

# The Impact of E-HRM Practices on Employee Productivity in Hospitals of Karachi

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In present environment, the role of technology has become obligatory in order to create value as well as provide competitive edge to organization. Firms, now has to respond in a more advanced way to survive in competitive environment which results advancement in HR techniques. Now a days, giant organizations and institutions are adopting e-HRM phenomenon because they believe that generating value for their internal customers is more effective method to achieve strategic objectives. The purpose of the study was to explore the term in brief manner and testing the relationship between e-HRM practices (Operational, e-recruitment, e-compensation and transformation) and employee productivity in a sample of 5 hospitals of Karachi. Drawing on literature from preceding articles, the study developed framework and established the relationship between constructs. Using PLS software, the author conducted measurement model for assessment of reliability and validity of data and then performed structural model for regression test. Result shows that e-HRM practices, operational, transformational and e-compensation are positively influenced with employee productivity, Hence consistent with prior literature. However, e-recruitment has no linkage with employee productivity because in country like Pakistan, the concept of recruitment is often based on references, sources. In addition, Implications, limitations and future recommendations were also canvassed at the end of paper.

**Key words:** *Electronic human resource management (e-HRM), partial least square (PLS), e-HRM practices.*

## Introduction & Background

The recent development in communication and technology shift the paradigm of management-based systems. This shift also brought a change in organizational activities. The access to such systems in corporate world makes HR practices more constructive and innovative to meet the strategic objectives (Iqbal, Ahmad, Raziq & Borini, 2019). This technology-based approach in human resource created the term e-HRM which links HRM with IT, thus providing mechanism to HR activities by building efficient integrated system (Bondarouk, 2015). The phenomenon was firstly explored in decade of 90 when business world was transforming and adapting modified techniques (Ruel & Bondarouk, 2008). Bondarouk & Ruël (2013) stated that the aim of this integrated mechanism is to create value not within organization only; but also, across organization for targeted employees as well as management. As a result, it benefits organization in number of ways; cost minimization, improved HR services and quality, operational efficiency. It also helps in reshaping HR practices by transforming it in to strategic partner. Ruël, Bondarouk & Looise (2004) argued that e-HRM also involves many stake holders outside the HR department like employees from all levels. In the present environment, organizations are shifting from conventional strategies and exploiting new techniques to enhance their competitive edge. They have a belief that generating value for internal customers is more accurate and appropriate method to meet the desired goal (Iqbal, Ahmad & Allen, 2019).

Employee Productivity is considered to be a key factor which helps to achieve superior performance (Delery & Shaw, 2001). Existing researches mainly explored e-HRM and its effectiveness towards HR service quality and paid no attention on direct relation of such practices on productivity of employee across organizations (Iqbal et al., 2019; Obeidat, 2016). Hence, a limited empirical Studies have investigated competence of e-HRM directly for employees' productivity. In addition, the existing models of e-HRM of this limited research cogitate westernized beliefs and attitudees (Iqbal et al., 2019).

E-HRM no doubt is a powerful technique but, in a country like Pakistan, this is still an under-utilized strategy. There could be many reasons as to why firms in our country are skill skeptical to adopt this terminology, one reason could be lack of studies that proves its significance on broader level (Wahyudi & Park, 2014). Hanif & Imran (2017) stated that despite adopting e-HRM practices, Pakistan is still on its foundational state and considered to be immature in this terminology.

As stated above, e-HRM is still considered a modern terminology in Pakistan from technology perspective. Thereby, few sectors have chosen to opt for e-HRM practices. Pillai & Abraham (2016) stated that effective human resource management practices are crucial for health care industry. Health care sector is an important sector as it facilitates masses by

delivering them with effective health services. Pillai & Abraham (2016) further pointed out in their study that Pakistani hospitals need to transform their HR practices in order to enhance the productivity as well as performance of employees. Regrettably, when it comes with comparison with private hospitals, public hospitals still lag in delivering better health care services because the system has old HRM methodologies which eventually cause low employees' productivity. According to Khalid & Abbasi (2018) out of 180 countries, Pakistan ranks 125<sup>th</sup> in UNDP's Human development index (HDI). Another UNDP's (2014) report shows that there are several challenges Pakistan is facing but the most critical and alarming situation is poor performance in healthcare system. Health care resource guide (2019) statistics shows that health care spending (including investment) in Pakistan is 0.97 % of GDP.

Health care resource guide (2019) also reported that number of hospitals situated in different region of Pakistan are estimated to a rough figure of about 1,979 which is quite low. Based on Sindh bureau of statistic planning and development (2016), from 1279 figure, 648 hospitals are situated in Sindh; 146 public; 502 private. These figures further breakdown in to 31 and 134 public and private hospitals respectively for Karachi. The current situation depicts that no-well defined policies and plans are designed for human resource development. The lacking in policies results number of issues; lack of instrument to assess employee performances, lack of strategies to retain staff or decrease turnover rate as well as no proper compensation system (WHO report, 2015). The statistics clearly shows that there is an imbalanced situation which indicates that staff must be highly overburdened, as well as questions the quality, due to lack of resources such as latest technology which ultimately results low productivity among employees. However, private sector tried to plugged in most of these gaps; human resource, safety, quality by adopting latest technologies (e-HRM) but still the ratio is very low (Sheikh, 2015). Confiding all the facts & figures, it is therefore necessary to analyze e-HRM practices by focusing on the statistics which helps to understand the e-HRM effectiveness on employee productivity.

