

THE INFLUENCE OF DIGITIZATION OF HUMAN RESOURCES MANAGEMENT ON ENHANCING TIME MANAGEMENT: AN ANALYTICAL STUDY IN THE INTERNATIONAL ISLAMIC BANK

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ABSTRACT: Main purpose of this study was to examine the effect of digital HRM factors including e-recruitment, e-compensation, e-communication, e-performance appraisal and e-training on time management. This research was cross sectional and quantitative. The data was collected from the directors of Islamic banks. The data was gathered using 7-point Likert scale. In-depth literature review was conducted to develop questionnaire. The response of the respondents was gathered using convenience sampling. The usable response rate of the study was 56.43%. The gathered data was analysed using Smart PLS-4. The findings of the study revealed that e-communication, e-recruitment, e-training and e-performance management have positive significant effect on time management. On the other hand, the relationship of e-compensation was insignificant in this study. The findings of the study are beneficial for policy makers of banking sector for policy making and academicians for future studies.

Keywords: Digital HRM, Time Management, E-training, E-recruitment, Banking.

1. Introduction

The way of dealing human resource is revolutionaries through the digitization (Hanelt et al., 2021; Scuotto et al., 2023). The present age of business and organizations is known as the age of digitalization. All of the organizations are agreed regarding the digital transformation. The organizations and people are enjoying and derived by the new technologies like block chain, IoT, AI, big data, cloud data and 6G (Shafik, 2024). It is time to change the business model of the organization. They need to harness the organizational changes that are possible because of the digital era and adapt the changes that are occurring at the external and internal organization (Hanelt et al., 2021). The traditional approaches of the organizations are relevant as well. Whereas it is better for the organizations to move towards the adoption of digital platforms so they can survive in the marketplace. For this purpose, organizations should invest on the manpower and technologies (Halid et al., 2022).

There is a profound effect of digital transformation on our daily lives. Similarly, digital transformation has significant effect on the roles and process of HRM (Schmid et al., 2022). As the technology in the organizations is evolving on the regular basis, the way of interaction regarding data and information has shifted as well. Few of the processes of HRM have evolved as well because of digitalization of HRM. There processes include HRD, performance evaluation, recruitment of employees, employee trainings and many others. The use of technology has revised these HRM functions (Lumi, 2020). With the help of digitalization of HRM, the productivity of HRM has increased and time has saved. The processes of HRM have become faster and easier (Mosca, 2020). With the help of technology,

specialists of HRM can concentrate better on different initiatives related to their functions.

In present age of digitalization, human resource plays a very important role. They are filling the gap between HR and technology. There is need of HR functions to be flexible despite the fact that technology is taking place of the most of the human handled tasks. In order to adapt flexibility, technology can play an important role as well (Murugesan et al., 2023). In light of the current developments, organizations are moving to enhance time management as an important and continuous process for their various activities to raise their efficiency and effectiveness by adopting modern scientific and administrative methods, including the digitization of human resources management. Organizations have started abandoning traditional systems in practicing their tasks by adopting information technology and communications software to provide accurate and important information and reduce deviations and correct them in a short time (Baykal, 2020).

Human resources are known to all organizations. The majority of organizations suffer from poor material and human capabilities as the basic infrastructure for digitizing human resources management to accomplish work by converting regular (paper) procedures into electronic procedures using information and communication technologies (Aubert-Tarby et al., 2018). Technology has the ability and potential to change the image of management operations. Perhaps, one of the most prominent aspects affected by the application of this digitization is time management (Parviainen et al., 2017). The success of the organization in accomplishing its goals depends on its rational management of time.

THE INFLUENCE OF DIGITIZATION OF HUMAN RESOURCES MANAGEMENT ON ENHANCING TIME MANAGEMENT

The research problem stems from the fact that there is a poor availability of material and human capabilities as an infrastructure for digitizing human resources management in the organization under study, which negatively affects time management and causes delays in work procedures. Therefore, this study aims examined the digitization of human resources management and time management in the organizational aspect?

