Governance and Management Review (GMR)
Volume 5, No. 2, July-Dec 2020

MEASURING THE PERCEIVED EFFECTIVENESS OF ONLINE RECRUITMENT SYSTEM

Hisham Khalid
Institute of Administrative Sciences, Punjab University

Muhammad Zaheer
Assistant Professor,
Virtual University of Pakistan

Saba Munir
Lecturer,
Virtual University of Pakistan

Muhammad Rizwan Saleem Sandhu
Assistant Professor,
Virtual University of Pakistan

ABSTRACT

This research aimed to examine the perceptions regarding the effectiveness of online recruitment in Pakistan by using the Technology Acceptance Model (TAM).

Mixed-method research was conducted using qualitative and quantitative analyses. 30 HR mangers were interviewed and 170 HR personnel provided data via questionnaires. For qualitative data analysis Gioia, Corley, and Hamilton (2013) methodology was used, while quantitative data was analyzed using multiple regression.

The results revealed that online recruitment facilitates organizations in terms of reaching wider applicants with less expenses and time consumption. Most importantly, HR managers and team members' behavioral intentions are affected by key factors, including usefulness, technology self-efficacy, perceived ease of use, and attitude towards using websites.

Keywords: technology acceptance model, online recruitment, usefulness, perceived ease of use, and attitude towards using**.**

INTRODUCTION

At present, the internet is considered as a popular way of potential employees' recruitment. Job seekers also use it in terms of searching for jobs on online platforms. Online recruitment has emerged as a business tool that has not merely altered job finding and employees' recruitment methods but has also affected both job seekers and employers (Arthur, 2001). The context for this study includes Pakistan, in which internet technology was introduced during the 1990s. As per statistical findings and considering population, Pakistan is ranked as No. 2 among high internet users in SAARC (South Asian Association for Regional Cooperation) countries.
Similarly, in 2013, the rise in the use of the internet was estimated to be 22 million internet users, such that 4.3 million users among them were found to be using the broadband internet (Lenka & Barik, 2018). Similarly, the trend of online recruitment began in the country ever since 2007. Thousands of CVs are either uploaded or sent to online agencies and official websites of companies (Kumar & Priyanka, 2014). In other words, the internet exists as an ideal venue for both employers and job seekers. Based on this, organizations seek ways to enhance their innovativeness, strategic performance, flexibility, and efficiency for ensuring the adequate performance of business functions (Arthur, 2001).

Organizations in Pakistan have been reluctant to adopt an online recruitment system; they feel precarious about this phenomenon. Culturally, organizations and particularly owners always preferred advertisements in major newspapers in print form. They preferred applications in hard form, scrutiny, and final shortlisting on paper applications; this phenomenon has prevailed recently. Online recruitment has revolutionized the HR processes worldwide, and this change in Pakistan is unique. It is a change of mind and attitude from traditional ways of recruitment to most modern methods. This study has focused the HR managers and senior executives on knowing how beneficial this change has been. This study will provide fresh insight into the background of Pakistan's corporate culture in the adoption of online recruitment. Notably, the Technology Acceptance Model (TAM) has been used to assess the effectiveness of online recruitment, which adds to the academic value of this study.

Research Problem

Although there is a rise in the significance of organizational hiring and official websites are being used as a strategic human resource component, there exists limited research related to the effectiveness of online recruitment (Kumar & Priyanka, 2014). Moreover, little research exists related to factors that drive job seekers to use online recruitment. The justification for the lack of research in this regard is that it has been argued that there is a lack of theoretical recruitment research, and it does not focus on organizational issues (Monavarian et al., 2010). Moreover, even though several studies exist related to traditional hiring methods, a research gap exists related to online recruitment. Very few studies have been conducted so far within the context of Pakistan.

Because the ability of an organization to generate competent applicants is based on the effectiveness of its website to attract potential employees, there is a need to determine the factors which impact both employers and jobseekers to use organizations' websites (Ahmed, Tahir & Warsi, 2015). Consequently, identification of such factors and their influence will better explain

the effectiveness of the current online recruitment system.

Research Objectives

This research is based on the following key objectives:

- To develop an understanding of the reasons behind the adoption of online recruitment in Pakistan.
- To identify factors that influence behavioral intentions of Human Resource (HR) managers in terms of using online recruitment by using the Technology Acceptance Model (TAM).
- To examine the effectiveness of online recruitment in Pakistan to identify possible shortcomings, opportunities, and benefits.

Research Questions

This research focused on the following five questions:

- What are the key drivers of online recruitment in Pakistan?
- What relationship exists between perceived ease of use, behavioral intention, perceived usefulness, and attitude of job recruiters (HR managers and team members)?
- Are HR managers and team members being facilitated by online recruitment in terms of finding and hiring talented employees?
- Which potential challenges are faced by HR managers and team members while using the online recruitment system?
- In what ways the existing online recruitment system needs to be enhanced to improve the overall effectiveness of the online recruitment system?

Research Implications

This research will prove beneficial for both online recruitment policymakers and HR practitioners, such as HR managers and team members, in Pakistan, because it will recommend methods to improve the current online recruitment system and services. Consequently, it will be advantageous for organizations to attract talented experts and eligible job candidates. Moreover, using the technology acceptance model (TAM), behavioral intentions and perceptions of HR managers and team members can be better explained and understood. Furthermore, this study will be significant in terms of identifying interlinks between HR managers and team members' intentions and other variables of TAM so that they can be motivated to use the online recruitment system continually.

LITERATURE REVIEW

Recruitment is defined as organizational activities and practices that aim to recognize and attract potential employees. The emergence and prevalence of the internet within the recruitment process have revolutionized job search and hiring procedures (Selamat & Jaffar, 2010). Online recruitment is termed in various ways, such as online recruiting, e-recruitment, internet recruiting, cyber recruiting, e-recruiting, and web-based recruiting. Despite being known by

various names, online recruitment has the primary purpose of using technology for facilitating the recruitment process (Monavarian, Kashi, & Ramin-mehr, 2010).

The role of human resources in organizations has switched from a cost factor to a competitive advantage (Tarhini et al., 2016). In this regard, people are considered as the main asset for developing and growing corporate businesses (Nasreem, Hassan & Khan, 2018). Human resource management holds a vital role in an organization. Recruitment is one of its key functions that ensure creating a pool of potential job applicants for available vacancies in organizations. To do so, both online and traditional methods can be used for generating that pool. Traditionally, recruitment is done through either attracting applicants or posting job ads via different mediums, such as walk-ins, on-campus hiring, newspapers, recruiting agencies, and referral (John, Nightingale, & Syed, n.d.). On the other hand, online tools of recruitment range from job portals, emails, commercial job boards to corporate websites (Poudel, 2018). According to Nuji et al. (2018), online recruitment is considered beneficial for both job candidates and organizations.