## **Literature Review**

### ***E-HRM***

An extensive range of terms and phenomenon are used by researchers to explained the concept of technology in human resource management (HRM). The terms like "E-HR", "HR portals", "HRMS", "HRIS", "E-HRM" are widely used in HRM studies (Atallah, 2016). Lengnick & Mortiz (2003) stated that "any form of technology which supports to deliver Human resource services is based on E-HRM". Marler (2009) defined E-HRM in his study that "it is a strategy which is based on integrated technology and the purpose of this technology is to sync processes and skilled workers to the organization's goal". On the other hand, other study concluded the term that "it is a broader term which covers the possible

integration mechanism and contents between HRM and information technologies”. The objective of this integrated mechanism is “to create value within and over organizations for targeted management and employees both” (Bondarouk & Ruel, 2009). However, the present study views E-HRM as “a mechanism of an integrated system which create links between HRM and information technologies (IT) and also involves many stake holders outside the HR department like employees from all levels” (Bondarouk, 2015).

### ***E-HRM Dimensions***

Human resource management is based on set of activities (Lengnick & Moritz, 2003). These activities are basically categorized in to three main dimensions; operational, communication (transactional or relational) and development-oriented view (transformational). Bissola & Imperatori (2013) proposed that practices of e-HRM can be categorized in to three main dimensions i-e, “operational, relation or traditional and transformational e-HRM practices”. Iqbal et al., (2019) argued that two types of studies found in literature related E-HRM. The first set of studies aims to find impact of each practices on value outcomes individually whereas second set of studies focuses on integrated view of such practices. Based on Bissola & Imperatori (2013) studies, the aim is to scrutinize the individual impact of each variable selected for the study.

Operational e-hrm are basically the administrative role of human resource function (Kariznoee, Afshani & Moghadam, 2012). Maatman, Bondarouk & Loosie (2010) referred “operational e-HRM to zero level practices because these practices are essential for the existence of human resource functions”. Ruel, Bondarouk & loosie (2004) relates “operational e-HRM to basic HR activities such as payroll or personnel data administrations”. Snell, Pedigo & Krawiec (1995) stated that “operational practices are the practices which provides information or make information available which is used for decision support”. Lengnick & Mortiz (2003) defined that “operational practices are linked with the basic obligatory HR practices which are used to publish certain information related to day to day operations”. “A basic operation of human resource includes payroll and record keeping of personnel falls in the category of operational e-HRM” (Sanayei & Mirzae, 2008). Following Bissola & Imperatori (2013), this study refers “operational e-HRM to those administrative roles of HRM which are considered to be an essential factor for the existence of HR functions. These practices are used in workplace to achieve goals like productivity improvements and reduce the HR activities cost. The practices include payroll, benefit management, record keeping” etc.

The other construct e-recruitment was initially defined as “a recruitment of candidates over internet” ( Heery & Noon ,2001). With the advancement in technology, the modified definition of e-recruitment explains that “the process of recruiting candidates electronically

includes candidate management system (Parry & Tyson, 2009)” and “the general process of e-recruitment involves numerous steps such as tracking, selecting, offering or rejecting (Armstrong, 2006)”. Wozniak (2015) defined “e-recruitment as a way to implement the policies, practices and strategies of recruitment in a firm by using web-based channel fully”. This definition focuses on the core recruitment tasks which can be done by the use of internet. The e-recruitment definitions show the duality of term such as “the internet-based recruitment source” and “technology-enabled recruitment management practices”. The present study focuses on the managerial view of electronic-recruitment. Thus, it is viewed as “the recruitment process and activities by using technology and human agents in order to identify, attract and influence competent candidates.

The third construct e-compensation is based on “web-enabled approach through which a firm can gather, pile, analyze, distribute and utilize the compensation relation information or data” (Suchitra, 2014). Kulkarni (2014) explained that “when a compensation planning is done by using internet or intranet then it can be termed as electronic compensation”. Wright (2009) viewed e-compensation as “a system through which employees of an organization can be attracted, retain and motivated. The system thus gives competitive advantage to organizations”. Atallah (2016) argued that “system such as electronic compensation helps HR employees in decision making process”. The current study viewed electronic compensation as “those compensation systems which are developed or bought by firms in order to make more accurate decisions and provide help for allocating benefits among employees” (Dulebohn & Marler, 2005).

The fourth construct of e-hrm is transformational e-hrm. Zafar, Shaukat & Mat (2010) discussed that third area, “transformational e-HRM” links with “the activities which has strategies character. The activities such as strategic re-orientation, strategic knowledge management, strategic competence management”. “A consolidated set of tools that are based on web, enabling the workforce to in line with firm’s strategies to achieve goals can be termed as transformational e-HRM” (Ruel, Bondarouk & Velde, 2007). The present study viewed “transformational e-HRM practices” as a “development-oriented view”. “These practices are strategic in manner and line up employee behaviour & attitude with organization’s strategies” (Bissola & Imperatori, 2013).

### ***Employee Productivity***

Employee productivity is the degree of creating output efficiently by firm’s labour workforce to achieve organization’s goal” (Iqbal, Ahmed & Borini, 2019). The construct is directly link to organizational development; hence its importance can’t be neglected. Huang, Yang, Jin & Chiu (2004) stated that a well-known theory of information system could be useful in testing and predicting employee’s productivity.