2. Literature Review Digitizing Human Resources Management

Human resources management has become a prominent function of management compared to traditional human resources management. The survival of the organization depends on the quality of the human resources available to it or their use. Human resources department needs to embrace digital transformation and put good practices at the heart of human resources policy (Al-Saadi et al., 2023).

Advanced technology has and still imposes adaptations and modifications in all organizational dimensions, especially in policies related to human resources. Some of these changes are secondary and others are fundamental (Hamouche, 2023). Therefore, recent times have witnessed radical transformations in the concepts of human resources management by enhancing their digital capabilities. To keep pace with the movement of development and change in its skills can be done by acquiring new specializations that cover the mental image circulating within the contemporary business world to the possibilities of digital specializations. This strengthens capabilities and skills to manage intellectual capital and adopt administrative information and communications technology applications in formulating policies and methods of work (Amjad et al., 2021).

Researchers in the field of human resources management have provided different definitions of digitization depending on their viewpoints and the nature of their perceptions. Halid et al. (2020) define it as the digital transformation of human resources management practices and processes through the use of electronic media, mobile, analytics, and information technology to make them more efficient. Rathod et al. (2021) describe it as the digital transformation currently affecting the human resources industry in general, driven largely by advancements in data collection and various technologies. Studies define it as the processes of employing digital technologies and appropriate data to enhance the efficiency and effectiveness of human resources management. Digitization of human resources management can also be defined as a digital

transformation in the processes and practices of human resources management to become a mechanism based on technology and data management using various technologies to enhance the efficiency and effectiveness of that management (Zhang et al., 2023).

The Concept of Time Management

The concept of time management comes from (Taylor), which is the early analysis of movement and time studies of work for the purpose of reducing unproductive work tasks and wasting time (Razali et al., 2018). The term has become familiar in the 50s-60s as a tool that helps managers make better use of the available time. It is based on scientific experience in what is done and what is not done. It indicates that time is managed, but in reality, activities are managed over time (Wajcman, 2019). By doing this, several benefits are accomplished meeting deadlines, good work quality, excellent professional reputation, better work-life balance and reducing work stress.

There are many definitions of time management. Time management is referred as the rational use of available hours and achieving the best achievements that lead to goals by using rational methods and methodologies that help to deal correctly with time. Kimutuo (2022) describes time management as the manager's productive investment of his/her time. Oliver et al. (2019) define it as the process of conscious planning and control of the time spent on specific activities, especially to increase effectiveness, efficiency, and productivity. Wolters et al. (2023) define time management as the process of arranging and planning how to divide time between different tasks. Thus, time management can be defined as the process of using time effectively to accomplish various tasks in a way that leads to achieving goals.

Digital Human Resources Management and Time Management

There is significant effect of digital transformation on the organizational processes. The key processes of the organization that have changed include recruitment process, compensation method, employee evaluation and many others. The alteration in these methods has improved the quality and quantity of the organizational performance that has improved with the implementation of these technologies (Mosca, 2020)3(2).

The new organizational structures have also evolved with the implementation of and introduction of new technology. It is now possible for the organizations to achieve organizational goals and objectives effectively

through adoption of digital technologies in HRM. With the help of adoption of technology at the HR level, employees are enabled to take decisions regarding their own tasks (Grissom et al., 2015). They also have ability to decide the time that they can give to each task as well as allocation of HR to each task on which they are working. This new technology can also play important role train new employees as well (Zhang et al., 2023). Therefore, it is very important for the organization to invest on the digitalization of HRM. It can have significant effect on the resource and time saving (Mosca, 2020). It is also possible for the HR personnel to get some free time by using technology effectively.

Organizations can save money and time with the help of digitalization of HRM. Later, it will result in optimization of processes of the organization by taking advantage of the technology (Ketolainen, 2018). As a result, there are a number of tools related to HRM that can optimize the work of HR personnel and facilitate them. Usage of up-to-date purchasing machines and digitalization, it has become easy to perform HR procedures in short time in a more effective and efficient way. Now the employees and easily generate and maintain different records easily. Through utilization of HR digitized techniques, organizations can easily save time and cost. As a result, it will have positive effect on the organizational profit (Kholod et al., 2021). The digitalization of HR is applicable in every sector of business including, hospitality industry, tourism, and service industry and manufacturing leading to better organizational performance. The organizations can achieve their goals effectively and efficiently. In other words, scholar pointed that e-recruitment had significant effect on time management (Bhagat, 2020). Thus, digitization of HRM has positive effect on the time management of the organization.