There exists extensive research worldwide that highlights the positive aspects of online recruitment. For instance, a study by Wiley (2011) stated that online recruitment facilitates in terms of pre-screening, which is better than the traditional method of interviewing job applicants. Similarly, a study by Mat (2012) explored various benefits of online recruitment, such as fast contacting and tracking of job applicants, cost savings, and broader geographic coverage. This can further be supported by the findings of Al-Kassem (2017), who showed that online recruitment is advantageous in terms of increasing the number of eligible applicants, saving costs, offering fast turn-around time, and easing the process of recruitment. Kumar et al. (2014) revealed that applicants that provide online resume are more intelligent and tech-savvy in contrast to traditional applicants who submit a paper resume.

Another study by Protsyk and Sachariew (2010) compared online agencies with traditional hiring agencies and showed that the former offer fewer quality applicants, and the latter are better in terms of offering quality applicants and cost-effectiveness. The study also revealed that online hiring agencies develop a corporate image of organizations and offer ease of access to inactive job seekers. Likewise, a study by Nuji et al. (2018) stressed that tools of online recruitment minimize cost, extend the pool of job applicants, enhance efficacy, and lead to standardized systems. In this way, online recruitment facilitates organizations to reach broader applicants with fewer expenses and time consumption (Kumar & Priyanka, 2014). This can be justified because when organizations reach wider people, they do not waste time on reaching unwanted job candidates, and thus, can target and reach passive job seekers (Protsyk & Sachariew, 2010). In other words, it can be seen that employer brand has improved through online recruitment in terms of enhancement of applicant experience (Wiley, 2011). Finally, an important study by Poudel (2018) revealed factors that drive applicants to apply for jobs through online recruitment. These factors include usefulness, technology self-efficacy, perceived enjoyment, ease of use, and attitude towards websites (John, Nightingale, & Syed, n.d.).

Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) was developed by Davis in 1986, who studied

determinants of the use of Information Technology (IT). TAM aimed towards describing the determination of IT acceptance, which in turn can explain the behavior of users across wider computing technologies and populace (Tarhini et al., 2016). TAM is an updated version of the Theory of Reasoned Action (TRA). It suggests that the attitude of the user towards her/his intention of using the information system and using the information system is determined by two key factors, namely perceived usefulness (PU) and perceived ease of use (PEU) (Selamat & Jaffar, 2010). TAM further theorizes that unfavorable or favorable feelings towards using a technology lead to the attitude toward usage, which further leads to the behavioral intention that directly reflects the usage behavior.

Similarly, perceived usefulness shows the viewpoint as per which belief related to the usage of technology eventually improves performance. Moreover, both PEU and PU collectively lead to the factor of attitude (Nasreem, Hassan & Khan, 2018). Additionally, the main goal of TAM is based on the provision of a basis to identify how external factors affect internal attitudes, viewpoints, usage, and intentions of users (Monavarian, Kashi, & Ramin-mehr, 2010). Figure 1 depicts the TAM.

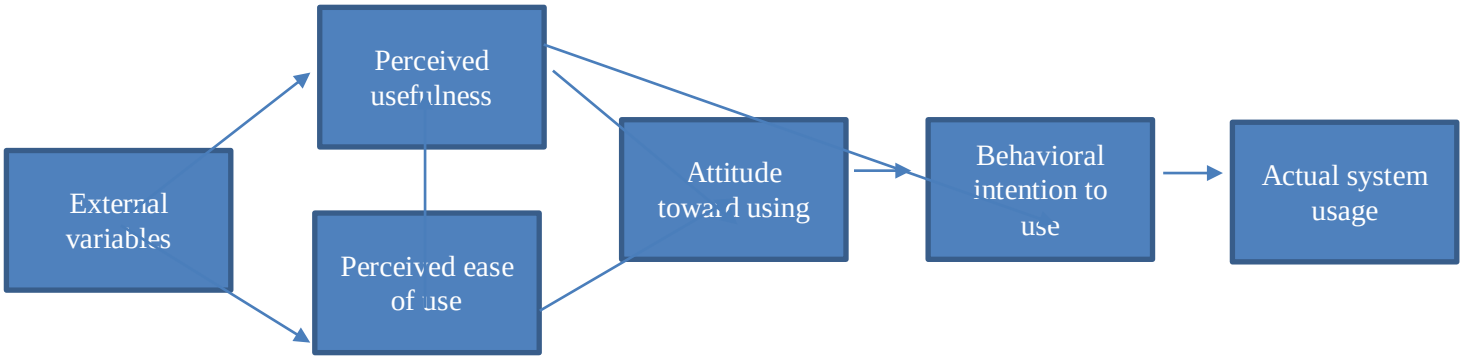

Figure 1. Technology Acceptance Model (TAM).

The justification for choosing TAM for this current study is that it is a validated and tested method through applicants, validations, and reapplications (Kumar, M., & Priyanka, 2014). It is a highly robust, strong, and parsimonious model that forecasts the acceptance of technology by users within an information system context (Protsyk & Sachariew, 2010). In other words, the parsimonious nature of TAM besides its analytical power is the crucial reason for its ease of application to various settings (Al-Kassem, 2017).

Perceived Usefulness (PU)

Perceived usefulness (PU) is an extent to which it is believed by an individual can improve his or her performance by using any specific system or technology (Mat, 2012). Considering an organizational setting, promotions, rewards, pay raises, and bonuses are generally used to motivate people to improve their performance (Wiley, 2011). When there exists a system that has high perceived usefulness, then its users hold the belief that there exists a positive relationship between their performance and usage of that system.

According to Nuji et al. (2018), extensive job information is used by recruitment websites of

organizations which in turn is used for offering support to job seekers. This type of job information includes benefits, organizational programs, salary information, and rewards (Poudel, 2018). The perceived usefulness of a system originates utilization of online recruitment such that its tools and information are used for the improvement of the effectiveness of the job application process. As a result, job seekers are attracted to the adoption of technology for searching for potential job positions in the market (John, Nightingale, & Syed, n.d.).

Perceived Ease of Use (PEU)

Perceived ease of use (PEU) is defined as the extent to which it is believed by an individual that no effort will be required for using a specific system. This reflects ease or freedom from momentous effort (Nasreem, Hassan & Khan, 2018). This can also be explained by considering that when it is perceived that it is easy to use an application in contrast to any other one, then there exists more possibility of users to accept that easy to use application. On the other hand, any complex system will have a lower possibility of being adopted by users because it would need more effort, difficulty in usage, and thus, lesser interest from the user (Tarhini et al., 2016). Considering the existence of an inverse relationship between perceived ease of use and perceived difficulty of using technology, this in turn poses an impact on the perceived usefulness. Therefore, TAM theorized that perceived ease of use affects the perceived usefulness (Monavarian, Kashi, & Ramin-mehr, 2010). Likewise, considering the context of online recruitment, an easy to use system is preferred to be used by both job seekers and employers in contrast to other job application and hiring methods.

