts of VAF on t-values and p-values. The variance measures an indirect effect's magnitude accounted for (VAF). According to table 3, when OE and FP are linked, SE partially mediates this association with a direct impact of 0.161 and a direct effect of 0.059 with a VAF of 51.91%. FP and ME had a 55.10% direct and indirect influence on VAF ($\beta = 0.049$, t-value = 4.919, p-value = 0.000), with SE mediating the link in part ($\beta = 0.069$, t-value = 4.081, p-value = 0.000). Partial mediation showed where the direct and indirect effects are essential.

DISCUSSION

The findings highlight E-HRM practices and systems that enhance employee performance and provide the groundwork for a company's long-term success. The strategic and long-term features of e-HRM are crucial markers of the system's usefulness. EHRM (e-HRM) has transformed manual processes into automated services that create more money and profit and provide businesses and organizations with a competitive edge [33]. The literature describes a range of strategies for ensuring HRM programs' long-term survival. Using is one of the simplest methods to comprehend the concept of long-term employment [4]. This strategy has proven effective in Western Europe and has the potential to have a substantial influence from a SEHRM perspective [19]. Sustainable employability refers to a person's skill to utilize their mental and physical talents to do certain activities in a coordinated manner. This is the first research of its sort to investigate the nature of the connection between the factor mentioned above and the development and maturation of enterprises in general. The statistical validation of the model demonstrates that organizations benefit from good e-HRM practices and long-term e-HRM systems. The current era of digitization shows a fundamental shift in the context of many human resources practices, such as electronic selection, electronic recruiting, and electronic remuneration, which has completely altered the notion of managing

Table 3

MEDIATION EFFECTS						
Relationship	Direct effect	Indirect effect	Total effect	VAN	Interpretation	Findings
AE→SE→FP	0.049 (4.919)	0.069 (4.081)	0.069 (4.081)	55.10	Partial Mediation	H5a, Accepted
OE→SE→FP	0.161 (3.209)	0.059 (3.099)	0.059 (3.099)	51.91	Partial Mediation	H5b, Accepted
ME→SE→FP	0.281 (4.991)	0.129 (4.039)	0.129 (4.039)	71.29	Partial Mediation	H5c, Accepted

human resource operations. It has also been discovered that there needs to be a connection between opportunities to improve e-HRM practices and the long-term sustainability of e-HRM systems [24]. However, because it is common knowledge that there is a cost associated with every opportunity, improving e-HRM operations comes with advantages and disadvantages [10]. One of technology's most significant unintended consequences is the deterioration of the natural environment and the incapacity to maintain it. The use of EHRM strategies may have unintended consequences for corporations as well as workers. These consequences may include compromising privacy norms and adding an unnecessary burden [8]. The company's viability over time will be improved as a direct result of completing this procedure.

THEORETICAL IMPLICATIONS

The global supply chain network has been disrupted as a result of COVID-19. The persistent nature of this pandemic has educated us on several important topics. Businesses that have transitioned to digital technology have shown improved performance and increased viability over the long run [14]. Companies unable to withstand the pandemic either downsized their workforce or laid off employees to remain profitable. This has a significant influence both on the morale of the present workers and their performance on the job [1]. e-HRM solutions can be utilized at this time of unpredictability to construct capacities and systematize workforce management [16]. When we looked at the available materials, we realized how important it is to implement effective e-HRM practices that increase employees' capacity and motivation, in addition to other e-HRM practices. We learned this from implementing effective e-HRM practices that increase employees' ability and motivation. These flexible talents are necessary for a firm to flourish in today's unstable economic climate and boost its performance. The power of businesses and organizations to combine and match their existing resources to cultivate new talents that can be used for further investigation of new avenues for long-term growth is the most critical factor determining the viability of these entities over the long term. The problem impacts organizations and businesses of all types; even those run purely for profit [37]. The outcomes of this study positively impact the management of information systems and human resources.

PRACTICAL IMPLICATION

The role will give executives access to the most vital information they can take away. Sustainable EHRM systems for recruitment, selection, training, and performance assessment can help enhance E-HRM processes. Executives need to be aware of the relevance of the capabilities of e-HRM practices to maintain employee engagement and excitement about their jobs. According to the findings presented in this article, E-HRM practices can provide chief

executive officers with a better understanding of how to support their workers. Finally, executives need to be aware of the direct connection between their firms' success and the sustainable implementation of e-HRM systems. Maintaining a sustainable way of life is necessary in the uncertain modern world. Therefore, companies must emphasize comprehending and beginning the e-HRM operations before they can be implemented.

LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

Big data analytics, artificial intelligence, and cloud computing are just a few examples of the technologies developed as part of Industry 4.0. These technologies are helping to improve the e-HRM system to better meet the diverse requirements of various businesses. The entire workforce needs to be educated on modern HRM systems, and training is required. It is highly recommended that upcoming scholars devote significant time and energy to studying environmentally friendly EHRM systems. The research might be expanded to examine how using a sustainable EHRM platform can improve operational efficacy. In addition, prospective researchers can investigate how businesses might implement ethical EHRM systems throughout people's life cycles, from hiring to firing. It is also encouraged to look at how data and theories from other areas can explain the achievements of EHRM.

CONCLUSION

In the following research initiatives, it would be beneficial to discuss some of the benefits that may be gained via e-HRM. The quality of the information that is made available to each department in an organization is critical to the success of that department. The field of HRM is not an exception to this requirement. By handling information in an electronic format, the company will be able to utilize its various resources, such as time and money, in a far more effective manner. The human resources department's workload is increased due to the significant number of administrative responsibilities that must be fulfilled. On the other hand, due to the digitalization of HR-related processes, human resource professionals can reduce the amount of work they need each day. There are several benefits associated with EHRM, one of which is the acceleration of duties related to human resources, such as exchanging information on employee personnel data. This sort of labour will take considerable time if carried out traditionally. For example, the design of metrics to measure a company's human resources has been a time-consuming effort for any company. On the other hand, the digitalization of human resource measurements makes it possible to do computations in a more time-efficient manner. However, training is required to guarantee that every staff member is conversant with the HRM systems on the cutting edge of

technology. Future researchers are strongly encouraged to do more in-depth investigations on long-term e-HRM systems. It is possible to broaden the scope of an inquiry into how an EHRM system could improve environmental performance. For example,

future research may look at how businesses utilize ethical e-HRM systems in hiring and firing processes for workers. It is also advised that you consider the benefits of e-HRM from the point of view of many disciplines to get the whole picture.