E-Recruitment and Time Management

The process of e-recruitment is defined as the method of hiring employees by using different electronic resources (Hosain et al., 2020). These resources include different internet resources like social media, emails, and many others. The recruitment process of most of the organizations have moved towards the internet in which they can save their time and speed up the process of recruiting the employee. They have the ability to match the job requirement with live skills of the employees. Organizations are giving preference to use different search engines, online boards to advertise the jobs and data base technologies to gather information regarding the employees. The time of the employer can

be saved by using different online methods of hiring and recruiting the employees. The HR managers can easily find the best candidate who can perform their required tasks (Kaliaperumal et al., 2022).

Specifically in terms of recruitment, researchers reported that implementation of digital practices of HRM, had reduced the work and tasks required to hire a suitable candidate (Nooruddin, 2018). As, the employer could easily find the best possible candidate through different resources.

Based upon the discussion in above section, it is hypothesized that

H1: E-Recruitment has positive effect on time management.

E-Training and Time Management

Using different online methods to train the employees has changed the organizational strategies. The shape of the organizations has changed because of evolution of new technology. It is important for the organization to set their expectations in different ways because of evolution of new technology. The employees of the organization can train the newly hired individuals with the help of new technology. They can use artificial intelligence in order to give training to the employees. On the other hand, the feedback and performance evaluation mechanism can be improved as well with the help of different platforms that are available digitally. There is need of internal digital transformation within the organizations to meet the needs of the needs of the employees (Haque et al., 2023). Training of the employees can be effectively and efficiently conducted with the help of technology usage. Thus, Foiji et al. (2019) revealed in their studies that e-training can improve training process of the employees by achieving tasks efficiently and effectively.

Based on above discussion, we hypothesized that

H2: E-training has positive effect on time management.

E-Compensation and Time Management

E-compensation is one of the most use functions of HR by using different electronic mean. Different online means are used by the organizations to perform and complete their tasks. The tasks performed by the employees include saving information of the employees, online filling of the information forms, advertisement to hire new employees and many others. The information available online can easily be accessed by all employees of the organization (AlHamad et al., 2022). The information

THE INFLUENCE OF DIGITIZATION OF HUMAN RESOURCES MANAGEMENT ON ENHANCING TIME MANAGEMENT

available online need to be updated on regular basis as it becomes obsolete as the time pass. Online forms to get information of the employees are one of the quickest way by which you can gather information even if you are far at distance. Additionally, social media applications can also be used to get information regarding the employees (Rusmiyati et al., 2023).

Organizations also use different mechanisms to pay their employees. These mechanisms can be more effective by using digital means like ATM cards, mobile banking and online banking. A specific number is allotted to the employee. Later this number is used to transfer the salary to the employee every month (Mia et al., 2020). The study by Mia et al. (2020) reported that usage of software to transfer the salary of the employee is very cost effective and efficient as well.

Therefore, we hypothesized that

H3: E-compensation has positive effect on time management.

E-Performance management and Time Management

Evaluation of the human resource is important for the performance of the organization. Organizations can also use different online platforms to evaluate their employee. Different electronic forms are used by the top management to pass information to the employees. By using this practice, usage of paper can be reduced for each section of the organization. Additionally, the cost and time of the HR department is also saved by using electronic means. The result of the performance, goals and appraisal can be quickly entered by the managers through different online means (Khashman et al., 2015). The digital guidelines and tools are used by the organizations in order to make sure that there is similarity in the organization for the employees. Errors, resources and time can be saved by the organizations through usage of electronic mediums (Nurshabrina et al., 2020).

Based on above discussion, we hypothesized that

H4: E-performance management has positive effect on time management.