Behavioral Intention (BI)

New technologies such as recruitment websites are believed to be complex, due to which users have uncertainty related to adopting them successfully (Nasreem, Hassan & Khan, 2018). As a result, certain intentions and attitudes of people are formed toward using or learning the new technology before exerting any effort towards actually using that technology (Tarhini et al., 2016). A study by Karabulut (2016) revealed that considering goal-oriented users, there exists a strong interlink between behavioral intention and the used technology.

Attitude Towards Use (ATU)

The attitude towards use (ATU) of technology by the user is another key factor in the determination of technology acceptance by that user. Generally, it is mistaken by recruitment agencies that introduce technology to organizations and then expect from employers and job seekers to use it effectively. In such cases, users of the online recruitment system face the risk of anxiety due to getting excessive exposure to a difficult to use technology (Selamat & Jaffar, 2010). Based on this, a study by Monavarian et al. (2010) showed that users usually get frustrated and show a negative attitude towards using a difficult to learn and use technology. Hence, training users must focus on the creation of a mobile learning setting, which allows users to alter their viewpoints related to technology. In this way, they happily accept and use technology.

Technology (T)

Technological developments have led to major transitions in society, economy, and culture. New technologies also influence management areas within organizations daily, particularly the

human resource management (HRM) area (Khadija & Omar, 2019). As per the findings of Omer (2018), various intelligent, new, and online technologies have emerged due to technological advancements, which have helped organizations in terms of meeting HRM challenges. In this regard, the internet is the major influencing factor of the latest technology that has emerged within the HRM arena. A study by Khadija & Omar (2019) showed that the new technology of online recruitment has changed working life trends by offering efficient tools to search for a job and hire applicants. Similarly, another study by Dworkin et al. (2016) revealed that there exist positive expectations related to the newly emerging technology of online recruitment.

Theoretical Framework

Considering the aforementioned past literature, empirical studies that have tested TAM, and the existence of significant underlying associations among key factors of TAM, for this study a simple theoretical framework has been developed which is presented in figure 1. Behavioral Intentions (BI) is the dependent variable that is supposed to be influenced by technology, attitude towards use, perceived ease of use, and perceived usefulness are independent variables.

It is theorized that the higher positive perceptions regarding technology enhance behavioral intentions to use that technology or system. The positive attitude of the users towards a system enhances the likelihood of system usage. If a system is perceived as user-friendly chances of being used extensively are higher, android is an example of the usage of smartphones. Lastly, if a system is perceived to be useful and beneficial it is highly likely that the system will be accepted as an asset. A schematic diagram of the theoretical framework is presented in figure 2.

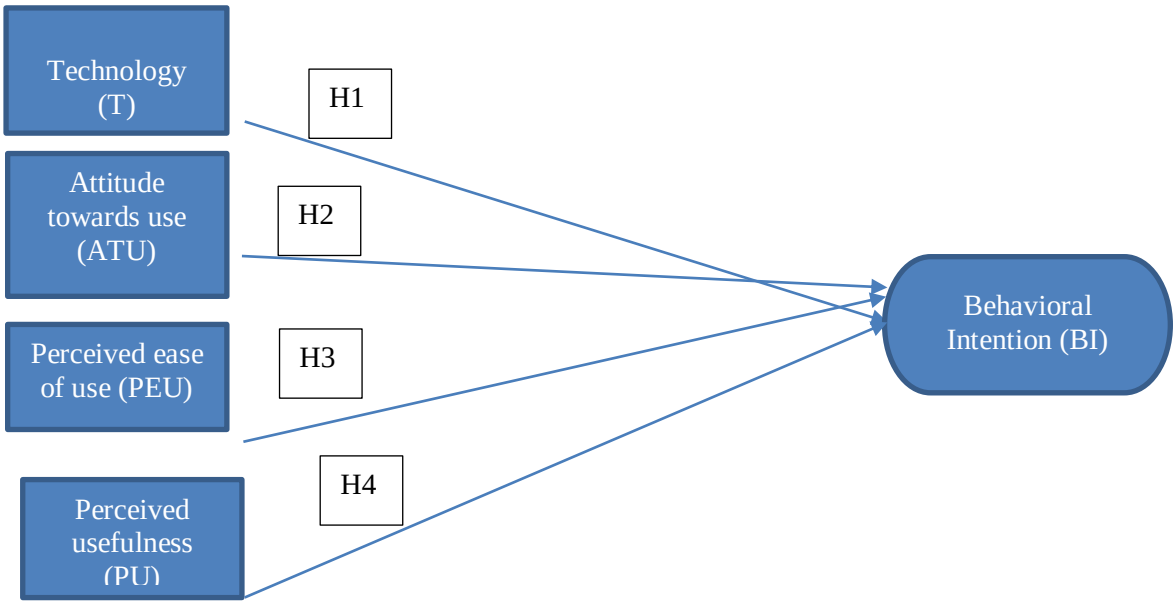

Figure 2. Theoretical Framework derived from TAM.

Based on the theoretical framework, the following hypotheses have been developed:

H1: There exists a positive relationship between technology and behavioral intention.

H2: Attitude towards use positively affects behavioral intention.
H3: Perceived ease of use positively influences behavioral intention.
H4: Higher the perceived usefulness higher will be the behavioral intention.

METHODOLOGY

This is mixed-method research with a cross-sectional design. The study involves qualitative and quantitative techniques. As the study contains research questions that require both inductive and deductive approaches so the mixed-method is used. Mixed-method research is useful when exploratory and explanatory research questions are answered (Bryman & Bell 2015; Saunders, 2011; Sekaran & Bougie, 2016; Walliman, 2005). Creswell (2013) has also recommended mixed-methods in such a scenario. In this mixed-method research, method triangulation was used as interviews and questionnaires were used (Sekaran & Bougie, 2016). Semi-structured interviews of HR managers were conducted, while questionnaires were used to collect data from HR team members of different HR departments.

Purposive sampling technique was applied because only specific HR departments and HR personnel were included in the study for data collection**.** Only those organizations were included where online recruitment is being used, and members of HR departments were contacted for data collection. HR managers and team members within the city of Lahore were the target population. For this study 35 organizations based in Lahore comprised the target population.

For the qualitative study, HR managers were interviewed, 50 HR managers were contacted, out of which 30 provided their consent for the interview. They were then interviewed after getting a proper appointment. Semi-structured interviews were conducted for which an interview guide was developed.