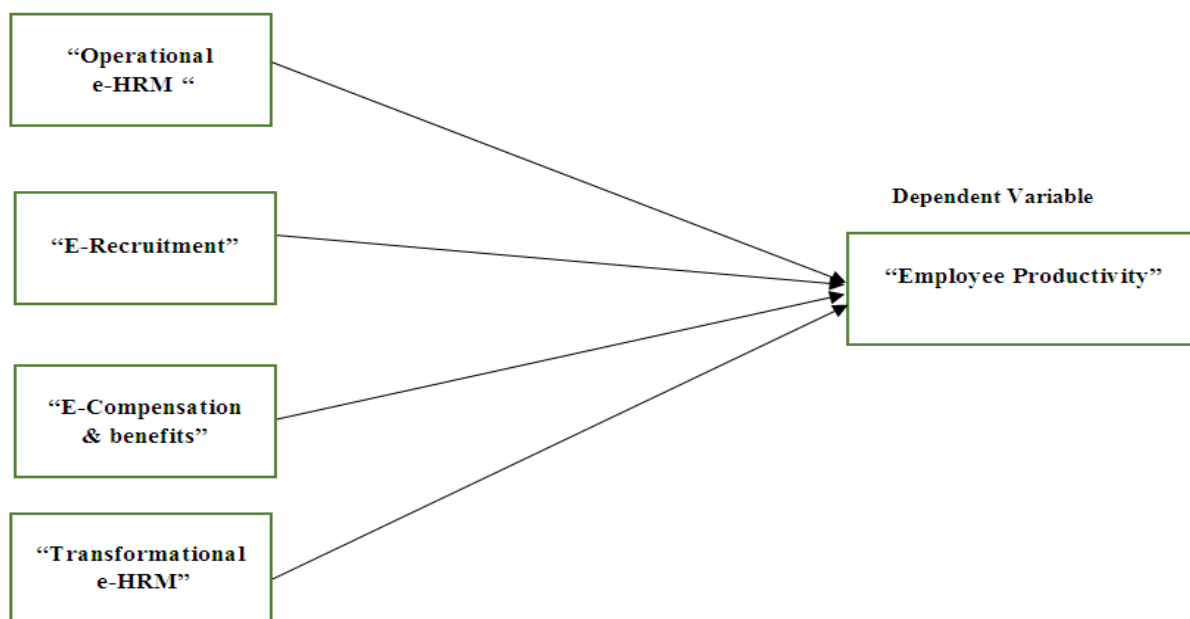
By employing TAM (Davis & Bagozzi, 1989), it can be concluded that technology such as e-HRM gives opportunity to employees to enhance their capabilities and make improvement in their work within less time in more friendly manner. In this research the technology is defined as e-HRM which further categorized in to operational e-HRM, e-recruitment, e-compensation & transformational e-HRM. whereas PU and PEOU, is a belief that adopting such practices may improve employee productivity and free from effort and more user friendly (Huang et al., 2004).

### ***Research Model and Hypotheses Development***

The model of study is adapted from more than one literature to explore the significance among chosen established constructs namely operational e-HRM, e-recruitment, e-compensation & benefits, transformational e-HRM and employee productivity. The model is adapted to add further knowledge in existing studies and to explore the effectiveness of stated variables in a different region.

**Figure 1.** Conceptual framework

**Independent Variables**



### ***E-HRM Dimensions***

Research findings by Iqbal et al., (2019) supported that “operational e-HRM practices” has a notable impact on “employee productivity”. Parry (2011) argued that e-HRM practice such as operational increases performance of organizations by speeding up processes, lower

headcounts. This increased performance of organization means the improved workforce productivity. Another empirical data from previous study exhibits that operational e-HRM practices are expected to enhance productivity of employees because these practices increase time and cost efficiencies. transactional activities can save time of employee and also reduce cost thus results more productivity among employees (Hendrickson, 2003, p. 383). By confiding all the evidences, the author proposes that implementation of operational e-HRM practices increases employee productivity because of the significant and positive relationship between them.

**H1:** “Operational e-HRM has a positive effect on employee productivity”.

Adli, Gharib, Hakami, & Pourmahdi (2014) found that e-recruitment has no significant effect on productivity of employee. whereas, empirical evidences from another study concluded that the firms who adopt process of recruitment electronically, their productivity of employee increases (Iqbal, Ahmad & Allen, 2018,2019). Previous studies explained that adopting relational e-HRM practices doesn't mean to replace old methods of HRM only, but it also focuses on new styles of management which creates a notable impact on productivity of employees by improving the quality of HR and empowering their employees (Bissola & Imperatori ,2013). Hence it can be concluded from all the previous studies that there is an inconsistent relation of e-recruitment with employee productivity.

**H2:** “E-Recruitment has an effect on Employee Productivity”.

The evidence from previous study shows that e-compensation has a significant impact on electronic compensation systems (Iqbal et al., 2019). Another recent study shows that e-compensation practices and productivity of employees are positively associated with each other (Adli, et al 2014). According to Iqbal et al., (2019), application of “e-HRM” namely e-compensation, is influencing productivity of employees in a positive manner by using impersonal trust as a mediator. Atallah (2016) argued that e-compensation is a distinguishable practice of e-HRM because findings of the study clearly depicts that e-compensation enhance the productivity of individuals. Therefore, our third hypothesis is:

**H3:** “E-Compensation has a positive effect on Employee Productivity”.

Transformational e-HRM practices are linked with organization's strategy. The involvement of such practices in organization's strategy are helpful in improvement of workforce productivity (Parry & Tyson, 2011). As stated by Bissola & Imperatori (2013), adopting “transformational e-HRM practices” could be helpful in providing essential conditions which can improve employee productivity. The main reason is that “transformational e-HRM” practices aims to align the behavior of employees with organization's goals and also

strengthen employee's competencies and their abilities. However, a recent study shows a significant and negative effect of transformational e-HRM towards employee productivity (Iqbal et al., 2019). The inconsistent results show that transformational e-HRM practices does affects employee productivity but the positive and negative relation varies according to demographics and geographic conditions. Therefore, the fourth and last hypothesis:

**H4:** "Transformational e-HRM has an effect on Employee Productivity".

### **Research Methodology**

This chapter covers methodology of present study. It provides details related to research method and approaches, population, sampling technique and methods, sample size and also explain the process through which data is being collected and analysed.

