

Usage and Acceptability of Electronic Human Resource Management (e-HRM) in Pakistani Organizations

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Article History:	ABSTRACT
Received: 12 Mar, 2020	Introduction: Today is the era of development in information technology. From the past IT has increased benefits as well as opportunities for both individuals and organizations. The demand for E-HRM adoption and its implementation is increasing with every passing day. This paper aims to facilitate organizations to recognize and know the importance of adoption and implementation of electronic human resource management in Pakistan, to point out and recognize the factors affecting individuals to use E-HRM, and to contribute to the literature on E-HRM.
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Accepted: 10 May, 2020	Methodology: Relationship between Perceived performance expectancy, Perceived effort expectancy, Social influence, Facilitation condition, Intentions to adopt and Actual use is explained using UTAUT model. Questionnaire was distributed among 149 professionals working in different organizations in Rawalpindi and Islamabad. Before hypothesis testing several tests have been conducted such as descriptive analysis, correlation, and reliability test. Furthermore, SPSS has been used for hypothesis testing. Findings: The findings of this research study has underlined important aspects which are affecting the adoption, implementation and actual use of technology in organizations working in Pakistan, it has given empirical evidence for the applicability of UTAUT to the adoption of technology (Rozee.pk) through survey of 149 Rozee.pk users. From the results it is observed that both effort and performance expectancy notably affect intention towards using Rozee.pk towards the actual use of technology. Keywords: Electronic Human Resource Management, UTAUT, Rozee.pk, TAM

1. Introduction

Today is the era of advancement towards technology. From the recent past it is observed that information technology has increased benefits as well as opportunities for both individuals and organizations. Moreover, Globalization has increased the drive to be more successful and competitive in market. The demand for E-HRM adoption and its implementation is increasing with every passing day as technology is developing day by day. E-HRM provides information to employees and employers at anytime and anywhere (Panayotopoulou, Vakola, & Galanaki, 2007a).

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E-HRM has been growing rapidly and has emerged as distinctive research area. Rapid development of technology and excessive use of internet increased the adoption of E-HRM within organizations (Strohmeier, 2007). Ruel, Bondarouk, & Van der Velde, (2007) and Yusoff, Ramayah, & Ibrahim, (2010) also reveals that there is less study in E-HRM area, but it is widely being practiced in the world. Using the electronic human resource management applications, the burden of HR experts is reduced and it provides a more efficient and effective way to implement and practice HR activities. Hence the intention of technology acceptance may have stronger implications in the adoption of E-HRM. (Voermans & van Veldhoven, 2007) introduced the adoption of E-HRM on the basis of TAM.

According to technology acceptance model the behavior intention of an individual can be identified toward using system through computers. According to (Davis, 1989) the impact on various variables like acceptance of user, their attitude etc. should be covered by research on technology acceptance model. According to (Venkatesh, Morris, Davis, & Davis, 2003) there had been a criticism on simplicity of TAM to explain attitudes towards adopting technology, Therefore, present investigations objective is towards contributing to literature with the help of UTAUT framework. Unified theory acceptance and use of technology is the advanced form technology acceptance model, it explains the ability and limit of individual to accept IT, and it also gives a guideline for the research. UTAUT gives more simple and polished way to understand the intention of individuals to adopt and use information technology and explain how their behavior changes over time. However further research is necessary to improve this study for understanding individual intentions and behavior with respect to technology adoption and its use (Borrero, Yousafzai, Javed, & Page, 2014; Venkatesh et al., 2003).

In Pakistan the concept of electronic human resource management was not well known previously, today due to globalization and the increasing demand of organizations efficiency and effectiveness in business activities, HRM is adopted but still it is in its initial stages. In 1954 Government of Pakistan established a non-profit organization named as Pakistan institutes of management (PIM) who introduced HRM and its significance and today it is one of the leading organizations in Pakistan managing human resource development. Following PIM, Human Resource Development Network (HRDN) was established in 1999 that focus on human resource development professionals and corporations. Due to the continuous efforts on part of these institutes, HRM gained popularity and importance within various organization of Pakistan.