REFERENCES

- [1] Bondarouk, T., Parry, E., Furtmueller, E., *Electronic HRM: four decades of research on adoption and consequences*, In: *Int. J. Hum. Resour. Manag.*, 2017, 28, 1, 98–131
- [2] Boukis, A., Kabadayi, S., *A classification of resources for employee-based value creation and a future research agenda*, In: *Eur. Manag. J.*, 2020, 38, 6, 863–873
- [3] Jamil, K., Dunnann, L., Gul, R.F., Shehzad, M.U., Gillani, S.H.M., Awan, F.H., *Role of Social Media Marketing Activities in Influencing Customer Intentions: A Perspective of a New Emerging Era*, In: *Front. Psychol.*, 2021, 12, 808525
- [4] Calvard, T.S., Jeske, D., *Developing human resource data risk management in the age of big data*, In: *Int. J. Inf. Manage.*, 2018, 43, 159–164
- [5] Lepak, D.P., Snell, S.A., *Virtual HR: Strategic human resource management in the 21st century*, In: *Hum. Resour. Manag. Rev.*, 1998, 8, 3, 215–234
- [6] Cascio, W.F., Montealegre, R., *How technology is changing work and organizations*, In: *Annu. Rev. Organ. Psychol. Organ. Behav.*, 2016, 3, 1, 349–375
- [7] Jamil, K., Liu, D., Anwar, A., Rana, M.W., Amjad, F., Liu, M., *Nexus between relationship marketing and export performance of readymade garments exporting firms*, In: *Ind. Textila*, 2021, 72, 6, 673–679, <https://doi.org/10.35530/IT.072.06.202028>
- [8] Cheng, M.M., Hackett, R.D., *A critical review of algorithms in HRM: Definition, theory, and practice*, In: *Hum. Resour. Manag. Rev.*, 2021, 31, 1, 100698
- [9] Mohsin, M., Naseem, S., Sarfraz, M., Ivascu, L., Albasher, G., *COVID-19 and Greenhouse Gas Emission Mitigation: Modeling the Impact on Environmental Sustainability and Policies*, In: *Greenh. Gas Emiss. Terr. Ecosyst.*, 2022, 785531060
- [10] Cotes, J., Ugarte, S.M., *A systemic and strategic approach for training needs analysis for the International Bank*, In: *J. Bus. Res.*, 2021, 127, 464–473
- [11] Mohsin, M., Jamil, K., Naseem, S., Sarfraz, M., Ivascu, L., *Elongating Nexus Between Workplace Factors and Knowledge Hiding Behavior: Mediating Role of Job Anxiety*, In: *Psychol. Res. Behav. Manag.*, 2022, 15, 441
- [12] Davila, A., Foster, G., *Management control systems in early-stage startup companies*, In: *Account. Rev.*, 2007, 82, 4, 907–937
- [13] Muhammad, M., Muhammad, A.S., Li, N.-W., Muhammad, M.K., *Investigation of various factors affecting the coefficient of friction of yarn by using Taguchi method*, In: *Ind. Textila*, 2019, 70, 3, 211–215, <https://doi.org/10.35530/IT.070.03.1555>
- [14] Jiang, K., Lepak, D.P., Hu, J., Baer, J.C., *How does human resource management influence organizational outcomes? A meta-analytic investigation of mediating mechanisms*, In: *Acad. Manag. J.*, 2012, 55, 6, 1264–1294
- [15] Mustafa, S., Zhang, W., Anwar, S., Jamil, K., Rana, S., *An integrated model of UTAUT2 to understand consumers' 5G technology acceptance using SEM-ANN approach*, In: *Sci. Rep.*, 2022, 12, 1, 20056
- [16] Dubey, R., et al., *Can big data and predictive analytics improve social and environmental sustainability?*, In: *Technol. Forecast. Soc. Change*, 2019, 144, 534–545
- [17] Shehzad, M.U., Jianhua, Z., Latif, K.F., Jamil, K., Waseel, A.H., *Do green entrepreneurial orientation and green knowledge management matter in the pursuit of ambidextrous green innovation: A moderated mediation model*, In: *J. Clean. Prod.*, 2023, 135971
- [18] Naseem, S., Hu, X., Shi, J., Mohsin, M., Jamil, K., *Exploring the optical impact of information communication technology and economic growth on CO2 emission in BRICS countries*, In: *Optik (Stuttg.)*, 2023, 273, 170339
- [19] Simbeck, K., *HR analytics and ethics*, In: *IBM J. Res. Dev.*, 2019, 63, 4/5, 1–9
- [20] Rhemananda, H., Simbolon, D.R., Fachrunnisa, O., *Blockchain technology to support employee recruitment and selection in industrial revolution 4.0*, In: *International Conference on Smart Computing and Cyber Security: Strategic Foresight, Security Challenges and Innovation*, 2020, 305–311
- [21] Naiwen, L., Wenju, Z., Mohsin, M., Rehman, M.Z.U., Naseem, S., Afzal, A., *The role of financial literacy and risk tolerance: an analysis of gender differences in the textile sector of Pakistan*, In: *Ind. Textila*, 2021, 72, 3, 300–308, <https://doi.org/10.35530/IT.072.03.202023>
- [22] Schilke, O., *On the contingent value of dynamic capabilities for competitive advantage: The nonlinear moderating effect of environmental dynamism*, In: *Strateg. Manag. J.*, 2014, 35, 2, 179–203
- [23] Bowman, C., Ambrosini, V., *How the resource-based and the dynamic capability views of the firm inform corporate-level strategy*, In: *Br. J. Manag.*, 2003, 14, 4, 289–303
- [24] Schroeder, P., Anggraeni, K., Weber, U., *The relevance of circular economy practices to the sustainable development goals*, In: *J. Ind. Ecol.*, 2019, 23, 1, 77–95
- [25] Eisenhardt, K.M., Martin, J.A., *Dynamic capabilities: what are they?* In: *Strateg. Manag. J.*, 2000, 21, 10–11, 1105–1121
- [26] Naseem, S., Fu, G.L., ThaiLan, V., Mohsin, M., Zia-Ur-Rehman, M., *Macroeconomic variables and the Pakistan stock market: exploring long and short run relationship*, In: *Pacific Bus. Rev. Int.*, 2019, 11, 7, 621–672
- [27] Li, N., Bao, S., Naseem, S., Sarfraz, M., Mohsin, M., *Extending the association between leader-member exchange differentiation and safety performance: a moderated mediation model*, In: *Psychol. Res. Behav. Manag.*, 2021, 14, 1603