The study adopted quantitative research approach because the objective of research aims to assess a pretesting theory. The research carried at 5 hospital of karachi, hence adopted cross sectional research design.

### **Population**

Khijli et al. (2006) postulated that truthfulness of HRM lies beyond HR department. Obeidat (2016) and Strohmeier (2007) further argued that activities of e-HRM are delivered, not only through HR professionals but also through supervisors or managers and IT. Therefore, the chosen population for this study were employees that are on managerial or supervisor position in hospitals of karachi adopting e-HRM methods. The employees are both clinical and management side. The target population is projected to be 560.

### **Sampling**

The method opted for t current study was non probability sampling; convenience approach as there was no exact knowledge of respondents. A sample size 226 was drawn with the help of Krejcie and Morgan sample method in which confidence level and error is assumed as 95% and 5% respectively.

**Table 1:** Sample Distribution

<b>Agha Khan</b>	<b>Liaqat National</b>	<b>Usman Memorial</b>	<b>Indus</b>	<b>Ziauddin</b>	<b>Total</b>
95	165	15	165	120	560
16.9%	29.5%	2.7%	29.5%	21.4%	100%
38	67	6	67	48	S.S = 226



### Measurement

The variables are tested on Likert scale, adapted from already published paper. The table given below exhibits the items and sources of adapted instrument.

**Table 2:** Sources of Constructs

Construct	Source	Operationalization
Operational e-hrm, Transformational e-hrm Employee productivity	Adapted from Iqbal et al., 2019	Consists of eleven-item on 5-point Likert Scale. (3 operational, 3 transformational & 5 employee productivity)
e-Recruitment, e-Compensation	Adapted from Adli et al., 2014	Consists of seven-item on 5-point Likert Scale. (3 e-recruitment & 4 e-compensation.

### Data Collection

To reach out the participant, an “electronic version” of questionnaire was sent via email and asked them to give their contribution in the study. Although the required responses were 226 but to avoid any hindrance, the author maximized number of participants and distributed 235 questionnaires in 5 different hospital. A total of 227 responses were received from which 215 were valid and rest of it were incomplete. Hence, 215 usable responses were considered for data analysis. The following table shows the statistics in detailed manner.

**Table 3:** Response rate

Response Rate	AKU	LN	UMH	IH	ZH	Freq/Rate
Distributed questionnaire	38	67	15	67	48	235
Returned questionnaire	36	66	14	65	46	227
Returned & usable questionnaire	33	61	13	63	45	215
Returned & excluded questionnaire	3	5	1	2	1	12
Response rate (%)	94.7%	98.5%	93.3%	97.01%	95.8%	96.59%
Usable response rate (%)	86.8%	91.04%	86.6%	94.02%	93.7%	91.48%

## Data Analysis and Findings

### *Demographics*

The purpose of the current study is to evaluate the effectiveness of e-HRM towards employee productivity specifically in hospitals, Thus, the demographic profile includes gender, age, income, supervisory level and experience. The following table depicts the percentages and frequency of respondent with respect to age, income, experience, income level and gender.

**Table 4:** Respondent profile

Summary of Respondents	Frequency	Percentage
<b>Gender</b>		
Male	129	56.6%
Female	86	37.7%
Prefer not to say	13	5.7%
<b>Age</b>		
22-32	42	18.4%
33-43	131	57.5%
43-onwards	55	24.1%
<b>Income level</b>		
20,000-30,000	21	9.2%
31,000-40,000	41	18%
41,000-50,000	90	39.5%
Above 50,000	76	33.3%
<b>Supervisory Level</b>		
Lower management	38	16.7%
Middle management	114	50%
Upper management	76	33.3%
<b>Experience</b>		
0 – 5	78	34.2%
6 – 10	79	34.6%
11 – 15	35	15.4%
Above 15	15	15.8%

### *Data Analysis Approach*

To study and evaluate the conceptual model, Smart PLS is used which often use in the studies and researches related to management (Henseler, Ringle, Sarstedt, 2015). Ringle, Sarstedt, Mitchell & Gudergan (2018) indicated in literature that PLS is used by researchers when data sample is small in size. Furthermore, it is more suitable to have more accurate and confined results.

## ***Measurement Model***

### ***Reliability***

The stability of measures in a survey is ensured by assessing its internal consistency. This assessment confirms the reliability of survey and ensures the model is reliable. There are number of methods available to test the internal consistency of questionnaire. Since, the present study used smart PLS method, composite reliability and chron bach alpha tests were performed for assessing model. The results of composite reliability can be seen in Table 3 which indicates that all the construct items' value are more than 0.7 which means all the values has an acceptable rate. Similarly, the values of chron bach alpha are also satisfactory as they are greater than 0.6.