Moreover, owing to the digital revolution, e-HR emerged as a new way of practicing HRM activities with the latest web-based and computer-based tools and applications. E-HRM is mostly practiced in developed countries like USA, most of the studies found are related to developed countries and few are found on underdeveloped countries like Malaysia (Yusoff & Ramayah, 2011). Today's era is of rapidly changing technology and it is the need of organizations to adopt and use applications of E-HRM to gain goals and objective of organization with efficiency and effectiveness. In order to understand how E-HRM influences the work of human resource professionals, it is important to look at the different ways in which human resource management is conducted within

organizations. (Joma Mahfod, Noof Yahya, Khalifa, Faisal al, & Mad., 2017). Moreover, Electronic human resource management (e-HRM) systems become more widely used by profit and non-profit organization (Winarto, 2018). As Pakistan is one of the underdeveloped countries, its economy is not that stable as compared to developed country economies, it lags behind in technological changes and technological adoption. E-HRM is less practiced in organizations, there are few organizations that have adopted E-HRM in Pakistan such as SNL financial Pakistan.

This research study explains the relationship between Perceived effort expectancy, Perceived performance expectancy, Social influence, Facilitating conditions, Intentions to adopt and actual use of technology. Present research study objective is to find out those factors which may impact the acceptance of technology and its use for performing HR related activities. It will also help HR professionals to understand the behavior of individual using electronic human resource management applications and also explain the factors effecting to the usage and adoption of E-HRM.

1.1 Research Problem

Past research lacks the study related to E-HRM practices particularly in Pakistani context. Therefore, Present investigation proposes towards the identification of those factors which may impact the adoption and use of technology (E-HRM) within organizations working in Pakistan.

1.2 Research Objective

Following research objectives are to explain the intentions to adopt E-HRM using UTAUT model:

1. To examine the relationship between attitudes of individual and their intention to adopt E-HRM.
2. To examine the usage and acceptability of Information system (E-HRM).
3. To examine the factors affecting the intentions to adopt and actual usage of E-HRM.

1.3 Research Questions

After developing deep insight about electronic human resource management and its development, we draw following research question:

What are the factors that are important for adoption of E-HRM in an organization?

From the above given research question, we draw a number of sub-questions:

1. Is perceived performance expectancy related to intention to adopt E-HRM?
2. Is perceived effort expectancy related to intention to adopt E-HRM?
3. Does facilitating conditions related to intention to adopt E-HRM?
4. Is social influence related to intention to adopt E-HRM?

5. Does intention to adopt E-HRM predict the actual adoption?

1.4 Significance of the Study

Present research benefits organizations to help them understand the importance and ways of adoption and implementation of E-HRM within organization working in Pakistan. Moreover, Present investigation will be helpful towards finding and understanding those elements which may directly or indirectly affect individual behavior, their intention towards adoption and using IT. Furthermore, Pakistan is not a stable country and its economy is not developed, therefore, HRM itself is in its developing stage and when we talk about E-HRM, it is in its initial stage. Moreover, there are only few organizations in Pakistan which are using E-HRM systems for HR practices. Little research is done regarding E-HRM, therefore present investigation will contribute towards a better understanding of factors affecting technology adoption on the basis of UTAUT model as well as contribute to the literature regarding E-HRM by professionals and organizations in Pakistan.

2. Research Model and Hypothesis

Research model used in this study is based on UTAUT model given by Venkatesh in 2003 and TAM (Mark et al., 2010) (Davis, 1989). In this research model the actual use represents an individual's behavior and its intention to use and adopt these models which are based on IT taking into account the perceived performance expectancy, perceived effort expectancy, social influence, and facilitation conditions.

2.1 Unified Theory of Acceptance and Use of Technology (UTAUT)

UTAUT model consists of four independent variables that are explaining behavioral intention and usage: Performance expectancy, effort expectancy, social influence, facilitation conditions (Venkatesh et al., 2003). For this research study these four constructs of UTAUT model based on (Brown & Venkatesh, 2005; Venkatesh et al., 2003; Borrero et al., 2014) has been adapted to explain the actual use of technology and relationship between them. In this context *Perceived performance expectancy* refers to which actual use of IT will be supporting individuals who are using such models. *Perceived effort expectancy* refers to simplicity and easiness towards actual use of technology. *Social influence* explain how social circle perceive towards the use these models.