For the quantitative study, personnel working in HR department under HR managers were selected using convenience sampling, 250 questionnaires were distributed out of which 170 were received, so, for questionnaires, 68% response rate was achieved, which was more than expected.

Instrument and Measurement

The questionnaire to measure the dimensions of the Technology Adoption Model (TAM) was adapted from Davis and Venkatesh (1996) and Selamat and Jaffar (2011). Multiple-items scales have been used to operationalize and measure the dimensions of TAM. TAM was primarily used to measure the use of computers; in this study, it has been adapted to measure the online recruitment effectiveness.
Perceived Usefulness (PU) comprised of 04 items, Perceived Ease of Use (PEU) comprised of 05 items, Attitude towards using (ATU) comprised of 03 items, Behavioral Intention (BI) comprised of 02 items, and Technology comprised of 03 items.

DATA ANALYSIS

As this is a mixed-method study, both qualitative and quantitative analyses have been done. Qualitative data analysis has been done first. For quantitative data extracted from questionnaires, multiple regression analysis was used. For qualitative data analysis Gioia, Corley, and Hamilton

(2013) methodology was used.

Interview Analysis

Semi-Structured interviews were conducted with 30 HR managers. An interview guide was developed for interviews. The duration of interviews on average was 30 minutes. The interviews were recorded with the consent of the informants.

The demographic details of interview respondents are tabulated below:

Table 1

Gender of Respondents

Respondents' Gender	Numbers	Percentage
Male	24	80%
Female	6	20%
Total	30	100%

It is obvious that males dominate HR positions in this sample, however, gender analysis was not our point of discussion.

Table 2

Age of Informants

Age Group	Numbers	Percentage
30 – 40 years	16	53%
40 – 50 years	8	27%
Above 50 years	6	20%
Total	30	100%

53% of the HR managers are younger who fall within an age bracket of 30-40 years, this is understandable as organizations using online recruitment system do prefer young personnel as they in our society are well conversant with IT.

The following research questions pertained to qualitative research whose answers have been sought using interview analysis:

- What are the key drivers of online recruitment in Pakistan?
- Which potential challenges are faced by HR managers and team members during using the online recruitment system?
- Are HR managers and team members being facilitated by online recruitment in terms of finding and hiring talented employees?
- In what ways the existing online recruitment system needs to be enhanced to improve the overall effectiveness of the online recruitment system?

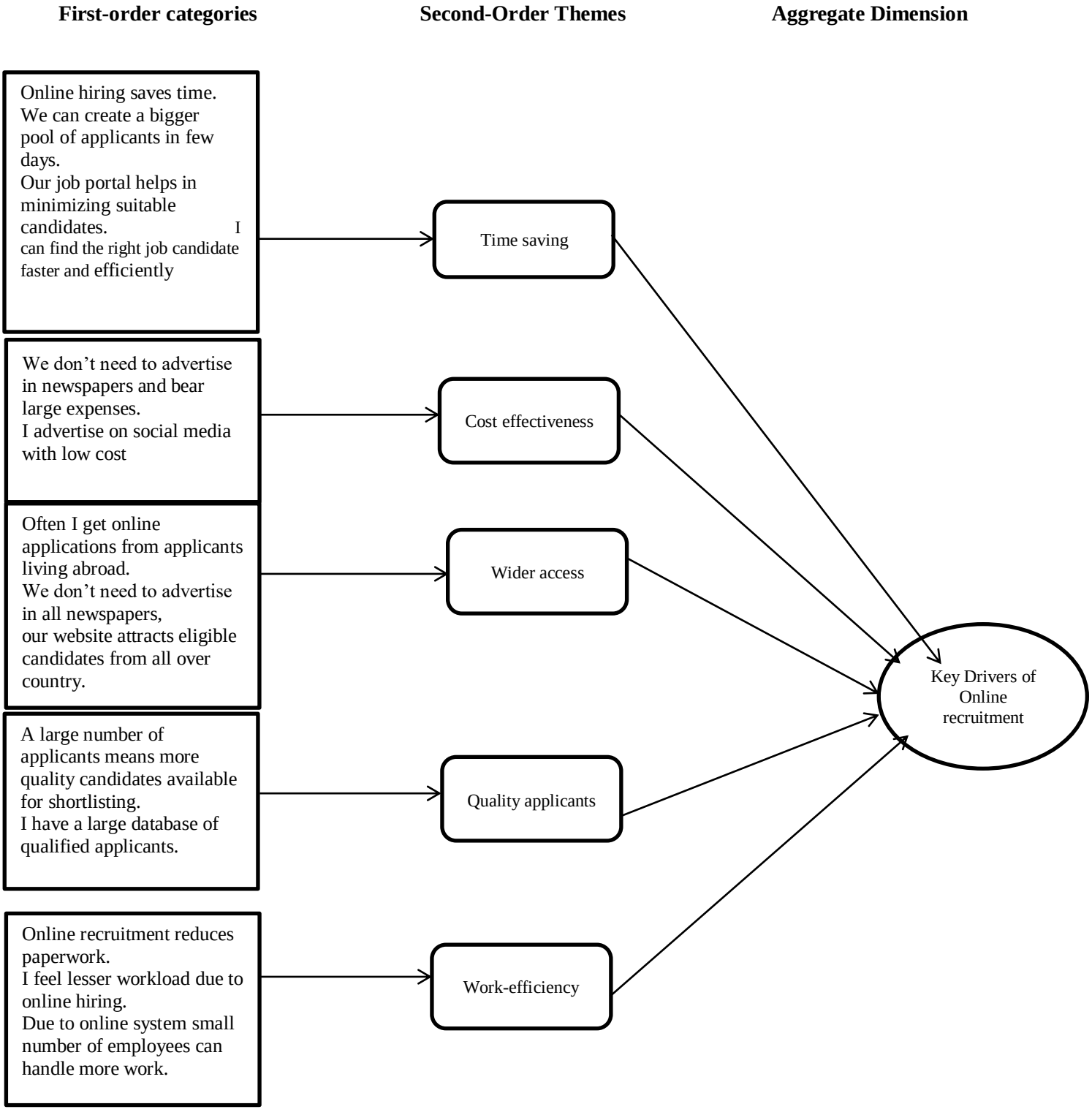

Figure 3. Key Drivers of Online Recruitment

ı online recruitment? What motivated them to adopt online recruitment?

Several reasons were provided by HR managers for using the online recruitment system. Most of them highlighted the enhancement of efficacy of the hiring process and minimization of hiring costs as main drivers that led to the implementation of the online recruitment system. They justified it by saying that online recruitment was needed to be adopted so that their companies can remain updated with advanced technologies, and offer better job experience for potential applicants. Few HR managers also highlighted other drivers that led to the adoption of the online recruitment system, such as the need for saving time and money, targeting better job candidates, and recruitment of wider scope of talented applicants

Figure 3 represents the data structure of the themes that emerged from the responses of informants.