### ***Validity***

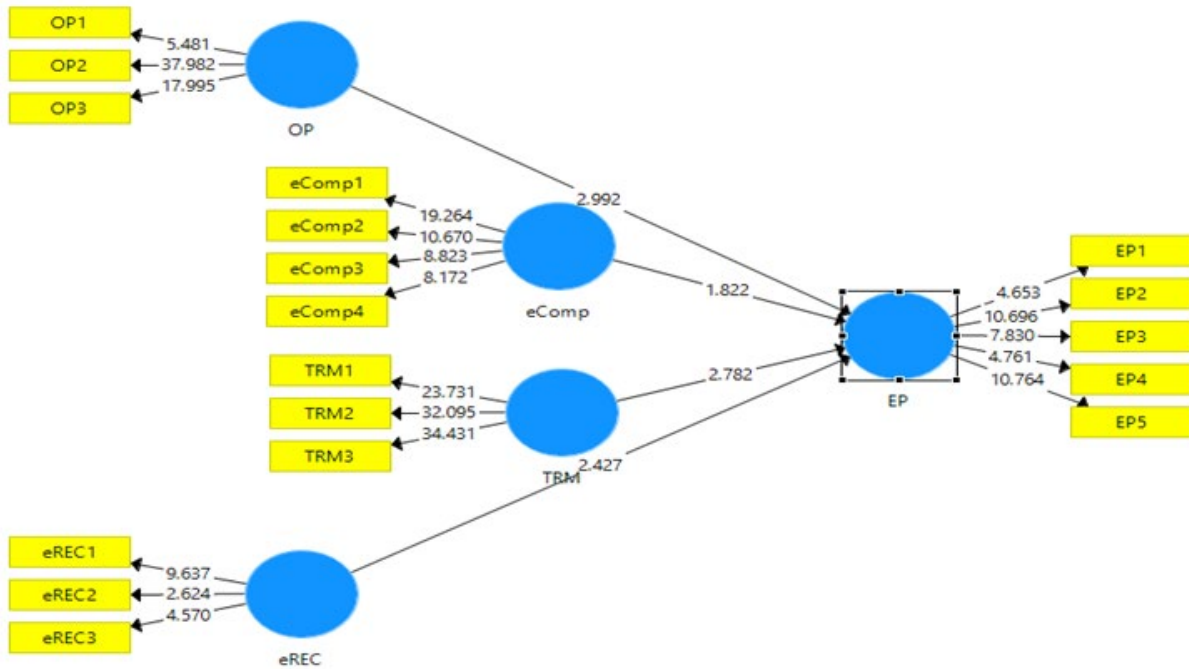
To examine the validity of questionnaire, average variance extracted (AVE) parameter was used in the study. Table 3 of study depicts that AVE of all constructs is greater than 0.5 which indicates that the instrument used for the study was valid and achieved the criteria.

**Table 5:** Construct Reliability & Validity

<b>Constructs</b>	<b>Cronbach's Alpha</b>	<b>CR</b>	<b>AVE</b>
<b>EP</b>	0.762	0.840	0.516
<b>OP</b>	0.790	0.878	0.707
<b>TRM</b>	0.882	0.927	0.809
<b>eCOMP</b>	0.801	0.869	0.625
<b>eREC</b>	0.685	0.809	0.590

**Structural Model**

**Figure 1.** Structural Model



Bootstrapping was performed to check the statistical significance of construct path coefficients by means of t-statistics and p-values. The estimation results from Smart PLS software are shown in Table 4. According to results, the statistics of OP and EP shows the significant and positive relationship as the p-value is 0.332 ( $p < 0.05$ ) and t-statistics is 0.971 ( $t > 1.96$ ). Table 4 further depicts that the relationship of eComp and TRM with EP is significant as the p-values and t-statistics are  $< 0.05$  and  $> 1.96$  respectively. Lastly the p-value of eREC is 0.053 ( $p > 0.05$ ) and t-statistics is 1.939 ( $t < 1.96$ ).

**Table 5:** Path Coefficients

Model	Original sample	T-Statistics	P-values
OP>EP	0.359	3.093	0.002
eREC>EP	0.169	1.939	0.053
eCOMP>EP	0.186	2.512	0.012
TRM>EP	0.267	3.006	0.003

### **Regression Model Summary**

**Table 6:** Model Fitness

<b>Model</b>	<b>R Square</b>	<b>Adjusted R Square</b>
1	0.567	0.549

Table 6 clearly depicts the proposed model is ideal as the value of R sq. and adjusted R sq. lies within a range of 0.3 – 0.7.

### **Hypotheses Testing**

**Table 7:** Results Discussion

<b>Hypotheses</b>	<b>Hypothesized Relationship</b>	<b>Decision</b>
<b>H1</b>	OP > EP	Supported H1
<b>H2</b>	eREC > EP	Didn't support H2
<b>H3</b>	eCOMP > EP	Supported H3
<b>H4</b>	TRM > E	Supported H4

The statistics from table 5 shows that the relation of operational e-hrm with employee productivity is positive and significant as p-value is 0.002 ( $p < 0.05$ ) and  $\beta = 0.359$ . Thus, the result supported first hypothesis. E-compensation practices are also positively associated with employee productivity as  $\beta = 0.186$  and p-value is 0.012 which lies within a range i-e ( $p < 0.05$ ). From table 5, it can be shown that there is no significant impact of e-recruitment practices on employee productivity. Thus, H2 is not supported. H4 is supported and acceptable because the results show the significant and positive impact of transformational e-hrm on employee productivity.