E-Communication and Time Management

Communication is one of the most important mechanisms to achieve organizational goals. Effective communication makes the work of the employees easy and effective. Electronic communication can play integral role to save time of both employee and employer. Electronic communication

includes using electronic medium to perform tasks (Katsabian, 2020). Within organizations, emails are used more than 75% times as mode to communicate with employees. The process time to perform a task is reduced by faster and improved communication among the employees and employer (Balsmeier et al., 2019). The response rate of the employees is also higher when electronic methods are used.

Different businesses can also get easily connected through usage of electronic medium. As a result, money and time is saved (Contreras et al., 2020). Video messaging, voice mail, text messaging, blogs, websites, instant messaging and emails are few types of electronic communication (Varadaraj et al., 2021). It is preferred by the organization to post any activity or material on the organizational website. It is reported in studies that it is less challenging and take less time for an employee to get information sent through online mean. Thus, assessment time of information is shorted (Løberg, 2021).

Thus, we hypothesized that

H5: E-communication has positive effect on time management.

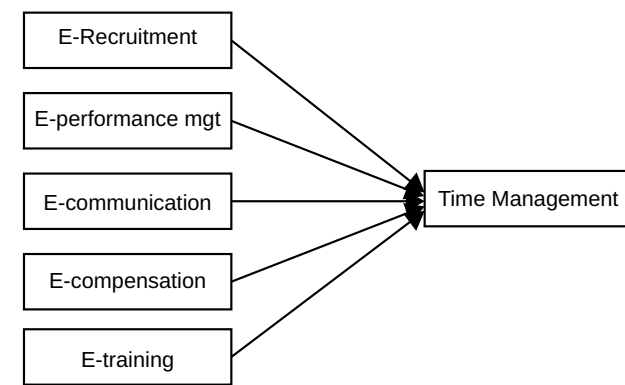


Figure 1: Theoretical Framework.

3. Methodology

This research created cross sectional survey with purpose to ensure the consistency and truthfulness of the proposed model. Survey methodology was used for the purpose of data collection. In order to ensure the diversity at the socio-demographic level, this research used self-administered survey. The respondents of the study were the directors from Islamic banks based in Iraq. In order to collect data from these respondents, present study adopted convenience sampling method. The data was collected from past questionnaire developed from past studies. The first section of the questionnaire had the questions regarding

the demographic information of the respondents. Whereas, the second section was designed to collect data regarding variables of the study. The items of e-recruitment were adapted from Alkhodary (2021), the items of e-training were adapted from Shoaib et al. (2022), the scale of e-compensation was adapted from Ojo et al. (2022), the items of e-performance management were adapted from Alkhodary (2021), scale of e-communication was adapted from Hee et al. (2019) and the items of time management were adapted from Saunila et al. (2020). The second half of the questionnaire was designed on 7-point Likert scale. The questionnaire was divided into 101 directors. This study received 74 questionnaires from the respondents. 57 questionnaire were usable as remaining questionnaire were deleted because they were incomplete.

In order to analyze the collected data, this study used Smart PLS as tool and SEM as the technique (Sarstedt et al., 2019). According to Lim et al. (2020), PLS is one of the methods that is use prediction procedure for the testing of hypothesis. Thus,

Henseler et al. (2016) revealed that PLS-SEM is one of the most acceptable analysis techniques.

4. Results

Measurement model was the first face of the assessment through Smart PLS. At this stage, this study conducted tests for AVE, CR, α , factor loading and discriminant validity. Whereas, P-values, t-test and Beta were examined at the structural model stage of the analysis. For the evaluation of the instruments of the survey, reliability and validity are two key tests that are conducted. According to (Hair Jr et al., 2014), the values of CR and Cronbach Alpha should be more than 0.70. Moreover, Greener (2008) proposed that the values of factor loading must be higher than 0.40. In this regard, it is evident that the values of factor loading in table 1 are more than 0.40. Moreover, the table 2 shows that the CR and Cronbach Alpha are also more than 0.70. Moreover, the value of AVE must also be more than 0.50. to confirm the convergent validity of the study (Hair Jr et al., 2017). Table 2 also confirms all values of AVE are more than 0.50.