Following the Gioia et al. (2013) methodology, responses were analyzed. A lot of themes emerged from the data which are called First-order categories which resemble to open coding of Charmaz (2006) and Strauss and Corbin (1990). From these First-order categories five Second-Order themes namely time saving, cost-effectiveness, wider access, quality applicants, and work-efficiency emerged. These five Second-Order Themes led to the aggregate dimension termed as key drivers of online recruitment.

Time-saving explains that efficient online recruitment systems are time-saving, these systems require less time to process a large amount of information as one informant told "Online hiring saves time, we can create a bigger pool of applicants in few days". The efficiency of online systems can be well understood.

Cost-effectiveness is also an important element of online recruitment, getting space in national newspapers is very costly, they charge per word, and on the other hand, organizations post their vacancies on their websites and social media pages free of cost. Some online job portals charge a very nominal fee for publishing such ads. According to an HR manager "We don't need to advertise in newspapers and bear large expenses."

Wider access to potential applicants is available now, all the media are used and information regarding jobs gets viral. People now have access to such information despite being out of the country, media has bridged the gap of time and space as explained by one informant "Often I get online applications from applicants living abroad." Traditional methods of advertisement in the newspaper have become somewhat outdated.

If more people have access to a job opening more people will be applying for a particular job. One of the key functions of HR is to create a larger pool of applicants so that organization can choose the most competent ones, online job application solves this problem, according to one manager "A large number of applicants means more quality candidates available for shortlisting. I have a large database of qualified applicants." Another manager told, "I have a large database of qualified applicants." This leads to high-quality applicants which means more competent applicants.

Apart from time-saving, online recruitment systems lead to better handling of work and lowering the overall workload of HR departments. Shortlisting becomes easier and more efficient. As

explained by one manager "Online recruitment reduces paperwork." One manager commented, "I feel lesser workload due to online hiring".

Time-saving, cost-effectiveness, wider access, quality applicants, and work-efficiency make an aggregate dimension "key drivers of online recruitment". These are five reasons to go for online recruitment and when combined in one theme or aggregate dimension these become the composite dimensions of online recruitment.

Informants were asked what problems and issues they face during online recruitment?

Wide-ranging problems were highlighted by the informants. Some commonly occurring challenges included casual behavior of job applicants, the possibility of competent job seekers not applying via the online system, fake profiles of job applicants, and no personal encounter with them. They also showed concerns about handling too many resumes and checking their authenticity which is much time-consuming. Low internet penetration in most of the countries also poses a challenge to them in terms of targeting wider applicants. Some of them also showed less reliance on the online recruitment system solely, and still agreed to interacting with applicants face-to-face instead of sending emails.

Figure 4 represents the data structure of the responses of informants regarding issues and challenges faced by the HR department while using an online recruitment system. From first-order categories, four second-order themes emerged which are staff training, authenticity, ICT issues, and attitude. From these, emerged the aggregate dimension challenges of online recruitment.

Using an online system requires IT skills, not all HR personnel are well versed with IT. The system without IT skills becomes a barrier to work properly and efficiently. According to one manager "Lack of training of HR personnel sometimes causes issues while handling the extensive load of applications." The mere availability of a system is not enough properly trained staff is also required who can use the system efficiently.

Another issue that was reported by the mangers was the authenticity of the applications, though, the online system facilitates quick processing, yet, fake profiles can be made which are discovered during scrutiny which slows down the application handling process. "Applicants create fake profiles on the portal." Reported by an HR manager.

Online recruitment like other systems is not free of bugs. Internet speed at times can interfere and an application might not be saved accordingly which might lead to the loss of any competent applicant by chance. Generally, people apply on the last dates which create unnecessary traffic in the system, and data loss can occur. A manager reported "I receive claims that the application was submitted but not saved on last day". Another issue is the uneven provision of internet services across the country, which creates the problems of access to information and as a result, some people may not be able to apply. At one end, ICT can provide access to online recruitment to even people living outside Pakistan and on the other hand, even people in the country can be deprived of access.

Only access or provision of ICT is not enough, some people don't have an attitude towards using

computers or online system. Such an attitude can be a barrier to potential applicants. It was reported by a manager that people who are more than 50 years of age have negative attitude towards using technology. This attitude too can be a barrier towards limited exposure of competent personnel.

HR managers were asked to give suggestions to improve online recruitment. The informants made various recommendations. For instance, few managers mentioned that the online recruitment system was used merely during the screening stage. So, they suggested that the system must be used during other hiring stages for enhancing flexibility, easiness, and convenience of recruiting job applicants. Some suggested ways for successfully using the online recruitment system such as using applicant management and sifting technology, using suitable information and branding, using back-office functionality, creating a talent pool, and driving traffic to the official website of their companies.

The questionnaire comprised of five scales, including perceived usefulness (PU), perceived ease of use (PEU), attitude towards using (ATU), behavioral intention (BI), and technology (T). The internal consistency of these five variables in the scale was measured by calculating the value of Cronbach's alpha. The results in the following table show that the reliability coefficient values were calculated to be 0.73 for PU scale, 0.63 for PEU scale, 0.7 for ATU scale, 0.7 for BI scale, and 0.8 for T scale (rounded off figures). These values show that internal consistency was good for the technology (T) scale, somewhat acceptable for the PEU scale, and acceptable for PU, ATU and BI scales. These values reflect that there existed a high internal consistency of all scale items within the questionnaire.