### **Discussion**

The main purpose of the study was to analyze whether e-HRM systems vary productivity of employees in the context of hospital in Karachi. The study model highlighted four different practices of e-HRM and its association with employee productivity. The finding of this research shows that the overall model is significant, hence proving the consistency with previous researches (Almarri & Gardiner, 2014; CedarCrestone, 2013; Parry, 2011; Schivardi & Schmitz, 2018).

The TAM model is adopting in technology system as well as in the context of e-HRM provide theoretical support in order to assess its value and role in organizational outcome (Bondarouk et al., 2017; Desantis & Poole, 1994; Gardner, 2003; Huang et al., 2004; Iqbal et al., 2019; Marler & Parry, 2016). The overall model significance proved that e-HRM

resource is a credible source when it comes to improve organizational outcomes and firms can gain strong competitive advantage. Thus, we can say that organizations can improve its productivity in many areas if they implement tech-based management system.

One of the objectives of the study was to determine the relationship between” operational e-HRM and employee productivity” which was further proved by testing hypothesis (H1). The results show the positive and significant relation between these two constructs, hence showing the consistency with earlier studies (Hendrickson, 2003, p. 383; Iqbal et al., 2019; Martin, 2008; Parry 2011). Thereby, the consistent results indicate that e-HRM practice such as operational, increases performance of organizations by speeding up processes, lower headcounts. Moreover, this increased performance of organization means the improved workforce productivity.

Bissola & Imperatori (2013) stated that the impact of e-HRM practices varies differently on organization outcomes. The second objective of study which was formed to determine the relationship between “e-recruitment and employee productivity”, was not proved after testing hypothesis (H2). The findings show the insignificant relation between two variables, hence showing the contradiction with preceding literature which already indicates the mixed results (Adli, 2014; Atallah, 2016; Iqbal et al., 2018,2019). Strohmeier (2007), Thompson & Braddy (2008) discussed that demographics play a vital role whenever there is a discussion about technology because the acceptance and usage of technology varies according to generation differences. In addition, age, gender, ethnicity are the key factors which results difference in reactions towards usage of online systems. Strohmeier (2007) further discusses that the adoption of online recruiting system links with country and sector. For instance, in country like Pakistan, the concept of recruitment is often based on references, sources. These methods are normally preferred by recruiters which clearly depicts that managers/supervisor does not find e-recruiting system much beneficial. Hence, showing no linkage with their productivity.

The relationship of third objective is verified by testing hypothesis (H3). The result indicates the significant and positive relationship of “e-compensation and employee productivity” and shows consistency with former findings (Adli, et al 2014; Bissola & Imperatori ,2013; Gharib, 2014; Iqbal et al., 2019).

The findings of study related to transformational e-HRM provides a positive and significant impact on employee productivity. These findings add another evidence in existing literature which claims the contradicting results due to the demographics and geographic conditions (Bissola & Imperatori ,2013; Iqbal et al.,2018,2019; Parry & Tyson, 2011). The inconsistent results show that transformational e-HRM practices could be helpful in providing essential

conditions which can improve employee productivity. However, such practices are mostly linked with organization's strategic character.

### ***Implications of Study***

The study concludes number of contributions. First of all, the current research removes the gap in contextual manner because to author's little knowledge this research will be among those few researches which are conducted to analyze e-HRM practices and its effects on employee productivity in hospitals of Karachi. Furthermore, preceding literature investigated e-HRM on some specific context i-e banking sector, telecommunication sector where as this study focusing on hospitals which would be considered as a notable segment because it directly links to the health of common men. The difference of eastern and western culture is a crucial factor which cannot be neglected because western culture advocates individualism, on the other hand, eastern culture is all for collectivism. This sheer difference causes contrasting beliefs and attitudes of subject. Therefore, the study has a major contribution in existing model of e-HRM as it reflects easternized attitudes and beliefs. Third, this study provides supportive empirical evidence in existing literature.

The present study also corroborates to endorse other health care establishments to take on e-HRM terminology that can support HR practices and improved efficiency and productivity of its employees. Lastly, it will also provide better understanding to the effectiveness of e-HRM practices adopting by hospital, through which managers could take appropriate measures to enhance the productivity of their employees which further lead to better service delivery.

### ***Limitations and Future Research***

The current study highlighted numerous contributions related to e-HRM practices in hospital industry, however like other studies, this study also has some limitations. The study used cross-sectional research design as the data was restricted to only few hospitals of Karachi. Secondly, the instrument adapted for present research was quantitative in nature. Another limitation is related to sampling technique, this study used convenience sample approach because the selection was made on the easy accessibility of participants. The present research focuses on hospitals situated in Karachi; it means that the study does not include other regions of Pakistan. Furthermore, respondent profile has been designed in such way that it specifically covers age, gender and supervisory level of participants. It was also restricted to managers/supervisors only. This research also used four variables as probable determinants of employee productivity i-e. Operational e-HRM, e-recruitment, e-compensation and transformational e-HRM. Other possible determinants e-performance, e-training, e-communication etc did not include. Lastly, the suggest model doesn't include mediator or moderator as a support variable.