Finally, *facilitation conditions* is the degree of user's perception on available support as well as resources that will facilitate them in the actual use of model. As per UTAUT these four constructs which are given below in model have an impact towards using and adopting technology (Brown & Venkatesh, 2005; Venkatesh et al., 2003; Borrero et al., 2014).

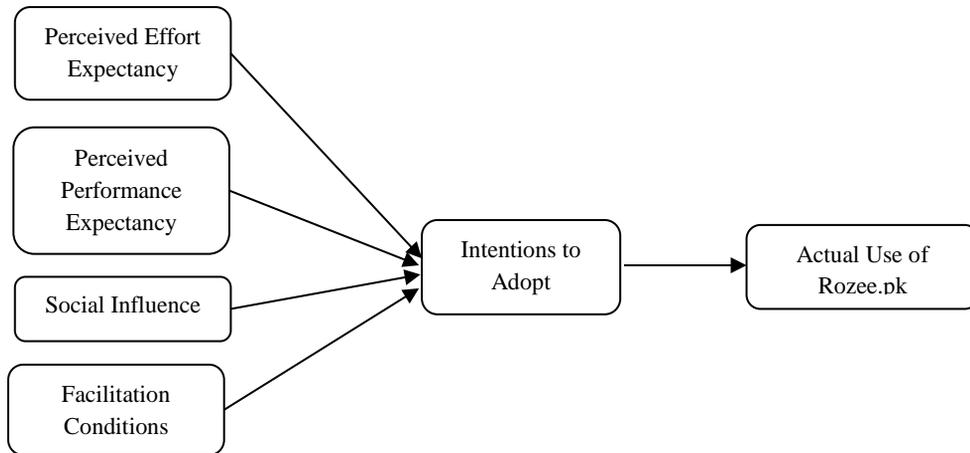


Figure 1: Research Model

H1: Perceived effort expectancy will have positive impact on actual use of technology using Unified Theory of Acceptance and Technology model.

H2: Perceived performance expectancy will have positive impact on actual use of technology Unified Theory of Acceptance and Technology model.

H3: The Social influence in using Unified Theory of Acceptance and Technology model will positively influence the actual use of technology.

H4: The Facilitating conditions in using Unified Theory of Acceptance and Technology model will positively influence actual use of technology.

H5: Intentions to adopt E-HRM have a moderating effect on actual use of technology using Unified Theory of Acceptance and Technology model.

2.2 Variables and Measures

To measure these four constructs of UTAUT model 5 point Likert scale is used with the anchors being 1= (strongly Disagree) to 5= (strongly Agree).

2.3 Data Collection and Participant Profile

Present study is quantitative and cross sectional in nature. Moreover, this study shed light on Professionals particularly, HR professional, HR heads and HR team members. Survey was conducted online. A total of 35 companies were randomly chosen from Islamabad and Rawalpindi

to collect data through convenient sampling technique. Moreover, 200 questionnaires were distributed out of which 149 were received back.

Data collection procedures used for this study was through questionnaire and emails. Questionnaires were sent to professionals using google forms, however, keeping in view of response various calls were conducted and on repetitive requests organizations started filling questionnaires. Questionnaire was adopted given by (Venkatesh et al., 2003), some of the items related to variables were adopted from (Borrero et al., 2014). The questionnaire was designed according to the requirement of this study is on five point Likert scale; first part included the personal information of individual, second part is related to independent variables, third include dimensions related to moderated variable and finally, fourth contains items related to dependent variable.

3. Data Analysis Techniques

3.1 Regression and Correlation

Using SPSS Correlation results were generated. Correlation analysis was performed between the independent variables, mediating and dependent variables. Pearson correlation coefficients were used at 0.01 and 0.05 level of significance. After Correlation analysis, linear regression was run using SPSS. In this section model fit (F-value), model adequacy (R square), and parameter fit (beta and t-value) are discussed and interpreted.

3.2 Descriptive Analysis

A total of 149 participants responded. Out of which 42 were female respondents and 107 were male respondents. 35 companies were selected, out of which 86 responses were private companies, 27 were public organizations and 36 were multinational corporations. There were four levels of qualification included in this study i.e. Bachelors, Masters, MPHIL/MS and Doctoral.