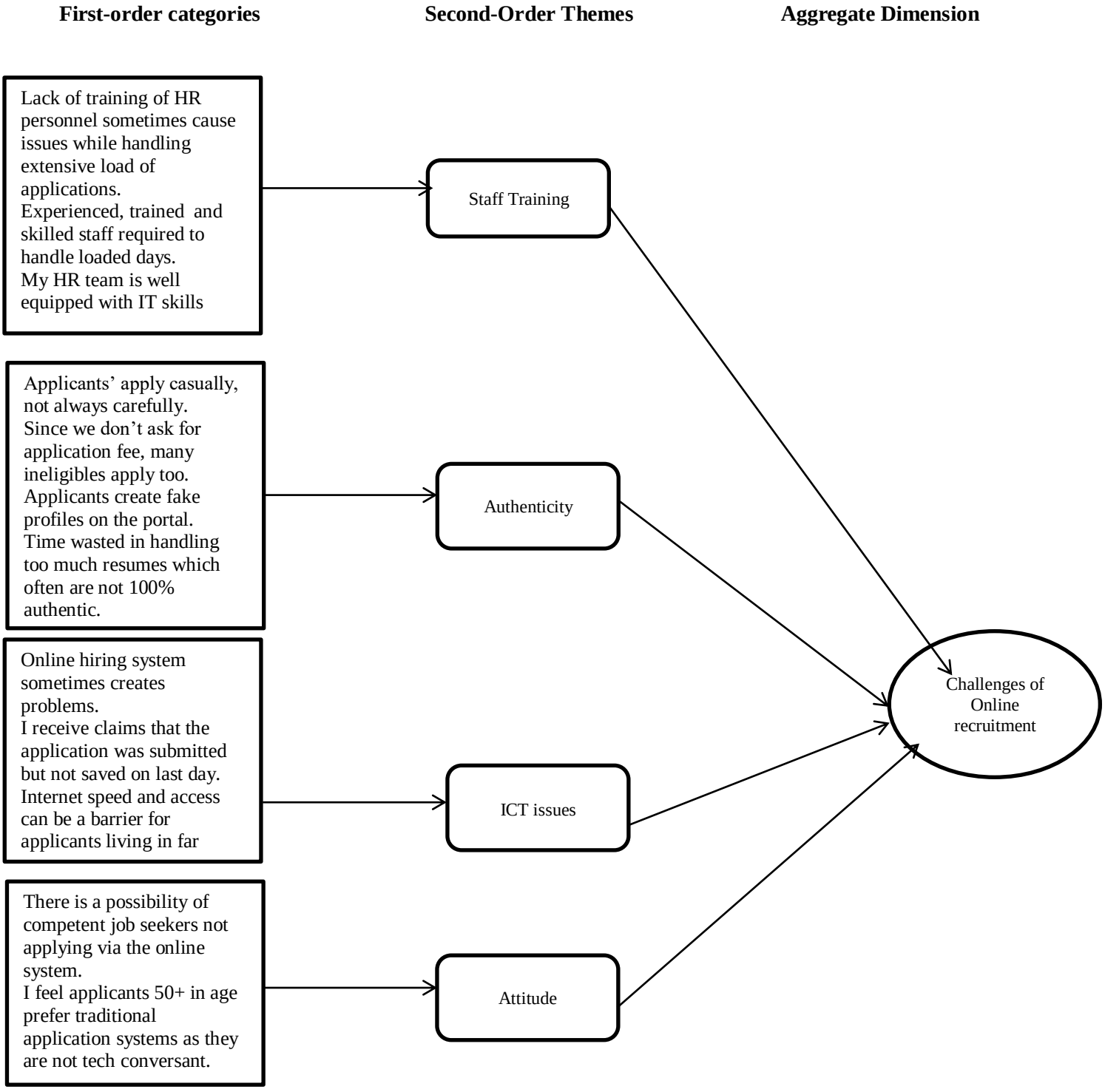

Figure 4. Challenges of Online Recruitment

Statistical Analysis

Table 3
Reliability Statistics

Serial No.	Scale	Cronbach's Alpha Value
1	PU	0.732
2	PEU	0.626
3	ATU	0.698
4	BI	0.686
5	T	0.761

Table 4
Correlations

		PU	PEU	ATU	BI	T
PU	Pearson Correlation	1				
	Sig. (2-tailed)					
PEU	Pearson Correlation	.531**	1			
	Sig. (2-tailed)	.000				
ATU	Pearson Correlation	.562**	.626**	1		
	Sig. (2-tailed)	.000	.000			
BI	Pearson Correlation	.611**	.592**	.586**	1	
	Sig. (2-tailed)	.000	.000	.000		
T	Pearson Correlation	.613**	.466**	.526**	.559**	1
	Sig. (2-tailed)	.000	.000	.000	.000	

**. Correlation is significant at the 0.01 level (2-tailed). N= 170

Table 4 provides the correlation among the variables used. Correlation among the variables is satisfactory to use regression analysis.

Regression Analysis

To apply the Technology Acceptance Model (TAM), quantitative analysis was used. A questionnaire was used to collect data from the HR team members of different organizations. After meeting the regression assumptions, the relationship between BI (dependent variable), and PU, PEU, ATU, and T (Independent Variables) was examined through multiple regression.

Table 5 shows that the overall model is significant at $p = 0.000$, which reflects that there existed no risk of occurrence of this impact by any chance. So, multiple regression has a model fit and our theoretical framework is substantiated.

Table 5
ANOVA

Model	df	F	Sig.
Regression	4	44.6	0.000

Note. Dependent variable is BI and predictors or independent variables include PEU, ATU, PU and T.

Table 6, the model summary shows an R^2 of 0.520. It reflects that perceived usefulness, perceived ease of use, attitude towards use, and technology explained 52% variance in behavioral intention. This is a high value of R^2 which explains more than 50% variation in the dependent variable by the independent variable.

Table 6
Model Summary

Model	R	R^2	Adjusted R^2	Std. Error of estimate	R^2 change	F change	Df1	Df2	Sig. F change
1	0.721	0.520	0.508	1.113	0.52	44.6	4	165	0.000

Note. Predictors include the constant, T, PEU, PU and ATU

Table 7 depicts the coefficients and their respective magnitude. All independent variables are significant at $p < 0.05$ towards behavioral intention. Furthermore, the Beta value reflects that an increase of one unit in perceived usefulness increases behavioral intention by .163, any increase of one unit in perceived ease of use increases behavioral intention by .131, any increase of one unit in attitude towards use increases behavioral intention by .136, and an increase of one unit in technology increases behavioral intention by .143. Most importantly, the comparison of all values of standardized beta shows that perceived usefulness is the most important factor in this model having the highest beta value 0.26. These key results confirm all hypotheses, and hence it can be deduced that there exists a strong and significant relationship between behavioral intentions, and other variables (PU, PEU, T, and ATU).

Table 7
Coefficients for the multiple regression

Model variables	Unstandardized Coefficient: B	Standardized Coefficient: B	Sig.
PU	0.163	0.260	0.001
PEU	0.131	0.252	0.001
ATU	0.136	0.184	0.016
T	0.143	0.185	0.010

Note. BI is the dependent variable

From table 7 it is evident that four independent variables positively affect the dependent variables, and are statistically significant with $p < 0.05$, hence Hypotheses 1, 2, 3, and 4 are substantiated.

DISCUSSION

This research was conducted to (i) develop an understanding of the reasons behind the adoption of online recruitment in Pakistan (ii) to identify the factors that influence behavioral intentions of Human Resource (HR) managers in terms of using online recruitment by using the Technology Acceptance Model (TAM) (iii) to measure the effectiveness of online recruitment in Pakistan and (iv) to identify possible shortcomings, opportunities, and benefits. These objectives were attained in terms of answers retrieved for all research questions, as provided below:

What are the key drivers of online recruitment in Pakistan?