The study also recommends several suggestions which may help the future researcher in further studies related to e-HRM practices and employee productivity. For instance, to obtain better and relatively focused results, it is suggested to use probability sampling techniques. Since, the term electronic HRM construct is contemporary issue and somehow a new term for market researchers in Pakistan, hence less explored in contextual manner with latest statistical tools so it could be further extended by finding with other dimensions, tools and context which may influence the productivity of employees. It is also suggested to use seven point- Likert scale in future research in order to acquire more accurate and better results. The research may also provide further scope of study as one of the constructs named e-recruitment have no significant impact on employee productivity which has a mixed view as compare to the prior literature discussed here. Future studies could also use other refined instrument based on mix method technique, to get a deeper insight in the study. The role of mediator or moderator could also be added to extend the model and add further knowledge in literature. Lastly, there is also a need to explore the effectiveness of e-HRM towards employee productivity in other regions and sectors of Pakistan because results may slightly be different due to demographics.

### ***Conclusion***

The prime purpose of this research is to evaluate the effectiveness of e-HRM towards employee productivity. Therefore, the author set four objectives to investigate the relationship of operational e-HRM, e-recruitment, e-compensation and transformational e-HRM practices on productivity of employees. Starting with analysing gap, synthesizing prior literature, adopting appropriate methodology to gauge findings; the study has accomplished the goal and achieved all its objectives.

The first objective which was set for present research was to investigate the” impact of operational e-HRM on employee productivity”. The said objective was formed by reviewing available literature. Furthermore, a hypothesis was developed in the light of preceding articles. The hypothesis was further tested by using PLS methodology. In this manner, the study achieved its first objective. Additionally, the study is able to provide empirical evidence of relationship between “operational e-HRM and employee productivity”, which was positive and significant. The second objective which was constructed to investigate the impact of “e-recruitment on employee productivity”, was achieved by testing the hypotheses through similar methodology. The empirical evidence of this objective shows that “e-recruitment is positively associated with employee productivity”. The third objective and fourth objective, both were achieved by following similar strategy and indicates positive and significant relationship among constructs.



## BIBLIOGRAPHY

- Adli, M., Gharib, S., Hakami, M., & Pourmahdi, K. (2014). A survey on electronic human resource management consequences, its outcomes and performances. *Journal of Basic and Applied*, 4(10), 71-82.
- Armstrong, M. (2006). A handbook of human resource management practice. *Kogan Page Publishers*.
- Atallah, A. A. (2016). The impact of Electronic Human Resource Management (E-hrm) on organizational development of UNRWA in gaza strip. "*The Impact of Electronic Human Resource Management (E-HRM) on Organizational Development of UNRWA in Gaza Strip*". 158, 25, 205-217.
- Bissola, R., & Imperatori, B. (2013). Facing e-HRM: the consequences on employee attitude towards the organisation and the HR department in Italian SMEs. *European Journal of International Management*, 7(4), 450-468.
- Bissola, R., & Imperatori, B. (2014). The unexpected side of relational e-HRM: Developing trust in the HR department. *Employee relations*, 36(4), 376-397.
- Bondarouk, T. (2015). University of Twente. 2014. *Orchestrating the E-HRM symphony*  
URL: [http://www.researchgate.net/publication/270155161\\_Orchestrating\\_the\\_e-HRM\\_Symphony](http://www.researchgate.net/publication/270155161_Orchestrating_the_e-HRM_Symphony) [accessed 2015-06-30] [Website Cache ID 6ZfYx2LYi].
- Bondarouk, T. H. R. and Lepak, D. (2015) Does e-HRM lead to better HRM service. *The International Journal of Human Resource Management*, 10, 122-129. DOI, 10(09585192.2015), 1118139.
- Bondarouk, T. V., & Ruël, H. J. (2009). Electronic human resource management: Challenges in the digital era. *The International Journal of Human Resource Management*, 20(3), 505-514.
- Bondarouk, T., & Ruel, H. J. M. (2013). The strategic value of e-HRM: Results from an exploratory study in a governmental organization. *The International Journal of Human Resource Management*, 24(2), 391-414.
- Bondarouk, T., Schilling, D., & Ruel, H. (2016). E-HRM adoption in emerging economies: The case of subsidiaries of multinational corporations in Indonesia. *Canadian Journal of Administrative Sciences*, 33(2), 124-137.



- Davis, F. D. (1985). A technology acceptance model for empirically testing new end-user information systems: Theory and results (Doctoral dissertation, Massachusetts Institute of Technology).
- Delery, J. E., & Shaw, J. D. (2001). The strategic management of people in work organizations: Review, synthesis, and extension. *Research in Personnel and Human Resources Management*, 20, 165–197.
- DeSanctis, G., & Poole, M. S. (1994). Capturing the complexity in advanced technology use: Adaptive structuration theory. *Organization science*, 5(2), 121-147.
- Dulebohn, J. H., & Marler, J. H. (2005). e-Compensation: The potential to transform practice. *The brave new world of e-HR*, 22, 166-189.
- Gardner, S. D., Lepak, D. P., & Bartol, K. M. (2003). Virtual HR: The impact of information technology on the human resource professional. *Journal of Vocational Behavior*, 63(2), 159-179.
- Hanif, M., Imran, M. (2017). Prevalent problems of hr practices in organizations and their solution: Pakistani context. *Sci.Int.(Lahore)*, 29(2), 481-488.
- Heery, E., & Noon, M. (2001). E-recruitment. *Dictionary of human resource management*. Oxford University Press, Oxford, 112.
- Hendrickson A. (2003). Human resource information systems: Backbone technology for contemporary human resources. *Journal of Labor Research*, 24 (3), 381-394.
- Henseler, J., Ringle, C.M. and Sarstedt, M. (2015), “A new criterion for assessing discriminant validity in variance-based structural equation modeling”, *Journal of the Academy of Marketing Science*, 13(1), 115-135.
- Holm, A. B. (2012). E-recruitment: towards a ubiquitous recruitment process and candidate relationship management. *German Journal of Human Resource Management*, 26(3), 241-259.
- Huang, J. -H., Jin, B. -H. & Yang, C. (2004). Satisfaction with business-to-employee benefit systems and organizational citizenship behavior: An examination of gender differences. *International Journal of Manpower*, 25(2), 195–210.
- Iqbal, N., Ahmad, M., Allen, M. M., & Raziq, M. M. (2018). Does e-HRM improve labour productivity? A study of commercial bank workplaces in Pakistan. *Employee Relations*. 11, 155-159.