3.3 Reliability and Correlation Analysis

Table 1 gives the Cronbach alpha value. A total of six variables were measured using 25 items that were adopted from (Borrero et al., 2014; Venkatesh et al., 2003). 5 items were used to measure perceived performance expectancy, perceived effort expectancy, intentions to adopt 4 items were used to measure facilitating conditions, 4 items were used to measure social influence, and 2 items were used to measure actual use. Reliability of all the variables listed below lies within the acceptable region.

Findings shows that the results of correlation analysis are highly significant. Effort expectancy Pearson correlation is .266^{**}, Social influence Pearson correlation is .261^{**}, Similarly intentions to adopt Pearson correlation is .262^{**}, which shows that results are highly statistically significant. Results of facilitating conditions and actual use are not significant as they were expected

according to previous literature. Moreover, mean, standard deviation and Cronbach alphas of these variables are also shown in this table. Actual use of technology and social influence is having lowest mean among other variables.

Table 1: Reliability Correlation Analysis

	PPE	PEE	SI	FC	INT	ACTUAL
PPE	1					
PEE	.266**	1				
SI	.261**	.136	1			
FC	.152	.133	.243**	1		
INT	.262**	.386**	.292**	.227**	1	
ACTUAL	.108	.118	.333**	.119	.328**	1
Mean	16.0336	19.1611	12.5570	15.3893	16.5705	4.8188
S.D	2.96241	2.13107	2.14155	1.39841	2.73924	1.89257
Cronbach Alpha (α)	.67	.65	.64	.60	.63	.64

** . Correlation is significant at the 0.01 level (2-tailed).

Results show that PPE Pearson correlation value is .266** which means that it is positively and significantly related with PEE. PPE Pearson correlation value is .261** with SI which means that it is positively related with SI. PPE Pearson correlation value is .262** with INT which means that it is positively related with INT. Similarly, correlation results for PPE with FC and INT shows that they are positively correlated with each other. PEE is positively correlated with SI, FC and ACTUAL, Pearson correlation value is for SI is .136, Pearson correlation value for FC is .133 and Pearson correlation value for ACTUAL is .118. Results show that PEE Pearson correlation value is .368** with INT which means that it is positively with INT. SI Pearson correlation value is .243** with FC which means that it is positively related with. SI Pearson correlation value is .292** with INT which means that it is positively related with INT. SI Pearson correlation value is .333** with ACTUAL which means that it is positively related with ACTUAL. Correlation results of FC shows that is positively correlated with ACTUAL its Pearson correlation value is .119. FC Pearson correlation value is .227** with INT which means that it is positively related with INT and. Finally, table shows that INT Pearson correlation value is .328** with ACTUAL which means that it is positively related with ACTUAL.

3.4 Regression Results

Regression analysis is sub divided into three sections given below i.e. Gender wise regression analysis, Age wise regression analysis and finally education wise regression analysis. In

regression analysis standardized beta coefficients and t-values are reported. This table also consists of adjusted R-Square and F- statistics.

3.4.1 Gender Wise Regression Analysis

Results shows that among females SI ($\beta=0.37$, $p < 0.01$), SI ($\beta=0.46$, $p < 0.01$) had significant positive impact on intentions to adopt and actual use of technology and FC ($\beta=-0.42$, $p < 0.01$) had negative impact on intentions to adopt and actual use of technology. Among male respondents it was observed that PEE ($\beta=0.19$, $p < 0.05$) and SI ($\beta=0.262$, $p < 0.01$) had positive impact on intention to use and actual use of technology.