Data structure presented in figure 3 of the qualitative study using semi-structured interviews reveals that key drivers of online recruitment include enhancement of the effectiveness of the hiring process, minimization of hiring costs, saving time and money, targeting better job candidates, and recruitment of wider scope of talented applicants. This is in accordance with the literature review findings of Al-Kassem (2017) who showed that online recruitment is advantageous in terms of increasing the number of eligible applicants, saving costs, offering fast turn-around time, and easing the process of recruitment. Similarly, the current study's results are supported by the study by Nuji et al. (2018) who stressed that tools of online recruitment minimize cost, extend the pool of job applicants, enhance efficacy, and lead to standardized systems. In this way, it can be seen that online recruitment facilitates organizations in Pakistan in terms of reaching wider applicants with fewer expenses and time consumption.

What relationship exists between perceived ease of use (PEU), behavioral intention (BI), perceived usefulness (PU), and attitude towards usage (ATU) of job recruiters?

The relationship between BI (dependent variable), and PU, PEU, ATU, and T was examined through multiple regression. Results show that behavioral intentions (BI) were significantly influenced by all independent variables. All independent variables collectively were responsible for more than 50% variance in behavioral intention. These findings are in accordance with the findings of Wiley (2011) who showed that when there exists a system that has high perceived usefulness, then its users hold the belief that there exists a positive relationship between their performance and usage of that system. Similarly, the current study's findings can be supported with the literature of Tarhini et al. (2016) who highlighted that when it is perceived that it is easy to use an application in contrast to any other one, then there exists more possibility of users to accept that easy to use application.

Similarly, Tarhini et al. (2016) also support the current study's outcomes, since the former stressed that certain intentions and attitudes of people are formed toward using or learning the new technology before exerting any effort towards actually using that technology (Tarhini et al., 2016). Likewise, the current study's findings are in accordance with the findings of Dworkin et al. (2016) who revealed that there exist positive expectations related to the newly emerging technology of online recruitment. Overall, it reflects that behavioral intention is affected by key

factors, including usefulness, technology self-efficacy, perceived ease of use, and attitude towards websites (John, Nightingale, & Syed, n.d.).

Are HR managers and team members being facilitated by online recruitment in terms of finding and hiring talented employees?

The interview results revealed that the online recruitment system is useful because it has decreased hiring expenses and burden on all managers regarding handling administration and recruitment tasks. The majority of informants stated that the system provides better hiring tools, which has an overall enhanced corporate profile and image of their companies. Similarly, they agreed to the high effectiveness of the online recruitment system in terms of cost, accessibility, speed, time, minimal load of work, meeting set requirements, accessing wider candidates, enhancing the performance of the company, and attracting passive job applicants. These findings are in accordance with the literature review findings of Wiley (2011) who showed that online recruitment facilitates in terms of pre-screening which is better than the traditional method of interviewing job applicants.

Similarly, the current study's findings are in accordance with the findings of Mat (2012) who explored various benefits of online recruitment, such as not controlled by organizations, fast contacting and tracking of job applicants, cost savings, not limited by geographical constraints, and wider open market. Likewise, the current study's findings can be supported by findings of Al-Kassem (2017) who showed that online recruitment is advantageous in terms of increasing the number of eligible applicants, saving costs, offering fast turn-around time, and easing the process of recruitment. Furthermore, Kumar et al. (2014) revealed similar findings as per which applicants that provide online resume are more intelligent and tech-savvy in contrast to traditional applicants who submit a paper resume. Hence, this overall reflects that organizations use online recruitment system, and thus, can offer quality applicants with cost-effectiveness. This, in turn, develops the corporate image of organizations and offers ease of access to inactive job seekers (Poudel, 2018).

Which potential challenges are faced by HR managers and team members during using the online recruitment system?

The data structure presented in figure 4 identifies challenges about online recruitment such as the casual behavior of job applicants, the possibility of competent job seekers not applying via the online system, fake profiles of job applicants, and no personal encounter with them. They also showed concern towards handling loads of resumes and checking their authenticity which is much time-consuming. Low internet penetration also poses a challenge to them in terms of targeting wider applicants. Some of them also showed less reliance on the online recruitment system solely, and still agreed to interacting with applicants face-to-face instead of sending emails.

These findings can be supported by the results of Nasreem et al. (2018) who showed that users of online recruitment face problems in terms of data privacy of applicants, poor internet connection, overloaded applicants, and additional time and effort invested on applicants yet in an unfair

manner. Overall, this reflects that online recruitment poses both benefits and challenges, and thus, organizations cannot merely depend on online recruitment; instead, they need to mitigate potential challenges for attaining significant results.

In what ways the existing online recruitment system needs to be enhanced to improve the overall effectiveness of the online recruitment system?

The key suggestions provided in this study included the use of an online recruitment system during other hiring stages for enhancing flexibility, easiness, and convenience of recruiting job applicants; using applicant management and sifting technology; using suitable information and branding; using back-office functionality; creating a talent pool, and driving traffic to the official website of their companies. These recommendations reflect that HR managers across Pakistani organizations need to improve the existing online recruitment system, so they could agree to use it ahead too and attain better outcomes.

CONCLUSION

This research aimed to identify and examine the effectiveness of online recruitment in Pakistan by using the technology acceptance model (TAM). It was conducted to develop an understanding of reasons behind the adoption of online recruitment in Pakistan; to identify factors that influence behavioral intentions of Human Resource (HR) managers in terms of using online recruitment, by using the Technology Acceptance Model (TAM); and to examine the effectiveness of online recruitment in Pakistan to identify possible shortcomings, opportunities, and benefits. These objectives were attained by conducting questionnaires and interviews among 150 HR team members and 30 HR managers of organizations based in Lahore, Pakistan. The study's results revealed that the key drivers of online recruitment in their firms included enhancement of efficacy of the hiring process, minimization of hiring costs, saving time and money, targeting better job candidates, and recruitment of wider scope of talented applicants.

Secondly, it showed that there exists a statistically significant relationship between perceived ease of use (PEU), behavioral intention (BI), perceived usefulness (PU), and attitude towards usage (ATU) of job recruiters. Thirdly, it revealed that the online recruitment system is useful because it has decreased hiring expenses and burden on all managers regarding handling administration and recruitment tasks. It provides better hiring tools, which has enhanced the corporate profile and image of their companies. It is highly effective in terms of cost, accessibility, speed, time, the minimal load of work, meeting set requirements, accessing wider candidates, enhancing the performance of the company, and attracting passive job applicants. Fourthly, it identified challenges such as the casual behavior of job applicants, the possibility of competent job seekers not applying via the online system, fake profiles of job applicants and no personal encounter with them, high time consumption, and low internet penetration. Lastly, it made useful suggestions such as the use of an online recruitment system during other hiring stages for enhancing flexibility, easiness, and convenience of recruiting job applicants; using applicant management and sifting technology; using suitable information and branding; using back-office functionality; creating a talent pool, and driving traffic to the official website of their companies.