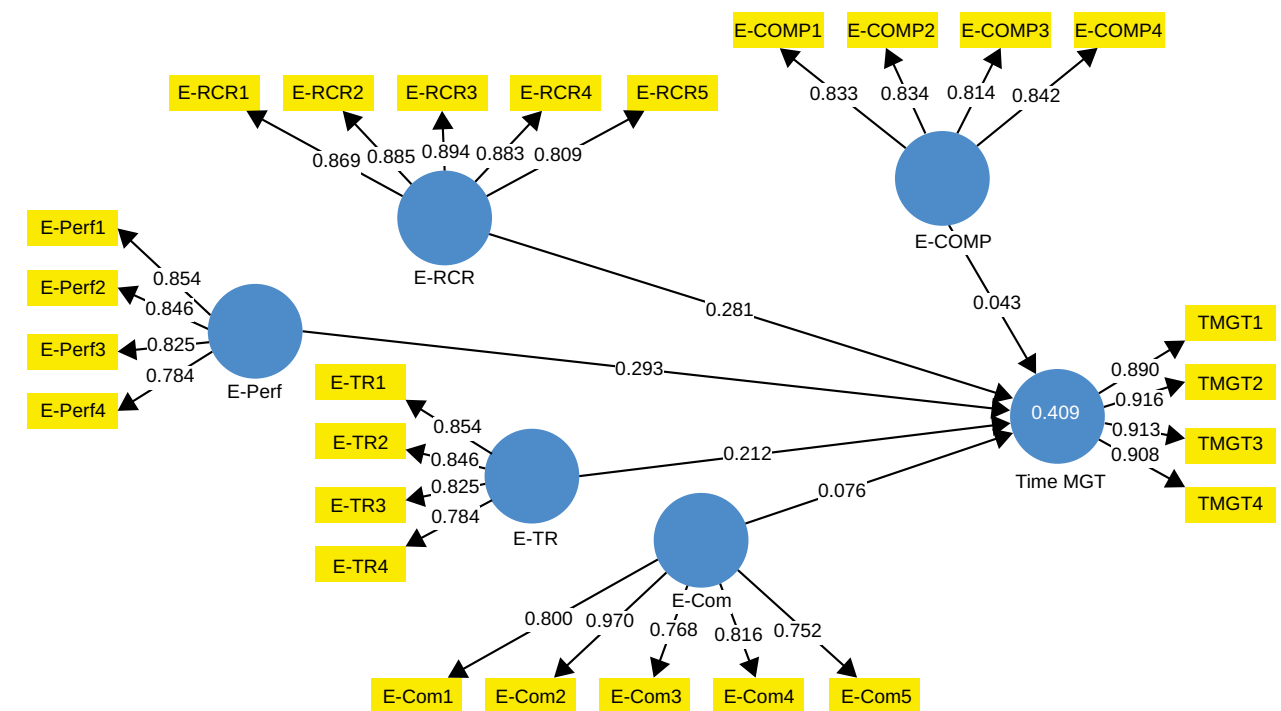


Figure 2: Measurement Model.

Note: E-comp= e-compensation; e-com= e-communication; e-perf= e-performance; e-recr= e-recruitment; e-tr= e-training; time mgt= time management

Additionally, this study examined the discriminant validity through criteria of Fornell & Larcker. According to these criteria, the value of the AVE must be more than the square root of the remaining values (Fornell

et al., 1981). The results confirm that the values at the diagonal are more than the remaining values of the matrix.

Table 1: Factor Loading.