- Iqbal, N., Ahmad, M., & Allen, M. M. (2019). Unveiling the relationship between e-HRM, impersonal trust and employee productivity. *Management Research Review*, 15, 100-110.
- Iqbal, N., Ahmad, M., Raziq, M. M., & Borini, F. M. (2019). Linking e-hrm practices and organizational outcomes: empirical analysis of line manager's perception. *Revista Brasileira de Gestão de Negócios*, 21(1), 48-69.
- Kariznoee, A., Afshani, M., & Moghadam, M. R. H. (2012). The examine of effect of E-HRM on employee's job performance. *Advanced Research in Economic and Management Sciences (AREMS)*, 6, 275-282.
- Khalid, F., & Abbasi, A. N. (2018). Challenges Faced by Pakistani Healthcare System: Clinician's Perspective. *Journal of the College of Physicians and Surgeons Pakistan*, 28(12), 899-901.
- Kulkarni, S. R. (2014). Human capital enhancement through e-HRM. *IBMRD's Journal of Management & Research*, 3(1), 59-74.
- Lengnick-Hall, M. L., & Moritz, S. (2003). The impact of e-HR on the human resource management function. *Journal of labour research*, 24(3), 365-379.
- Maatman, M., Bondarouk, T. and Kees Looise, J. (2010), "Conceptualising the capabilities and value creation of HRM shared service models. *Human Resource Management Review*, 20(4), 327-39.
- Marler, J. (2009). Making human resources strategic by going to the Net: Reality or myth? *International Journal of Human Resource Management*, 20, 515-527.
- Marler, J. H., & Parry, E. (2016). Human resource management, strategic involvement and e-HRM technology. *The International Journal of Human Resource Management*, 27(19), 2233-2253.
- Martin, G., Reddington, M., & Alexander, H. (2008). *Technology, outsourcing and transforming HR*. Oxford: Butterworth-Heinemann
- Obeidat, S. M. (2016). The link between e-HRM use and HRM effectiveness: An empirical study. *Personnel Review*, 45(6), 1281–1301.
- Parry, E. (2011). An examination of e-HRM as a means to increase the value of the HR function. *The International Journal of Human Resource Management*, 22(05), 1146-1162.

- Parry, E., & Tyson, S. (2009). What is the Potential of E-Recruitment to Transform the Recruitment Process and the Role of the Resourcing Team? *In Handbook of research on e-transformation and human resources management technologies: Organizational outcomes and challenges*, 12, 202-217
- Parry, E., & Tyson, S. (2011). Desired goals and actual outcomes of e-HRM. *Human resource management journal*, 21(3), 335-354.
- Pillai, R. P., & Abraham, C. (2016). Comparative analysis of the HRM practices between hospitality and healthcare sectors in South Kerala. *Journal of Management*, 7(2), 11-19.
- Ringle, C.M., Sarstedt, M., Mitchell, R. and Gudergan, S.P. (2018), "Partial least squares structural equation modelling in HRM research", *International Journal of Human Resource Management*, Published Electronically January 7, doi: 10.1080/09585192.2017.1416655.
- Ruël, H. J., & Bondarouk, T. (2008). Exploring the relationship between e-HRM and HRM effectiveness: lessons learned from three international companies. *In Technology, Outsourcing & Transforming HR*, 15, 179-209.
- Ruel, H., Bondarouk T., & Looise, J. K. (2004). E-HRM: Innovation or irritation. An explorative empirical study in five large companies on web based HRM. *Management Review*, 15(3), 364-380.
- Sanayei, A., & Mirzaei, A. (2008). Designing a model for evaluating the effectiveness of e-hrm (case study: Iranian organizations). *International Journal of Information Science and Technology*, 6(2), 79-98.
- Snell, S. A., Pedigo, P. R., & Krawiec, G. M. (1995). Managing the Impact of Information Technology on Human Resource Management. 159-174 in *Handbook of Human Resource Management*, edited by GR Ferris, SD Rosen, and DT Barnum.
- Strohmeier, S. (2007), "Research in e-HRM: review and implications. *Human Resource Management Review*, 17(1), 19-37
- Suchitra, P. (2014). e-HRM: Conceptual implications. *International Journal of Human Resource Management and Research*, 4(2), 31-38.
- United Nations Development Program. Human Development Report 2014. Sustaining human progress: *Reducing vulnerabilities and building resilience*. New York: 2014.



- Wahyudi, E., & Park, S. M. (2014). Unveiling the value creation process of electronic human resource management: An Indonesian case. *Public Personnel Management*, 43(1), 83-117.
- Zafar, J., Shaukat, M. and Mat, N. (2010). "An analysis of e-human resource management practices: A case study of State Bank of Pakistan", *European Journal of Social Sciences*, 15(1), 18-26.