Table 2: Regression Analysis (Gender Wise)

Variables	Male				Female			
	Intentions to use Rozee.pk		Actual Use		Intentions to use Rozee.pk		Actual Use	
	B	t-value	β	t-value	B	t-value	B	t-value
PPE	0.18	1.84	0.06	.64	-0.01	-0.08	-0.14	-0.91
PEE	0.19*	2.04	0.03	.30	0.51	3.92	0.15	1.05
SI	0.12	1.24	0.26**	2.69	0.37**	2.68	0.46**	3.10
FC	0.18	1.88	0.18	1.90	0.02	0.19	-0.42**	-2.96
Adj R ²	.157		.120		.336		.235	
F(df1, df2)	5.93**		4.62**		6.18**		4.14**	

**significant at the 0.01 level (2-tailed)

*significant at the 0.05 level (2-tailed)

R² shows that the variation in the intentions to adopt rozee.pk of males is about 15.7%. Similarly, for actual use it shows that the variation in the actual use of rozee.pk of males about 12% which is explained by the variation in all independent variables.

R² shows that the variation in the intentions to adopt rozee.pk of females about 37%, Similarly, for actual use it shows that the variation in the actual use of rozee.pk of males about 24% which is explained by the variation in all independent variables.

3.4.2 Education Wise Regression Analysis

Results shows that among 14 years SI ($\beta=0.37$, $p < 0.05$), SI ($\beta=0.35$, $p < 0.05$) had significant positive impact on intentions to adopt and actual use of technology. Among 16 years PEE ($\beta=0.49$, $p < 0.01$) had positive impact on intentions to adopt and actual use of technology.

Among 18 years SI ($\beta=0.37$, $p < 0.01$) had positive impact on intentions to adopt and actual use of technology.

Table 3: Regression Analysis (Education Wise)

Variable	14 years				16 years				18 or more			
	Intentions to use Rozee.pk		Actual Use		Intentions to use Rozee.pk		Actual Use		Intentions to use Rozee.pk		Actual Use	
	B	t	B	t	β	t	β	t	β	t	B	t
PPE	-0.01	-0.09	-0.26	-1.47	0.05	0.37	0.07	0.45	0.16	1.20	0.02	0.18
PEE	0.11	0.61	-0.06	-0.34	0.49**	3.58	0.05	0.34	0.14	1.21	0.08	0.72
SI	0.37*	2.07	0.35*	2.00	0.15	1.30	0.19	1.31	0.17	1.26	0.37**	2.64
FC	0.33	1.85	-0.13	-0.74	0.05	0.44	0.11	0.83	0.17	1.33	0.03	0.29
Adj R ²	0.08		0.11		0.32		0.02		2.35		0.11	
F(df1, df2)	1.73		1.94		7.39**		1.29		3.15*		2.99*	

**significant at the 0.01 level (2-tailed)

*significant at the 0.05 level (2-tailed)

R² shows that variation in the intentions to adopt rozee.pk of 14 years of education is about 8.9%. Similarly, for actual use it shows that the variation in the actual use of rozee.pk of 14 years of education is about 11.2% which is explained by the variation in all independent variables.

R² shows that the variation in the intentions to adopt rozee.pk of 16 years of education is about 32.1%. Similarly, for actual use it shows that the variation in the actual use of rozee.pk of 16 years of education is about 2.1% which is explained by the variation in all independent variables.

R² shows that the variation in the intentions to adopt rozee.pk of 18 years of education is about 23%. Similarly, for actual use it shows that the variation in the actual use of rozee.pk of 18 years of education is about 11.4% which is explained by the variation in all independent variables.

3.5 Summary of Results

To summarize the results of this study, independent variables for males have shown positive significant results as compared to females. Independent variables for 2nd age group have shown positive significant results as compared to 1st and 3rd age group. Finally, comparing independent variables for 16 and 18 years of education have shown positive significant results as compared to 14 years of education.

4. Conclusion and Discussion

There has been strong effect on adoption of E-HRM systems from the time it is adopted and implemented in the organization. The members of the organization become facilitated by coming to a central point. An idealistic way is provided which is usually not possible without adoption and usage of E-HRM applications within a traditional society. Intent of present study focuses towards facilitating organizations for developing appropriate strategies for the acceptance of technology.

Research findings reveal that due to growing trends in IT and competitions among organizations, Organizations are moving towards E-HRM systems adoption and their usage. In Pakistan, HRM itself is not matured yet among every organization in Pakistan, and when we look towards E-HRM, is in its initial stages due to lack of awareness. Most of the organizations that opted for E-HRM systems are seen stable and sound in terms of both financial position and awareness of benefits of implementation of technology.