	E-COMP	E-Com	E-Perf	E-Recr	E-Tr	Time MGT
E-COMP1	0.833					
E-COMP2	0.834					
E-COMP3	0.814					
E-COMP4	0.842					
E-Com1		0.800				
E-Com2		0.760				
E-Com3		0.768				
E-Com4		0.752				
E-Com4		0.816				
E-Perf1			0.854			
E-Perf2			0.846			
E-Perf3			0.825			
E-Perf5			0.784			
E-RCR1				0.869		
E-RCR2				0.885		
E-RCR3				0.894		
E-RCR4				0.883		
E-RCR5				0.809		
E-TR1					0.911	
E-TR2					0.878	
E-TR3					0.915	
E-TR4					0.880	
TMGT1						0.890
TMGT2						0.916
TMGT3						0.913
TMGT4						0.908

Note: E-comp= e-compensation; e-com= e-communication; e-perf= e-performance; e-recr= e-recruitment; e-tr= e-training; time mgt= time management

Table 2: Reliability and Validity.

	Cronbach's Alpha	Composite Reliability	(AVE)
E-COMP	0.851	0.899	0.690
E-Com	0.843	0.886	0.608
E-Perf	0.848	0.897	0.685
E-Recr	0.918	0.939	0.754
E-Tr	0.918	0.942	0.803
Time MGT	0.928	0.949	0.823

Note: E-comp= e-compensation; e-com= e-communication; e-perf= e-performance; e-recr= e-recruitment; e-tr= e-training; time mgt= time management

Table 3: Discriminant Validity.

	E-COMP	E-Com	E-Perf	E-Recr	E-Tr	Time MGT
E-COMP	0.831					
E-Com	0.190	0.779				
E-Perf	0.335	0.031	0.828			
E-Recr	0.240	0.256	0.290	0.869		
E-Tr	0.377	0.265	0.387	0.445	0.896	
Time MGT	0.303	0.221	0.473	0.490	0.486	0.907

Note: E-comp= e-compensation; e-com= e-communication; e-perf= e-performance; e-recr= e-recruitment; e-tr= e-training; time mgt= time management

Later, this study examined the hypotheses that were proposed earlier. For this purpose, bootstrapping

procedure was adopted with 5000 subsamples. The hypothesis of the study was accepted on the basis

of t-values. The results of the study shows that H1 of the study is accepted as e- recruitment have significant positive effect on time management (Beta= 0.281, t= 4.508), moreover, e-training also revealed to have positive effect on time management (Beta= 0.212, t= 3.071) accepting H2. Whereas, H3 of the study is not accepted showing e-compensation have

significant effect on time management (Beta= 0.043, t= 0.706). Also, H4 is supported by the statistical findings showing e-performance management having positive influence on time management (Beta= 0.293, t= 3.693). In the end, the results show that e-communication have positive effect on time management (Beta= 0.076, t= 1.980).

Table 4: Direct Hypothesis.

		Beta	SD	t-value	P values	Decision
H1	E-Recr -> Time MGT	0.281	0.062	4.508	0.000	Supported
H2	E-Tr -> Time MGT	0.212	0.069	3.071	0.002	Supported
H3	E-COMP -> Time MGT	0.043	0.060	0.706	0.481	Not- Supported
H4	E-Perf -> Time MGT	0.293	0.079	3.693	0.000	Supported
H5	E-Com -> Time MGT	0.076	0.065	1.980	0.026	Supported

Note: E-comp= e-compensation; e-com= e-communication; e-perf= e-performance; e-recr= e-recruitment; e-tr= e-training; time mgt= time management

In the end, this study discussed R square value of the proposed model showing the effect of independent variables on the outcome variables. According to the values gathered in table 5, time management is affected 40.9% by the proposed IV's of the study.

the advertisement on the online sources to recruit the faculty. There are a number of platforms that can be used to post the advertisement online. The respondents of the study are of view that they can use online tools like websites, internet and social media platforms to post the advertisement regarding recruitment. The reach of such online advertisement is very high. Anyone can access this information globally in very less cost as compared to traditional method of advertisement.

Table 5: R Square.