- [28] Gul, R.F., Dunnan, L., Jamil, K., Awan, F.H., Ali, B., Qaiser, A., *Abusive Supervision and its Impact on Knowledge Hiding Behavior among Sales Force*, In: *Front. Psychol.*, 2021, 6138
- [29] Tursunbayeva, A., *Human resource technology disruptions and their implications for human resources management in healthcare organizations*, In: *BMC Health Serv. Res.*, 2019, 19, 1, 1–8
- [30] Anwar, A., Jamil, K., Idrees, M., Atif, M., Ali, B., *An empirical examination of SMEs sustainable performance through lean manufacturing*, In: *Knowl. Process Manag.*, 2022, <https://doi.org/10.1002/kpm.1740>
- [31] Gul, R.F., Liu, D., Jamil, K., Baig, S.A., Awan, F.H., Liu, M., *Linkages between market orientation and brand performance with positioning strategies of significant fashion apparels in Pakistan*, In: *Fash. Text.*, 2021, 8, 1, 1–19
- [32] Stanley, D.S., Aggarwal, V., *Impact of disruptive technology on human resource management practices*, In: *Int. J. Bus. Contin. Risk Manag.*, 2019, 9, 4, 350–361
- [33] Stone, D.L., Deadrick, D.L., *Challenges and opportunities affecting the future of human resource management*, In: *Hum. Resour. Manag. Rev.*, 2015, 25, 2, 139–145
- [34] Awan, F.H., Dunnan, L., Jamil, K., Gul, R.F., *Stimulating environmental performance via green human resource management, green transformational leadership, and green innovation: a mediation-moderation model*, In: *Environ. Sci. Pollut. Res.*, 2022, 1–19
- [35] Azam, T., Songjiang, W., Jamil, K., Naseem, S., Mohsin, M., *Measuring green innovation through total quality management and corporate social responsibility within SMEs: green theory under the lens*, In: *TQM J.*, 2022, <https://doi.org/10.1108/TQM-05-2022-0160>
- [36] Mohsin, M., Zhu, Q., Wang, X., Naseem, S., Nazam, M., *The Empirical Investigation Between Ethical Leadership and Knowledge-Hiding Behavior in Financial Service Sector: A Moderated-Mediated Model*, In: *Front. Psychol.*, 2021, 12, 798631
- [37] Wassell, S., Bouchard, M., *Rebooting strategic human resource management: integrating technology to drive talent management*, In: *Int. J. Hum. Resour. Dev. Manag.*, 2020, 20, 2, 93–113
- [38] Awan, F.H., Dunnan, L., Jamil, K., Gul, R.F., Guangyu, Q., Idrees, M., *Impact of Role Conflict on Intention to leave Job with the moderating role of Job Embeddedness in Banking sector employees*, In: *Front. Psychol.*, 2021, 4866
- [39] Rogiers, A., Van Keer, H., Merchie, E., *The profile of the skilled reader: An investigation into the role of reading enjoyment and student characteristics*, In: *Int. J. Educ. Res.*, 2020, 99, 101512
- [40] Baig, S.A., Rehman, M.Z.U., Naz, A., and Jamil, K., *High core self-evaluation maintains patient oriented behavior: A motivational model of reward system*, In: *J. Public Aff.*, 2022, 22, 2, e2488
- [41] Hussain, Z., Jusoh, A., Jamil, K., Rehman, A.U., Gul, R.F., *Analyzing the role of knowledge management process to enhance sustainable corporate performance: A mediation moderation model*, In: *Knowl. Process Manag.*, 2021, 1–16, <https://doi.org/10.1002/kpm.1679>
- [42] Jamil, K., et al., *Do remittance and renewable energy affect CO2 emissions? An empirical evidence from selected G-20 countries*, In: *Energy Environ.*, 2021, 0958305X211029636
- [43] Obeidat, S.M., *The link between e-HRM use and HRM effectiveness: an empirical study*, In: *Pers. Rev.*, 2016, 45, 6, 1281–1301, <https://doi.org/10.1108/PR-04-2015-0111>
- [44] Muisyo, P.K., Qin, S., *Enhancing the FIRM'S green performance through green HRM: The moderating role of green innovation culture*, In: *J. Clean. Prod.*, 2021, 289, 125720
- [45] Liao, Y.-S., *Human resource management control system and firm performance: A contingency model of corporate control*, In: *Int. J. Hum. Resour. Manag.*, 2006, 17, 4, 716–733
- [46] Guerci, M., Decramer, A., Van Waeyenberg, T., Aust, I., *Moving beyond the link between HRM and economic performance: A study on the individual reactions of HR managers and professionals to sustainable HRM*, In: *J. Bus. Ethics*, 2019, 160, 3, 783–800
- [47] Argandoña, A., *On ethical, social and environmental management systems*, In: *J. Bus. Ethics*, 2004, 51, 1, 41–52
- [48] Hair Jr, J.F., Hult, G.T.M., Ringle, C., Sarstedt, M., *A primer on partial least squares structural equation modeling (PLS-SEM)*, Sage Publications, 2016
- [49] Usman Shehzad, M., Zhang, J., Le, P.B., Jamil, K., Cao, Z., *Stimulating frugal innovation via information technology resources, knowledge sources and market turbulence: a mediation-moderation approach*, In: *Eur. J. Innov. Manag.*, 2022, <https://doi.org/10.1108/EJIM-08-2021-0382>
- [50] Fornell, C., Larcker, D.F., *Structural Equation Models with Unobservable Variables and Measurement Error: Algebra and Statistics*, In: *J. Mark. Res.*, 1981, 18, 3, 382–388, 981, <https://doi.org/10.2307/3150980>
- [51] Chin, W.W., *The partial least squares approach to structural equation modeling*, In: *Mod. methods Bus. Res.*, 1998, 295, 2, 295–336

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