The aim of particular research investigation was to study those factors which may impact adoption and actual use of technology within organizations working in Pakistan. In this study Intentions to adopt is capturing the moderating effect.

Results show that Intentions to adopt rozee.pk have shown highly significant results that depicts that among all other variables intentions play important role for individuals when using technology. Unexpectedly facilitating conditions results were found not according as they were expected by looking at previous researchers, reason found was that Pakistan is one of the underdeveloped countries, it lacks technological advancements as well as people are not used to adopt and use new technologies, still paper work is popular in most of the organizations.

Gender wise analysis has shown that males have shown more significant results as compared to females as females are less prone to adopt new technology the way males respond. Similarly, Age wise and education wise comparison has shown age and education have impact on technology adoption.

4.1 Demographic and Descriptive Analysis Discussion

Table 4: Demographics and Descriptive Analysis

Categorical Variables	Responses	Frequency	Percentage
Organization Type	Public	27	18.1
	Private	86	57.7
	Multinational	36	24.1
Gender	Male	107	71.8

	Female	42	28.1
Numerical Variables			
Education in years	14 years	31	20.8
	16 years	55	36.9
	18 & above years	22	14.7
Tenure	Less than a year	48	32.2
	1-5 years	85	57
	6-10 years	16	10.7

From the results it has been found that Professionals who are working in private organizations and Multi-national Corporation (MNC) project are more likely to adopt technology and showed positive response towards its usage. Reasons observed that they support their employees more as compared to public organizations. Age group did not show significant results as compared to education and gender-wise analysis.

4.2 Correlation and Regression Analysis Discussion

From the results it is observed that Social influence appeared as a significant forecaster of intentions to adopt technology that shows that those individuals taking interest towards using Rozee.pk were seen more in using Rozee.pk. Whereas facilitating conditions does not appear to be a significant forecaster. These results are supported by the results of (Borrero, Yousafzai, Javed, & Page, 2014). Findings reveal that more the age group is, less individuals are likely to adopt and use technology. Results also show that intention to adopt technology mediates the relationship. These findings support the past research that showed that men and women differ in their beliefs regarding IT (Venkatesh et al., 2003).

Results reveal that female respondents are driven more by effort expectancy. However, perceived performance expectancy results show that it is important for both males and females. From the result interesting facts were seen, showing that female users were affected more as compared to males regarding effort expectancy and their decision making on the use and adoption and technology.

5. Implications of the Results

Several things can be derived from this study. Firstly, we illuminate the need to start looking more deeply into technology adoption and in its usage.

Secondly, the way to achieve positive performance at an individual level using electronic human resource management systems. Undoubtedly failure will be experienced when an electronic human resource management system adoption organization lacks positive necessary capabilities. Through manager coordination, proper control and motivation employees attain the required knowledge for successful adoption and implementation. On the other hand, organizations need to develop their internal environment before implementing E-HRM system in order to gain competitive advantages and to pursue a successful adoption and implementation. Finally, for successful electronic human resource management systems adoption and implementation, users should know the electronic human resource management system requirements.

This research study has underlined important facets and elements which may have an impact on adoption, implementation and actual use of technology in organizations working in Pakistan, Organization may consider those factors in order to avoid further failure in adoption of technology on individual level. Due to diversity in today's era, organizations should acknowledge such changes and take decision accordingly.

Thirdly, this study gives empirical support for the use of UTAUT and adoption of technology (149 Rozee.pk participants). Results confirm that effort and performance expectancy have a significant impact towards intentions to use Rozee.pk towards actual use of technology.

5.1 Limitations and Future Work

Before concluding this study there are some limitations of the study itself, which is that data collected was restricted in only two cities of Pakistan, other cities should be included next time in order to get the depth knowledge about E-HRM. The organizations themselves adopt technology, but at the same time they do not have awareness on the operation of it because of lack of importance of IT knowledge in Pakistan.

Results of this study cannot be generalized because E-HRM has not matured in Pakistan. Future research needs to be done to foretell E-HRM adoption and highlights its importance. Other factors of E-HRM other than E-recruitment must be considered in future research to arbitrate this relationship in order to make results significant.

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