	R-square
Time MGT	0.409

5. Discussion and Conclusion

It is important for organizations to focus on the factors that can improve the efficiency and effectiveness of their operations. Effectiveness and efficiency are important in order to save time and cost of operations. By reducing the cost and saving time, organizations can perform better in the marketplace. Therefore, it is important for the organizations to focus on the factors can improve time management of the organizational operations. It can be achieved by introduction of digitalization of HRM factors. The key HRM factors include compensation, recruitment, performance management, training, compensation, and communication. It is the key to integrate technology with these factors of HRM. In the lights of these arguments, this study examined the effect if e-recruitment, e- performance management, e- training, e-compensation and communication on time management of Islamic banks. The findings of the study revealed that e-recruitment had positive effect on time management. This result is similar to the findings of (Bhagat, 2020). There can be a number of reasons for this outcome in the study. One of the possible reasons can be that it is cost effective to post

Results of the study also revealed that e-performance management had significant effect on time management. In past, the results of (Nurshabrina et al., 2020) . also mentioned same findings in their study. The possible reason for these outcomes can be that it is easy to get data and information from the employees by using different online resources. It became easy for the employees and employer to align their goals. For this purpose, they can be away from each other, even in different countries and work to achieve same goals and objectives. On the other hand, documentation of the HR related tasks also becomes easy by using different online resources. Despite to be at different locations, the employee and employer can easily maintain the documentation and records of important tasks. Furthermore, the employer can easily and effectively measure the performance of the employees on regular basis and provide feedback as well through online sources. Moreover, the employer can set automated reminders for the employee to achieve any certain task. There is no need that employer remain in regular contact with employee. The respondents of the study are also of the view that they can use built in performance

THE INFLUENCE OF DIGITIZATION OF HUMAN RESOURCES MANAGEMENT ON ENHANCING TIME MANAGEMENT

management system of the e-performance management system to gauge the performance of the employee. It also becomes easy to access the official devices and documents for the employees using e-performance management software.

The results of the study showed that e-training also had significant effect on time management. Similar results were observed in the study of (Foiji et al., 2019) in past. The possible reasons for these findings can be that the respondents understand the importance of the training factor. If the employee is properly trained, he or she will be more productive for the organization. By using online sources, it becomes easy for the employees to get trained. Different online sources like zoom, Skype and many others can be used to train the employees remotely. It is one of the most cost-effective and reachable way for the employees and employers both. It also becomes easy to schedule the training programs for the employers. Large number of employees can get training from a single trainer and the quality of training of the trainer will not be affected. In the end, accessibility to the training materials and other related factors become easy by using online sources.

In the end, the results mentioned that e-communication have significant effect on time management. Effective communication is the key to be on same page for both employees and employer. The respondents of the study are opined that it is effective to use sources like email and online messaging to communicate effectively within the organizational teams. Also, by using these resources it becomes easy for the employees to communicate instantly with each other. Also, e-communication has the global reach. One can talk to their team members even when the team members are at far distance. The sharing of information and knowledge by using e-communication resources is also very effective and efficient. Also, the record keeping of the electronic communication is easy as well. These records are also traceable in the form of electronic documents, video meetings, and voice recordings. The study by (Løberg, 2021) also mentioned same findings in their study showing consistency of results with literature in this study.

Limitations, Future Directions and Implications

There are few limitations in this study. Present study used framework having direct relationships. It will be interesting to use mediating as well as moderating variables in the future studies. Also, present study focused on limited factors of HRM. Whereas future studies can also include other HRM factors to improve

time management of the organization. The R square value of the present study is around 40%. It shows other variables should also be the part of the framework to improve the R square value of the framework. Also, present study was conducted in context of Islamic banks. The context of the framework of the study should be changed in the upcoming studies by focusing on any manufacturing sector firm. In the end, Smart PLS was used as analysis tool in this study. Future studies can use other tools like AMOS to analyse the data of the similar framework.

In terms of theoretical implications, this study is among very few studies that have addressed the effect of electronic HRM factors on time management. Also, this research bridges the gap of limited studies in context of digital HRM and Islamic banks. The policy makers of the banking sector can use the findings of the study to improve time management of their employees. Also, this research can be beneficial for academicians to conduct more studies in the similar context.

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THE INFLUENCE OF DIGITIZATION OF HUMAN RESOURCES MANAGEMENT ON ENHANCING TIME MANAGEMENT

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