Results of the quantitative part of the study are consistent with the existing literature pertaining to TAM while qualitative study has helped to explore certain challenges peculiar to Pakistan which include staff training, authenticity, ICT issues and attitude of the applicants.

RECOMMENDATIONS

Based on the views of HR managers and staff it is recommended that HR staff should be given rigorous training to be able o use the online recruitment system efficiently and effectively. I was observed that online systems are being used for recruitment purposes only that is, just creating a pool of applicants. Online systems should also be used for the selection, training and development of the employees. A complete Human Resource Information System (HRIS) should be developed to exploit the system to its full potential.

LIMITATIONS

This study sample was limited to 200 research participants, and primary data were gathered from one city of Pakistan only, i.e. Lahore. Hence, a generalization issue exists since the current study's findings cannot be generalized to other cities' organizations. Hence, it is suggested that future researchers should expand the sample size and gather data from multiple cities of the country since it is anticipated that technological variations might induce more organizations to adopt an online recruitment system, continually improve their hiring processes, and thus, attain efficient and better outcomes. In this way, HR managers of organizations in Lahore can take advantage of these current findings by enhancing the effectiveness of their existing online recruitment system.

REFERENCES

Ahmed, S., Tahir, H., & Warsi, S. (2015). E -Recruitment Transforming the Dimensions of Online Job Seeking: A case of Pakistan. *International Journal of Human Resource Studies*, *5*(1), 96. doi: 10.5296/ijhrs.v5i1.6161

Al-Kassem, A. (2017). Recruitment and Selection Practices in Business Process Outsourcing Industry. *Archives of Business Research*, *5*(3). doi: 10.14738/abr.53.2180

Arthur, D. (2001). *The employee recruitment and retention handbook*. New York: AMACOM.

Bryman, A., & Bell, E. (2015). Business research methods: Oxford University Press, USA

Creswell, J. W. (2013). Steps in conducting a scholarly mixed methods study.

Davis, F. D. (1986). A technology acceptance model for empirically testing new end-user information systems: Theory and results. 1986. Massachusetts Institute of Technology.

Davis, F. D., & Venkatesh, V. (1996). A critical assessment of potential measurement biases in the technology acceptance model: three experiments. International journal of human-computer studies, 45(1), 19-45

Dworkin, J., Hessel, H., Gliske, K., & Rudi, J. (2016). A Comparison of Three Online Recruitment Strategies for Engaging Parents. *Family Relations*, *65*(4), 550-561. doi: 10.1111/fare.12206

Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2013). Seeking qualitative rigor in inductive research: Notes on the Gioia methodology. Organizational research methods, 16(1), 15-31.

John, D., Nightingale, F., & Syed, A. *E-recruitment*.

Karabulut, A. (2016). Personality Traits on Entrepreneurial Intention. *Procedia - Social and Behavioural Sciences*, *229*, 12-21. doi: 10.1016/j.sbspro.2016.07.109

Khadija, Z., & Omar, A. (2019). The Effect of Information Technology on the Recruitment Process in Healthcare Organization in Makkah City. *Global Journal of Health Science*, *11*(2), 123. doi: 10.5539/gjhs.v11n2p123

Kumar, M., & Priyanka, S. (2014). A study on adoption of E-recruitment using Technology Acceptance Model (TAM) with reference to graduating students in universities in Bahrain. *International Journal of Advance Research in Computer Science and Management Studies*, *2*(9), 377-383.

Lenka, S., & Barik, R. (2018). Has expansion of mobile phone and internet use spurred financial inclusion in the SAARC countries? *Financial Innovation*, *4*(1). doi: 10.1186/s40854-018-0089-x

Mat, R. (2012). Human Resource Management (HRM) and Information Technology (IT): Some Empirical Evidences in the Context of Saudi Arabia. *Journal of Education and Vocational Research*, *3*(1), 28-34. doi: 10.22610/jevr.v3i1.47

Monavarian, A., Kashi, K., & Ramin-mehr, H. (2010). Applying Technology Acceptance Model to E-recruitment Context. *Research Gate*, 1-13.

Nasreem, S., Hassan, M., & Khan, T. (2018). Effectiveness Of E-Recruitment In Small And Medium Enterprises Of It Industry Of Lahore (Pakistan). *Pakistan Economic and Social Review*, *54*(1), 143-164.

Nuji, M., Latiff, Z., Ridzuan, A., & Rahman, M. (2018). Communication Technology Acceptance and Job Performance in Government Agency. *International Journal Of Academic Research In Business And Social Sciences*, *8*(7). doi: 10.6007/ijarbss/v8-i7/4555

Omer, S. (2018). Organization robots: Trend to post-human resources management (Post-HRM). *Journal Of Process Management. New Technologies*, *6*(1), 1-6. doi: 10.5937/jouproman6-15641

Poudel, B. (2018). Online Recruitment: A Cognitive Perspective of Job Seekers in Nepal. *Journal Of Business And Social Sciences*, *2*(1), 1-17. doi: 10.3126/jbss.v2i1.22823

Protsyk, O., & Sachariew, K. (2010). Recruitment and Representation of Ethnic Minorities under Proportional Representation. *East European Politics and Societies: And Cultures*, *26*(2), 313-339. doi: 10.1177/0888325410364672

Saunders, M. N. (2011). Research methods for business students, 5/e: Pearson Education India

Sekaran, U., & Bougie, R. (2016). Research methods for business: A skill building approach: John Wiley & Sons.

Selamat, Z., & Jaffar, N. (2010). Information Technology Acceptance: From Perspective of Malaysian Bankers. *International Journal Of Business And Management*, *6*(1), 207-217. doi: 10.5539/ijbm.v6n1p207

Tarhini, A., Elyas, T., Akour, M., & Al-Salti, Z. (2016). Technology, Demographic Characteristics and E-Learning Acceptance: A Conceptual Model Based on Extended Technology Acceptance Model. *Higher Education Studies*, *6*(3), 72. doi: 10.5539/hes.v6n3p72

Walliman, N. (2005). Your research project: a step-by-step guide for the first-time researcher: Sage.

Wiley, C. (2011). Recruitment Research Revisited: Effective Recruiting Methods According To Employment Outcomes. *Journal Of Applied Business Research (JABR)*, *8*(2), 74. doi: 10.19030/jabr.v8i2.6167